Paramedic Clinical Judgement and Decision-making of Mental Illness in the Pre-hospital Emergency Care Setting: A Case Study of Accounts of Practice

Ramon Zenel Shaban
BSc BN ADipAppSc(Amb) PGDipPH&TM GCertInfCon MCommHlthPrac(Hons) MEd RN IPN CICP FRCNA

School of Education and Professional Studies
Arts, Education and Law
Griffith University

Submitted in fulfilment of the requirements of the degree of Doctor of Philosophy

May 2011
ABSTRACT

The introduction of legislation governing the management of mental illness in Queensland led to complaints from paramedics and their industrial association to the Commissioner of the Queensland Ambulance Service regarding the inadequacy of education and training to fulfil their new practice obligations. The industrial association asserted that their members were ill-prepared, insufficiently skilled, and unsupported professionally to make clinical judgements and decisions about mental illness in the pre-hospital emergency care setting. Furthermore, they raised concerns that their members were at significant risk of harm from patients with mental illness, and that they were vulnerable to litigation for actions of negligence and breaches of duty of care that were a direct result of the inadequacy of their education and training. These concerns, coupled with a lack of published literature that might address them, highlighted the need for a deeper understanding of how paramedics accomplish clinical judgement and decision-making of mental illness in the field, and the factors that influence this aspect of their work. Integral to the concerns were questions about the relationship between the formal expectations of paramedic practice—in the form of legislation and clinical policy—and their actual judgement practice in the field. At issue in this study was the preparedness of paramedics to recognise, assess, and manage mental illness in everyday practice and the sufficiency of education and training programs, clinical standards, policy, and legislation for ensuring quality practice and accountability in the field.

To understand how paramedics accomplish clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting and the factors that influence this aspect of their work, this thesis adopted a descriptive theoretical framework of judgement and decision-making (Bell, Raiffa, & Tversky, 1988a) and undertook an interpretive, naturalistic case study according to Stake (1995). In this study, the cases were paramedics, the context was the Queensland pre-hospital emergency care setting, and the issue was how they accomplished clinical judgement and decision-making of mental illness. The study of paramedic clinical judgement and decision-making of mental illness was conducted in two iterative and recursive phases. In order to understand the issue, the study first came to understand the context in which the cases were situated—the Queensland pre-hospital emergency care setting. In Phase
analysis of the historical, cultural, political, educational, and regulatory dimensions this context was conducted. The particular focus of this phase of the inquiry was understanding how paramedics were expected to accomplish clinical judgement and decision-making of mental illness as prescribed by three key documents—the *Ambulance Service Act 1991* (Qld), the *QAS Clinical Practice Manual*, and the *Mental Health Act 2000* (Qld). Following this analysis, the study turned to the analysis of the cases, namely the paramedics, and their insights into how they accomplish judgement practice. In Phase 2 of the study, the accounts of actual clinical judgement and decision-making of three paramedics, in the form of concept maps, clinical records and in-depth interviews, were examined. This examination also addressed the paramedics reported judgement practice relative to the formal expectations of practice referred to earlier. A cross-case analysis of the three paramedics and their accounts was also conducted to discover what was unique to the individual, and what was common across the cases.

Conceptually, paramedic clinical judgement and decision-making of mental illness is comprised of three different interconnected elements—Contextual, Practice, and Mediating. Fundamental to judgement practice was the Contextual Element, an amalgam of organisational and occupational factors associated with various historical, cultural, educational, political, and regulatory dimensions of the Queensland pre-hospital emergency care setting. The Contextual Element established the framework for the formal roles of paramedics within a hierarchy of medical treatment. The Practice Element consisted of field actions for problem solving and a range of individual-specific factors. The paramedics’ field actions consisted of an individualised, enacted systematic approach that articulated their expectations of protection and transport of the patient. Actions included gathering and assessing data, describing the problem in objective detail, assessing the nature and severity of the problem, making a provisional diagnosis, and implementing actions to achieve the best possible outcome. Coupled with field actions were individual factors, namely knowledge, experience, interpersonal skills, and personal traits. These individual factors augmented the paramedics’ field actions for problem solving in differing measure according to the individual jobs and patients they encountered. The Mediating Element was comprised of paramedics’ interactions within the scene, with the patient, and with individuals in authority. These interactions influenced the success of their clinical judgement and decision-making, in particular their interactions with the patient, physicians, relatives, bystanders, and other
individuals in authority. The roles paramedics ascribed to those individuals were integral to their actual judgement practice.

This study has revealed that paramedic clinical judgement and decision-making of mental illness is not a simple, technicist activity. Further, the case reports make clear how it is not wholly governed by legislation, policies, guidelines and other normative and prescriptive instruments. Rather, their practice has been shown to be highly individualised and influenced by the Contextual and Mediating Elements, mentioned earlier. Interactions in the field, which were also fundamental to actual judgement practice, do not feature strongly in the formal regulatory expectations of practice. The use of an interpretive, naturalistic case study that adopted a descriptive theoretical framework unearthed the complex mix of elements and the interplay among them that characterises the paramedics’ accounts of their own judgement practice. More specifically, the study provided the opportunity for the paramedics themselves to reflect on, and talk about, their in-the-field judgement practice, generating insights into what had previously been private and unpublished. That is, their judgement and decision-making had not been subject to formal critical inquiry, nor has this aspect of paramedic work been the subject of sustained research. The thesis has significance for efforts to better understand and improve the rapidly evolving nature of paramedics’ practice for meeting the mental health needs of individuals in the community.
STATEMENT OF AUTHORSHIP

This work has not been submitted previously for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself or described in the section *Publications arising from the thesis*.

Name: Ramon Z. Shaban

Signature:

Date:
TABLE OF CONTENTS

ABSTRACT ........................................................................................................................................ III
STATEMENT OF AUTHORSHIP ........................................................................................................ VI
TABLE OF CONTENTS .................................................................................................................. VII
TABLE OF FIGURES .................................................................................................................... XI
ACRONYMS AND ABBREVIATIONS .......................................................................................... XIII
PUBLICATIONS ARISING FROM THE THESIS ........................................................................ XIV
ACKNOWLEDGMENTS ................................................................................................................ XVI
THE THESIS .................................................................................................................................. 1

CHAPTER 1 - PRE-CASE CONSIDERATIONS: INTRODUCING THE STUDY ........................................ 2
  Background .................................................................................................................................. 2
  The problem ................................................................................................................................. 5
  Purpose and aims of the study ....................................................................................................... 7
  Significance of the study .............................................................................................................. 8
  Structure of the thesis .................................................................................................................. 12

CHAPTER 2 - THE LITERATURE: EXISTING RESEARCH AND THEORETICAL FRAMEWORKS RELEVANT TO THE INQUIRY .................................................. 15
  PART A – Existing research relevant to the inquiry ..................................................................... 15
      The nature of ambulance work and paramedic culture .......................................................... 16
      Constructs of judgement, decision-making, and problem solving in paramedic practice .... 19
      Principles and practices of triage ............................................................................................. 23
      Paramedic triage, recognition of the severity of illness, and patient outcomes .................. 25
      Protocols, guidelines, and other decision-support systems ................................................ 30
      Conveyance and non-conveyance ........................................................................................... 32
      Notions of experts and novices ............................................................................................... 38
      Interactions in paramedic clinical judgement and decision-making ................................... 41
      Paramedic clinical judgement and decision-making of mental illness ............................... 42
  Key features of the existing research and professional literature .............................................. 46
  PART B – Theoretical frameworks relevant to the inquiry .......................................................... 48
      Fundamental theoretical frameworks and their origins ......................................................... 48
      Classical decision-making ...................................................................................................... 49
      Normative theoretical frameworks ....................................................................................... 50
      The opponents – Naturalistic decision-making ................................................................. 52
      Descriptive theoretical frameworks ..................................................................................... 54
      Challenging the competing dichotomy – A necessary controversy .................................... 56
      Prescriptive theoretical frameworks .................................................................................... 57
      Contemporary imperatives for the prescriptive – Solving problems in health .................... 58
  Key features of the philosophical and theoretical positions – Blurred boundaries ............... 59
  Critical considerations of the literature for the study ................................................................. 61

CHAPTER 3 - ASKING ABOUT DECISION-MAKING: CASE STUDY ........................................... 65
  Justifying the approach ............................................................................................................. 65
  Identifying the case or cases ...................................................................................................... 66
The study design and framework ................................................................. 68
Role of the researcher ................................................................................ 68
Using ‘accounts’ ........................................................................................ 70
Phases of data gathering, analysis, and interpretation ............................... 72
  Access and permissions – Organisational and research ethics approvals .. 73
  Phase 1 – The contexts and expectations of practice ............................... 73
  Document and policy analysis ................................................................. 73
  Member checking – In-depth interviews and focus groups ..................... 74
  Phase 2 – Paramedics accounts of actual judgement practice ............... 75
  Collecting historical accounts ............................................................... 76
  Collecting current accounts ................................................................ 78
  Analysis and interpretation of the historical and current accounts ....... 80
  Phase 3 – The cross-case analysis and assertions .................................... 81
Measures deployed for trustworthiness and credibility ............................. 82
  Triangulation – Multiple data sources and evidence ............................. 82
  Prolonged engagement and member checks – Field credibility .......... 83
  An audit trail ....................................................................................... 84
Methodological considerations ................................................................. 84
Summary .................................................................................................. 85

CHAPTER 4 - SETTING THE SCENE: THE CONTEXT AND
EXPECTATIONS OF PRACTICE ................................................................. 86

Historical, political, cultural and educational dimensions of the context .... 86
  The origins – Centuries of religious and military tradition for protection and transport .. 87
  Ambulance services in Queensland – Carrying forward history and tradition ........ 90
  Queensland’s recent history – Major systematic reforms and rapid role expansion ..... 95
  Ambulance services today – The Queensland Ambulance Service ......... 97
  The role of paramedics – Protectors and transporters ......................... 100
  Protecting the protectors – Indemnity .................................................. 103
  Paramedics as para-health professionals – The absence of self-regulation .... 105

The regulatory dimension of the context and expectations of practice .... 108
  Positioning paramedics – Matters of rank .......................................... 109
  Providing care and transport – The Systematic Approach .................... 113
  The fundamental tenet – Paramedics as problem solvers .................... 114
  The focus of paramedic problem solving – Best possible patient outcome .. 116
  Elements comprising judgement practice .......................................... 116
  Solving problems – Protocols ............................................................. 122
  Problem solving mental illness – Protocols for psychiatric emergencies . 124
  Expectations of the problem – Serious illness, danger, drugs, and violence 124
  The nature of assessment in problem solving – Describing ................. 128
  Solving the problem – Expectations of transport ................................. 129
  Additional expectations – The Mental Health Act .............................. 132
  Emergency examination orders ......................................................... 135

Critical features of the context and regulatory expectations of paramedic practice ..... 139

CHAPTER 5 - THE CASES IN CONTEXT: PARAMEDICS’ ACCOUNTS
OF ACTUAL JUDGEMENT PRACTICE IN THE FIELD .............................. 142

PART A – Within case analysis .............................................................. 143
Case Report 1 – Paramedic Bill ............................................................. 143
  About Bill, his jobs, and his work ....................................................... 143
  Bill’s “Formula” and “Triggers” for protection and transportation ....... 145
CHAPTER 6 - CONCEPTUALISING PARAMEDIC CLINICAL JUDGEMENT AND DECISION-MAKING OF MENTAL ILLNESS AND LESSONS LEARNED

Conceptualising paramedic judgement practice of mental illness – An overview

The Elements and their dimensions

The Contextual Element – Judgement and decision-making as contextualised practice

Field actions for problem solving – The Enacted Systematic Approach

Individual factors – Knowledge, experience, and interpersonal skills

The Mediating Element – Interactions in the field

Lessons learned

For the existing research and professional literature
CHAPTER 7 - POST CASE REFLECTIONS: IMPLICATIONS AND CONCLUSION ................................................................. 307

Returning to the problem and the purpose of the study ......................................................... 307
Summary of the key findings .................................................................................................. 309
Critique of the research method ............................................................................................ 311
Implications .......................................................................................................................... 313
For paramedic clinical practice ......................................................................................... 313
For legislation, guidelines, policies, and procedures ......................................................... 315
For paramedic professionalism ............................................................................................. 316
For education, training, and professional development ....................................................... 316
For future research ............................................................................................................. 317
Conclusion .......................................................................................................................... 319

REFERENCES ..................................................................................................................... 321

APPENDICES ......................................................................................................................... 345

Appendix 1 – Human Research Ethics Committee (HREC) approval .................................. 345
Appendix 2 – Institutional approval .................................................................................... 346
Appendix 3 – Participant information sheets: Phase 1 interviews and focus groups ...... 347
Appendix 4 – Participant information sheet: Phase 2 case interviews ................................ 348
Appendix 5 – Participant consent form: Interviews and focus groups ............................... 349
Appendix 6 – Approval to reproduce graphics .................................................................. 350
Appendix 7 – Summary of data gathered in Phase 1 .......................................................... 351
Appendix 8 – Documents, policies and artefacts accessed during Phase 1 ......................... 351
Appendix 9 – Definitions of the clinical levels of QAS paramedics ..................................... 352
Appendix 10 – QAS paramedic scope of practice ............................................................... 353
Appendix 11 – QAS drug therapy protocols ...................................................................... 354
Appendix 12 – Emergency Examination Order Page 1 .................................................... 355
Appendix 13 – Emergency Examination Order Page 2 .................................................... 356
Appendix 14 – QAS Case Management Guideline Seizures Page 1 ................................ 357
Appendix 15 – QAS Seizure Case Management Guideline Page 2 .................................. 358
Appendix 16 – Phase 1 focus group question schedule ....................................................... 359
Appendix 17 – Summary of data gathered in Phase 2 ......................................................... 361
Appendix 18 – Descriptive summary of Bill's jobs .............................................................. 362
Appendix 19 – Descriptive summary of David's jobs ......................................................... 363
Appendix 20 – Descriptive summary of Mary's jobs ........................................................... 364
Appendix 21 – Phase 2A: Historical clinical job interview schedule ................................ 365
Appendix 22 – Phase 2B: Current clinical job interview schedule ..................................... 367
Appendix 23 – Extract of job analysis record and transcript ............................................... 368
Appendix 24 – Example of reflective notes made during Bill current job analysis ............ 370
TABLE OF FIGURES

Figure 1 – Elements of paramedic problem solving ............................................ 21
Figure 2 – Graphic summary of the study design ............................................. 69
Figure 3 – Phases of data gathering and analysis ........................................... 72
Figure 4 – Focus group participant inclusion and exclusion criteria .............. 75
Figure 5 – Summary of historical and current accounts of paramedic jobs .... 79
Figure 6 – Ipswich ambulance bearers and Horse Sulky early 1890s .......... 92
Figure 7 – Ambulance Bearers at the Brisbane QATB headquarters .......... 92
Figure 8 – Charters Towers rail ambulance in 1927 .................................. 93
Figure 9 – Queensland Ambulance Transport Brigade Hospital Brisbane 1950s . 93
Figure 10 – Regions of the Queensland Ambulance Service ...................... 99
Figure 11 – Rank Insignia of the QAS ..................................................... 110
Figure 12 – The QAS Systematic Approach .......................................... 114
Figure 13 – Psychiatric Emergency Case Management Guideline .............. 125
Figure 14 – Clinical Practice Manual Psychiatric Emergency Decision Tree 126
Figure 15 – Mental Health Act 2000 (Qld) involuntary assessment decision-tree.. 138
Figure 16 – Bill's graphic representation of his enacted systematic approach . 146
Figure 17 – Bill’s concept map .............................................................. 149
Figure 18 – Mini–mental Status Questionnaire (MSQ) ................................ 153
Figure 19 – Visual prompt for data gathering ............................................. 154
Figure 20 – Correlation to formal prompts ............................................... 155
Figure 21 – Bill’s “triggers” ................................................................ 157
Figure 22 – Documenting the “hard trigger” of recent admission for mental illness 157
Figure 23 – Documenting the “hard trigger” of prior judgement by a physician 158
Figure 24 – Threatened suicide as a “hard trigger” .................................. 158
Figure 25 – Example of multiple “hard triggers” in a clinical job record .... 159
Figure 26 – Documenting patients request for transportation to hospital .... 163
Figure 27 – Clinical job record detailing relinquishing responsibility to others 165
Figure 28 – Deferring to registered nurses ................................................. 166
Figure 29 – Bill’s written account illustrating the authority of the doctor and nurse 167
Figure 30 – Amending the written record of his colleagues ...................... 170
Figure 31 – David's representation of “mental mapping” ............................ 179
Figure 32 – David’s routine procedures ..................................................... 182
Figure 33 – David's concept map ............................................................. 183
Figure 34 – David's job record documenting patient request for transport .... 187
Figure 35 – Exemplar job record: Patient request transport but no treatment.. 188
Figure 36 – Written job record with multiple patient-based types of information 189
Figure 37 – Recording observations of and statements by patient .............. 190
Figure 38 – David's record of patient with attempted suicide .................. 191
Figure 39 – David's documentation of multiple mental illnesses .......... 193
Figure 40 – David's previous knowledge of the patient's self-harm ............. 193
Figure 41 – Recording a patient’s general appearance and behaviour ........ 195
Figure 42 – Documenting the non-verbal information: Appearance of the skin 196
Figure 43 – David describing the patient's physical appearance ............... 196
Figure 44 – David recording observation from the scene ........................................................... 197
Figure 45 – Sourcing information from bystanders and staff ..................................................... 198
Figure 46 – Examples of David's use of information from others ........................................... 199
Figure 47 – David's procedures for variation to his expected outcome .................................. 204
Figure 48 – Patient complains physical injury but David suspects psychiatric ...................... 205
Figure 49 – David suggesting a psychiatric cause for illness ................................................. 206
Figure 50 – Patient says cardiac, David suspects psychiatric ................................................ 208
Figure 51 – David’s record for a patient under an emergency examination order ................. 209
Figure 52 – Extract of David’s emergency examination order for a patient ............................ 210
Figure 53 – Physician’s assessment not upholding David’s order ........................................... 211
Figure 54 – Documenting police restraint and emergency examination order ....................... 212
Figure 55 – Mary’s representation of her Systematic Approach ............................................. 224
Figure 56 – Clinical job record of a patient's attempted suicide by overdose .......................... 227
Figure 57 – Mary's concept map ............................................................................................ 231
Figure 58 – Mary’s profiles of patients with mental illness ...................................................... 233
Figure 59 – Mary's record of patient fitting the profile—Attempted suicide ............................ 233
Figure 60 – Defining what it was by what it was not ............................................................... 237
Figure 61 – Tuning into specific detail and familiarity ............................................................ 241
Figure 62 – Physical evidence of self-harm not an emergency .............................................. 242
Figure 63 – Example of when the need is not an emergency .................................................. 244
Figure 64 – The care of the husband ....................................................................................... 247
Figure 65 – Mary refers patient to medical practitioner .......................................................... 248
Figure 66 – When it is a matter for the police ...................................................................... 250
Figure 67 – Conceptualising paramedic clinical judgement and decision-making of mental illness in the field ................................................................. 275
# ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARF</td>
<td>Ambulance Report From</td>
</tr>
<tr>
<td>EMT</td>
<td>Emergency Medical Technician</td>
</tr>
<tr>
<td>EMT–P</td>
<td>Emergency Medical Technician – Paramedic</td>
</tr>
<tr>
<td>EMS</td>
<td>Emergency Medical Service</td>
</tr>
<tr>
<td>LHMU</td>
<td>Liquor, Hoteliers, and Miscellaneous Workers’ Union</td>
</tr>
<tr>
<td>PES</td>
<td>Psychiatric Emergency Services</td>
</tr>
<tr>
<td>QAS</td>
<td>Queensland Ambulance Service</td>
</tr>
<tr>
<td>QATB</td>
<td>Queensland Ambulance Transport Brigade</td>
</tr>
<tr>
<td>QATBH</td>
<td>Queensland Ambulance Transport Brigade Hospital</td>
</tr>
<tr>
<td>QEMS</td>
<td>Queensland Emergency Medical System</td>
</tr>
<tr>
<td>QEMSAC</td>
<td>Queensland Emergency Medical System Advisory Council</td>
</tr>
<tr>
<td>QPS</td>
<td>Queensland Police Service</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>US</td>
<td>United States of America</td>
</tr>
</tbody>
</table>
PUBLICATIONS ARISING FROM THE THESIS

Peer-review book chapters (B1)


Peer-reviewed articles in scholarly international journals (C1)


Peer-reviewed conference proceedings (E1)


---

1 Ramon Z. Shaban is the primary academic contributor of this publication.
2 Ramon Z. Shaban is the primary academic contributor of this publication.
Public Esteem – Invited submission to government review of public policy


Conference proceedings


Editorials

ACKNOWLEDGMENTS

I owe an enormous debt of gratitude and much thanks to many people.

To Jason: Your love, support, and companionship sustained me during the tough times that seemed to never end. It is time for us to move on to new adventures.

To my parents Larry and Pat, and my siblings Simon and Violet: You have given me all the love and support I have ever needed to succeed.

To my supervisors Professor Claire Wyatt-Smith and Professor Joy Cumming: You took great interest in this complex study from its earliest inception, as mentors and critical friends. My sincere thanks go to you for your guidance and support, for always challenging me to do better, and for giving me the space and security to challenge myself. I especially want to thank you for your unwavering belief in my ability that was seldom self-evident, particularly during my illness.

To Associate Professor Sandie McCarthy, Dr Sarah Winch, Professor Jenny Gamble, Professor Debra Creedy, Adjunct Associate Professor Julie Finucane OAM, Professor Elizabeth Patterson and Professor Anne McMurray AM: My heartfelt thanks go to each of you for being such wonderful mentors and generous souls, for which I am truly grateful and fortunate. You exemplify honour, integrity, and collegiality.

To Jen Patrick and Peta Colbert: My sincerest thanks for providing proofreading services. Thank you Jen for becoming Livingstone’s companion.

To Ms Barbara Devenish-Meares, Professor Judy Wollin, and Ms Carrie Fairweather: My friends who made the tough times lighter with laughter, shriek, and shrill.

To the participants: Thank you for allowing me to show the world what is means to be a paramedic and to care for others with mental illness diligently and compassionately. This thesis is a tribute to you and all that you offer the sick and injured.

Finally, I acknowledge the men, women, and children who suffer with mental illness. You, most of all, must be seen and heard.

Ramon Z. Shaban
THE THESIS

PARAMEDIC CLINICAL JUDGEMENT AND DECISION-MAKING OF MENTAL ILLNESS IN THE PRE-HOSPITAL EMERGENCY CARE SETTING: 
A CASE STUDY OF ACCOUNTS OF PRACTICE

Ramon Zenel Shaban
CHAPTER 1 - PRE-CASE CONSIDERATIONS:  
INTRODUCING THE STUDY

This thesis is concerned with the study of paramedic clinical judgement and decision-making. The specific focus of the research is paramedic clinical judgement and decision-making with respect to mental illness. Following Stake’s (1995) framework for case study, it examines paramedics’ accounts of clinical judgement and decision-making of mental illness in the field—the Queensland pre-hospital emergency care setting—and the factors that influence this aspect of their work.

Background

There is an unprecedented demand for quality and safety in health care in Australia and around the world (Australian Commission on Safety and Quality in Health Care, 2008). The provision of quality health care ultimately depends on the services provided by individual health professionals. These individuals, and the organisations they work within, have been called to account recently for the quality of their clinical judgements and decisions more than ever before (Fish & Higgins, 2008; Groves, 2002; Higgs, 1993; Higgs & Jones, 2000a). The clinical judgement and decision-making of health professionals, and their ability to understand and diagnose clinical problems, are fundamental to the delivery of quality health and medical care (de Dombal, 1993; Groves, 2002). Higgs and Jones (2000b) assert that:

. . . health professionals need to be able to reason effectively, to make sound and defensible decisions and to learn through their clinical experience and other avenues in order to continually develop their knowledge as the basis for making effective clinical decisions and useful contributions to the knowledge of the field. (p. xiii)

Generally speaking, the clinical care that health professionals provide is “concerned with the observation and treatment of disease in the patient” (Butler, 2009, p. 234). Their judgement is “the forming of an opinion, estimate, notion, or conclusion, as from circumstances presented to the mind” (Butler, 2009, p. 271), and a decision is “the act of deciding; determination; a making up of one’s mind” (Butler, 2009, p. 321). Broadly

3 The term ‘clinical judgement and decision-making’ will be treated as a singular phrase.
speaking, clinical judgement and decision-making together may be viewed as “an assessment of the alternatives in treatment from which decisions or choices between alternatives for optimal treatment are made” (Dowie, 1993, p. 8). The ability of health professionals to form these clinical judgements and make clinical decisions is fundamental to the delivery of quality health and medical care (de Dombal, 1993; Groves, 2002). Making quality clinical judgements is an “intrinsic and inescapable imperative” (White & Stancombe, 2003, p. IX) for all health professionals if they are to render high quality and safe health care.

Although an “intrinsic and inescapable imperative” (White & Stancombe, 2003, p. IX), accomplishing clinical judgement and decision-making is far from simple. Formulating clinical judgements and making decisions for high quality and safe health care are complex processes. Making judgements and decisions about “which diagnosis, whose version or account of the troubles they find most convincing, or morally robust” (White & Stancombe, 2003, p. IX) is challenging. There are multiple competing priorities for health professionals in their contemporary clinical judgement and decision-making practice. One notable priority for health professionals for ensuring quality health care is the mandate for evidence-based practice. McKibbon (1998) defines evidence-based practice as:

...an approach to health care wherein health professionals use the best evidence possible, i.e. the most appropriate information available, to make clinical decisions for individual patients. Evidence-based practice (EBP) values, enhances and builds on clinical expertise, knowledge of disease mechanisms, and pathophysiology. It involves complex and conscientious decision-making based not only on the available evidence but also on patient characteristics, situations, and preferences. It recognizes that health care is individualized and ever changing and involves uncertainties and probabilities. Ultimately, EBP is the formalization of the care process that the best clinicians have practiced for generations. (p. 396)

Moreover, McKibbon (1998) argues that evidence-based practice should also be situational, and pay homage to the context of practice and the uncertainties that lie therein. Fish and Higgs (2008) argue that context is paramount in professional practice, and that good practice is context-specific. The context in which some health professionals practise makes providing evidence-based care particularly challenging. Emergency health care is one such context. In this context, emergency health professionals routinely encounter “an unforeseen occurrence; a sudden and urgent
occasion for action” (Butler, 2009, p. 401). The demands of physicians, nurses, and paramedics within the context of emergency health care are complex, time-pressured, and high-stakes. These kinds of health professionals, to whom Higgs and Jones refer as first-contact practitioners (2000a), often have scant evidence to support their clinical practice. This results in what is referred to as an evidence–practice gap (National Institute of Clinical Studies, 2006). The evidence-practice gap in ambulance practice is substantial. Nevertheless, paramedics and other health professionals “go about their ordinary, but complicated, business of making sense of the symptoms and troubles of their patients and clients” (White & Stancombe, 2003, p. VIII).

Sometimes the clinical judgements and decisions made by health professionals are insufficient or inaccurate, and sometimes they get it wrong (Shaban, 2009b). The media, particularly in western societies, is replete with reports highlighting failures and mistakes in health care. Problems associated with the quality of clinicians’ judgement and decision-making and their subsequent mistakes have focused the attention of both clinicians and researchers for decades. The fallibility of judgement and decision-making has always presented problems for individuals, professions, communities, and societies (Hammond, 1996). Hammond has long argued that when it comes to judgement and decision-making there is always the risk of “irreducible uncertainty, inevitable error, and unavoidable injustice” (1996, p. 3). Because of this, international research into judgement and decision-making has for decades focused heavily on reducing uncertainty and risk of error, particularly in professional practice settings (White & Stancombe, 2003).

The focus on reducing uncertainty, risk, and error in the Australian medical and health care context, however, is comparatively recent. Until recently, there has been little impetus in Australia within the medical or health professions to study or question the ways in which clinical decisions are made (de Dombal, 1993; Wilson, Runciman, Gibberd, Harrison, Newby, & Hamilton, 1995). In 1995, the Medical Journal of Australia published a groundbreaking study—The Quality of Australian Health Care Study. The study presented disturbing findings that “seared patient safety into the public’s psyche” (Wilson & van der Weyden, 2005, p. 1) and subsequently crystallised quality and safety within the health care agenda in Australia. More than 10 years later, Wilson and van der Weyden (2005) suggested that most patients in Australia’s health care system received good care and did not suffer preventable harm. Such commentary
is contradictory to recent events in Australia’s health care system, particularly in Queensland. The *Queensland Public Hospitals Commission of Inquiry* (Davies, 2005) and the *Queensland Health Systems Review* (Forster, 2005) made serious findings of grossly substandard and unsafe care in Queensland. The impetus for these investigations was complaints from patients and health professionals about individual instances of care. The investigations identified a chronic and systematic failure of organisational health service delivery systems, which was attributed mainly to individual error (Davies, 2005; Forster, 2005). One area of health practice that has attracted much scrutiny nationally and internationally and been subject to many investigations and commissions of inquiry is health professionals’ clinical judgement and decision-making of mental illness, which is the subject of this study.

**The problem**

In January 2002, as Principal Paramedic Educator (Paramedic Clinical Education) for the Queensland Ambulance Service (QAS), I was tasked to develop the Diploma of Paramedical Science (Ambulance), the vocational training qualification for student ambulance paramedics. It was to replace the Diploma of Health Science (Pre-hospital Care), which had in turn replaced the Associate Diploma of Applied Science (Ambulance). One of the many elements of this task was to address deficiencies in the existing curriculum for contemporary paramedic practice. One reported deficiency related to paramedics’ preparedness to assess and manage the mentally ill in the pre-hospital emergency care setting. Introduction of new legislation in Queensland governing assessment and treatment of the mentally ill, namely the *Mental Health Act 2000* (Qld), had brought this problem to light. In preparing for the proclamation of the new *Mental Health Act 2000* (Qld) in April 2002, the Leadership and Development Unit of the Queensland Ambulance Service Education Centre developed and distributed an in-service education program to all staff. The aim of the program, known as the *QAS Mental Health Act In-service Education Package*, was to orientate paramedics to the functions of the *Mental Health Act 2000* (Qld) and to educate them about their new practice obligations.

The rollout of the *QAS Mental Health Act In-service Education Package* and the introduction of the *Mental Health Act 2000* (Qld) were not well received by paramedics in Queensland. In April 2002, the Ambulance Secretary of the Liquor and Hoteliers
Miscellaneous Workers Union (LHMU)—the formal industrial organisation representing paramedics in Queensland—tabled a complaint to the QAS Commissioner on behalf of its members. Essentially, the complaint conveyed the LHMU’s dissatisfaction with the education and training of its members to fulfil their professional obligations. As Principal Paramedic Educator, I met with delegates from the LHMU to clarify their specific concerns.

The LHMU expressed three interrelated concerns. First, they expressed concern about the sufficiency of the *QAS Mental Health Act In-service Education Package*. The LHMU reported that the education program had failed to prepare their members adequately for clinical practice. For paramedics, the package had highlighted existing deficiencies in their skills and knowledge about mental illness, which in their view rendered them ill-prepared to comply with requirements of the *Mental Health Act 2000* (Qld). Second, the LHMU reported paramedics were concerned about the effect the *Mental Health Act 2000* (Qld) would have on them and their delivery of patient care. They cited the increasing prevalence of mental illness in the community, and the problems that would result for their members in meeting their obligations under the *Mental Health Act 2000* (Qld). In particular, the LHMU indicated their members were concerned about being subject to litigation relating to claims of negligence and breach of duty of care that they considered would be directly attributable to the insufficiency of their education and training. Third, the LHMU expressed concern for the safety of their paramedic members, and emphasised the duty of care the QAS had to provide a safe working environment. They reported their members to be at personal risk of harm from the mentally ill who could be violent, particularly during transport. The summary view of the LHMU was that their members were ill-prepared, insufficiently skilled, and unsupported professionally to make clinical judgements and decisions about mental illness in the pre-hospital emergency care setting.

Providing an urgent solution for these issues so that paramedics were better prepared to meet their obligations under the *Mental Health Act 2000* (Qld) became one of my key tasks as Principal Paramedic Educator. I looked to the literature to determine what was known about how paramedics accomplish clinical judgement and decision-making of mental illness in the pre-hospital emergency care setting. Specifically, I sought research to inform the development of a mental health assessment tool for paramedics to use when assessing and managing the mentally ill in the pre-hospital
emergency care setting. This tool was to be accompanied by an education package, to be evaluated during my doctoral studies. However, my examination of the research and professional literature, and the published policies and education standards of ambulance services nationally and internationally, yielded few results. In the main, ambulance literature is not research or evidence-based (Tippett, Woods, FitzGerald, & Clark, 2003). Much of it is borrowed from other health disciplines, such as psychiatry, medicine, and nursing, and has been adapted for ambulance. While there was considerable research literature on clinical judgement and decision-making of physicians, psychiatrists, nurses, and psychologists, there was a clear lack of systematic and sustained research into paramedic clinical judgement and decision-making, and even less documented about paramedic judgement practice with respect to mental illness.

This lack of literature highlighted the need for a deeper understanding of the issues before undertaking formal intervention studies, such as the introduction of a tool as described earlier. Understanding how paramedics accomplished clinical judgement and decision-making of mental illness and the factors that influence this aspect of their work would better inform the development of any such tool. The complaints reported by Queensland paramedics through the LHMU were about a lack of preparedness of paramedics to assess and manage mental illness in the field, and the insufficiency of education and training programs, clinical guidelines, policy, and legislation for ensuring quality practice. Their concerns, however, signalled a more significant underlying issue—that differences existed between what is expected of paramedics and their clinical judgement and decision-making of mental illness, and how they actually accomplish this aspect of their work in the Queensland pre-hospital emergency care setting.

**Purpose and aims of the study**

The purpose of this study was to understand how paramedics accomplish clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting, and to determine the factors that influenced this aspect of their work. The key research question is: *How do paramedics accomplish clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting, and what factors influence this aspect of their work?* Central to this were
questions about the relationship between the formal expectations of paramedic practices—in the form of legislation and clinical policy—and their actual judgement practice in the field. These informed the information questions (Stake, 2006) that guided the inquiry. In the context of the Queensland pre-hospital emergency care setting:

1. How do paramedics’ accomplish clinical judgement and decision-making of mental illness?
2. How do paramedics’ accounts of clinical judgement and decision-making of mental illness relate to the formal expectations of judgement practice?
3. What do paramedics’ accounts of clinical judgement and decision-making of mental illness, and how these accounts relate to formal expectations of judgement practice, reveal about what influences this aspect of their work in the field?

Thus, the study examines paramedics’ clinical judgement and decision-making of mental illness and unearths the factors that influence this aspect of their work in the Queensland pre-hospital emergency care setting. It adopted a descriptive theoretical framework of judgement and decision-making (Bell et al., 1988a), and used Stakes’ (1995) case study approach for the inquiry. Central to Stakes’ approach to case study is the examination of a case in context so as to arrive at an understanding or “particularization” (1995, p. 8) of an issue. In this study, the cases were paramedics, the context was the Queensland pre-hospital emergency care setting, and the issue was how they accomplished clinical judgement and decision-making of mental illness and what influenced this aspect of their work. At issue in this study is the preparedness of paramedics to recognise, assess, and manage mental illness in everyday practice and the sufficiency of education and training programs, clinical standards, policy, and legislation for ensuring quality practice and accountability in the field.

Significance of the study

This study responds to the contemporary needs of paramedics and addresses the problems they reportedly encounter when providing care to the mentally ill in everyday practice in the Queensland pre-hospital emergency care setting.

Mental illness is a well-recognised global health problem (World Health Organization, 2010). Defined as a “clinically significant disturbance of thought, mood, perception or memory” (Parliament of Queensland, 2002, p. 3), mental illness is a significant cause of morbidity and co-morbidity, and has a profound influence on the
social determinants of the health of individuals and communities globally. More than 450 million people worldwide experience mental, neurological, or behavioural problems at any time (World Health Organization, 2010). Mental and behavioural disorders constitute 12% of the global burden of disease—a burden that far exceeds other disease such as cancer and heart disease, and Acquired Immune Deficiency Syndrome (AIDS), tuberculosis, and malaria combined (World Health Organization, 2001b, 2010). Approximately 873,000 people die by suicide every year around the world.

In Australia, mental illness is a national health priority (Department of Health and Ageing, 2011). Providing appropriate mental health services is at the forefront of the needs of Australians (Council of Australian Governments, 2006; Department of Health and Ageing, 2011). Almost one in five (18%) Australians suffers from a mental disorder, and 3% of the total population live with a serious psychiatric disorder at any one point in time (Groom, Hickie, & Davenport, 2003; Mental Health Council of Australia, 2005; Shaban, 2009a, 2009b), and nationally carry the greatest burden of disability and illness than any other health problem (Australian Institute for Health and Welfare, 2010). Mental illnesses account for some 26.7% of the defined disability burden in Queensland. In 2008, one in eight Queenslanders reported long-term mental health problems, and one in seven reported high or very high levels of psychological distress (Queensland Health, 2008). The significance of this situation is multifaceted (World Health Organization, 2001a). The mentally ill are systematically subjected to social isolation, have a poor quality of life, and have increased mortality, all of which have staggering economic and social consequences (World Health Organization, 2010). Many cases of mental illness go unreported or unmanaged, or are concealed, for a variety of social, political, and economic reasons.

The problems associated with providing quality mental health care are well-documented (Commonwealth Department of Health and Aged Care, 2000; Commonwealth Ombudsman, 2006; Department of Parliamentary Services, 2005; Doessel, Scheurer, Chant, & Whiteford, 2005; Groom et al., 2003; Mental Health Council of Australia, 2005; Palmer, 2005; World Health Organization, 2010). Barriers to providing effective mental health care and the treatment and management of mental illness are complex, but include a fundamental lack of recognition of the seriousness of the problem, and both its chronic and global consequences (World Health Organization, 2010). In Australia, the launch of the National Mental Health Policy by the Australian
Health Ministers in 1992 provided the stimulus for significant changes to psychiatric services within the Australian health care system (Salkovkis, Storer, Atha, & Warwick, 1990; Sharrock & Happell, 2000; Wand & Happell, 2001). Decriminalisation of mental illness and mainstreaming of services, whereby mental health care services shifted from specialist institutions to generalist health services in community settings, were the central features of these reforms. It was hoped that these reforms would address the longstanding problems associated with traditional psychiatric care service delivery (Fontaine & Fletcher, 1999).

However, the outcomes of these reforms have attracted criticism and have been the subject of scrutiny within the contemporary agenda for quality and safety of mental health care (Mental Health Council of Australia, 2005; Whiteford & Buckingham, 2005). In Australia, multiple commissions of inquiry have investigated government and non-government institutions and identified serious and systematic failures of mental health care systems. These include the Commission of Inquiry into the Care and Treatment of Patients in the Psychiatric Unit of the Townsville General Hospital (Carter, 1991), the National Inquiry into the Human Rights of People with Mental Illness [Burdekin Report] (Human Rights and Equal Opportunity Commission, 1993), and the Report of an Inquiry conducted by The Honourable D G Steward into Allegations of Official Misconduct at the Basil Stafford Centre [Stewart Report] (Criminal Justice Commission, 1995). All inquiries document systemic neglect, abuse, and failure to provide safe and quality mental health care. The Palmer Report (Palmer, 2005) uncovered systematic failures of Queensland and Commonwealth government departments when an Australian citizen, Ms Cornelia Rau, was unlawfully detained and imprisoned without adequate medical help or treatment for 10 months while suffering acute schizophrenia. The reports Not for Service: Experiences of injustice and despair in mental health care in Australia (Mental Health Council of Australia, 2005) and Out of Hospital, Out of Mind!: A Report Detailing Mental Health Services in Australia in 2002 and Community Priorities for National Health Policy 2003–2008 (Groom et al., 2003) table systematic failures in mental health service provision. In discussing implementation of mental health reform in the context of community mental health service delivery, Hickie (2005) asserts that:

Since the late 1990s, however, there have been persistent and disturbing reports of fundamental service failures. These reflect disorganised and dislocated
health and welfare systems and a lack of commitment to the provision of quality mental health care, particularly in the public sector. Community-based care depends on not only organised health services but coordination of welfare, housing, police, justice and emergency care services . . . . When any of us seeks mental health care we run the serious risk that our basic needs will be ignored, trivialised or neglected. (p. vii)

Statements such as these, and others reported in the findings of the before-mentioned commissions of inquiry, document the poor quality of mental health care provided across Australia. Contributing to this has been the lack of recognition of the extent of the problem, poor diagnostics and clinician judgement and decision-making, inadequate health professional education and training, poor institutional administration and accountability, and the failure of institutions at the local, state, and national level to support community-based systems of mental health care (Mental Health Council of Australia, 2005).

The decentralisation of mental health services that was central to the reform of mental health care in Australia in the 1990s, and which succeeded those in international jurisdictions, has been problematic for health professionals (Doessel et al., 2005; Whiteford & Buckingham, 2005). It resulted in increased attendance by patients with mental health problems at emergency departments and to emergency medical services. This is well documented in Australia (Broadbent, Creaton, Moxham, & Dwyer, 2010; Brunero, Fairbrother, Lee, & Davis, 2007; Dent, Phillips, Chenall, & McGregor, 2003; Fry & Brunero, 2004; Kalucy, Thomas, & King, 2005; Kalucy, Thomas, Lia, Slattery, & Norris, 2004; Knott, Pleban, Taylor, & Castle, 2007; Lowthian, Curtis, Cameron, Steolwinder, Cooke, & McNeil, 2010; Sharrock & Happell, 2000; Townsend & Luck, 2009; Wand & White, 2007; Wooden, Air, Schroder, Wieland, & Goldney, 2009) and around the world (Dent, Hunter, & Webster, 2010; Saliou, Fichelle, McLoughlin, Thauvin, & Lejoyeux, 2005; Salkovkis et al., 1990). This body of research provides considerable evidence that emergency personnel encounter patients experiencing mental health problems more frequently than before. This observation is consistent with the claims made by the LHMU in their complaint, as described earlier.

The increasing contact emergency health care workers have with mental health patients has had consequences for their professional practice. Many studies of problem solving in mental health (Broadbent et al., 2010; Doyle & Vissers, 1999; Green, 1999; Nordberg, 1999; Pajonk, Bartels, Biberthaler, Bregenzer, & Moecke, 2001; Schmidt,
Atcheson, Federiuk, Mann, Pinney, Fuller, & Colbry, 2001; Spooren, Buylaert, Jannes, Henderick, & van Heeringen, 1996; Spooren, Buylaert, van Herringen, & James, 1998; Torrey, 1971) illustrate the complexity and difficulty faced by health professionals, such as physicians, nurses, and social workers, and non-health professionals, such as police officers. Other research (Anstee, 1972; Bell, Hindley, Rajiyah, & Rosser, 1990; Green, 1999; Salkovkis et al., 1990; Sharrock & Happell, 2000; Wand & Happell, 2001) has documented the lack of education and training in mental illness across these health and non-health professions. However, paramedics do not feature significantly in this literature, despite being expected to manage patients with mental illness in the pre-hospital emergency care setting. Their participation in the wider mental health care system has been asserted in the published literature (Chan & Noone, 2006; Commonwealth Department of Health and Aged Care, 2000; Council of Australian Governments, 2006; Mental Health Council of Australia, 2005; Roberts, 2007; Roberts & Henderson, 2009; Shaban, 2004, 2008, 2009a, 2009b; Townsend & Luck, 2009). In some countries, such as India, paramedics are taking on new mental health counselling roles in the pre-hospital emergency care setting (Naved, Rimi, Jahan, & Lindmark, 2009; Saddichha & Vibha, 2011). Despite this, comparatively little is known about paramedic clinical judgement and decision-making (Alexander, 2010; Jensen, Croskerry, & Travers, 2009; Shaban, 2009b; Snooks, Kearsley, Dale, Halter, & Foster, 2005). As discussed later in Chapter 2, even less is known about paramedic clinical judgement and decision-making of mental illness. This study contributes to the scant literature on paramedic clinical judgement and decision-making in an environment where there is a clear mandate for quality and safety in health care, and an increasing emphasis on expanding the scope of paramedic practice (Council of Australian Governments, 2006; George, 1995; Raven, Tippett, Ferguson, & Smith, 2006; Shaban, 2009a, 2009b). It examines paramedics’ assessment and management of mental illness in everyday practice, and the sufficiency of education and training programs, clinical standards, policy, and legislation for ensuring quality practice and accountability in the field.

**Structure of the thesis**

This study followed Stake’s (1995) framework and procedures for case study research, which are reported here across seven chapters. Chapter 2 provides a critical
review of the related research and theoretical literature relevant to the study, and consists of two interconnected parts. Part A examines the existing research literature relevant to paramedic clinical judgement and decision-making of mental illness. Part B establishes the theoretical and conceptual framework for the study, drawing on the work of Bell, Raiffa, and Tversky (1988a).

Chapter 3 presents the methodology of the study, a naturalistic case study of paramedics’ accounts of clinical judgement and decision-making of mental illness according to Stake (1994). It describes the procedures employed that follow Stake’s (1994) approach to naturalistic, interpretive case study research, including justification of case study as the approach; identification of the cases; data gathering and generation; data analysis; and lessons learned. Moreover, it describes how Stake’s methodology was used to facilitate “particularization of the issue” (1994, p. 4) of interest that related to paramedics as instrumental cases.

Chapter 4 sets the scene of the study. To understand the issue, it is necessary to first understand the context in which the cases are situated (Stake, 1995). Thus, the analysis began with an examination of the context in which paramedics and their judgement practice are situated—the Queensland pre-hospital emergency care setting. This analysis, presented in Chapter 4, examines the historical, cultural, political, educational, and regulatory dimensions of the context of paramedic practice. In particular, it examines how paramedics are expected to accomplish clinical judgement and decision-making of mental illness as prescribed by three key documents—the Ambulance Service Act 1991 (Qld), the QAS Clinical Practice Manual, and the Mental Health Act 2000 (Qld).

Following this, the study then provides an analysis of the cases, ambulance paramedics, to understand the issue—how they accomplished clinical judgement and decision-making of mental illness, and the factors they reported as influencing this aspect of their work. Chapter 5 presents the accounts of actual clinical judgement and decision-making of mental illness of three ambulance paramedics, each a holistic instrumental case (Stake, 1995). Three case reports are presented, each prepared following an analysis that took a “sincere interest in learning how they function in their ordinary pursuits and milieus and with a willingness to put aside many presumptions while we learn” (Stake, 1995, p. 1). Each case study includes a comparison of the paramedic’s account of actual clinical judgement and decision-making with the analysis
looking at the formal expectations of practice described in Chapter 4. Following the within-case analyses is a cross-case analysis that looked across all three cases and their respective accounts to discover “both their uniqueness and commonality” (Stake, 1995, p. 1). The analysis examines how the paramedics’ accounts compared with one another and how they related to the formal expectations of paramedic practice.

Chapter 6 presents a conceptual interpretation of the findings of this study. It provides critical insights into the issue—how the cases (paramedics) situated in the context (the Queensland pre-hospital emergency care setting) accomplish clinical judgement and decision-making of mental illness, and the factors they reported to influence this aspect of their work in the field. This conceptualisation is derived from an interpretation of the findings reported in the preceding chapters in view of the existing literature on paramedic judgement practice, and the theoretical and philosophical concepts that guided the inquiry.

The thesis concludes with Chapter 7, which provides the post-case considerations of the study. First, it returns to the background, the problem, and the aims of the study. It then provides a summary of the key findings of the study, followed by a critique of the research methods employed. The chapter and the thesis conclude with implications of the study.

The thesis now turns to the findings of a review of the literature relevant to this inquiry. It examines the research and professional literature, as well as the philosophical and theoretical literature on judgement and decision-making more broadly, and presents the conceptual framework adopted in this inquiry.
CHAPTER 2 - THE LITERATURE: EXISTING RESEARCH AND THEORETICAL FRAMEWORKS RELEVANT TO THE INQUIRY

This chapter provides a critical review of the literature relevant to this inquiry. It consists of two parts. Part A examines the literature relevant to paramedic clinical judgement and decision-making of mental illness. The lessons learned from this review then inform Part B, an analysis of the relevant philosophical and theoretical literature that draw on the work of Bell et al. (1988a) from which the conceptual framework adopted in the study is presented. The suitability of this framework for addressing the research problem is asserted.

PART A – Existing research relevant to the inquiry

The review of the literature relevant to this study of paramedic clinical judgement and decision-making of mental illness was performed systematically and continuously during candidature. The search included research and professional literature using standard electronic databases (including MEDLINE™, CINAHL™, ERIC™, PsychINFO™, Cochrane™, ProQuest™, ScienceDirect™, ProQuest Dissertations and Theses™, and the Australian Digital Theses Program) and the World Wide Web. Key Medical Subject Heading (MeSH) terms used in the search included: ambulance, behavioural, clinical, emergency, decision, disorder, decision-making, illness, judgment/judgement, mental, reasoning, paramedic, psychiatric, pre-hospital/prehospital, technician, and triage. Reference lists from all relevant articles were retrieved and examined for relevance. All searches were restricted to citations published in English, and a date restriction of publication up until December 2010 was applied.

There is a significant and well-established body of literature on clinical judgement and decision-making within medicine, psychology, nursing, and social work. Some of this literature is specific to the clinical judgement and decision-making of mental illness in the areas of general medicine, psychiatry, psychology, nursing, social work, policing and law enforcement, and mental health para-professionals. In general, these are specific to particular professional disciplines that exist within particular contexts. In comparison, paramedic clinical judgement and decision-making has attracted limited
research (Alexander, 2010; Jensen et al., 2009; Shaban, 2009b; Snooks et al., 2005). There are few published studies examining paramedic clinical judgement and decision-making, particularly of mental illness.

The analysis of the literature is arranged thematically and into nine areas, which are elaborated below. The review begins by examining the nature of ambulance work and paramedic culture, followed by the construction of paramedic judgement practice in the literature as problem solving. It then examines particular kinds of paramedic problem solving. These include: (i) principles and practices of triage; (ii) paramedic triage, recognition of the severity of illness, and patient outcomes; (iii) protocols, guidelines, and other decision-support systems; and (iv) paramedics’ conveyance and non-conveyance of patients. Following these is an examination of the notions of expertise in paramedic problem solving and the importance of interactions in paramedic clinical judgement and decision-making. The review concludes with an examination of the scant existing literature that is related to paramedic clinical judgement and decision-making of mental illness and an overview of the key features of the existing research and professional literature.

**The nature of ambulance work and paramedic culture**

Previous research has examined the characteristics of ambulance practice and the nature of paramedic work. In a recent study, Sine and Northcutt (2008) undertook an analysis of the central values of seven professional paramedics in the United States using qualitative methods. Sine and Northcutt found that the central values of paramedics included: (i) having compassion for those they serve; (ii) having absolute clinical objectivity; (iii) advocating for patients; (iv) having established medical authority amongst their emergency services colleagues; (v) setting aside personal biases in practice; (vi) providing survivor care; and (vii) being competent in treatment and knowledge of procedures. Moreover, they suggest that providing care requires paramedics to “make value-laden choices that affect the type of care, and how and to whom it is provided” (p. 1).

These findings are consistent, in part, with recent research by Reynolds (2009), who has identified five key characteristics of ambulance work and paramedic culture in

---

4 The word ‘convey’ is synonymous with ‘transport’.
Australia. First, ambulance work and paramedic culture has its roots in volunteerism. The history of ambulance services in Australia, and indeed around the world, is one where volunteers have provided services as explained in Chapter 4. This is particularly so in rural and remote areas where volunteers continue to provide frontline ambulance services. Reynolds (2009) and Howie-Wills (1985) point out that historically ambulance volunteers were individuals from the working classes, predominately with a trade background, and with an interest in first aid and safety. They were trained under an apprenticeship model where theoretical knowledge was delivered in classrooms, and their practical skills were developed and refined through guidance from experienced paramedics (O'Donnell, 1998; Reynolds, 2009).

Second, the work of ambulance workers is often considered heroic (Reynolds, 2009). Reynolds argues that the media and popular press portray the work of paramedics as life saving, where the vast majority of the patients they see have sustained life-threatening injuries requiring immediate intervention. Some literature has described how paramedics are portrayed within society as street-smart trauma junkies with loose or detached social connections with hospital staff (Palmer, 1983; Reynolds, 2009). Some research (Becknell, 1998; Nicholson, 2010; Reynolds, 2009; Spitzer & Neely, 1993) describe paramedics as individuals with very positive work attitudes, who seek out challenges, have high expectations of their performance, and are very loyal to their colleagues, patients, and vocation. Moreover, Reynolds argues they have “great professional and personal pride, are loyal individuals, and like to be in control” (2009, p. 31).

Third, ambulance culture and work are described in the literature as stressful (Nicholson, 2010) and at times repugnant. The heroism paramedics display exposes them to work that is “unnatural, disorderly and dysfunctional” (Reynolds, 2009, p. 34). They encounter a vast array of “repugnant and unnatural stimuli” (Spitzer & Neely, 1993, p. 43), which renders them vulnerable to stress. The heroism of volunteers providing life-saving care is highly demanding. The emotional demands include having to manage death and dying, and providing care to traumatised patients, which requires a high standard of masculine stoicism (Reynolds, 2009). Other stressors that characterise paramedic work include: long working hours, poor remuneration, limited public recognition, danger and risk to personal safety, physically demanding work, limited education and training, limited career opportunities, long periods of waiting and
inactivity, fatigue, and exhaustion from poor and broken sleep patterns (Hawks & Hammond, 1990; Reynolds, 2009; Spitzer & Neely, 1993). Such stressors place the paramedic at high risk of burnout and mental illness, typically post-traumatic stress disorder (Nicholson, 2010). This is compounded by the management systems of ambulance services, which paramedics in some research report to be more stressful to them than the actual work they carry out (Boyle, 1997; Mahoney, 2005).

Fourth, the existing literature describes how the work of paramedics is viewed typically as the work of men. As will be discussed in Chapter 4, the history of ambulance care is steeped in military traditions, which until recently has been exclusively male. Reynolds suggests that the role of women was “relegated” (2009, p. 34) to the sick or casualty room, and cites Howie-Willis (1985) who states that that role “could never be undertaken by men because the patience and gentleness of a woman was necessary for the recovery of the patient” (p. 23). Some researchers suggest that there is a gender dissonance in ambulance practice—an overtly masculine ambulance workforce providing care that is viewed traditionally as being feminine and emotional work (Boyle, 1997; Campbell, 2004; Mahoney, 2005; Reynolds, 2009).

According to Reynolds (2009), the final key characteristic of paramedic culture and ambulance practice is that paramedics are *para-professionals*. That is to say, their role is to assist professionals, namely physicians, who sanction and regulate their scope of practice. According to Hawks and Hammond (1990), paramedics are at the “bottom of the medical ladder” (p. 52), which Reynolds argues is related to paramedics being “adjuncts to the medical profession” (p. 35). The use of para-professionals or auxiliaries by health professionals, particularly physicians and dentists, has long been debated (Barish, 1975). Reynolds suggests that “the role of the paramedics is ambiguous and there is the blurring of the professional boundaries between hospital care, medicine and nursing” (p. 35). A consequence of this, according to Reynolds, is inter-professional “turf wars, distorted communication and professional jealousy” (p. 35) between paramedics, physicians, and nurses, which other researchers have documented (Gonsoulin & Palmer, 1998; Wragge, 1998).

Recent research by Yong, Dent, and Weiland (2008) has suggested that communication between physicians and paramedics is often limited to high acuity patients, where it is brief and involves the handover of specific information from the
paramedic to the physician. They call for improvements in physician–paramedic communication in the interests of improved patient care.

However, other recent research has demonstrated the growing importance of paramedics in emergency health care networks, particularly in managing unscheduled out-of-hospital emergency care (Cooper, O'Carroll, Jenkin, & Badger, 2007). Moreover, recent research has examined and compared the influence of personality and behaviour in the decision-making practices of paramedics and physicians in emergency care settings.

Pajonk et al. (2010) identified four personality clusters within emergency physicians and paramedics, which were independent of demographic and job-related variables. The study found that the personality characteristics of emergency physicians and paramedics were not homogenous and were similar to those of medical practitioners and medical students. Both paramedics and emergency physicians demonstrated resilient personalities suitable for managing emergencies and crises. In this sample, anxious and insecure personalities were more common in paramedics than in physicians although a diagnosis of mental illness in self or their relatives increased the likelihood of neuroticism and openness. This research suggests that traits of emergency physicians and paramedics are strong influences of their paramedic clinical judgement and decision-making in the field. Moreover, these key characteristics of the nature of ambulance work and paramedic culture reflect the type and nature of the existing research into paramedic problem solving and their judgement practice.

Constructs of judgement, decision-making, and problem solving in paramedic practice

In Chapter 1, generic definitions of clinical care, judgement, decision, and judgement and decision-making were provided. Many permutations of these terms exist in the literature. Other terms, such as clinical reasoning, feature prominently in the literature and are used interchangeably with clinical judgement and decision-making. One particular demarcation between the many interchangeable terms in the medical and nursing literature is that which relates to the terms clinical reasoning and clinical problem solving. In a review of the literature on clinical reasoning in medicine and nursing, Deber and Baumann (1992) distinguish between two elements of clinical reasoning, those being decision-making and problem solving. They argue that:
it useful to distinguish between two elements of clinical reasoning. We use problem solving to refer to the search for the single “correct” solution to a problem, such as the process used to solve a mathematical problem, and decision making to refer to a situation in which a choice, often requiring trade-offs, must be made from several possible alternatives. (1992, p. 140)

In their analysis, Deber and Baumann (1992) suggest that decision-making is a level of judgement practice beyond problem solving, where the clinicians possess a knowledge base from which they identify the possible alternatives and probabilities of each likely outcome, and clarify values associated with particular outcomes. They suggest that, in general, physicians undertake decision-making whereas nurses undertake problem solving. They examined three particular studies of clinical reasoning of physicians and nurses: (i) health professionals managing end stage renal diseases; (ii) physicians’ choices of treatment options for breast cancer; and (iii) critical care nurses’ rapid decision-making. Their meta-analysis of the three studies suggests that clinical reasoning and problem solving of physicians and nurses are influenced by four sets of variables: (i) disease- and treatment-specific factors; (ii) patient-specific factors; (iii) institutional and environmental factors; and (iv) practitioner-specific factors.

Much of the related ambulance literature, which is anecdotal and non-research or evidence-based, conceptualises paramedic clinical judgement and decision-making as problem solving. For the purposes of this study, the concept of problem solving incorporates both clinical judgement and decision-making. In the contemporary context, paramedics solve a diverse range of problems, for which they are expected to arrive at a single, correct solution. The emphasis is on the early identification of the most serious problems, which in turn enables the paramedic to achieve their core goal of providing the best outcome for the patient (Bendall & Morrison, 2009). The obligations placed on paramedics to provide the best possible care for the patient are explicit. Contemporary models of paramedic problem solving, clinical thinking and reasoning, and clinical judgement and decision-making draw on the Emergency Medical Technician Paramedic National Standards Curriculum (United States Department of Transportation, 1998). These underpin practice standards for paramedic clinical thinking and reasoning globally. Most standards adopt a schema consisting of elements illustrated in Figure 1, which is adapted from Sanders (2006).
In a recent Australian text, Bendall and Morrison (2009) describe clinical judgement and decision-making and as “fundamental to the role of a professional paramedic” and “core business” (p. 96). In their view, the acquisition of good quality information and its synthesis is essential to clinical judgement and decision-making, where the “best information → best judgment” (p. 96). Bendall and Morrison describe how expertise is developed in paramedic decision-making, citing Billett’s (2001) work that characterises key attributes of an expert’s performance. In addition, they suggest that there are five cognitive decision-making strategies that are common to emergency medical services, these being algorithmic, pattern recognition, worst-case scenario (rule out), event-driven, and hypothetico-deductive. However, it is important to note that this commentary by Bendall and Morrison is not substantiated by research or evidence, and there are few published studies that examine if this is the case. They suggest that algorithms are common in ambulance services, and that use of pattern recognition is “rife” (p. 99). Bendall and Morrison offer a description of paramedic critical thinking consistent with the model for paramedic problem solving described by Sanders (2006), which is illustrated in Figure 1. Bendall and Morrison argue that when problem solving, paramedics make use of the model and its five elements and “pull it all together” (p. 109), which is consistent with guidelines in popular paramedic textbooks from the United States (Bledsoe, Porter, & Cherry, 2006; Elling, Smith, & Pollack, 2009;}

---

5 Adapted from Sanders (2006).
Sanders, 2006). Though the model is popular with paramedics, particularly while undergoing basic training, the validity and utility of this model itself and how paramedics “pull it together” (Bendall & Morrison, 2009, p. 109) has not been the subject of systematic and sustained research, as will be revealed later in this thesis.

A cognitive assessment of paramedics’ problem solving and judgement practice has been reported in a recent study by Alexander (2010), who examined the cognitive processes by which paramedics in the United States undertook clinical reasoning to solve clinical problems. Verbal protocol analysis and thinking aloud were used to analyse the current and retrospective clinical reasoning of 10 paramedics when solving two vignettes. The theoretical framework for the study was based on information-processing theory, and drew on information in the United States Paramedic National Standard Curriculum (1998), and literature on emergency medicine physicians' problem solving processes. Alexander argues that paramedic clinical decision-making is derived from the practice of emergency medicine, which renders the cognition literature on medicine and emergency medicine a suitable comparison for research purposes in the absence of paramedic-specific literature. Moreover, Alexander argues that emergency physicians are intimately involved with all aspects of paramedic practice, are the primary authors and content editors of paramedic training textbooks, and are required to approve all accredited paramedic training programs and all paramedic provider services.

Paramedics in Alexander’s (2010) study were found to solve problems primarily by pattern recognition without adequate hypothesis testing. According to Alexander, paramedics’ patient assessment and illness scripts for both sets of vignettes were “inadequately developed, disorganized, and, in some ways, faulty” (p. 2). Moreover, in the absence of adequate illness scripts for pattern recognition and the absence of adequate hypothesis testing, paramedics in the study generated pseudo-information and used cognitive biases in their problem solving. For the vignettes presented, the paramedics had a low threshold for initiating treatment, and provided inappropriate treatment. Alexander has called for additional research and argues that “changes [in] paramedic education practice should focus on providing meaningful learning experiences, promoting learner reflection on problem solving, and giving feedback on clinical reasoning processes in order to improve the quality of paramedics’ illness scripts and clinical reasoning processes” (p. 160). This research responds in part to this call.
Much of the research into paramedic judgement practice and problem solving focuses on ambulance triage. The practice of ambulance triage is a type of clinical judgement and decision-making specific to emergency care. It has a specific function and cognitive characteristics, as explored next.

**Principles and practices of triage**

The notion of triage is central to paramedic practice, and much of the existing ambulance research examines the quality of paramedic triage. The National Association for Emergency Medical Technicians (1994) define triage as:

*French word meaning ‘to sort’; a process in which a group of patients is sorted according to their priority of need for care. When only several patients are involved, triage involved alternating from patient to patient meeting all patient’s highest priority needs first, then moving to lower priority items. In a mass casualty incident with a large number of patients involved, triage is done by determining both urgency and potential for survival.*

Health workers in emergency care routinely use triage to prioritise patients according to their level of clinical urgency. The origins of triage are military (Fry, 2004; Kennedy, Aghababian, Gans, & Lewis, 1996), and are philosophically underpinned by principles of utilitarianism for the rational use of finite resources. During mass casualty events in the pre-hospital emergency care setting, ambulance triage is used to ensure the effective use of finite resources on hand. The allocation of resources for care is done with a view to achieving the best possible clinical outcome for the greatest number of patients. To do so, emergency health professionals make decisions about the patients’ levels of clinical urgency, which they rate on a scale (Australasian College for Emergency Medicine, 2006). In emergency departments, nurses and physicians assess the patients and determine their clinical urgency for treatment, reflected in a score on a triage scale such as the Australasian Triage Scale that is based on the Ipswich Triage Scale developed by Professor Gerard FitzGerald (FitzGerald, 1990). Other scales and derivations of the Australasian Triage Scale are used in other countries around the world.

Although primarily used as a method for ensuring that patients are seen in a timely manner commensurate with their clinical urgency, triage is also used for clinical audit to assess the suitability, or otherwise, of the patient’s outcome (Australasian College for Emergency Medicine, 2006). In the hospital setting, this would include
national and international benchmarking of key measurements such as average length of stay, rates of admission to intensive care units, and mortality rates. It provides an opportunity for analysis of other performance parameters of emergency departments such as case mix, operational efficiency, utilisation review, outcome effectiveness, and cost. In the pre-hospital emergency care setting, a sentinel performance measure for ambulance services is response times (Raven et al., 2006). For example, one performance measure used by Australian ambulance services is the percentage of cases categorised as Code 1, or life-threatening emergency, for which the ambulance arrived within 10 minutes of the request for service. Ambulance services measure response times aggregately to triage code, and assess performance against agreed, yet arbitrary, standards adopted by the Council of Ambulance Authorities. Such systems are fundamental to corporate governance in ambulance services in Australia and around the world.

This study was interested in coming to understand how paramedics accomplish clinical judgement and decision-making of mental illness, and the factors that influence this aspect of their work. It was not specifically interested in understanding how paramedics triage the mentally ill in the event of a multi-casualty event, or examining paramedic triage of the mentally ill as a measurement of performance. Moreover, it was not interested in examining the quality of the paramedic’s triage of the mentally ill compared with other patients they encounter. Generally, patients deemed to be mentally ill, without co-morbidity (such as trauma) during a multi-casualty event, would have a lower clinical urgency, or triage score. In the event of a disaster where many individuals were seriously injured, it would be difficult to dispute such an action, as prioritising other patients with trauma and life-threatening injury over the mentally ill would achieve the utilitarian goal of providing the best possible care for the greatest number of patients. Rather, the study was interested in examining how paramedics accomplish clinical judgement and decision-making of mental illness in order to understand the factors that influence this aspect of their work. Therefore, distinguishing triage as a type of paramedic judgement practice was essential to this study. The review paid attention to existing research that examined all types of paramedic clinical judgement and decision-making, the majority of which focuses on paramedic triage and the quality and accuracy of triage judgement practice in terms of patient outcome.
Paramedic triage, recognition of the severity of illness, and patient outcomes

Much of the existing research into paramedic judgement practice examines the ability of paramedics to recognise the severity of particular illnesses, the quality of patient outcomes, and their ability to predict such outcomes. One of the dominant themes in the literature is paramedics’ assessment and management of trauma. The management of trauma and the outcomes of patients with trauma in pre-hospital and hospital care settings have been the focus of much research. The care that paramedics provide, or do not provide, has a significant bearing on patient outcomes and the care provided subsequently by other health professionals. Thus, the quality and accuracy of paramedic judgement practice and decision-making of trauma and cardiac patients are focal points in the literature.

Much of the research has examined the accuracy of paramedics’ prediction for the outcomes of trauma patients and decisions to transport using validated tools or the judgements and decisions of emergency physicians as the measure of expertise (Roberts, Blethyn, Foreman, & Bleetman, 2009). A recent Canadian study (Lavoie, Emond, Moore, Camden, & Liberman, 2010) examined the accuracy of paramedics’ judgement for the pre-hospital triage of trauma patients alongside two validated scales—the Prehospital Index (PHI), and the High Velocity Impact (HVI) criterion. The study examined the sensitivity\(^6\), specificity\(^7\), and rates of over-triage of 16,805 patients presenting to a major trauma centre, of whom 1,113 (6.62%) had severe trauma.

Although the combination of PHI score, HVI criterion, and paramedic judgement offers the highest sensitivity for the identification of patients who could benefit from direct transport to a level 1 trauma centre, overall sensitivity remains low and over-triage is high. The study found that when considering the three measures of triage, paramedics had the highest sensitivity, although combining all three triage criteria was most sensitive and specific for patients with severe trauma.

Another study conducted in the United Kingdom (Clesham, Mason, Gray, Walters, & Cooke, 2008) prospectively surveyed paramedics’ ability to predict whether patients required hospital admission. Of the 396 ambulance cases examined, paramedics’ predictability for admission to hospital was found to be high, and they were better at predicting admission for non-trauma than trauma cases. The study concluded

\(^6\) The statistical probability that a positive test result is correct; the rate of ‘true positive’ test results.

\(^7\) The statistical probability that a negative test result is incorrect; the rate of ‘false negative’ test results.
that the paramedics’ predictions for admission were reasonably accurate, and that they were able to identify most patients who did not require transport because they would not be admitted. As the later discussion will show, the expectation in Queensland is that all patients will be transported.

The utility of paramedic judgement in pre-hospital trauma triage has been examined. A review by Mulholland, Gabbe, Cameron, and the Victorian State Trauma Outcomes Registry and Monitoring Group (2005) investigated literature regarding the ability of paramedics to predict injury severity, and found no clear evidence supporting paramedic judgement as an accurate triage method. The authors suggested, however, that the existing literature was limited by significant data losses, lack of consistency in definitions of major trauma, contextual differences across the emergency medical systems, differences in paramedic qualification and experience levels, and inconsistent data collection methods. Moreover, they called for additional research to determine the suitability of paramedics for identifying patients with severe blunt anatomic injuries.

Another major study examined paramedic activities related to pre-hospital trauma management nationally in the United Kingdom (Sukumaran, Henry, Beard, Lawrenson, Gordon, O'Donnell, & Gray, 2005). This study aimed to compare the processes of care and outcomes of trauma patients treated by paramedics with advanced pre-hospital trauma care skills versus treatment administered by ambulance technicians with basic life support skills. The study examined adult trauma patients attended by the Scottish Ambulance Service and subsequently admitted to hospital over a six-year period. It compared pre-hospital response times, interventions, triage, and outcomes of those patients treated by paramedics and those treated by ambulance technicians. The study found that paramedics attended more severely injured patients, such as those with penetrating trauma, and had longer pre-hospital response times than ambulance technicians. Patients managed by paramedics were more likely to be admitted to the intensive care unit, operating theatre, or mortuary, and had higher crude mortality rates, although there was no difference in mortality between the two groups when corrected for age, Glasgow Coma Score, and injury severity score. Overall, the study found that paramedics had good triage skills and sound clinical judgement when managing trauma patients.

The study by Sukumaran et al. (2005) has particular limitations with respect to this study. The focus of their study was on measuring the quality of triage, rather than
understanding how paramedics make clinical judgements and decisions or what influences this aspect of their work. In addition, the study was conducted in the United Kingdom, where the role demarcation between paramedics and ambulance technicians has existed for some time. It examined the differences between two types of paramedics in the United Kingdom. The differentiation of roles in ambulance between paramedics and ambulance technicians (or ambulance officers) did not occur in Queensland until 1995, and they have not been the subject of systematic or sustained research. This study by Sukumaran et al., like much of the existing research, is focussed on trauma and not mental illness.

In another study, Emerman, Shade, and Kubincanek (1991) compared clinical judgements of emergency medical technicians relating to mortality for 1,502 trauma patients against three scoring systems: (i) the triage-revised Trauma Score; (ii) the Pre-hospital Index; and (iii) the CRAMS Scale (a trauma score). These and similar instruments are used to assist the triage of trauma patients, although little research has been conducted to assess their suitability or efficiency in relation to the judgement of paramedics. The emergency medical technicians were asked to complete their usual patient care records as well as the three trauma scales for each trauma patient they managed. The study reported that emergency medical technicians could predict the mortality and severity of trauma as well as all three scales, although some limitations were noted. The study did not disclose the number or skill base of paramedics who completed the tools, which makes generalisability of the findings difficult. It also assumes that the scale provided was the standard aid for decision-making. Assumptions of this kind have been strongly criticised in the broader judgement and decision-making literature (Chapman & Sonnenberg, 2000; Hammond, 1996; Thompson & Dowding, 2002a). In the study, the paramedics’ judgement of the mortality of trauma patients without the aid of the scales was deemed sound.

A similar study was conducted by Fries, McCalla, Levitt, and Cordova (1994) who examined accuracy of paramedic identification of the requirement for trauma centre care of 653 trauma patients using the Trauma Triage Rule. The study reported a Trauma Triage Rule sensitivity of 88% and specificity of 86%, with paramedic judgement sensitivity of 91% and specificity of 60%. A combination of both paramedic judgement and Trauma Triage Rule measurement was found to achieve sensitivity of 100% and specificity of 75%. The authors suggest that a combination of paramedic
judgement and the decision support of Trauma Triage Rule gave the greatest predictive value for identification of seriously ill patients, a notion that has growing support in the literature (Chapman & Sonnenberg, 2000; Thompson & Dowding, 2002a). Qazi, Kempf, Christopher, and Gerson (1998) conducted a similar study in assessing the sensitivity of paramedic judgement for trauma team activation for paediatric blunt trauma patients (n=192), and reported that paramedic judgement alone, without some form of guidelines, was not sufficiently sensitive to be of clinical use.

Wassenberger et al. (1987) examined deviations from ambulance protocol and clinical algorithms for 5,944 patients with cardiac arrest, bronchospasm, chest pain, trauma, seizures, hypotension, and altered consciousness. A panel of specialist emergency physicians reviewed the cases and reported a protocol compliance rate of 94% and a rate of standard medical care compliance of 97%. The most common error in deviation was administration of a drug for chest pain and failure to apply a C-Spine Collar. Of the sample, it was determined that 50% of paramedics who deviated from protocols made an error in standard medical care.

The theoretical triage decision-making of a group of physicians, nurses, and paramedics using a multi-casualty paper exercise was conducted by Kilner (2002). A paper-based scenario containing 20 patients requiring prioritisation, triage, and treatment was given to the study groups (100 physicians, 59 nurses, and 74 paramedics) with responses scored using a triage-sieve algorithm. There was no significant difference (p<0.05) between physicians’ and nurses’ triage, but paramedics did significantly poorer (p<0.05) than both physicians and nurses. The study found that all professional groups tended to over-triage the patient group as a whole, but all groups also significantly under-triaged many of the patients. The study recognised the limitation of the findings in that the validity of the triage sieve methodology had not been determined.

The existing research has examined the quality and outcomes of paramedic decision-making regarding resuscitation. The findings of some of this research have led to recommendations that paramedic judgement and decision-making of cardiac arrest requires on-line medical control. For example, Johnson and Maggiore (1993) surveyed the non-traumatic cardiac arrest decision-making practices (start or withhold resuscitation) of 310 paramedics. Of that sample, 211 reported withholding resuscitation with a physician’s medical order, of which 85 reported they were troubled by the
incident and experienced significant difficulty in making that decision. The authors suggested that medical on-line control would ameliorate this. However, other studies, particularly in the United Kingdom, have reported the accuracy of paramedic treatment and diagnosis to be high when on-line medical control was not available (Walker, Coleman, & Brenchly, 2005).

In another study, Simmons et al. (1995) compared information in standard out-of-hospital trauma triage criteria with standard criteria plus advanced emergency medical technicians injury severity perception for determination of patient need for trauma centre evaluation. The authors examined 1,063 trauma-related patients (using logistic regression analysis, tree-based models, and receiver operating curves) and determined that advanced emergency medical technicians recognise significant abnormal physiologic findings and certain injury mechanisms warranting trauma centre evaluation. However, the study also suggested that the nature of relative weighting emergency medical technicians gave to the specific predictors of the need for further assessment was not established, and that further research was required in this (trauma) and other injury domains. In contrast, Wright (1997) suggested that paramedics, based on their clinical experience, are more capable than an artificially created trauma score of identifying patients requiring trauma centre care, though this claim was made in the absence of any empirical research or other evidence to substantiate it.

Other studies have focused on paramedics’ triage skills and their ability to recognise specific conditions. These include myocardial ischaemia/infarction (Grzybowski, Zalenski, Ross, & Bock, 2000; Morgan, 2003; Price, 2006; Smith, Hardy, Sandler, & Cooke, 2010; van’t Hof, Rasoul, van de Wetering, Ernst, Suryapranata, Hoornanje, Dambrink, Gosselink, Zijlstra, Ottervanger, & de Boer, 2006), blood loss (Williams & Boyle, 2007), cardiac arrest (Hick, Mahoney, & Lappe, 1998; Lockey & Hardern, 2001), stroke (Bray, Coughlan, Barger, & Bladin, 2010; Cox, Albarran, Quinn, & Shears, 2006), multi-casualty incidents (Kilner, 2002), and congestive cardiac failure (Drake, 2002), as well as the inter-hospital transport of critically ill patients (van Lieshout, de Vos, Binnekade, de Haan, Schultz, Vroom, van Lieshout, de Vos, Binnekade, de Haan, Schultz, & Vroom, 2008). The results of these studies generally have been mixed, but suggest overall that paramedic recognition of the severity of these conditions is poor, particularly when compared with the superior diagnostic accuracy of physicians (Ackerman & Waldron, 2006). These studies
advocate the use of decision-support such as clinical guidelines, and physician-guided assistance for paramedic judgement practice. However, absent in this research is the examination of the processes by which paramedics are making judgements in order to improve outcomes for patients, particularly with respect to mental illness.

**Protocols, guidelines, and other decision-support systems**

Existing literature has examined the use of clinical guidelines, protocols, policies, and other forms of decision support for paramedic clinical judgement and decision-making and practice in the field. This has included their use for telephone triage (Marks, Daniel, Afolabi, Spires, & Nguyen-Van-Tam, 2002), ambulance service telemedicine (Karlsten & Sjoqvist, 2000), ambulance dispatch (Dale, Higgins, Williams, Foster, Snooks, Crouch, Hartley-Sharpe, Glucksman, Hooper, & George, 2003), triage (Marks & Daniel, 2002), management of trauma (Grzybowski et al., 2000), recognition of cardiac injury and death (Donnelly & Weston, 1995; Figgis, Slevin, & Cunningham, 2010; Jones & Woollard, 2003; Rittenberger, Beck, & Paris, 2005), cardiac arrest and resuscitation (Hein, Owen, & Plummer, 2010; Nurmi, Pettila, Biber, Kuisma, Komulainen, & Castren, 2006), disasters and mass gatherings (Feldman, Lukins, Verbeek, Burgess, & Schwartz, 2005; Neal, 2009), and determining the need for further treatment and transport (Schmidt, Atcheson, Federiuk, Mann, Pinney, Fuller, & Colbry, 2000; Yeh & Cone, 2000). The findings of the majority of this research recommend the use of decision-support processes, such as protocols and guidelines, for paramedic judgement practice.

Much of this existing research advocates the use of computer-assisted decision support systems in ambulance operations. The use of computer-assisted decision-making software for accurate ambulance call taking and dispatch is widespread internationally (Clawson, Olola, Heward, Patterson, & Scott, 2008; Clawson, Olola, Heward, Scott, & Patterson, 2007). Farrand et al. (1995) examined the introduction of a computerised dispatch system into an emergency medical system call centre traditionally staffed by nurses. The study found that in attempting to formalise nurse decision processes using artificial intelligence, the complexities of the decision processes therein were revealed. An assessment of the accuracy of the decision process—using an expert panel review of 1,006 calls—found almost perfect sensitivity with telephone triage and decision as to whether to send an EMS resource or not. In this
instance, the study demonstrated that nurses’ clinical judgement and decision-making processes in this setting were sophisticated (Thompson & Dowding, 2002a). Other studies have reported similar findings (Poole, Schmitt, Caruth, Peterson-Smith, & Slukarski, 1993; Watcher, Brillman, Lewis, & Sapien, 1999). Researchers (Donnelly & Weston, 1995; Hick et al., 1998; Marsden, Ng, Dalziel, & Cobbe, 1995) have suggested that paramedics’ clinical judgement and decision-making regarding the futility of resuscitation is best supported by the use of an algorithm and physician-guided clinical guidelines. Dunne, Compton, Welch, Zalenski, and Bock (2003) conducted a study to estimate the proportion of patients transported by paramedics who do not need emergency medical care. They found that paramedics could not reliably identify those patients in need of emergency medical treatment when unaided by protocols or specific training. Although the use of computer-aided decision-support is common for call taking and ambulance dispatch, recent research reveals a poor uptake of electronic decision-support and information systems for evidence-based practice by Australian paramedics (Westbrook, Westbrook, & Gosling, 2006). The low uptake and use of decision-support and information systems include a lack of access, paramedics’ perceptions that such systems were of little benefit to their work practice and culture, and that their use reinforces perceptions by medical and health professionals, such as physicians and nurses, that paramedics are non-professional.

However, few studies of clinical judgement and decision-making in paramedics have been specific to mental illness. Cheney, Haddock, Sanchez, Ernst, and Weiss (2008) evaluated compliance and safety of an emergency medical service triage protocol that allowed paramedics to transport patients directly to psychiatric emergency services. Medical clearance of patients with psychiatric symptoms is a globally recognised standard (American Psychiatric Association, 2000). The study evaluated the sensitivity of the protocol for the safe direct admission of patients to a psychiatric facility rather than to the emergency department. Cheney et al. reported that although paramedics’ compliance with vital sign criteria assessment was poor and the rate of protocol non-compliance was 25%, the protocol was highly effective and safe, particularly given that there were no negative outcomes associated with protocol non-compliance. Accordingly, the protocol was deemed safe and effective at facilitating the identification of psychiatric patients who did not need emergency department assessment and treatment. This study sought to examine the reliability and validity of a
tool to facilitate paramedic medical clearance of psychiatric patients. The paramedics in this study were in direct communication with attending emergency physicians, and under their instruction, were provided with specific assessment criteria to guide their clinical judgement and decision-making of the patients’ mental state. Such practices are common in some ambulance jurisdictions, such as in the United States, but less so in others, such as the United Kingdom and Australia. Moreover, they rely on expensive and sophisticated telecommunications infrastructure that is not present in many ambulance services, typically those that cover large geographic areas such as that found in Australia. The study examined paramedics’ compliance with a particular protocol facilitating clinical judgement and decision-making of mental illness, rather than how they ordinarily accomplished this in the field and the factors that influenced this aspect of their work, which is the focus of this thesis.

Conveyance and non-conveyance

The transportation of patients by paramedics to definitive health and medical care, as revealed later in this thesis, is a core function of their role. Paramedic non-conveyance of patients, or their failure to transport them to definitive medical care, has been a major focus of recent research (Balcar, 2004; Brown, Hubble, Cone, Millin, Schwartz, Patterson, Greenberg, & Richards, 2009; Dale et al., 2003; Dale, Williams, Foster, Higgins, Snooks, Crouch, Hartley-Sharpe, Glucksman, & George, 2004; Hjalte, Suserud, Herlitz, & Karlberg, 2007; Kawakami, Ohshige, Kubota, & Tochikubo, 2007; Marks et al., 2002; Porter, Snooks, Youren, Gaze, Whitfield, Rapport, & Wollard, 2007; Seldin, Schnitzer, Nolan, & Veronesi, 1991; Snooks, Dale, Hartley-Sharpe, & Halter, 2004a; Snooks, Foster, & Nicholl, 2004b; Snooks et al., 2005; Snooks, Kearsley, Dale, Halter, Redhead, & Cheung, 2004c; Snooks, Williams, Crouch, Foster, Hartley-Sharpe, & Dale, 2002; Snooks, Wrigley, George, Thomas, Smith, & Glasper, 1998; Wrigley, George, Smith, Snooks, Glasper, & Thomas, 2002; Wrigley, Snooks, Thomas, Smith, Glasper, & George, 1999; Zachariah, Bryan, Pepe, & Griffin, 1992). These studies generally have been conducted to address two competing challenges in ambulance service delivery: (i) to reduce the cost and resource burden of unnecessary conveyance or ambulance transportation; and (ii) to reduce poor patient outcomes that result from the non-conveyance of patients who require treatment and transport.
Paramedics’ decisions regarding transportation of patients and their contribution to ambulance misuse have been identified as a substantial problem, with up to 50% of ambulance transports reported by some to be unnecessary (Balcar, 2004; Neely, 1997). Balcar argues that safely identifying patients who do not require ambulance transport in the pre-hospital setting can potentially result in significant savings of resources for ambulance services. Thus, the focus of much of this research has been the quality and accuracy of the paramedic decisions relating to conveyance and non-conveyance.

Although reducing unnecessary transports may have operational and economic benefits for ambulance services and emergency departments, there is no consensus about the ability of paramedics to accurately and safely identify patients who do not require ambulance transport (Brown et al., 2009). Various studies have examined the nature of patient refusal of treatment and transport (Cone, Kim, & Davidson, 1995; Jaslow, Barbera, Johnson, & Moore, 1998; Shaw, Dyas, Middlemass, Spaight, Briggs, Christopher, & Siriwardena, 2006). In one United States study (Schmidt, Mann, Federiuk, Atcheson, Fuller, & Christie, 1998), a significant proportion of patients who refused treatment and transport could not recall receiving written or verbal advice about their decision. In this study, the majority of patients who had refused ambulance treatment and transportation subsequently sought medical attention, and 6% were admitted to hospital, which the authors suggest raises questions about the decision-making capacity of patients and paramedics’ ability to manage patient refusal appropriately.

A study by Jaslow, Barbera, Johnson, and Moore (1998) surveyed the characteristics of patient transport protocols that sanctioned EMS-initiated refusal of transport, and the frequency and type of alternatives to emergency ambulance transport in more than 200 ambulance services in the United States. Only 34 of the 200 respondents had written protocols that allowed paramedics to refuse emergency ambulance transport, and then only for patients judged to have minor illness or injury after examination. Of these 34, 62% reported not requiring on-line medical control to initiate refusal of transport. Across the United States, only 19 emergency medical services reported alternatives to ambulance transport, most commonly by taxi and minivan. The authors concluded that paramedics have few options but to transport patients, in either policy or practice.
A recent systematic review and meta-analysis (Brown et al., 2009) evaluated studies that examined paramedics’ ability to determine need for ambulance transportation. Of the 61 studies selected for full review, only five studies met the study’s inclusion criteria. The review determined, from the limited data available, that the ability of paramedics in the United States to determine the necessity of transportation of patient varied considerably, and that data did not support the practice of paramedics deciding whether patients required transportation (Brown et al., 2009). However, the findings of this review should be interpreted with caution, as the study used limited data, lacked consistent data definitions, lacked a reliable reference standard, and did not examine whether or not the ability to determine the need for ambulance transportation influenced patient care. Moreover, no consistent definition of what constituted medical necessity or an emergency was made, a limitation the authors acknowledged.

Porter et al. (2007) examined paramedic decision-making about non-conveyance in non-urgent calls for assistance in the United Kingdom. They report that in that setting paramedics are expected to transport patients who request emergency ambulance service to hospital using standard practice guidelines, unless the patient made the decision to stay at home or remain wherever they happen to be. Their study of the clinical decision-making practices of 25 paramedics reported that paramedic clinical decision-making for transporting patient to hospital was not as straightforward as the paramedic guideline for practice implied. In their study, paramedic clinical decision-making was found to be “tricky in the messiness of the real world” (p. 32). In particular, they argue the:

... patient’s capacity to make decisions, and how this was interpreted, as well as the complexity of the decision-making process in which the patient, the crew and in many cases family or carers, often take part in negotiation and de facto joint decision-making. (Porter et al., 2007, p. 32)

This study is one in a limited body of work suggesting that paramedic judgement practice is shared, in that it involves negotiation with the patient, their family, and their friends. This notion of shared decision-making is well documented in medicine (Charles, Gafni, & Whelan, 1997, 1999, 2008). Porter et al. (2007) argue that when it comes to paramedics’ decisions to convey patients to hospital, a mismatch between policy and practice precludes shared decision-making in paramedic practice, and raises concerns about the safety and welfare of patients who are not conveyed. Porter et al.
(2008) examined paramedics’ attitudes towards clinical documentation when patients were not conveyed to hospital, and found low rates of clinical record completion for patients not transported. The participants in the study reported that although documenting non-conveyance was a formal requirement of practice, it was of little practical relevance or worth. The authors suggest that low rates of completion of documentation for non-conveyance represent a significant litigious and clinical risk.

In similar research, Hauswald (2002) examined whether paramedics could safely decide which patients did not need ambulance transport or emergency department care. This study compared the judgements of paramedics with those of emergency physicians. The study reported low levels of agreement between paramedics and emergency physicians in their clinical judgements, and held that paramedics could not safely determine which patients did not need ambulance transport or emergency department care. The design and findings of the study are problematic in a number of ways. Similar to the study by Porter et al. (2007), it sought to assess the quality of the judgements of paramedics. It did so by comparing judgements made by emergency physicians, which were deemed correct. Furthermore, the judgements made by paramedics occurred in the field, whereas those of the physicians occurred in the hospital. In effect, the influence of the context and environment of the paramedics’ clinical judgement and decision-making, and interactions therein, were discounted. Moreover, emergency physicians and paramedics have vastly different roles, skills, and abilities, which, it could be argued, limit the value of such findings for furthering the understanding of how paramedics accomplish clinical judgement and decision-making in the field. While Hauswald (2002), Porter et al. (2007), and other researchers (Dale et al., 2004; Emerman et al., 1991), have focused on the quality and accuracy of paramedic clinical judgement and decision-making with respect to conveyance, this study is interested in coming to understand how paramedics accomplish clinical judgement and decision-making of mental illness.

A study by Hjalte, Suserud, Herliza, and Karlberg (2007) described the characteristics of 1,977 patients transported by paramedics in Sweden, in an attempt to determine the incidence of unnecessary conveyance within particular patient groups. Ambulance staff were asked to judge whether their patients they were dispatched to required pre-hospital emergency care and conveyance to hospital. In this study, there were some patient groups that were judged least likely to not require pre-hospital
emergency ambulance care and transport, such as those with cardiac complaints (18%), and trauma (17%). Ambulance staff judged that psychiatric patients were the group most likely (59%) to not require pre-hospital emergency care and transport. While the study did not examine the participants’ judgements for any of the patient groups specifically, it reported that the majority (55%) of the patients judged as not requiring ambulance transportation were deemed so because other forms of transport were available or more suitable, such as a bus of taxi. Those patients that presented with a physically limiting illness, such as trauma, were much more likely to require ambulance care and transportation because of the facilities available within an ambulance, namely being able to lie down on a stretcher.

A relatively recent body of work in the United Kingdom has also examined paramedics’ judgement practices with respect to conveyance, and the factors that influence this aspect of their work. In one study (Snooks et al., 2004a), researchers tested a protocol to manage non-conveyance of patients with non-urgent needs in the pre-hospital emergency care setting. The protocol allowed paramedics to leave patients at a scene provided they gave self-care advice and information for referral to a health professional. Their study aimed to describe emergency ambulance crews’ views about how they make decisions on whether or not to convey a patient to hospital. Snooks et al. trained paramedics from one ambulance station to use the treatment protocols, and compared the outcomes of care for patients attended by these crews with similar patients attended by crews from a nearby station. The research team developed 23 protocols anticipated to cover 75% of patients left at the scene by the attending crew. The protocols were used for 101 (40.2%) of the 251 patients in the intervention group, and results compared with a control group consisting of 537 patients. The study reported no difference in the proportion of patients left at the scene in the intervention and control groups. Focus groups conducted with participants prior to the intervention indicated that factors influencing their conveyance of patients to hospital included experience, intuition, training, time of call during a shift, patient preference, and home situation. Interview and focus groups conducted post-implementation yielded mixed reactions from the trained participants. They reported being positive about the protocol but foreshadowed the need for additional training. Some of the participants reported an improvement in job satisfaction and practice, and others reported ongoing difficulties with referral of patients and persuading some patients to go to hospital. The rate of non-
conveyance was unchanged in this study, although case times were longer for the implementation group. Interestingly, the clinical documentation of patients by the implementation group was generally more detailed than by the control group, although both groups had similar numbers of cases with no clinical assessments recorded at all. The study reported consensus of the participants for the introduction of the new protocols into the ambulance service, highlighting concerns with respect to the safety of existing practices.

Other recent work has examined paramedics’ assessment, decision-making, and referral processes for older people post-fall (Close, Halter, Elrick, Brain, & Swift, 2002; Halter, Vernon, Snooks, Porter, Close, Moore, & Porsz, 2010; Mason, Knowles, Colwell, Dixon, Wardrope, Gorringe, Snooks, Perrin, & Nicholl, 2007; Snooks, Cheung, Close, Dale, Gaze, Humphreys, Lyons, Mason, Merali, Peconi, Phillips, Phillips, Roberts, Russell, Sanchez, Wani, Wells, & Whitfield, 2010; Snooks, Halter, Close, Cheung, Moore, & Roberts, 2006; Weiss, Chong, Ong, Ernst, & Balash, 2003). In the United Kingdom, up to 40% of older patients attended to by paramedics post-fall are not transported to the emergency department, often in the absence of any formal training or protocols to leave patients at home (Snooks et al., 2006). In the study by Halter et al. (2010), a tool to guide paramedics’ judgement practice was trialled in London, United Kingdom. The use of the tool was reported to be low, and the study sought to understand the decision-making processes of emergency ambulance staff with older people who have fallen. Twelve paramedics who participated in the trial were interviewed and thematic analysis of the transcripts undertaken. This study described the paramedics’ assessment process with respect to patients post-fall as being informal, and comprised of four stages. First, paramedics used the information obtained from the emergency call for a pre-arrival opinion. Second, during their initial contact, the paramedics assessed the patient to determine whether any immediate action was needed, and established a rapport. Third, they gathered and assimilated medical and social information via a process of continuing assessment. Finally, the paramedics made a decision about transportation. This comprised a series of processes including negotiation, referral, and professional defence, and the use of professional experience and instinct. The study underscored the challenges paramedics face when making decisions about whether or not patients should be transported to hospital. The need to support ambulance staff in this area was highlighted, generating a significant challenge.
to those with education roles in the ambulance service. Further research is needed to look at how new care pathways, which offer an alternative to the emergency department, may influence decision-making around non-conveyance.

These studies of ambulance conveyance, though few in number, are significant to this thesis. They highlight the scant research base on paramedic clinical judgement and decision-making. Snooks, Kearsley, Dale, Halter, and Foster (2005) assert that:

Little is known about how ambulance personnel make decisions on whether to take patients to hospital or to leave them at home, how they feel about adopting guidelines or protocols to leave patients at scene, or about the potential impact of introducing such protocols on crews. Without an understanding of this context, initiatives within ambulance services to address concerns about quality and appropriateness of care may fail. (p. 251)

These comments draw attention to both the limited research base in the area of paramedic judgement practice, as well as concerns associated with introducing interventions without understanding the issues therein. Moreover, they underscore the need to examine the influences on paramedic judgement practice where it actually occurs—the pre-hospital emergency care setting. Paramedic judgement practice with respect to mental illness does not feature in the literature examining paramedics’ conveyance of patients. When it comes to understanding the expectations of paramedics to convey or transport their patients to hospital, Snooks, Kearsley, Dale, Halter, and Foster (2005) express a view echoed by others (interalia Marks et al., 2002; Seldin et al., 1991; Zachariah et al., 1992) that:

. . . it is known that emergency ambulance crews in the UK and USA leave some patients at scene rather than convey them to the accident and emergency department although they are not trained to do this and are not expected to do so unless the patient refuses to travel. (p. 256)

At the core of this thesis is the nature of paramedic clinical judgement and decision-making of mental illness and what influences this aspect of their work, which may include expectations of their conveyance, or otherwise, of patients with mental illness to hospital.

Notions of experts and novices

Some research studies (Smith, 2010; Wyatt, 2003) have examined paramedic judgement practice using novice–expert frameworks. The use of these frameworks to
examine clinical judgement and decision-making in other health professions is common (Benner, 1984; Benner, Hooper-Kyriakidis, & Stannard, 1999; Benner & Tanner, 1987; Bordage & Lemieux, 1991; Boshuizen & Schmidt, 1992; Boshuizen, Schmidt, & Coughlin, 1988; Reischman, 1998; Spence & Brucks, 1997). A study conducted in the United States (Hosea, 2002) examined the extent to which paramedic fire fighters were experts in their decision-making based on the correlation of their judgement practice with the Recognition Primed Decision-Making Model. The study reported paramedic fire fighters’ decision-making was dynamic, and that their judgement practice was consistent with the Recognition Primed Decision-Making Model. Moreover, it reported that experience was a significant moderator of success in the judgement practice of expert paramedic fire fighters. Other research, however, has suggested that experience and level of skill and certification do not appear to influence critical patient-related decisions of paramedics and emergency medical system personnel (Billittier, Lerner, Moscati, & Young, 1998).

A study by Wyatt (2003) that examined the relationship between knowledge and judgement in paramedics in Victoria, Australia, using novice–expert theoretical frameworks also revealed the role experience has in judgement practice of expert paramedics. Wyatt explored how experienced paramedics used tacit knowledge in exercising professional judgement when faced with unique challenges. Using case-based methods, Wyatt found that experience was a major contributor to the paramedics’ knowledge base and their ability to make clinical decisions, as is well established in other health professions (Cioffi, 2001, 2002; Higgs & Jones, 1995, 2000b; Higgs, Jones, Loftus, & Christensen, 2008). The study also suggested that the difficulty reported by the participants in explaining their judgements and knowledge processes was an indicator of their expertise. The knowledge constructs and judgement practices of paramedics in this study were reported to be governed by the interplay of multiple contextual factors that contributed to the paramedics’ expert capabilities, including the role of experience, context-specific learning, and education initiatives. It should be noted, however, that the study did assumed expertise on the part of the paramedics in the absence of objective evidence and in a manner that did not recognise novices and experts as being at opposing ends of the same continuum.

The finding by Wyatt (2003) that experience is a powerful mediator of paramedics’ knowledge and judgement in the field is significant to this study. Although
experience played a major role, Wyatt found that paramedics use a combination of “reversion to basics, tried and trusted rules or guidelines, and the capacity to play a hunch and trust your judgement, as also assisting them in making judgements when facing unique situations, even though these features appear incommensurable” (p. 3). Moreover, Wyatt found that paramedics reported using multiple sources of information when making judgements, and “expressed a reluctance to prematurely allocate patients into specific management protocols, that is, they displayed a willingness to deviate from previously determined management pathways should circumstances alter” (p. 3). Wyatt concluded paramedic judgement practice involved:

\[\ldots\] a constant shifting between established heuristics and previously untried and untested management strategies, driven by a confidence to ‘try’. Paramedics are not only relying on existing knowledge, both explicit and tacit, but they are generating new knowledge and understanding as they confront unique situations in the workplace. (p. 3)

The findings by Wyatt (2003) suggest that paramedics’ clinical judgement and decision-making is mediated heavily by experience and personal confidence, and is based on the gathering of information, and the combination of heuristics and tried and tested rules, which culminate in the generation of new knowledge. Wyatt’s study did not, however, examine paramedic clinical judgement and decision-making of mental illness. Moreover, the study categorised paramedics as novices or experts, where experience was equated with expertise, from which assertions were made. This position implies an assessment of the quality of the individual paramedic and their clinical judgement and decision-making. It is not known whether such features are relevant to paramedic judgement practices of mental illness in the Queensland pre-hospital emergency care setting, or what other factors influence this aspect of their work.

Smith (2010) undertook a two-phase cognitive systems engineering research study to examine paramedic expertise with respect to managing particular patients in hypothetical scenarios. The study compared the accuracy and relative complexity of the clinical judgements of novice and very experienced paramedics, and the ability of experience paramedics to exercise cognitive control in their judgement processes. The study found that experienced paramedics went beyond standard procedures in clinical judgement making, and were more likely to identify the correct chief complaint (of chest pain or pulmonary embolism) than the novices did. The study reported that expert paramedics were able to adapt their approaches to clinical judgement and decision-
making during the theoretical exercise, and that they were more likely engage junior
paramedics to perform rudimentary or basic tasks.

With the exception of the study by Wyatt (2003), these existing studies or
expertise focus predominately on the quality and accuracy of paramedic triage decisions
and their associated treatment and management, often using tools or instruments or
hypothetical scenarios. While there is a clear demand for quality and safety in health
care, as detailed in Chapter 1, this existing research has not examined how paramedics
accomplish judgement practice with respect to mental illness, or the factors that
influence this aspect of their work.

Interactions in paramedic clinical judgement and decision-making

As mentioned earlier, there has been limited research examining the influence that
patients and others have on requests for ambulance assistance, and the influence their
behaviours have on paramedic clinical judgement and decision-making. Research has
focused on who calls for ambulance assistance (Karlsten & Elowsson, 2004), their
motivations for calling for an ambulance (Ahl, Nystrom, & Jansson, 2006), and when
they call for assistance (Morgan, 2003). Some research has examined patients’
motivations for delaying or not calling for ambulance services (Ruston, 2001),
suggesting the need for further education of the public about symptom recognition with
a view to shortening the decision time for requesting ambulance services. Research into
the interactions between physicians and patients (Charles et al., 1997, 1999, 2008) has
called on physicians to be flexible in their approaches to patients, and the adoption of
shared treatment decision-making models in their judgement practice so that patient
preferences, wishes, and autonomy are respected.

Of particular interest to this thesis was a recent study by Gunnarsson and Warren-
Stomberg (2009) who investigated what influenced Swedish ambulance nurses’
decision-making in emergency care situations. The study investigated the accounts of 14
ambulance nurses for 30 incidents they had attended using basic content analysis from
which categories were identified. The study reported that ambulance nurses’ decision-
making in emergencies was influenced by their experience, as it was experience that the
participants considered differentiated novice from expert nurses. Other factors reported
to contribute to the complexity of their decision-making were the uncertainty of the pre-
hospital environment, particular expectations and pressures from within that
environment, and having to work with many different individuals. While the study was of nurses and not paramedics, and did not include patients experiencing psychiatric emergencies, it nonetheless provides useful insight into what nurses consider influences their judgement practice in emergencies.

Earlier work by Mellinger (1990) examined the interactions between paramedic and hospital staff in the pre-hospital emergency care setting and the influence this had on judgement practice. Using conversation analysis, the study examined encounters between paramedics and emergency room nurses during radio communication and handover. Of particular interest was the structured and systematic nature of interactions between nurses and paramedics, and the importance this had in conveying their judgement and decisions about the patients. While these studies provide valuable insight into related areas of paramedic judgement practice, they did not examine paramedic clinical judgement and decision-making of mental illness. As indicated, little is currently known about the influence of the patient and their preferences, bystanders, and other elements from the environment have on actual paramedic judgement practice of mental illness in the field, through to hospital admission.

**Paramedic clinical judgement and decision-making of mental illness**

Within the published research on paramedic clinical judgement and decision-making of mental illness, some studies have examined the characteristics of patients transported by ambulance who were mentally ill. Spooren, Buylaert, Jannes, Henderick, and van Heeringen (1996) examined the characteristics of patients deemed to be a ‘psychiatric emergency’ and transported by an ambulance in an urban region of Belgium. The study compared the profiles of mental health patients brought in by ambulance with those who arrived by other psychiatric emergency referrals to see if ambulance personnel were more exposed to dangerous situations in which there was a significant risk of harm. Patients presenting to three public hospitals over a 12-month period were examined, yielding 1,729 emergency psychiatric referrals, of which 630 (36.45 %) were brought in by ambulance. The study found that ambulance personnel were between three and four times more likely to be exposed to, and transport, patients who were intoxicated, suicidal or para-suicidal, had a life-threatening illness, or had a demonstrable need for medical intervention than those who arrived by other means of transportation or referral. The socio-demographic characteristics of the ambulance and
non-ambulance groups compared favourably, except that ambulance patients were more likely to be women.

The study by Spooren et al. (1996) is in some ways relevant to this thesis. It provides insight into the nature and profile of the mental health patients attended to by paramedics. However, the study examined paramedics and their patients in Belgium, which is significantly different from the setting of this thesis. It did not report examining how paramedics accomplished their clinical judgement and decision-making. Moreover, it did not determine the antecedents to each of the clinical jobs, such as how paramedics were called to attend to those patients in the first instance, or who had called for assistance or arrived at the judgement or decision about transportation of the patient. This could have included patients referred to ambulance for transportation by community mental health professionals. Spooren et al. found that patients with serious mental disorders, such as psychosis or depression, usually found their way to the emergency department without the services of an ambulance. Patients were often accompanied by friends or relatives, or had previous experience with psychiatric hospitalisation and were able to self-refer. The fact that paramedics did not attend to these particular patients does not mean, however, that their attendance was not warranted. The question of why paramedics had not attended to these patients in the first place is significant and remains unanswered in the existing published research. The study, while giving valuable insight into the use of ambulance services in emergency psychiatric referrals, did not examine the mental health assessment practices of paramedics. It focused on examining the characteristics of patients transported by ambulance to definitive medical care rather than the assessment practices of paramedics.

Other studies have examined the incidence, treatment, and evaluation of psychiatric emergencies. Pajonk, Bartels, Biberthaler, Bregenzer, and Moecke (2001) examined the incidence, treatment, and evaluation of psychiatric emergency situations (PES) by emergency physicians and paramedics in a German emergency medical system. Emergency physicians and paramedics completed questionnaires about their understanding of PES and their relative interest in PES training programs. Emergency physicians and paramedics viewed the importance of PES as high, but rated their own knowledge of it as poor. In the assessment of five typical psychiatric emergencies, emergency physicians gave the correct diagnosis in 71% of cases, and paramedic responses were correct in 39% of cases. Correct treatment and management of the five
conditions occurred in 32% of emergency physicians and only 14% of paramedics. Interest among the participants in training programs about mental illness was high. In their view, the poor accuracy of their assessment of mental illness reflected poor educational preparedness.

A number of other studies have examined the ambulance service delivery and usage pattern by individuals with altered mental states. Richards and Ferrall (1999) examined the inappropriate use of EMS transport, comparing the perspectives of the provider and patient. In this study, patients with altered mental status were the second most common reason for transportation by EMS. Although this may seem high, other studies report under-triage of mental and psychiatric illness. Another study (Schmidt et al., 2001) evaluated the ability of emergency medical technicians to apply protocols to assign transport options using hospital outcomes. Protocols were developed that categorised patients as: (i) needs ambulance; (ii) may go to the emergency department by alternative means; (iii) contact primary care provider (e.g. family physician); or (iv) treat and release. The examination of 1,300 patients who received ambulance treatment guided by these protocols indicated that the use of protocols led to the under-triage of 9% of patients. Patients with psychiatric complaints or dementia were found to be most at risk of under-triage. Nearly half the under-triaged patients had a psychiatric complaint or dementia. Protocols used in this study did not specifically address the identification of mental illness. Schmidt et al. recommended the redevelopment of protocols addressing mental illness and behavioural disorders, and the provision of further education about assessment of high-risk group patients.

Interestingly, ambulance officers and paramedics are not the only health professionals who have provided mental health care in the pre-hospital emergency care setting. Torrey (1971) described a specialised ambulance psychiatric service in the former Soviet Union where specialist emergency psychiatrists staffed psychiatric ambulances. In 1965, psychiatrists in the Soviet Union began to experiment with emergency psychiatric ambulance services. The system, which is still in practice today, sees psychiatrists dispatched to psychiatric emergencies in ambulances accompanied by two ambulance assistants. Patients undergo full psychiatric assessment by qualified psychiatrists in the field, rather than in hospital. In this setting, the role of the ambulance assistant is restricted to driving and transportation under medical instruction. Psychiatrists assess and treat patients, then admit them directly to hospital rather than
the emergency department. This model of emergency psychiatric care was further described by Pevzner (1992). Mental health care via ambulance services in the former Soviet Union is under direct medical control, as is the provision of most health care, a situation that differs significantly from Australia. In Australia, physicians do not form part of the standard ambulance response.

Most relevant to this thesis are the findings of a study that examined the effects of mental health reforms in South Australia on the ambulance service and paramedics’ response to them (Roberts, 2007; Roberts & Henderson, 2009). Using a mixed-method approach, incorporating staff questionnaires, focus groups, and analysis of clinical data, the study explored the implications of paramedics attending mental health patients, and examined how paramedics perceived their role when managing patients presenting with disturbed behaviour. In this study, paramedics reported being frustrated working in an environment where the workload of mental health cases was significant and the wider mental health care system was under considerable stress. Further, they reported that participants in the study regarded themselves as poorly prepared professionally to attend to individuals with a mental illness, and expressed concern for their own safety when it came to managing the mentally ill. Interestingly, the study revealed that a culture existed within that setting where some paramedics viewed patients with mental illness as less important than patients with other kinds of illnesses. Some officers reported being labelled by their peers as social workers when they spent extra time with a patient experiencing a mental illness. The participants reported they were expected to “load and go” (Roberts, 2007, p. 67) when it came to the mentally ill, which was reinforced by the lack of education, limited assessment skills, and limited treatment or referral options open to them.

The research by Roberts (2007) provides this study with useful insight into the nature of paramedic work as it relates to managing mental illness in one Australian jurisdiction, South Australia. Roberts’ findings about the limitations of paramedic training in managing mental illness are consistent with the concerns raised by paramedics in the present study. Similarly, participants in Roberts’ study reported an increasing prevalence of mental illness in the community and heightened concerns that paramedics were at risk of harm from the mentally ill. When managing patients deemed to be mentally ill, paramedics gave preference to the management of injuries with physical symptoms over those without physical symptoms.
Though related to this thesis, the research problem examined in the study by Roberts (2007) is different, as its focus was examining the effect of mental health service reform on ambulance services, rather than how paramedics accomplish clinical judgement and decision-making of mental illness. Moreover, the setting of Roberts’ study is different from that of this study, which is context-specific to the QAS and the Queensland pre-hospital emergency care setting. While Roberts’ study examined the impact of mental health care reform on ambulance services, this thesis examines how paramedics accomplish clinical judgement and decision-making of mental illness and the situational and contextual factors that influence this aspect of their work in the Queensland pre-hospital emergency care setting. At the centre of this study is how paramedics are expected to undertake this task, how they accomplish this in the field, and the relationship of official expectations to actual practice, as reported by paramedics themselves.

**Key features of the existing research and professional literature**

The key features of the related research and professional literature are three-fold. First, when compared with other health professions, little is known about paramedic clinical judgement and decision-making. The professional literature describes paramedic judgement practice in terms of problem solving, and various processes by which paramedics solve problems are postulated. The existing research into paramedic clinical judgement and decision-making is focused on triage, patient outcomes, and non-conveyance, all of which are indirectly relevant to this study. Much of this research has examined the ability and accuracy of paramedic triage and compared it with that of other health professionals. These studies focus their investigation on triage and the measurement of paramedic accuracy of outcomes or outcome predictability, rather than clinical judgement and decision-making. The existing research indicates that emergency physicians are consistently much more likely to correctly identify a patient as being mentally ill than paramedics, although the rates of accuracy in diagnosis, treatment, and management vary greatly. In the international setting, physicians respond to psychiatric emergencies and patients with mental illness in dedicated ambulances. Physicians have different roles, responsibilities, and skills from paramedics. The aim of this study is to examine how paramedics accomplish clinical judgement and decision-making of mental
illness in the field, and to understand what influences this aspect of their work, rather than to compare the judgement practices of paramedics with those of physicians.

The research on paramedic management of patients experiencing psychiatric emergencies is scant. The existing research suggests that the paramedics are likely to encounter patients experiencing a psychiatric emergency, where they are intoxicated, suicidal or self-harming, and experiencing a life-threatening illness. However, the existing research also indicates that these patients often self-present to emergency departments without the assistance of ambulance services, or do so with the assistance of relatives, friends, bystanders, or the police. Studies show that such patients often actively seek assistance and admission to hospital, and are accompanied by friends or relatives, or have had previous experience with psychiatric hospitalisation and thus were able to self refer. The use of decision-support systems and protocols by paramedics generally improves the quality of their clinical judgement and decision-making, but with variable success. A limitation of protocols to assist with paramedic judgement practice is the associated under- or over-triage of patients. Some studies document the rate of under-triage of patients with mental illness to be as high as 50%.

Existing research suggests that paramedics’ clinical judgement and decision-making is mediated heavily by experience and personal confidence, and is based on tried and tested routines for the gathering and assessment of information. Recent research that examined paramedic conveyance of older patients to hospital post-fall has highlighted the importance of information gathering and assessment in clinical judgement and decision-making, which is characterised as an informal process comprising four processes. Paramedics (i) use information from the call to form a pre-arrival opinion; (ii) establish rapport and determine immediate action; (iii) gather information and assimilate medical and social information with continuing assessment; and (iv) render a decision about transportation using negotiation, referral and professional defence, experience, and instinct. The existing research has highlighted the need to understand how paramedics make judgements in the field, and the factors that influence this aspect of their work, so attempts to improve the quality of paramedic care may be realised.

The scant existing research has been conducted internationally where the systems of health care, particularly with respect to ambulance services, are vastly different from those in Australia. There are significant differences between Australian paramedics and
their colleagues in the United Kingdom, the United States, and Europe. The most
directly relevant study conducted in South Australia (Roberts, 2007; Roberts &
Henderson, 2009), examined the implications of mental health call-outs for paramedic
practice. The paramedics in Roberts’ study reported an increasing prevalence of mental
illness in the community, poor educational preparedness, and concerns about risks to
personal safety, which are consistent with the problems that were voiced before this
study. Although the studies by Roberts and Wyatt (2003) were of Australian
paramedics, they were conducted in jurisdictions different from this study. A recent
discussion paper by Townsend and Luck (2009) has examined the legislative principles
and ethical dilemmas raised by changes to mental health legislation in New South
Wales, Australia, and calls for further research to assist paramedics to provide optimal
patient care to a vulnerable section of the community. The focus of this thesis is to
examine how paramedics accomplish clinical judgement and decision-making of mental
illness, and the factors that influence this aspect of their work in the Queensland pre-
hospital emergency care setting. Therefore, this thesis now turns to the philosophical
and theoretical literature on judgement and decision-making for ways to conceptualise
this inquiry.

PART B – Theoretical frameworks relevant to the inquiry

*Fundamental theoretical frameworks and their origins*

The study of judgement and decision-making has occupied the efforts of
psychologists, scientists, and others for decades. As a scientific inquiry, it was first
established in the early 1940s and 1950s (Edwards, 1954; Goldstein & Hogarth, 1997a;
Hammond, 1955). Broadly speaking, research into judgement and decision-making
focused on answering one of two questions (Bell, Raiffa, & Tversky, 1988b) that were
symbolic of the “dichotomy” (Bell et al., 1988a, p. 9) of the discipline at the time. This
dichotomisation of judgement and decision-making centred around two diametrically
opposed theoretical frameworks as explained by Bell, Raiffa, and Tversky (1988c):

> It was clear that mathematicians (decision theorists) are interested in proposing
rational procedures for decision-making—how people *should* make decisions if
they wish to obey certain fundamental laws of behaviour. Psychologists are
interested in how people *do* make decisions (whether rational or not) and in
determining the extent to which their behaviour is compatible with any rational
model. They are also interested in learning the content of capabilities and limitations of ordinary people to process what information is required of them if they do not naturally behave rationally, but wish to. (p. IX)

As Bell et al. (1988c) described, some scholars, typically mathematicians and decision-theorists, were concerned with *how people should make judgements and arrive at decisions* for ideal outcomes under rational settings and conditions. In comparison other scholars, namely psychologists, were interested in *how people actually made judgements and arrived at decisions* without little or no priority given to the outcome or the rationality of the setting and conditions. The first of these two, how people should make judgements and arrive at decisions under rational settings and conditions, is described as the classical decision-making paradigm (Goldstein & Hogarth, 1997a).

**Classical decision-making**

In the classical decision-making paradigm, the decision-maker is taken to be *rational*, that is to say acting in a context of complete certainty (Chapman & Sonnenberg, 2000). When working from classical decision-making positions, priorities are given to the testing of theories and hypotheses of decision-making; the focus is probability and predictability in settings that are controlled for all confounding variables such as uncertainty. Broadly speaking, the classical decision-maker faces a clearly defined problem, knows all possible action alternatives and their consequences, and chooses the optimum alternative. The context or setting in which the individual and their judgements are situated is explicitly defined and the risks therein are quantified. Thus, judgement and decision-making occur in a stable environment where the influence of factors—such as context, experience, and ecology—are not relevant.

Classical decision-making theory features prominently in scientific and laboratory-based disciplines, and in medicine and health, as discussed later in this chapter. The laboratory-based study of judgement and decision-making seeks to establish the correct and ideal way to make a judgement and arrive at a decision, or choice, under optimal situations and conditions. Typically, the aim is to determine how people should integrate multiple, probabilistic, and potentially conflicting cues to arrive at an understanding of the situation, or a judgement. The emphasis is on the attainment of a result where choices are reasoned through evidence (Zsambok & Klein, 1997). Classical decision-making models are favoured in controlled settings and environments
in purely theoretical and non-applied constructs. Others (Hamm, Scheid, Smith, & Tape, 2000; Hammond, 2000) argue that classical decision-making may not fit well in chaotic worlds, uncontrolled environments, or critical situations.

**Normative theoretical frameworks**

In applied terms, classical decision-making translates to normative theories and frameworks. Normative theories were born from the statistical, mathematical, and economic philosophies (Bell et al., 1988a). They are concerned principally with rational outcomes, and the *what* of decision-making (Goldstein & Hogarth, 1997a; Thompson & Dowding, 2002a). Bell et al. (1988a) argue that:

. . . there is the notion that normative theory has something to do with how idealized, rational, super-intelligent people should think and should act. Such analyses abstract away from cognitive concerns of real people, their internal turmoil, their shifting values, their anxieties and lingering post-decisional disappointments and regrets, their repugnance (or zest) for ambiguity or danger, their inability to do intricate calculations, and their limited attention span. The hallmarks of such normative analyses are coherence and rationality as captured usually in terms of precisely specified desiderata or axioms of the form: if the decision maker believes so and so, he should do such and such. As usual in any mathematical system, the power of any such desiderata comes from logical, synergistic, joint implications. (p. 16)

In adopting this perspective, researchers or decision theorists seek to propose rational procedures for decision-making that are logical, ordered, and may be theorised. The focus of the normative theoretical framework is to discover how rational people should act in an ideal or optimal world, where decisions are based on logical and known conclusions supported by clear or probable evidence. Normative theories propose to evaluate how good judgements should be made, and how good outcomes should be achieved (Thompson & Dowding, 2002b). They give little or no consideration to *how* judgements are actually arrived at by ordinary people in real, everyday settings, and the context of the judgement (Bell et al., 1988b). They are concerned only with optimal conditions and environments, and position the decision-maker as super-rational (Pruitt, Cannon-Bowers, & Salas, 1998), with little or no emphasis on how judgement and decision-making practices actually occur.

In the contemporary context, decision analysis is the direct application of normative theories and frameworks. Clinical decision analysis uses techniques to make
the decision-making process explicit by breaking it down into processes and components so the effect of different observations, actions, probabilities, and utilities can be analysed (Dowie, 1993). It does so using a decision tree that focuses on the predictability of events using probability and statistics. Decision trees work by breaking problems down into smaller decisions and choices, and adding numerical values such as the probability of the events to each part of the decision. Once each event or choice is assigned a probability, based on the assumption that the outcome is possible, the option with the highest utility for the decision maker can be calculated (Thompson & Dowding, 2002a). Expected utility theory and subjective expected utility theory are classic examples of the normative theoretical approaches for optimal decision-making. The model attempts to quantify the probability of the most likely and most desirable event in an attempt to assist the individual or group in making that judgement or decision. Subjective expected utility theory is another normative approach that takes into account the decision-makers’ values or beliefs in a rational context and calculates the probability of various outcomes occurring before identifying the optimum decision for that individual (Chapman & Sonnenberg, 2000). Multi-attribute utility theory is used when multiple goals exist.

A fundamental element of normative theories is the assessment and explication of risk. In order to determine how judgements and decisions should be made, comprehensive risk analysis must be undertaken and all possible risks identified, defined, and weighted (Thompson & Dowding, 2002a). Rationalising for uncertainty in judgement and decision-making has been much of the focus of decision sciences and normative research, where statistical and probabilistic theories such as Bayes’ Theorem mitigate uncertainty in judgement making (Cooksey, 1996). Reason (2001) has examined errors and slips in judgement and decision-making, proposing that human error is skills-based, rule-based, knowledge-based, or a combination of these. He and others have examined the use of rule-application processes in an attempt to limit bias and error in judgement and decision-making (Poulton, 1994; Reason, 1990). Risk assessments, tools, scales, and measurements have been in use in medicine for years, and are prolific in the medical, psychological, and scientific literature (Thompson & Dowding, 2002a). Such instruments seek to quantify risk and, in doing so, aim to make all risks known.
Normative theories and frameworks feature prominently in clinical judgement and decision-making in medicine, particularly in psychiatry (Thompson & Dowding, 2002a). Decision analysis has been applied in multiple settings, such as in assisting women to make decisions about continuation of pregnancies at risk of Down Syndrome (Pauker & Pauker, 1977; Thompson & Dowding, 2002a), and deciding on the types of intervention that should be used for psychiatric patients with violent tendencies (Lanza & Bantly, 1991). Chapman and Sonnenberg (2000) criticise the use of decision analysis in instances where probabilities are based on cultural or societal norms from areas and locations outside of the use area.

The opponents – Naturalistic decision-making

In the 1980s, criticism that classical and normative approaches failed to capture the reality of most decision situations in health care grew in strength. It was argued that decision-making in health care occurred in settings where there was a lack of in-the-field information, a lack of knowledge of all available alternatives in judgement and decision-making, a lack of reliable probability-based information about the consequences of these alternatives, and few readily acceptable techniques for reliably gauging their success in practice (Thompson & Dowding, 2001). Normative theories rely on the full determination of risk in complete and known ways, which many have argued is not possible (Chapman & Sonnenberg, 2000; Hammond, 1996; Thompson & Dowding, 2002a). In following the normative theoretical framework, Hastie and Dawes (2001) suggest that good decisions are those in which the process follows the laws of logic and probability theory. However, others argue that it is not possible to identify the logic of all decisions, nor assign relative probabilistic weight to each element of them and account for all aspects of the associated risk, particularly in medicine and health care (Hammond, 1955, 1996, 2000). Hammond (1996) asserts that attempts to do so provide an analysis that is only valid for one point in time, and carries significant unrepresented and unaccounted bias.

Growing opposition to classical and normative positions and their limitations fostered the exploration of alternative positions. As Bell et al. (1988a) asserted:

The focus of our attention is the individual decision maker facing the choice involving uncertainty about outcomes. We will consider how people do make decisions, how “rational” people should make decisions, and how we might help less rational people, who nevertheless aspire to rationality, to do better.
When we speak of nonrational people, we do not mean those with diminished capacities; we refer instead to normal people who have not given thought to the process of decision-making or, even if they have, are unable, cognitively, to implement to desired process. Our decision-makers are not economic automatons; they make mistakes, have remorse, suffer anxieties, and cannot make up their minds. We start with a premise, not that people have well thought out preferences, but that they may be viewed as having divided minds with different aspirations, that decision-making, even for the individual, is an act of compromise among the different selves. (p. 9)

The other group of researchers interested in judgement and decision-making was psychologists who sought to investigate a different range of questions. Rather than seeking to rationalise individuals and determine how they should make decisions in controlled contexts to achieve ideal outcomes, psychologists were more concerned with understanding how individuals make judgements and arrive at decisions in their naturally occurring settings. This theoretical framework gave rise to naturalistic or behavioural decision-making, which gained both popularity and notoriety (Flin, Salas, Strub, & Martin, 1997).

Naturalistic decision-making is characterised by ill-structured problems in uncertain and dynamic environments, with shifting, ill-defined, and competing goals. It is interpretive and recognises that human beings operate with cognitive limitations in bounded rationality and contexts. From this theoretical framework, the naturalistic decision-maker is understood to face a problem that is not clearly defined, and they often have limited information from the field and incomplete knowledge of possible alternatives and their consequences from which to choose an outcome (Flin et al., 1997). This assumes that the decision-maker acts in terms of their perception about a given situation. Naturalistic theories place emphasis on experience, and the practical and everyday problems faced by everyday individuals. The emphasis is on understanding judgement and decision-making in the field, where problems are characteristically ill-structured, dynamic, and laden with uncertainty.

In the main, the environments many individuals work within, particularly in health care, tend to be ill-defined and have constantly shifting boundaries (Orasanu & Connolly, 1993). In these settings, organisational goals are balanced against the personal choice of the decision-maker. The problems individuals encounter are often resource intensive, particularly in terms of time (Zsambok & Klein, 1997). Time is a precious commodity consumed by the assessment, interpretation, and assimilation of
multiple data from multiple sources, often in high-stakes and time-pressured situations. Naturalistic theoretical frameworks of judgement and decision-making give priority to the context in its natural and state, however chaotic or laden with uncertainty it may be (Hammond, 1996, 2000). Working from this position, when forming judgements, individuals rely primarily on their experience in making naturalistic decisions (Zsambok & Klein, 1997).

**Descriptive theoretical frameworks**

In applied terms, naturalistic decision-making paradigms are associated with a descriptive theoretical framework of judgement and decision-making. Originating from psychology and the behavioural sciences, they are specifically interested in understanding how individuals actually make judgements and decisions in the real world (Bell et al., 1988b). According to Bell et al. (1988a), descriptive analytic frameworks give rise to questions such as:

- How do real people think and behave? How do they perceive uncertainty, accumulate evidence, learn and update perceptions? How do they learn and adapt their behaviour? What are their hang-ups, bias, internal conflicts? How do they talk about their perceptions and choices? Do they really do as they say they do? Can they articulate reasons for their actions? How do they resolve their internal conflicts or avoid such resolutions. Do they decompose competence problems, think separately about component parts of problems, and then recompose or integrate these separate analyses? Or do they think more holistically and intuitively? What are the differences in the types of thought patterns for people of different cultures, of different experience levels? What is the role of tradition, imitation, superstition in decision making (or nonmaking)? How can “approximate” real behavior be described? How good are various mathematical models in predicting future behaviour? (p. 16)

Put simply, descriptive theories and frameworks are concerned with how normal, everyday people think and act in real, everyday settings. They seek to understand the learning and cognitive capabilities of ordinary people, and impose no mandate on the rationality of the individual (Bell et al., 1988a). In this orientation, any interpretation and study of judgement and decision-making depends on understanding the context and interactions of the individual and task of interest. As such, they reject the notion of controlling for confounding variables, which was favoured in much of the laboratory-based classical decision research. At the time, many researchers—such as Klein, Orasanu, Calderwood, and Zsambok (1993), a pioneer of the field of naturalistic
decision-making—held the view that laboratory models of decision-making could not describe decision-making under uncertainty. Much of the classical decision-making research is based on artificial tasks assigned in laboratory settings that view people as biased and unskilled (Klein et al., 1993). According to Klein, naturalistic decision-making assumes individuals as inherently skilled and experienced, who draw on these skills and experiences when dealing with real-life constraints such as time pressure, high stakes, personal responsibility, and shifting conditions. In addition, naturalistic theoretical frameworks do not give priority to the rationalisation of the individual, to render them and their actions logical. Instead, they seek to understand how individuals make judgements and decisions in the real world, focusing on the actual conditions and contexts in which they are made (Thompson & Dowding, 2002a).

Descriptive theoretical frameworks place significant emphasis on investigating heuristics as a way of dealing with uncertainty, biases, and error. Heuristics are simplifying strategies or rules used to make decisions, and use of them makes it easier to deal with uncertainty and limited information (Kahneman, Slovic, & Tversky, 1982). There are a number of categories of heuristics. Availability heuristics base decisions on recent events that relate to the situation at hand. Representativeness heuristics base a decision on similarities between the situation at hand and stereotypes of similar occurrences (Flin et al., 1997; Thompson & Dowding, 2002a). Anchoring and adjustment heuristics base a decision on incremental adjustments to an initial value determined by historical precedent or some reference point. Although useful when dealing with uncertainty, heuristics often lead to systematic errors that affect the quality and/or ethics of decisions (Thompson & Dowding, 2002a).

Descriptive research methods are highly empirical activities that aim to examine individual behaviour in ways that do not modify it, influence it, or, more importantly, moralise it (Bell et al., 1988a). Techniques may involve sophisticated statistical analyses. They are not, however, primarily concerned with the quality of the judgement or the outcome of the decision. Rather, their interest is in how normal, everyday people make and arrive at a judgement or decision is paramount. Evaluation of judgements and decisions within this philosophy is based on the empirical validity or extent to which the model observed in practice corresponds to the observed choices in the judgement or decision. Considerable research adopting a descriptive theoretical framework has been conducted in the health professions, particularly in nursing (Thompson & Dowding,
Challenging the competing dichotomy – A necessary controversy

The competing dichotomy of classical and naturalistic traditions, and of normative and descriptive theoretical framework, has dominated the field for examining judgement and decision-making for decades. Essentially, research concerned with examining the how was naturalistic and descriptive in nature, and has focused on how individuals make judgements and arrive at decisions, or the process. In contrast, research that was focused on the outcome, or the what of judgement, was classical in nature (Goldstein & Hogarth, 1997a; Thompson & Dowding, 2002a). This dichotomy of process and outcome is the foundation from which knowledge and research of judgement and decision-making have flourished. As with most philosophical and theoretical entities, interpretations of these positions in pure and applied forms grew. Pure process-based research aimed to gain insight and understanding into how individuals reach their judgements and decisions, often with little or no interest in the outcome (Thompson & Dowding, 2002b). In contrast, pure outcome-based research is centrally focused on the quality or outcome of the judgement or decisions regardless of the process taken by individuals (Thompson & Dowding, 2002b).

This dichotomy itself was not, however, without controversy. During their conference planning deliberations in 1983, Bell et al. (1988c) reported that many of the abstracts and papers they had received for presentation did not appear to fit conveniently into either category of the existing dichotomy. Some research appeared to be concerned with devising methods that incorporated the insights gained from classical and normative theoretical frameworks in ways that recognised the cognitive limitation of individuals. Other research appeared to introduce classical theoretical frameworks into the naturalistic and descriptive judgement enquiry. Bell et al. (1988a) elected to challenge the status quo of the existing dichotomy, amid growing discontent and opposition. They advocated for an alternative position, a third theoretical framework that would better represent some of this emerging research than either of the existing categories. In their view:

For our purposes we shall augment the usual dichotomy that distinguishes between normative and descriptive sides (the “ought” and the “is”) of decision-
making, by adding a third component: the prescriptive side. We do this because much of our concern in this paper addresses the question: “How can real people – as opposed to imaginary, idealized, super-rational people without psyches – make better choices in a way that does not do violence to their deep cognitive concerns?” (p. 9)

This view signalled a move from the descriptive–normative dichotomy to a trichotomy by adding a third category—prescriptive theoretical frameworks.

**Prescriptive theoretical frameworks**

As discussed, Bell, Raiffa, and Tversky (1988b) articulated the need for a third theoretical framework, which came to be known as prescriptive theories and frameworks. Savage (1954) first explored the need for this distinction, and asserted that:

> If, after thorough deliberation, anyone maintains a pair of distinct preferences that are in conflict with the sure-thing principle, he must abandon, or modify, the principle; for that kind of discrepancy seems intolerable in a normative theory. Analogous circumstances forced Bernoulli to abandon the theory of mathematical expectation for that of utility. In general, a person who has tentatively accepted a normative theory must conscientiously study situations in which the theory seems to lead him astray; he must decide for each by reflection—deduction will typically be of little relevance—whether to retain his initial impression of the situation or to accept the implications of the theory for it. (p. 102)

The aim of the third position was one of improvement—to help individuals who encounter real and everyday problems to make better decisions. Bell et al. (1988a) suggested prescriptive theories and frameworks and ask questions such as:

> What should an individual do to make better choices? What models of thought, decision aids, and conceptual schemes are useful—useful not for idealised, mythical, de-psychologized automata—but for real people? And since real people are different, with differing psyches and emotions, capabilities, and needs, good advice has to be tuned to the needs, capabilities, and emotional makeups of the individuals for whom the prescriptive advice is intended. It becomes even more complicated when individuals who think one way have to interact with experts who think along different paradigmatic lines, as for example, between a rational decomposer and the holistic intuiter. (p. 17)

This third category was intended to represent the middle ground within the existing dichotomy. Kleinmuntz (1991) argued that “there is now an impressive body of scientific evidence documenting the discrepancies between the descriptive and the normative” and that “prescriptive techniques promise to narrow the gap between actual
and ideal behaviour” (p. 141). Over time, the popularity of prescriptive theories and frameworks grew. Their value was realised as the theoretical basis for operations research and management sciences, and became particularly popular in health and medicine as a way of improving the judgement and decision-making practices of clinicians.

Contemporary imperatives for the prescriptive – Solving problems in health

In reality, most health care–related research is interested in a prescriptive theoretical framework (Deber & Baumann, 1992; Thompson & Dowding, 2002b). In the health context, there has been a necessary blurring of the boundaries between descriptive (process) research and normative (outcome) clinical judgement and decision-making that has been spurred by a need to address the ‘so what’ factor. In contemporary times, there is little place for research that focuses on the clinical judgement process in isolation of the outcome—the outcome, and its quality, are paramount and the clear priority, especially when accountability is a high priority. As Bell et al. (1988b) argue:

Some of us are concerned with the bottom line: how do you improve the quality of decisions in practice? It is one thing to talk axioms and proofs and paradoxes and cognitive limitations – but how can you really help? A number of researchers are concerned with devising methods that incorporate the insights gained from normative theories, but in a way that recognizes the cognitive limitations of the decision maker. There are those who try to find ways to explain the relational model so that they become appealing to the ordinary person. There are those who have learned, by applying the theory, when certain tricks of the trade, and when various approximations are valid. (p. IX)

A popular prescriptive model for assisting judgement and decision-making in clinical settings is the use of clinical guidelines and clinical policies. Clinical guidelines are prescriptive tools used to assist practitioner and patient decisions about appropriate health care for specific circumstances (Thompson & Dowding, 2002a). They are largely guidelines that outline operational information, procedures, and guidelines with options, and are often referred to as protocols. Primarily aimed at improving the quality of care or standardising care, guidelines are mechanisms for reducing variations in clinical practice and discouraging practices that are not based on sufficient evidence (Thompson & Dowding, 2002a). While they have been found to provide improvements in the
quality of care (Grimshaw & Russell, 1993), the effects of their application are significantly variable and the extent to which they are systematically applied is not clear (Thomas, McColl, Cullum, Rousseau, & Soutter, 1999).

Clinical guidelines clearly benefit users and patients, although their use is reported to be overtly problematic (Matchar & Samsa, 2000; Woolf, Grol, Hutchinson, Eccles, & Grimshaw, 1999), particularly given that they can contribute to an illusion of a single answer for a complex problem (Berg, 1997; Thompson & Dowding, 2002a). Guidelines themselves should, but may not, contain the best available research evidence, and can lead to judgements that may not have otherwise been made because of the absence of more suitable options. Decisions do not occur in a vacuum, and individuals operate in complex environments, having to assess and weigh multiple data on multiple levels at multiple times (Thompson & Dowding, 2002a). Philosophically, clinical guidelines should never aim to cover all aspects and possibilities of the judgement and decision-making process, nor should they ever claim to do so (Schon, 1991). In recent years, decision-support systems, such as clinical guidelines and decision trees described earlier in this chapter, have become electronically automated, particularly in the operational areas of industry, science, aviation, and medical and emergency call centres, as a way of assisting individuals with their judgement practice to ultimately improve the quality of patient outcomes.

**Key features of the philosophical and theoretical positions – Blurred boundaries**

Bell et al. (1988b) held a view that the philosophical and theoretical positions tended to be discrete or separate, and that there was a clear need to open the lines of communication across the frameworks. Further, they held the view that:

. . . the lack of cohesion in the field of decision-making was due in part to the fact that these three branches of endeavour – normative, descriptive and prescriptive – had different disciplinary backgrounds: statistics, mathematics and economics; psychology and behavioural sciences; operations research and management science, respectively. We thought that by bringing together a cross-section of individuals representing the discipline we could begin a process of communication that would allow each discipline to understand the philosophy of the others. (p. X)

The key differences among these three positions—descriptive, normative, and prescriptive—is perhaps best summarised by Bell et al. (1988a):
Descriptive models are evaluated by their empirical validity, that is, the extent to which they correspond to observed choices. The normative models are evaluated by their theoretical adequacy, that is, the degree to which they provide acceptable idealisations and rational choice. Prescriptive models are evaluated by their pragmatic values, by their ability to make or help people to make better decisions. (p. 18)

Around the same time, Freeling (1984) drew similar broad distinctions of the field, and suggested descriptive theory “described how a person acts”, normative theory “described how a perfectly rational, super-being would act”, and prescriptive theory “prescribed how a person should act” (p. 189). Others concurred with these positions (Baron, 1985). Broadly speaking, this reflected much of the thinking among scholars and researchers at the time.

This thesis adopts these contemporary definitions of the respective theoretical positions. Descriptive positions are interested in understanding how individuals actually make judgements and decisions in the real world (Bell et al., 1988b), focusing on the actual conditions and contexts in which they are made (Thompson & Dowding, 2002a). Normative theories give priority to achieving optimal outcomes and to predicting behaviour by positioning individuals as rational and logical (Thompson & Dowding, 2002b). Prescriptive theories set out to improve the judgements and decisions of individuals by investigating how people may make better decisions. The theoretical trichotomy is the foundation from which much of the extensive literature of judgement and decision-making has operated, culminating in its use for judgement and decision-making model generation and testing by countless others (Arkes & Hammond, 1986; Arkes, Hammond, & Connolly, 2000; Baron, 1985, 2008; Bell et al., 1988b; Chapman & Sonnenberg, 2000; Goldstein & Hogarth, 1997b; Thompson & Dowding, 2002a; White & Stancombe, 2003). This, however, has not been without difficulty or controversy. One controversy noted by Bell et al. (1988a) and many others is that demarcations of these theoretical frameworks are not sharp:

In the usual parlance, an abstract system that purports to describe or predict behaviour is called a descriptive model; an abstract system that attempts to capture how ideal people might behave is called the normative model. There is little difficulty in characterizing some models as clearly descriptive or normative. One trouble is that some normatively motivated models are often used, as mentioned above, as first-cut descriptive models. Other clearly normatively motivated models go through successive modifications that try to make them more useful for descriptive and predictive purposes and then it may be difficult to say whether these modifications should be classified as
normative or descriptive. On the other hand, some descriptively motivated models are occasionally modified to come a bit closer to what some analyst believes is a proper norm for wise behavior. And then the model falls into a grey area. Is this then descriptive or is it normative? (p. 17)

Compounding this confusion was that historically some authors used the terms normative and prescriptive interchangeably (Bell et al., 1988a). This reflected the inherent debate and internal tension within the field, and the blurring of boundaries. The blurring of boundaries brings challenges to the application of these theories to the research of clinical judgement and decision-making, and to this thesis.

Critical considerations of the literature for the study

The purpose of this study is to understand how paramedics accomplish clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting, and to determine the factors that influence this aspect of their work in the field. At the centre of this study is how paramedics are expected to undertake this task, how they actually accomplish this in the field, and the relationship of official expectations to actual practice, as reported by paramedics themselves. Given that this thesis is interested in understanding how paramedics accomplish clinical judgement and decision-making of mental illness, adopting a descriptive theoretical framework was most appropriate.

Adopting a descriptive theoretical framework of judgement and decision-making is most appropriate for three reasons. First, as noted, little is known about paramedic clinical judgement and decision-making, and even less of paramedic clinical judgement and decision-making of mental illness. In such situations, adopting a descriptive theoretical framework provides many advantages. Such an approach acknowledges the context in which paramedics routinely practise, which is routinely time-pressured, high-stakes, and unpredictable. Higgs and Jones (1995) suggest health professionals who deal with people, and the messiness of their reality, need to develop the ability to cope with the uniqueness, uncertainty, and conflict inherent in real problems that are often unclear, and to perform competently. Some researchers have argued that the best way to interpret how professionals cope with the uncertainties and contextual challenges of clinical judgement and decision-making is to look beyond science, and to use a descriptive theoretical framework. Harris (1993), for example, argues that professionalism requires
a blend of art, craft, and technology. Indeed, the judgement and decision-making of experts, particularly medical and legal experts such as specialists and judges, are considered an art. Adopting this framework necessitates moving away from classical and normative theoretical frameworks and towards descriptive, naturalistic frameworks. This is because there is much to clinical judgement and decision-making that is tacit, inaccessible, not always conscious, not observable, and laden with uncertainty (Hammond, 1996; Higgs & Jones, 2000b), which is the position from which this study of paramedic clinical judgement and decision-making of mental illness operates. Clinical judgement and decision-making is the sum total of the interaction of complex phenomena, including emotions, knowledge, experience, cognition, and personal schemas within multiple contexts (Hammond, 1996; Higgs & Jones, 2000b; White & Stancombe, 2003). Thus adopting a descriptive theoretical framework that is interpretive and inductive is critical to achieving the goal of understanding how paramedics accomplish clinical judgement and decision-making of mental illness, and the factors that influence this aspect of their work. Therefore, this study adopted a descriptive theoretical framework in its inquiry (Bell et al., 1988a) that enabled the naturalistic and interpretive examination of how paramedics accomplish clinical judgements and decision-making of mental illness, and the factors that influence this aspect of their professional work.

Second, much of the existing relevant research has, broadly speaking, adopted a normative or prescriptive position, and focused on the assessment of the quality and accuracy of paramedic clinical judgement and decision-making and practice, broadly speaking. As discussed earlier in this chapter, little is known about how paramedics accomplish clinical judgement and decision-making of mental illness in the pre-hospital emergency care setting. Accordingly, efforts to test theoretical models are self-limiting. An inductive and descriptive approach is required of this investigation, one that unearths the nature of paramedic clinical judgement and decision-making rather than tests its theoretical adequacy. This approach permits consideration of important factors such as context and interaction, and recognises the individual agency of paramedics in both pre-hospital and hospital settings. Paramedics make clinical judgements and decisions routinely in high-stakes and time pressured situations, often with significant information limitations. Information for their judgement and decision-making may not be routinely available, or may be inaccurate, and its availability inconsistent (Bendall &
Morrison, 2009; Reynolds, 2009). Their judgements and decisions are bounded by multiple contexts. The clinical problems paramedics face, particularly those in emergency health contexts, are rarely if ever clearly defined, stable, or discrete, and are far from rational. Instead, they exist in settings laden with risk and uncertainty. In such situations, clinicians must assess the situation interpretively (Barnett, 1990; Hammond, 1996), and research into these practices should give consideration to the features of the context of clinical judgement and decision-making for them to be of value to clinical practice.

However, normative and prescriptive imperatives also bind the research problem and this thesis. Paramedics’ clinical judgements and decisions should be ethical, of high quality, and safe. Legislation, clinical policies, and guidelines, such as those described in the research problem in Chapter 1, are designed to guide paramedics in how they should make clinical judgements and decisions about mental illness, in an attempt to enable the best decisions to be made, and improve the quality of patient outcomes. Such instruments tend to be primarily normative and prescriptive in nature. While adopting a primarily descriptive position, this thesis will nevertheless examine the utility and influence of such instruments in their judgement practice in the field. Though not specifically setting out to improve paramedic clinical judgement and decision-making of mental illness, the study will extend to consider possible prescriptive consequences. The study does not seek to espouse how paramedics should make ideal or rational decisions about a patient’s mental state. However, in doing so it does not dismiss the contemporary normative or prescriptive imperative. Rather, it argues that adopting a descriptive theoretical framework may inform future normative and prescriptive research.

Third, there is a clear mandate to undertake research to understand how paramedics accomplish clinical judgement and decision-making of mental illness with a view to improve the health outcomes of the mentally ill and the quality and safety of the care they receive (Shaban, 2009a, 2009b). Many assert that research into clinical judgement and decision-making should serve a dual purpose. The study of clinical judgement and decision-making should benefit clinical practice, and clinical practice should aid the study of clinical judgement and decision-making (Thompson & Dowding, 2002b; White & Stancombe, 2003). Chapman and Sonnenberg (2000)
articulate this in their view that theory and research into judgement and decision-making should be viewed as a “two-way street” (p. 7). Moreover, they further argue that:

Decision theory can benefit medical practice because the quality of medical decisions is determined not only by specific clinical information but also by general principles of good decision-making. For example, when making a risky decision, physicians and patients have to balance the severity of a possible bad outcome with its low probability. Or, when considering several differential diagnoses, the physician must use the available data, such as patient history and laboratory results, to update the likelihood of each diagnosis appropriately. Decision theory addresses these issues. Medicine can pose unique challenges that spur advances in both decision analyses and descriptive decision theories. (p. 7)

Thus, research should advance both clinical practice and decision theory, recognising their mutual benefit. The study lends support to de Dombal’s (1993) claim that attempts to improve the quality of clinical judgement and decision-making are hampered by the absence of an understanding of both how they are expected to be made, and how they are actually made in the real world. The relentless pursuit of perfect judgements and decisions for ensuring quality and safety in health care has too often outweighed careful research design and planning for theoretical authenticity, and consequently limited key insights into actual practice. This thesis makes no judgement about, and draws no conclusions on, the quality of paramedic clinical judgement and decision-making of mental illness, in search of the perfect judgement or decision. Instead, it adopts a primarily descriptive theoretical framework within the broader theoretical trichotomy described by Bell et al. (1988a) to examine how paramedics accomplish clinical judgement and decision-making of mental illness, and the factors that are reported to influence this aspect of their work.

This chapter has explored the relevant research and theoretical literature related to this study of paramedic clinical judgement and decision-making of mental illness and presented the case for adopting a descriptive theoretical framework. Chapter 3 documents how an interpretive, naturalistic case study that adopted a descriptive theoretical framework was used to unearth an understanding of how paramedics’ accomplish clinical judgement and decision-making of mental illness and the factors that influenced this aspect of their work. The findings that follow thereafter are significant to the rapidly evolving nature of paramedic practice for meeting the mental health needs in individuals in the community, as revealed next.
CHAPTER 3 - ASKING ABOUT DECISION-MAKING: 
CASE STUDY

The purpose of this study was to examine how paramedics accomplish clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting, and to determine the factors that influence this aspect of their work. To do so, Stake’s (1995) approach to case study was adopted as the method of inquiry. This chapter includes a justification of case study as the approach, discussion about the identification of cases, an overview of the framework of the study, discussion about the role of the researcher in this inquiry, the principles and the procedures used for data gathering and analysis, and the techniques employed to enhance trustworthiness and credibility.

Justifying the approach

The terms case, case study, and case methods are used by a variety of authors (Bromley, 1986; Creswell, 2007; Merriam, 1991; Stake, 1995; Stake, 2000; Travers, 2001; Yin, 2003) who each assign particular meanings and procedures for inquiry. Generally speaking, a case study is “an empirical inquiry that investigates a contemporary phenomenon within its real-life context” (Yin, 1994, p. 13). It is used to probe and analyse particular phenomena that are new, unexamined, or poorly understood. Case study allows researchers to understand the how and why of contemporary events, problems, and situations in ways that do not require control over those events or problems (Yin, 1994). It is an appropriate choice “for those interested in the richness of actual cases, understanding a good story, staying close to naturalistic events, exploring new areas and discovering new phenomena, and applying our understanding to therapeutic ends” (Carroll & Johnson, 1990, p. 44). Moreover, case study can provide a powerful story to illustrate a particular social context or phenomenon (Grbich, 1999). According to Creswell (2007), during case study:
... the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g. observations, interviews, audiovisual material, and documents and reports), and reports a case description and case-based themes. (p. 73)

In interpretive case study, researchers are required to understand the case in context, where information about the case and its context is collected during prolonged engagement. Their aim is to obtain internal consistency and meaningful information about the case and the problem, rather than to compare it with theory (Carroll & Johnson, 1990).

The type of case study that is best suited to a particular research study depends on what the researcher is seeking to understand. Stake (as cited in Creswell, 2007) argues that “case study research is not a methodology but a choice of what is to be studied” (p. 73). Other researchers (Denzin & Lincoln, 2005; Merriam, 1991; Yin, 2008) suggest that it is a strategy of inquiry, a methodology, or a comprehensive research strategy as a methodology. Fundamentally, case study is “both the process of learning about the case and the product of that learning” (Patterson, 2000, p. 60). This thesis adopted Stake’s (1995) approach to case study because it best suited the inquiry. Case study has been used to examine paramedics’ motivations for practice (Raming, 2009). Central to Stake’s (1995) approach and philosophy is that:

We study a case when it itself is of very special interest. We look for the detail of interaction within its contexts. Case study is the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances. (p. XI)

Stake’s approach underscores the importance of context and interaction in coming to understand the particularity and complexity of the case. In this study, the cases were paramedics. Their context was the Queensland pre-hospital emergency care setting, and their interactions occurred in the field as they accomplished clinical judgement and decision-making of mental illness.

Identifying the case or cases

The identification of the case is critical to the nature and type of case study research. According to Stake there are three types of case study, each facilitating a
different type of understanding: intrinsic, instrumental, or collective (Stake, 1995). To begin with, an intrinsic case study is one in which the researcher has an inherent interest in an entity or event. The need to understand it arises out of its distinct yet ordinary features, rather than a need to understand how it relates to other entities or to a problem more broadly. The aim is to learn about the particular case itself (Patterson, 2000; Stake, 1995). In such instances, there may very well be no choice about which case to study, as the case is already determined. In other circumstances, a problem or predicament is of interest for which instrumental case study provides greater insight or understanding. In instrumental case study, the study of a case facilitates the understanding of the problem—what Stake refers to as the issue. The entity, or the case, is of secondary interest to understanding the issue. Whether or not the case is typical of other cases is not of interest. Instead, examining the ordinary case in its everyday context is the focus so as to arrive at an understanding of the issue (Patterson, 2000; Stake, 1995). Stake suggests that, in reality, little distinguishes intrinsic and instrumental case study, as a case study may begin as intrinsic but evolve to become instrumental depending on that which is of interest. When there is a need to look to more than one case to understand an issue, collective case study is appropriate. The similarities and differences of the cases, and the variety and redundancy therein, are of value to both the inquiry and to understanding the issue. For this reason, the choice of cases is purposive because studying them will provide a better understanding of the issue.

For each type of case study, there are single-case or multiple-case applications and there is variation in the unit of analysis, although these are typically individuals, groups, and organisations. Whatever the application or unit of analysis, Stake’s (1995) approach requires that we have a “sincere interest in learning how they function in their ordinary pursuits and milieus and with a willingness to put aside many presumptions while we learn” (p. 1). Emphasis is placed on “particularization of the issue of interest” (p. 8). Stake argues that:

The real business of case study is particularization, not generalization. We take a particular case and come to know it well, not primarily as to know how it is different from others but what it is, what it does. There is emphasis on uniqueness, and that implies knowledge of others that the case is different from, but the first emphasis is on understanding the case itself. (p. 8)

As noted earlier, the cases were paramedics, the context was the Queensland pre-hospital emergency care setting, and the issue was how they accomplished clinical
judgement and decision-making of mental illness and what influenced this aspect of their work. To understand the issue about these cases in this context, a collective instrumental case study according to Stake’s approach was adopted.

The study design and framework

The study adopted a descriptive theoretical framework of judgement and decision-making (Bell et al., 1988a), and used Stakes’ (1995) case study approach for the inquiry. Central to Stakes’ approach to case study is the examination of a case in context so as to arrive at an understanding or “particularization” (p. 8) of an issue. The design of this study is illustrated in Figure 2, and elaborated on next.

Role of the researcher

In case study, it is the researcher who is the instrument for data gathering and analysis, and who undertakes deep and prolonged engagement with the cases in the context. Stake (1995) calls on researchers to consider their role during data gathering and analysis. He emphasises that the role of interpreter is to examine “the nature and quality of activities and processes, portraying them in narrative description and interpretive assertion” (p. 96). In such instances, the researcher is immersed in the context of the research, where it is their responsibility to develop an understanding of the issue by spending “extended time on-site, personally in contact with activities and operations of the case, reflecting, and revising descriptions and meanings of what is going on” (Stake, 2000, p. 442). The subjectivity of the researcher’s experience and interpretations is inherent in the research process. Interpretively, the researcher and the participants are inexorably linked in the study design, the generation of data, and the analysis of findings.

This thesis works from the position that gathering and interpreting insiders’ perspectives will enable a deeper and richer understanding of the world of paramedic clinical judgement and decision-making of mental illness than would be available from adopting an outsider’s stance. As the researcher, I was a competent and experienced paramedic, and a member of the group and culture in this setting. As an experienced paramedic, I possessed and could draw on my detailed understanding and familiarity with the field. This familiarity provided me with a refined understanding of the context that non-paramedic researchers would not possess.
My familiarity with the written and spoken language of paramedics in this context enhanced the insider or emic perspective of the study (Pike, 1967). Without a familiarity of this kind, understanding the field and practices therein is often strained. Misinterpretations may result, requiring further immersion in the field (Baszanger & Dodier, 2004; Brewer, 2000). Although an insider in the setting of this research, I

---

8 Adapted from Stake (2006).
maintained the balance between the emic and etic perspectives. I had no direct supervisory relationship with the participants in this research. This distancing between myself and the participants within the field permitted what Brewer (2000) refers to as critical gaze, which is essential in maintaining balance between the emic (insider) and etic (outsider) perspectives (Pike, 1967). This enabled me to adopt the role of interpreter as described by Stake (1995), where:

... the case researcher recognises and substantiates new meanings. Whoever is a researcher has recognized a problem, a puzzlement, and studies it, hoping to connect it better with known things. Finding new connections, the researcher finds way to make them comprehensible to others. (p. 97)

As the interpreter, I connected to other paramedics’ accounts of how they accomplished clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting, and unearthed the factors that influenced this aspect of their work. In case study, the researcher is recognised as the primary analytic instrument, moving recursively through the data continuously until arriving at theoretical saturation (Lincoln & Guba, 1985). The ultimate aim of the analysis is to provide “particularization of the issue” (Stake, 1995, p. 8).

**Using ‘accounts’**

There are varieties of procedures available to researchers in case study when engaging in the context of the study (Bromley, 1986; Creswell, 2007; Merriam, 1991; Stake, 1995; Stake, 2000; Yin, 2003) all of which place particular emphasis on recursive gathering and analysis of data. Moreover, a feature common to case study methods and procedures is that there is often no discrete moment when data gathering or analysis begins. As Stake (1995) points out:

It begins before there is commitment to do the study: backgrounding, acquaintance with other cases, first impressions. A considerable portion of all data is impressionistic, picked up informally as the researcher first becomes acquainted with the case. Many of these early impressions will be later refined or replaced, but the pool of data includes the earliest observations. (p. 49)

The impressions of the researcher are derived from their use of, and engagement with, multiple types and sources of data (Stake, 1995; Yin, 1994, 2003). The use of multiple types and sources of information along converging lines of inquiry is critical to the
trustworthiness and credibility of the inquiry when compared with a single source of
information. Traditional types of data include documentation, archival records,
terviews, direct observation, participant observation, and physical artefacts. The
choice of data depends on a number of factors such as the phenomena under
investigation, access to information, and the skills of the researcher. It is not critical for
a case study to make use of most or all of the different types of data. Each type of data
has its strengths and weaknesses, and no single type of data has a complete advantage
over another. Ideally, data types should complement one another, or be used
sequentially, to achieve data source triangulation (Denzin & Lincoln, 2005; Stake,
1995).

For this research, multiple data types and sources were used, in the form of
accounts. The use of accounts for research into clinical judgement and decision-making
is drawn from the ethnographic traditions, and is well-documented (White &
Stancombe, 2003). The actions and interactions of individuals associated with clinical
judgement and decision-making, whether intended or not, are a reflection of a construct
or belief through which activity is justified by the individuals (Patel, Arocha, &
Kaufman, 1999). Patel, Arocha, and Kaufman further argue that an individual’s belief is
based on knowledge that is represented symbolically. Individuals present various
justifications for their actions in the accounts they make available of particular events.
These accounts are represented ethnographically and ethnomethodologically in text and
in talk respectively. White and Stancombe (2003) argue that:

Professionals are involved in acts of meaning-making, which are often
collaborative and are bound by available repertoires of interpretation. Meaning-
making is accomplished through language and takes place in particular social
and organizational contexts. In order to get their job done, professionals must
package their opinions for consumption by others. They must be able to justify,
account for and ‘perform’ their judgements. This may be for the patient or
client who has come to their service, or for colleagues, or in some other arena
of accountability or judgement-making, like the courts or a clinical audit. They
must also ‘work up’ a written account of aspects of their thinking for case files,
reports and records. Moreover, patients/clients come to services with their own
stories to tell. So the processes of clinical judgement are intrinsically ‘storied’.
Professionals ‘take the history’, then retell it in a form consistent with their
specialist knowledge. (p. 20)

This thesis examines paramedics’ accounts of clinical judgement and decision-making
of mental illness in the field, represented in text and talk. Following the arguments of
White and Stancombe (2003, p. 1), the study design permitted the examination of what paramedics actually did in the field, what they said they did, and what they documented about the particular aspects of their every-day work. This enabled examination of the phenomenon in ways that acknowledged the complexity of context and interactions in which they and their practice were situated. As the following section will illustrate, multiple data types were used in this research, including in-depth interviews, focus groups, archival records, clinical documents, concept and process maps, reflective journals, and physical artefacts. They were analysed interpretively in search of meaning (Mertens, 1998).

**Phases of data gathering, analysis, and interpretation**

Data gathering and analysis occurred during two iterative and recursive phases that followed two interconnected lines of enquiry, illustrated in Figure 3.

**Figure 3 – Phases of data gathering and analysis**
As noted earlier, in case study research the processes of data gathering and analysis occur concurrently and recursively. As illustrated in Figure 3, the gathering and analysis of data in this study were iterative, concurrent and recursive; however, they are detailed here sequentially for clarity of expression.

Access and permissions – Organisational and research ethics approvals

The Griffith University Human Research Ethics Committee and the QAS Commissioner approved this study. Copies of these approvals are located in Appendix 1 and Appendix 2 respectively. There were no variations to the protocols during the conduct of this research, and no complaints were reported to either authority. No participants withdrew from the research.

Phase 1 – The contexts and expectations of practice

Stake’s (1995) interpretive and naturalistic approach to case study relies on the description and analysis of context, particularly the historical, cultural, educational, and political elements. Stake (2006) asserts that:

Each case to be studied is a complex entity located in its own situation. It has its special contexts or backgrounds. Historical context is almost always of interest, but so are cultural and physical contexts. Others that are often of interest are the social, economic, political, ethical and aesthetic contexts. (p. 12)

Consistent with this approach, Phase 1 involved an analysis of the historical, cultural, educational, political, and practice context in which the cases (the paramedics) and the issue (their clinical judgement and decision-making of mental illness) are situated. In this phase, the analysis focused on the official accounts of paramedic clinical judgement and decision-making. This was fundamental to the study as it permitted a focus on the formal requirements of paramedic practice in the Queensland pre-hospital emergency care setting, and on how they were expected to accomplish clinical judgement and decision-making of mental illness.

Document and policy analysis

The analysis began with a comprehensive search for documents from QAS that were relevant to paramedics and their clinical judgement and decision-making of mental illness. This included the collection of a comprehensive array of contemporary
Chapter 3 – Methodology

documentation such as memoranda, letters, correspondence, policies, procedures, clinical guidelines, pedagogical materials, standards, legislation, and physical artefacts. The corpus also included a large volume of historical documents, such as pedagogical material, policies, and procedures, all of which were collected and analysed. An itemised list is located in Appendix 8. Each document was analysed to characterise the context in which paramedics and their clinical judgement and decision-making of mental illness were situated and the formal expectations of this practice. Document and policy analysis was conducted using the methods described by Freebody (2003) and Silverman (2001). An understanding of the demands and expectations these texts had on paramedics’ clinical judgement and decision-making of mental illness was established. Key features and themes from this analysis were documented. Segments of text that exemplified findings have been included in the thesis, which aid the reader’s “vicarious experience” (Stake, 1995, p. 63) of the context in which paramedics and their clinical judgement and decision-making of mental illness are situated.

**Member checking – In-depth interviews and focus groups**

The key features and themes developed from the document and policy analysis were then used to inform semi-structured interviews and focus groups with key stakeholders from the context as a form of member checking (Stake, 1995). Two levels of member checking were undertaken. First, findings about the expectations of paramedic clinical judgement and decision-making of mental illness were checked with official key stakeholders from the context. These included representatives from the Offices of the Commissioner and Medical Director, and representatives from the Queensland Ambulance Service Education Centre, the Queensland Emergency Medical System Advisory Council, and the Liquor & Hoteliers Miscellaneous Workers Union. Second, member checks were conducted with practising paramedics who were purposively recruited as collective instrumental cases, as described by Stake (1995). The selection of potential cases requires an in-depth knowledge of the setting of the research (Maxwell, 2005), which I possessed as a former member of the Queensland Ambulance Service (QAS). From 1991 to 2004, I held a variety of positions within the QAS. In July 2004, I resigned from the QAS and took up a position external to the organisation, and commenced this study. Thereafter, I had no professional interaction with members of this group outside of this research. To satisfy the requirements of a
collective instrumental case study according to Stake (1995), the inclusion and exclusion criteria described in Figure 4 were applied.

**Figure 4 – Focus group participant inclusion and exclusion criteria**

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hold only QAS ambulance qualifications</td>
<td>• Attempted or completed paramedic education or training in another jurisdiction</td>
</tr>
<tr>
<td>• Qualified practising paramedics</td>
<td>• Attempted or completed education, or practice as a physician, nurse, psychologist, social workers or other human services activity related to mental health</td>
</tr>
<tr>
<td>• Paramedics deemed to be experienced (possessing more than 10 years experience)</td>
<td>• Attempted or completed any extracurricular education or training in mental health</td>
</tr>
<tr>
<td>• Completed the <em>QAS Mental Health Act 2000 In-Service Training Package</em></td>
<td></td>
</tr>
<tr>
<td>• Worked at a station in the south-eastern corner of Queensland</td>
<td></td>
</tr>
</tbody>
</table>

The inclusion and exclusion criteria described in Figure 4 were applied to facilitate the selection of paramedics who were likely to be called out to attend a patient with mental illness. A pool of potential participants who met these criteria was identified from the QAS staff establishment records, and 24 paramedics were contacted by telephone to determine their availability for participation in this study. Of the 24 paramedics contacted, 18 were recruited to Phase 1B of the study, which allowed for participant withdrawal. The potential participants were sent an information sheet and consent form for perusal and completion. In total, seven in-depth individual interviews with key stakeholders, and three focus groups—each with four practising paramedics—were conducted, during which convergent and divergent themes from the findings of Phase 1A were clarified. Each interview was approximately 60 minutes in duration, and was digitally recorded and transcribed in full. The participants and researcher subsequently checked the transcripts for veracity. In addition, the researcher kept field notes and a researcher journal during data collection. Sections of talk from transcripts and extracts from documents and records that exemplified findings have been included in the thesis. The outcomes of Phase 1 of the study are reported in Chapter 4.

**Phase 2 – Paramedics accounts of actual judgement practice**

The purpose of Phase 2 of the study was the “particularization of the issue” (Stake, 1995, p. 8)—to prepare case reports detailing individual paramedics’ accounts of
actual judgement practices with respect to mental illness. The case reports provide a detailed description of the case that incorporate its history, its features, and an account of its usual, everyday events (Creswell, 2007). Following this description, there is an analysis focused on “key issues (or analysis of themes), not for generalizing beyond the case, but for understanding the complexity of the case” (Creswell, 2007, p. 75). Finally, there is critical analysis of the case and its account, in this instance how the paramedics’ accounts of actual practice were related to the formal expectations of practice, as described in Chapter 4.

Paramedics from Phase 1 were contacted by telephone and invited to participate in Phase 2, to be studied as holistic instrumental cases according to Stake (1995). Three paramedics were recruited, and were assigned the pseudonyms of Bill, Mary, and David. The participants were provided with information sheets, and consent was obtained, as illustrated in Appendix 5. For each of the three paramedics, two types of accounts of paramedic judgement practice were gathered and analysed. Historical accounts of paramedic judgement practice were of jobs that the paramedics had attended in the 48 months prior to the commencement of this study. Current accounts of paramedic judgement practice were of jobs that were collected during the 24-month period of formal data collection for this study. For both historical and current accounts, three types of data were collected: (i) copies of ambulance report forms and accompanying records completed for each of their jobs⁹; (ii) concept maps; and (iii) in-depth interviews about those jobs. This combination and variety of data permitted the examination of what paramedics did in the field, what they said they did, and what they wrote about when it came to their judgement practice with respect to mental illness (White & Stancombe, 2003).

Collecting historical accounts

This phase began with an analysis of each case’s account of accomplishing clinical judgement and decision-making of mental illness historically. Initially, a search of the QAS Ambulance Information Management System for all relevant written official clinical job records was performed. Job records over a period of 48 months that related to each paramedic’s clinical judgement and decision-making of mental illness

---

⁹ In this study, the term clinical job is used to describe what paramedics ordinarily describe as a clinical case. Use of the word case is restricted to describing the unit of analysis—the paramedic—in accordance with Stake’s (1995) approach.
were obtained. The records were thematically analysed following the methods described by Silverman (2001) and Travers (2001) where the features and characteristics of each job were described.

Following this, each paramedic was interviewed. At the beginning of the interview, the paramedic was asked to prepare a concept map to elicit their individual constructs and processes of paramedic clinical judgement and decision-making of mental illness. Concept mapping is a research technique that allows individuals to elicit knowledge representation, providing a two-dimensional representation of an individual’s declarative knowledge as it relates to a specific topic (Ruiz-Primo & Shavelson, 1996). Concepts maps provide information that would otherwise be tacit, private, and generally unavailable beyond superficial self-presentation provided by interview or observation (McMeniman, Cumming, Wilson, Stevenson, & Sim, 2000). The technique is an appropriate and useful way of documenting and exploring concepts in specific domains. It has been used widely to examine the cognition and thinking of individuals, particularly expert practitioners in the pursuit of educating novices (Roop, 2002; Rye & Rubba, 1998). Paramedics were provided with basic instructions as to the purpose and technique of concept mapping as described by Novak (1998). They were asked to draw a map that externalised concepts and propositions as representation of their clinical judgement and decision-making of mental illness, and a map that represented the processes used to accomplish this aspect of their work. Once complete, each paramedic was interviewed about their concept and process maps and asked to explain them in detail following the techniques described by Novak (1998) and Novak and Canas (2006).

Drawing on the discussion during the interview about their individual concept and process maps, each paramedic was asked to reflect on their work history and to recount their jobs and experiences. Each paramedic was invited to review the copies of their de-identified job records collected earlier, and semi-structured questions were used to stimulate paramedics’ recall and account about these jobs. The clinical job records, and the themes derived from the content and document analysis thereof, were used as reference points during in-depth, semi-structured interviews with each of the paramedics. The use of semi-structured interview is favoured during stimulated recall to prevent interviewer bias towards the interviewer’s thoughts rather than participant’s thoughts (McMeniman et al., 2000). The participants were asked to discuss their
experiences generally, and were invited to discuss any particular historical clinical job they were able to recall. Open questions and probing, rather than closed questions, were used in an attempt to make explicit the constructs of the participants. A copy of the schedule of questions used in the interview is included in Appendix 21. Questions were used as oral prompts when asking paramedics to recall their experiences of clinical judgement and decision-making of mental illness. In total, historical accounts of 104 clinical jobs were collected comprising 104 ambulance report forms and three in-depth interviews, as illustrated in Figure 5. The length of the interviews with the paramedics varied between 90 and 140 minutes. They were digitally recorded, and transcribed in full. The participants and the researcher checked the veracity of the transcripts.

Collecting current accounts

Following this stage of the research, each paramedic was asked to contact the researcher when they attended a clinical job where they were called on to manage a patient reported to be mentally ill and arrive at a clinical judgement about their mental state. For each of these clinical jobs, participants were asked to photocopy and de-identify their written job record and any other documents related to the clinical job. These job records served as the focal point for an in-depth interview to facilitate recall analysis, following the techniques described by Carroll and Johnson (1990). According to Carroll and Johnson, “recall techniques resemble archaeology—trying to figure out what happened in the past by looking at what remains in the present storehouse of memory” (1990, p. 87). Paramedics were encouraged to talk about three related issues—(i) how they considered they were expected to make and account for their clinical judgement and decision-making of mental illness; (ii) how they actually accomplished their clinical judgement and decision-making of mental illness; and (iii) what they considered influenced their clinical judgement and decision-making practice—in an open and semi-structured interview. During the interviews, the questions listed in Appendix 22 were asked of the participants, more or less following the sequence listed.

The participants were asked to contact the researcher about their clinical jobs as close to the incident as possible to facilitate a timely analysis via in-depth interview and document analysis of the job record. The participant determined when the post-job interview was to occur to suit their personal needs, although the majority of interviews
were conducted directly after the completion of their shift. Participants were advised that if they felt too fatigued to be interviewed at the completion of their shift, the interview could be undertaken as soon as possible thereafter. The paramedics reported notifying the researcher of all relevant jobs. During the interviews, the aim of the research was reinforced to the participant, which was to understand how they accomplished clinical judgement and decision-making of mental illness, and not whether their judgements and decisions were accurate or sufficient. Participants were encouraged to be truthful rather than helpful (Carroll & Johnson, 1990).

The interviews were on average 45 minutes in duration, and again were digitally recorded and transcribed in full. The participant and the researcher checked the veracity of the transcripts. For each of the paramedics’ jobs, a summary sheet was completed that identified the key characteristics of the case. An example of this sheet for one clinical job is included in Appendix 24.

During their interviews, paramedics were also invited to review their concept map of clinical judgement and decision-making of mental illness, and discuss it in view of the current job. They were also invited to comment further on their concept and process maps, and to amend these as appropriate. The three participants made regular contact with the researcher over a period of 24 months. Figure 5 summarises the total numbers of clinical jobs and associated data gathered in Phase 2 of the research.

**Figure 5 – Summary of historical and current accounts of paramedic jobs**

<table>
<thead>
<tr>
<th>Case</th>
<th>Historical</th>
<th>Current</th>
<th>Total Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Second Officer</td>
<td>First Officer</td>
<td>First Officer</td>
</tr>
<tr>
<td>Bill</td>
<td>33</td>
<td>35</td>
<td>21</td>
</tr>
<tr>
<td>David</td>
<td>35</td>
<td>47</td>
<td>18</td>
</tr>
<tr>
<td>Mary</td>
<td>4</td>
<td>22</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>72</td>
<td>104</td>
<td>54</td>
</tr>
</tbody>
</table>

The purpose of Phase 2 was to arrive at a detailed description of each case and the themes that relate to their issue in context.

---

10 The paramedics’ original historical and current job records (ambulance report forms) were traced verbatim under a different hand to anonymise the record and maintain participant anonymity.
Analysis and interpretation of the historical and current accounts

The analysis of the historical job data preceded the analysis of current job data. The analysis for both was performed in three progressive phases—direct interpretation and categorical aggregation; correspondence and pattern; and naturalistic generalisations—to arrive at the “particularization of the issue” (Stake, 1995, p. 8).

During direct interpretation and categorical aggregation, instances of relevance for the case are “pulled apart and put back together again to create meaning via analysis and synthesis in direct interpretation” (Stake, 1995, p. 74). New meanings were formed by “direct interpretation of individual instances and through aggregation of those instances until something can be said about the case” (Stake, 1995, p. 74). During prolonged engagement, specific instances of relevance were collected, where issue-relevant meaning emerged from their aggregation. By continuing this iterative process of establishing meaning from single instances, followed by the emergence of meaning in repetition over time, a holistic understanding of the case and the issue of interest was developed.

Categorical aggregation and direct interpretation of each paramedic’s job records and the transcript of the in-depth interview occurred iteratively and recursively as a “continuing concern” (Robson, 1993, p. 23). Each clinical job was read and re-read, and categories emerged (Guba & Lincoln, 1994; Morse, 1995; Silverman, 2004). Again, data were “fractured” (Strauss, 1987, p. 29) and “rearrange[d] into categories that permit[ted] the development of theoretical concepts” (Carroll & Johnson, 1990, p. 96) about how the paramedic accomplished clinical judgement and decision-making of mental illness. The analysis did not describe the case in totality, nor did it aim to do so. Rather, the analysis made sense of the issue by following each case closely and examining their account deeply over an extended period of time (Stake, 1995).

Inevitably, the search for meaning using direct interpretation and categorical aggregation depends on the search for correspondence and patterns (Stake, 1995). When it comes to the search for patterns, Stake (1995) suggests that:

We can look for patterns immediately while we are reviewing documents, observing, or interviewing—or we can code the records, aggregate frequencies, and find the patterns that way. Or both. Sometimes, we will find significant meaning in a single instance, but usually the important meanings will come from reappearance over and over. Both categorical aggregation and direct interpretation depend greatly on the search for patterns. Often, the patterns will
be known in advance, drawn from the research questions, serving as a template for the analysis. Sometimes, the patterns will emerge unexpectedly from the analysis. (p. 78).

Drawing on this approach by Stake (1995), a search for correspondence or patterns of consistency was undertaken. According to Stake:

Keeping in mind that it is the case we are trying to understand, we analyse episodes or text materials with a sense of correspondence. We are trying to understand behavior, issues, and contexts with regard to our particular case. If we have very little time, we try to find the pattern or the significance through direct interpretation, just asking ourselves ‘What did that mean?’ For more important episodes or passages of text, we must take more time, looking them over again and again, reflecting, triangulating, being sceptical about first impressions and simple meanings. For the evidence most critical to our assertions, we isolate those repetitions and those correspondence tables most pertinent, challenging ourselves as to the adequacy of these data for that assertion. (p. 78)

The analysis culminated in the preparation of a case report for each paramedic. Each report is comprised of three parts—a case description, case-based themes, and critical case comparisons. The case reports begin with a detailed case description that incorporates the case’s history, their features, and an account of their usual, everyday work (Creswell, 2007). Following this are key case-based themes, which are “key issues (or analysis of themes), not for generalizing beyond the case, but for understanding the complexity of the case” (Creswell, 2007, p. 75). These case-based themes are an analysis of the paramedic’s accounts of actual judgement practices in the field. The key case-based themes then underwent a critical comparison that related to the formal expectations of practice as described in Chapter 4. Sections of data that exemplified findings have been included in the each of the reports. These case reports for the three paramedics studied—Bill, David, and Mary—are presented in Chapter 5.

**Phase 3 – The cross-case analysis and assertions**

As noted earlier, Stake (1995) argues that the aim of case study is “particularization, not generalization” (p. 8) given that single cases or even multiple cases are not a strong base for generalising to other populations. Each case report generated insights into a paramedic’s accomplishment of clinical judgement and decision-making of mental illness, as a “particularization of the issue” (Stake, 1995, p. 8). An analysis of the themes across the cases was then performed by way of cross-case
analysis, from which assertions or an interpretation of the meaning of the cases is derived (Creswell, 2007). The analysis gave consideration to both the aspects of practice common across the cases and those particular to an individual case, as the analysis was interested in the cases for “both their uniqueness and commonality” (Stake, 1995, p. 1). The cross-case analysis then provides a categorical aggregation of the emerging themes across all three cases, thus particularising how paramedics accomplish clinical judgement and decision-making of mental illness, and the factors that they reported influenced this aspect of their practice in the field. Ten key findings were identified, as presented in Chapter 6.

**Measures deployed for trustworthiness and credibility**

The design and conduct of research are important to the quality and rigour of the data generated and the conclusions asserted. For interpretive research, particularly case studies, *trustworthiness* and *credibility* are important measures of the rigour of the research (Denzin & Lincoln, 2005; Guba & Lincoln, 1994; Silverman, 2004; Stake, 1995; Yin, 2003). Credibility, or truth-value, depends further on transferability, dependability, and confirmability. Credibility is established when the descriptions and interpretations made by the researcher are recognised by the participants as their own. Dependability is achieved when the reader is clearly able to identify and follow the steps taken by the researcher throughout the research. Confirmability is achieved when credibility, transferability, and dependability are established (Lincoln & Guba, 1985).

Ultimately, the measure of trustworthiness and credibility of case study is the extent to which the researcher and the study have come to understand and particularize the issue and represent the cases in context (Stake, 1995). In this study, various techniques were employed to afford trustworthiness and credibility, including triangulation, prolonged engagements, member checks, and leaving an audit trail.

**Triangulation – Multiple data sources and evidence**

Triangulation of data types and methods of analysis is a frequently used measure to afford trustworthiness and credibility in qualitative research. Triangulation involves the use of multiple complementary methods of data collection and sources of data to allow for greater credibility of the findings and assertions (Denzin & Lincoln, 2005; Guba & Lincoln, 1994; Silverman, 2004; Stake, 1995; Yin, 2003). In addition, Yin
(2003) suggests that the integrated use of multiple sources of data facilitates “that the case is complete” (p. 163), which is a feature of exemplary case studies. This study used a combination of complimentary data collection methods and sources to facilitate convergence and non-convergence of multiple sources of evidence. There was complementarity between sources of data and methods of analysis, where the data generated and findings made by one method were added to, and were crosschecked with, other methods. The advantage of this approach was that the strength of one method compensated for the limitations of another.

**Prolonged engagement and member checks – Field credibility**

Traditionally, case studies place significant demands on researchers (Carroll & Johnson, 1990). These demands include prolonged engagement and investment of time to gain familiarity of the field, to build trust, and to ensure issues of data clarity to prevent misinterpretation and misinformation. As researcher, I have long history with the context of the study—the QAS—that enabled a more comprehensive understanding of the phenomena and cases, which Garfinkel (1967) suggests is important to the study design. This has enabled the development of field credibility, where analyses and findings were checked across multiple sources. This study accomplished field credibility in a number of different ways. The participants were provided with a written summary of the findings from the analysis of their accounts, and opportunities to review and reflect for convergence and non-convergence of the emerging themes. In addition, findings from the analyses were checked with participants throughout the study to confirm the researcher’s interpretations. This recursive checking of findings strengthened the authenticity of the research. Two presentations were made to groups of paramedics from the context at the end of Phase 1, which generated considerable feedback demonstrating convergent findings and themes arising therein. Elements of this research have been published in peer-reviewed journals, presented at international conferences, and formed the basis of formal submission to Australian state governments as listed at in the section entitled ‘publications arising from the thesis’ at the front of this thesis. These measures permitted a testing whether others, both within and outside the contexts, understood the findings of the study.
An audit trail

An audit trail is essential in case study research. It documents in detail the stages and process of the research from beginning to end (Guba & Lincoln, 1994; Stake, 1995; Yin, 2003). This enables others external to the study to follow the research process, which, in turn, strengthens reliability and credibility. This thesis, in particular this chapter, outlines the audit trail of the methodology of inquiry. It provides the reader with dependability in being able to identify and follow the steps taken throughout the study. All steps and decisions made throughout the study were documented. A reflective journal was kept throughout the study where detailed introspections were made. These included expectations, feelings, motivations, and challenges. These were subject to examination and scrutiny during the analysis, and enhanced the credibility of the research, enabling identification of the influence of personal perspectives.

Methodological considerations

It is important to note that this thesis is not in any way a definitive examination of paramedics’ judgement practice with respect to mental illness. There are a variety of methods for examining clinical judgement and decision-making, all of which have strengths and weaknesses. Other methods—such as weighted-additive modelling, process tracing, and controlled task assessments (Carroll & Johnson, 1990)—were considered, but excluded for a number of reasons. Many of these methods have classical theoretical foundations that can disregard or undervalue the importance of context in clinical judgement and decision-making, and many require direct observation. Observing paramedics and their judgement practice management of people with mental illness in the field would have required significant financial, human, and time resources that were beyond the scope of this project. Moreover, there are significant critical ethical and resource considerations associated with researching paramedic management of real patients with mental illness, who are vulnerable in human research. The costs of observing paramedics’ judgement practice in the field were prohibitive, and were deemed outside the resources of this particular research. Such approaches have been conducted in other contexts where the setting is stable and easy to access, such as in the case of medical decision-making in general practice (Freiberg, 2003). However, the nature of paramedic work is such that it was not possible to predict when, or even if, paramedics may be required to attend a patient reported to be mentally ill. Finally, not
undertaking direct observation limited the influence of the Hawthorne Effect, where participants modify their behaviours, actions, and responses in response to being observed (Silverman, 2004). In this study, paramedics undertook their clinical judgement and decision-making of mental illness in the field, away from the researcher and in completely natural circumstances. In this way, the paramedics were not directly influenced by the presence of a researcher in the field, which may have caused the participant to modify their behaviour and actions.

Summary

This chapter has described the design and conduct of the study, a case study of paramedics’ accounts of judgement and decision-making of mental illness using the methods described by Stake (1995). Chapter 4 presents the findings of the first phase of this research. It presents an analysis of the context in which the cases (Queensland paramedics) and the issue (their clinical judgement and decision-making of mental illness) are situated—the Queensland pre-hospital emergency care setting.
CHAPTER 4 - SETTING THE SCENE: THE CONTEXT AND EXPECTATIONS OF PRACTICE

As outlined in the previous chapter, Stake’s (1995) approach to case study emphasises the importance of context when examining an issue about a case, particularly the historical, cultural, educational, and political contexts (Stake, 2006). Consistent with this approach, Chapter 4 presents the findings of phase 1 of the study, an analysis of the context in which the cases—Queensland paramedics—and the issue—their clinical judgement and decision-making of mental illness—are situated, the Queensland pre-hospital emergency care setting. It does so by drawing on policies, documents, legislation, and other artefacts from the field, and in-depth interviews and focus groups with key participants in the study. Analyses of key documents governing paramedic practice in this context—namely the Ambulance Service Act (1991) (Qld), the Mental Health Act 2000 (Qld) and QAS Clinical Practice Manual—and interviews with key stakeholders about the expectations these documents create in the field were undertaken. As this chapter will show, the multiple contexts of paramedic judgement practice created particular demands and expectations on paramedics and their work in the field. When it comes to paramedic judgement practice with respect to mental illness, paramedics are expected to adopt a problem solving approach as protectors and transporters of patients.

Historical, political, cultural and educational dimensions of the context

To understand the historical, cultural, educational, political, and practice contexts of paramedics within Queensland and the QAS, and more specifically how paramedics are expected to accomplish clinical judgement and decision-making of mental illness, it is useful to begin with an analysis of the history and origins of ambulance services and paramedic practice in Queensland, and around the world. The analysis draws on the well-documented history of ambulance services reported elsewhere (Howie-Willis, 2009; Public Sector Management Commission, 1993; QAS Heritage and History Coordination Committee, 2009; Queensland Ambulance Service, 1992b, 2006a), and arrives at new understandings about the formal
contemporary expectations of paramedic clinical judgement and decision-making of mental illness in Queensland.

The origins – Centuries of religious and military tradition for protection and transport

The origins of contemporary ambulance services and pre-hospital emergency medical care in Queensland and around the world date back centuries. They are born from particular religious and military traditions. Philosophically, the origin of the role of the paramedic is widely associated with the work of Good Samaritans (Queensland Emergency Medical System Advisory Council, 2003a). Typically, Good Samaritans are characterised as altruistic individuals who help and care for others, with no thought of reward. They provide care and assistance to others with whom they have no previous relationship, and without any expectation of remuneration (Daniels, 1999). The origins of the Good Samaritan are Biblical, and trace back to the Parable of the Good Samaritan:

A man was going down from Jerusalem to Jericho, when he fell into the hands of robbers. They stripped him of his clothes, beat him and went away, leaving him for dead. A priest happened to be going down the same road, and when he saw the man, he passed by on the other side. So too, a Levite, when he came to the place and saw him, passed by on the other side. But a Samaritan, as he travelled, came where the man was; and when he saw him, he took pity on him. He went to him and bandaged his wounds, pouring on oil and wine. Then he put the man on his donkey, took him to an inn and took care of him. The next day he took two silver coins, and gave them to the innkeeper. ‘Look after him,’ he said, ‘and when I return, I will reimburse you for any extra expenses you may have’. (Queensland Emergency Medical System Advisory Council, 2003a, p. 13)

This parable, originating from Luke 10:25–37 of The Holy Bible (1994), is featured in the Queensland Emergency Medical Systems Strategic Report 2003–2006 (Queensland Emergency Medical System Advisory Council, 2003a), a key policy document establishing governance of ambulance services and paramedic practice in Queensland. This document asserts that the philosophical tenets of Good Samaritanism are fundamental to the contemporary role of paramedics and ambulance services in Queensland and around the world.

The influence of Good Samaritanism on the establishment of ambulance services dates back hundreds of years. The first documented ambulance facility was
established by the Order of the Knights of St John in the 11th century. The facility was based at the Order of the Hospice of St John, and erected adjacent to a church dedicated to St John in Jerusalem. Adopting the philosophy of the Parable of the Good Samaritan, members of the Order provided care and refuge to Christian pilgrims making the long and dangerous journey to the holy city of Jerusalem (The Order of St John, 2007). The Order offered the pilgrims refuge from opponents to their religious faith, who routinely attacked them, inflicting horrific and lethal injuries. Resentment toward the Order grew among their opponents for providing refuge and protection to the travelling pilgrims, resulting in military assault on the Order. The Order engaged their Knights to defend and protect it and those who had sought shelter and refuge. Arabic and Greek physicians gave first aid instructions to the Knights on how to help themselves and their injured comrades, should they sustain injury during the crusades and battles in the field (Queensland Emergency Medical System Advisory Council, 2003a). Over time, the facility developed into a large religious and military order, growing from a small hospice into a large hospital, with increasing numbers of pilgrims seeking refuge (Queensland Emergency Medical System Advisory Council, 2003a; The Order of St John, 2007). Thus, from its earliest beginnings, the underpinning philosophy of the first ambulance facility was based in Good Samaritanism and protection.

Shortly after establishing the Hospice of St John in Jerusalem, the Order took their protective efforts to other pilgrims seeking refuge during their journey to the Holy City from afar. Hospices were established at churches dedicated to St John in neighbouring towns, and eventually in neighbouring countries. For more than 600 years, the Knights of the Order protected and cared for sick and injured pilgrims within dedicated hospices and hospitals attached to churches in many countries. Although the Order was able to protect and treat the sick and injured within the safety of established hospices with modest success, access to the hospices was out of the reach of many pilgrims because of the great distances they travelled. Despite the Knights’ best efforts at administering basic first aid to their injured comrades and pilgrims in the field, the ensuing religious tensions and wars over hundreds of years resulted in considerable morbidity and mortality (The Order of St John, 2007).

Over hundreds of years, the Knights of the Order of St John, and the countless pilgrims they protected, sustained significant injuries during battle. These injuries
were most often fatal. In the 1700s, Napoleon expressed concern about the high rate of mortality in the battlefield. He called on Baron Dominique Jean Larrey, Surgeon of the Imperial Guard, to find a way to save more of his injured soldiers who were dying from their trauma injuries (Fry, 2004). Larrey drew on the practices of the Order of St John, where physicians provided Knights with basic instruction and equipment in first aid. He proposed taking medical care traditionally provided within the safety of hospices and hospitals to the battlefield. He took medical care to the field by introducing the flying ambulance into the French Army (Queensland Emergency Medical System Advisory Council, 2003a). Soldiers were issued with an emergency field-dressing and first-aid instructions on how to treat their own wounds, and the wounds of their colleagues (St John Ambulance Australia, 2007).

The soldiers provided what care they could to their injured comrades. They temporarily ceased fighting to administer first aid to their injured, and then continued in battle, leaving the wounded behind in the field. The wounded soldiers they treated were then retrieved by the flying ambulance, where stretcher-bearers would collect them on canvas or leather stretchers and evacuate them on foot to a nearby field hospital (Queensland Emergency Medical System Advisory Council, 2003a). The role of the stretcher-bearers was to provide protection to the injured soldiers by transporting them to a field hospital for medical care. Stretcher-bearers risked their own lives to retrieve the injured from the battlefield, with many attacked and killed while doing so.

Over time, stretcher-bearers were provided with additional basic first aid skills and equipment, predominately to manage blood loss from traumatic wounds. Though basic, the first aid interventions and transportation they provided were often life saving. There were few stretcher-bearers assigned to each battalion, and they were greatly outnumbered by the sick and wounded. The injured had to wait some time to be retrieved. Although many died in the field waiting for stretcher-bearers, many lives were saved. Larrey and Napoleon considered the strategy a success, and rapidly deployed stretcher-bearers to their armed forces. This formed the basis of the first Army Medical Corps. In the early 1900s, stretcher-bearers accompanied surgeons in the First World War (Moran, 2008). Thus, Napoleon’s Surgeon General Larrey is widely credited for taking medical care from dedicated hospices and hospitals into the battlefield. He spearheaded the role of stretcher-bearers that advanced philosophical
traditions of Good Samaritanism (Queensland Emergency Medical System Advisory Council, 2003a). His initiative gave rise to modern systems of military medical retrieval and pre-hospital emergency care, which carried forward important traditions of protection and transport.

Thus for more than 900 years, the Knights of the Order of St John continued to provide care and protection to the sick and injured in many countries around the world. In the 19th century, the Order of St John became devoted to acts of charity and hospital work. This change saw the establishment of the St John Ambulance, the world’s oldest international ambulance organisation.

Ambulance services in Queensland – Carrying forward history and tradition

The St John Ambulance first established formal ambulance services in Australia in 1883 with the establishment of a centre in Melbourne, as an extension of the British Order of St John. Two years earlier railway men in Sydney and the army medical corps in Melbourne received instruction in St John first aid. By the early 1890s, St John had established a presence in each of the then six colonies of Australia. They provided first aid training to police officers, fire fighters, and army medical officers. St John saw itself as an ancillary medical force for the military services, and maintained close links with the defence forces, carrying forward the traditions of protection and transport associated with Good Samaritanism and stretcher-bearers into Australian ambulance services (Howie-Willis, 2009).

Formal ambulance services were established in Queensland in 1892, but not by St John Ambulance. Mr Seymour Warrian, a local military medic from the Army Medical Corps, and Dr Sandford Jackson, superintendent of the Brisbane General Hospital, witnessed the fall of a horse rider during a race at the Brisbane showgrounds during Show Week of that year. The rider had broken his leg during the fall. Bystanders made his injuries significantly worse. In good faith, they made the injured rider walk off the field on his broken leg. Warrian and Jackson were outraged at the treatment of the rider (Woods, Clark, & FitzGerald, 2000). They considered that although the bystanders were acting honourably as Good Samaritans in coming to the aid of the injured rider, their efforts actually exacerbated his injuries. They argued that the injured rider would have been better served by providing basic first aid in the form of a leg splint and evacuation to hospital by stretcher-bearers in the same way
wounded soldiers were stabilised and evacuated from the battlefields to field hospitals during war (Queensland Emergency Medical System Advisory Council, 2003a).

On 12 September 1892, Warrian and Jackson called a community meeting and proposed establishment of a volunteer stretcher-bearer ambulance service to be the inauguration of Queensland’s first ambulance service—the City Ambulance Transport Brigade (Queensland Emergency Medical System Advisory Council, 2003a). Though not associated with the St John Ambulance, the City Ambulance Transport Brigade exhibited many of the same philosophical characteristics. The City Ambulance Transport Brigade was community-centred and operated under a military model of management. It consisted of volunteers, all men, from the local community who were graduates of St John Ambulance first aid courses, operating out of the Brisbane Newspaper Company (Howie-Willis, 2009). The City Ambulance Transport Brigade was manned day and night, where volunteers on night duty slept on rolls of newspaper on the floor. Carrying forward the tradition of the military stretcher-bearer, volunteers were provided with a canvas stretcher to transport patients on foot to the nearest medical facility. Their role was to transport the sick and injured to medical care to protect them from further injury and harm such as that witnessed by Seymour and Jackson at the Brisbane showgrounds. They were not, however, provided with any in-house training in first aid or medicine (Queensland Ambulance Service, 1992a). Ambulance bearers would retrieve the injured from their homes and in the field on canvas stretchers, and transport them to medical care (Queensland Ambulance Service, 1992a). As volunteers, ambulance bearers carried forward the philosophy of Good Samaritanism by transporting patients for their protection. To do so, they operated in a military model where individuals were assigned rank and seniority and wore uniforms as illustrated in Figure 6.

In 1902, the City Ambulance Transport Brigade merged with the Department of Health and Home Affairs to form the Queensland Ambulance Transport Brigade Hospital. This merger saw branches and sub-branches of the Queensland Ambulance Transport Brigade Hospital established in cities and towns across Queensland (Staib, 1996), with branches established at dedicated hospitals. Sub-branches were established in areas that lacked dedicated hospital facilities.
Although the branches and sub-branches were formally parts of the Department of Health and Home Affairs, there was little consistency in the practices of ambulance bearers from branch to branch, or even between a branch and one of its sub-branches. The hospital medical superintendent determined the scope of practice of ambulance bearers, which was to transport the sick and injured considerable distances to physicians at hospitals in neighbouring towns. Their role was to take patients to physicians for treatment and care. Initially, ambulance bearers transported the sick and injured to hospital on foot and by horse and cart, as illustrated in Figure 7. Patients were also transported over longer distances by rail, as illustrated in Figure 8.
Figure 8 – Charters Towers rail ambulance in 1927

![Charters Towers rail ambulance in 1927](QAS Heritage and History Coordination Committee, 2009)

Although brigades were organisation units of public hospitals within the Department of Health and Home Affairs, they were funded entirely by donations and fund raising from members of the community. This fundraising enabled the purchase of buildings and equipment, and most importantly, motor vehicles in the late 1940s that enabled motorised patient transport, as illustrated in Figure 9.

Figure 9 – Queensland Ambulance Transport Brigade Hospital Brisbane 1950s

![Queensland Ambulance Transport Brigade Hospital Brisbane 1950s](QAS Heritage and History Coordination Committee, 2009)
Thus, the establishment of ambulance services in Queensland was community driven, a product of the efforts of community members whose benevolent intention emulated the philosophy of Good Samaritanism. Though humble, the establishment of ambulance services in Queensland attracted international acclaim. During his visit to Brisbane, Alexander Graham Bell, inventor of the telephone, was noted to say that “your ambulance brigades are ahead of anything I know of and [is] worthy of being emulated in America” (Queensland Parliamentary Commission (1990) as cited in Woods et al., 2000, p. 6).

The early success and popularity of the Queensland Ambulance Transport Brigade Hospital (QATBH) led to it taking over St John Ambulance Queensland Centre in 1916. For more than 40 years, the QATBH was the representative of the Order of St John, and the two organisations co-existed; however, growing division and acrimony between key representatives of both parties led to their split in 1960. From that point on, the QATBH enjoyed a monopoly on the provision of formal ambulance services in Queensland made possible by legislation prohibiting the operation of any other ambulance service. St John Ambulance continued to offer first aid training services in Queensland (Howie-Willis, 2009).

Later in the 1960s, the introduction of the Ambulance Service Act 1967 (Qld) provided the QATBH with additional independence and governance of its brigades as separate entities. Up until then, it existed under the Hospitals’ Act 1944 (Qld). The number of brigades grew with the growth of communities and townships across Queensland, established by members of the local community to serve their medical transport needs. Community fundraising, donations, and volunteer contributions financially supported them. Fundraising by some of the more successful brigades enabled the local committee to pay ambulance bearers, who until then had volunteered their time. This saw the establishment of formal ambulance stations. Stations replaced brigades in the cities and larger towns across Queensland where community fundraising was successful, allowing the appointment of paid superintendents and officers-in-charge to manage ambulance stations. The QATBH operated without central strategic direction or governance for almost a century, and stations and brigades functioned autonomously. Over time, ambulance bearers in some stations acquired additional training and skills in basic first aid. What training was to be provided was determined by the local hospital medical superintendent, and
there was little or no standardisation of training across the stations. In fact, up until the 1960s, the only requirement for employment with the ambulance station, as a paid or volunteer ambulance bearer, was having a current driver’s licence, being male, and being over the age of 21 (McDonell, Burgess, & Williams, 2009). Individuals who had received services from the ambulance bearers following an accident or injury often volunteered their services back to the brigade in return. These individuals were often labourers or “blue collar” workers from the trades.

It was not until the 1970s that local physicians and hospital medical superintendents saw the need for a standardised ambulance practice and first aid education. To further this aim, in 1985 the Queensland Government established the Queensland Ambulance Service Board to oversee the operation of 96 separate ambulance brigades, forming the Queensland Ambulance Transport Brigade (QATB). The Board assigned the management of each brigade to a local ambulance committee, which heralded the beginning of major reform for ambulance services in Queensland.

**Queensland’s recent history – Major systematic reforms and rapid role expansion**

Establishment of the Queensland Ambulance Service Board in 1985 was the first attempt at creating a centralised statewide service. It permitted each brigade and their stations to enjoy strong support from local communities and organisations that were critical to their success, largely because of the funding provided. Formal membership of the ambulance service was instituted via voluntary subscription to a local brigade, which entitled individuals to free transport and first aid in station-based casualty rooms. Brigades who had strong community support flourished.

There were, however, many limitations in this way of operating ambulance services across Queensland. Brigades operated without recurrent government funding and relied on community donations and fundraising. Many brigades, particularly in newly formed towns, lacked the necessary community support and sources of funding. As such, many brigades were chronically underfunded and not financially viable (Queensland Ambulance Service, 1992a). If ambulance services were to continue in many of the vulnerable towns, major organisational reform by way of centralisation was needed. In addition, there was a need to improve the standard of care provided by ambulance bearers and to extend their scope of practice. In order for this to occur, there was a need to improve the standard of education and training.
provided to ambulance bearers. As one participant in a study by Woods, Clark, and FitzGerald (2000) that examined the organisational reform of the Queensland Ambulance Service described:

The move to a single, statewide service was driven by a number of factors—international trends, changing public expectations and the recognition of the need for more vocational training. The international pre-hospital environment of the late 1980s was dominated by increasing standards and improved technologies. With community expectations of patient care rising and an increasing focus on training, there was an ever-pressing need to move beyond the ‘stretcher-bearer mentality’ toward that of a highly skilled, professional workforce. Prior to the creation of QAS, the clinical-skill requirements to be an ambulance Superintendent were three certificates: First Aid, Home Nursing, and Hygiene. (p. 7)

This extract highlights the strong historical influences of the origins of ambulance officers as stretcher-bearers, the influence of changing community expectation, and the birth of professionalism in Queensland’s ambulance service. In particular, the lack of education and its impact on ambulance practice in the field were noted to be significant. As one participant in this research, an on-road paramedic with more than 30 years of experience, suggested:

In the days of the bearers, which is not that long ago, we had very little in the way of training. Even baseline first aid training was extremely primitive.

A key contributing factor in the lack of standardised education and training within ambulance services in Queensland was the lack of funding. The serious lack of funding within many of the 96 ambulance committees triggered a state government review of ambulance services in Queensland. The 1990 Public Sector Management Commission and 1993 Parliamentary Select Committee of Inquiry into Ambulance Services instituted sweeping reforms into ambulance services in Queensland. Among them was centralisation. Introduction of the Ambulance Service Act 1967 (Qld) provided for statewide governance of all 96 committees, known as the QAS Board (Queensland Ambulance Service, 1992a). Centralisation of ambulance services in Queensland was achieved on 1 July 1991 with the introduction of the Ambulance Services Act 1991 (Qld). Under this arrangement, all existing 96 QATBs were amalgamated into one organisation, the QAS (Queensland Ambulance Service,
The formation of a single service in 1991 heralded a new era for ambulance services in Queensland, and was a defining moment for the evolution of the QAS. Under the leadership of Commissioner Gerry FitzGerald, the QAS underwent major organisational reform. A hallmark of the formation of the QAS was the introduction of the first standardised statewide qualification for all ambulance officers—the Associate Diploma of Applied Science (Ambulance). The Associate Diploma of Applied Science (Ambulance) was a vocational qualification offered jointly by the QAS and Southbank Institute of TAFE. In 1996, the Associate Diploma of Applied Science (Ambulance) was replaced by the national Diploma of Health Science (Pre-hospital Care), also offered by QAS and Southbank Institute of TAFE. The title of ambulance officer was replaced by paramedic, which was coupled with a significant increase in the required clinical skills and training. Since 2001, the Diploma has been replaced by another national qualification, the Diploma of Paramedical Science (Ambulance), offered solely by QAS as an accredited vocational education and training provider. During this time, ambulance education in Queensland also saw the introduction of the first Bachelor degree qualification in ambulance care. In 2005, Queensland University of Technology offered the first pre-service degree in paramedic practice. Today, the QAS is the fourth largest statewide ambulance in the world, and an international leader in the provision of pre-hospital emergency care (Department of Community Safety, 2010; Parliament of Queensland, 1991).

**Ambulance services today – The Queensland Ambulance Service**

Ambulance services in Queensland are delivered by the QAS, a division of the Queensland Government Department of Community Safety. The goal of the QAS is to “minimise loss of life, reduce pain and suffering and promote optimal recovery of patients who require pre-hospital care, emergency medical response, or specialised transportation” (Queensland Ambulance Service, 2006b, p. 4). Up until 2009, the QAS was one component of an integrated and coordinated pre-hospital emergency care system known as the Queensland Emergency Medical System (QEMS), which was established in 1997 to integrate statewide emergency medical services for the acutely ill and injured. It aimed to provide “an integrated and coordinated system for
the optimal care of the acutely ill and injured via a seamless model of emergency medical services that is efficient, effective and safe” (Queensland Emergency Medical System Advisory Council, 2003a, p. 3). A statutory advisory committee governed the authority, and provided strategic advice on the delivery of emergency medical services to Ministers and Directors-General of Queensland Health and the Department of Emergency Services. The QEMS facilitated delivery of quality emergency medical services by facilitating collaboration across three key areas: (i) the community; (ii) pre-hospital patient care; and (iii) definitive medical care across both private and public sectors (Queensland Emergency Medical System Advisory Council, 2003a). In 2009, the Queensland Government formally disbanded QEMS and realigned the functions of the Department of Community Safety as part of a whole-of-government departmental review (Department of the Premier and Cabinet, 2009). Functional elements of QEMS remain, although their future is currently under review.

Ambulance services in Australia operate largely in a closed market and by the authority of their state or territory government. Legislation effectively provides for a monopoly of professional ambulance services in each state and territory. In all other states and territories except Western Australia and the Northern Territory, a department of the state or territory government provides professional ambulance services. In Western Australia and the Northern Territory, St John Ambulance provides professional services under commercial tender from the state or territory government. St John Ambulance has a presence in all states and territories in Australia, but their operation outside of Western Australia and the Northern Territory is restricted to first aid training and volunteer first aid services. In other countries, such as the United States, ambulance services are typically referred to as emergency medical services and they operate in an open market economy. In the United States, it is common to find private professional EMS ambulance services operating competitively in the market place within each of the states. However, recent changes to national competition policy have enabled amendments to ambulance legislation permitting competition. Some Australian states, such as Victoria, have introduced open market competition into ambulance service delivery, although this has been limited to the provision of non-urgent patient transport services.

In Queensland, the QAS provides professional ambulance services. Queensland is a large geographical jurisdiction. As Australia’s second largest state after Western
Australia, it spans more than 1,727,000 square kilometres. By international comparison, Queensland is more than four and half times the size of Japan, approximately six and half times the size of New Zealand, and more than seven times the size of the United Kingdom (Tourist Australia, 2009). It has a population of more than 4,500,000 (Office of Economic and Statistical Research, 2011). As described earlier, the QAS is the fourth largest statewide ambulance in the world and an international leader in the provision of pre-hospital emergency care (Department of Community Safety, 2010). The goal of the QAS is to minimise loss of life, reduce pain and suffering, and promote optimal recovery of patients who require pre-hospital care, emergency medical response, or specialised transportation (Department of Community Safety, 2010). During the 2009-2010 financial year, more than 740,000 occasions of pre-hospital emergency health care were provided by the 3,759 full-time and 350 honorary officers from more than 291 ambulance response locations across Queensland. These are organised into seven regions illustrated in Figure 10.

**Figure 10 – Regions of the Queensland Ambulance Service**

As mentioned, the provision of ambulance services in Queensland is governed by the *Ambulance Services Act 1991* (Qld). The Act empowers the Commissioner of
the QAS to improve the health and well-being of the community through the delivery of high-quality ambulance services. The legislated functions of the QAS as they appear in Part 5 Section 3D of the *Ambulance Service Act 1991* (Qld) are:

The functions of the service are—

(a) to provide, operate and maintain ambulance services; and

(b) **for ambulance services provided during rescue and other related activities—to protect persons from injury or death, whether or not the persons are sick or injured; and**

(c) **to provide transport for persons requiring attention at medical or health care facilities;**¹¹ and

(d) to participate with other emergency services in counter disaster planning; and

(e) to coordinate all volunteer first aid groups for major emergencies or disasters; and

(f) to adopt and put into effect all necessary measures (including systems of planning, management and quality control) to best ensure the efficient and economic operation and use of its resources in providing ambulance services; and

(g) to provide casualty room services; and

(h) to provide community and workplace education in first aid, cardiopulmonary resuscitation and other related matters; and

(j) to identify and market products and services incidental to its other functions; and

(k) to perform other functions given to the service under this Act or another Act; and

(l) to perform functions incidental to its other functions. (p. 29)

Sections 3D(b) and (c) of the Act make explicit the function of the ambulance service as providing protection of individuals from injury or death—whether sick and injured or not—and the transport of individuals who require medical or health attention. What is also notable about these sections is the emphasis on these aspects rather than on the provision of health care, as discussed next.

**The role of paramedics – Protectors and transporters**

To improve the health and well-being of the community through the delivery of high-quality ambulance services, the *Ambulance Services Act 1991* (Qld) provides for a Commissioner of the QAS with the authority to delegate powers to authorised officers to carry out the functions of the Act. In Queensland, authorised officers are

¹¹ Bold emphasis added.
paramedics. The powers of paramedics, as authorised officers, are defined in Section 38 of the *Ambulance Service Act 1991* (Qld):

**Section 38—Powers of authorised officers**

(1) An authorised officer, in providing ambulance services, may take any reasonable measures—

(a) to protect persons from any danger or potential danger associated with an emergency situation; and

(b) to protect persons trapped in a vehicle, receptacle, vessel or otherwise endangered; and

(c) to protect themselves or other officers or persons from danger, potential danger or assault from other persons.

(2) Without limiting the measures that may be taken for a purpose specified in subsection (1), an authorised officer may, for that purpose—

(a) enter any premises, vehicle or vessel; and

(b) open any receptacle, using such force as is reasonably necessary; and

(c) bring any apparatus or equipment onto premises; and

(d) remove from or otherwise deal with, any article or material in the area; and

(e) destroy (wholly or partially) or damage any premises, vehicle, vessel or receptacle; and

(f) cause the gas or electricity supply or motor or any other source of energy to any premises, vehicle, vessel or receptacle to be shut off or disconnected; and

(g) request any person to take all reasonable measures to assist the authorised officer; and

(h) administer such basic life support and advanced life support procedures as are consistent with the training and qualifications of the authorised officer.

(3) Without limiting the measures that may be taken for a purpose specified in subsection (1)(c), an authorised officer may, for that purpose, require any person not to enter into or remain within a specified area around the site of the danger to a patient. (p. 31)

Section 38 establishes the powers of paramedics and their role. Legislatively, paramedics are expected to protect individuals from danger or potential danger, as illustrated in the above extract. It places an obligation on paramedics to protect persons, including themselves, from any danger or potential danger associated with an emergency. This feature can be traced back to the historical origins of ambulance services. The following extract from an historical document dating back to 1976 makes this clear:

Whilst ambulance men must guard against foolhardy acts, (they cannot help their patient if they themselves become patients) they must show personal
courage when this is needed to rescue patients, or to treat patients in dangerous situations. (Queensland Ambulance Transport Brigade State Council, 1976, p. 37)

Thus historically, the role of paramedics has been to protect patients. To enable them to do so, the Act provides paramedics with broad and far reaching powers, as outlined earlier in Section 38(2). Under these provisions, paramedics may take a variety of actions to protect individuals from real or potential harm or injury, which may include, but is not limited to, basic and advanced life support procedures. Provisions of powers to this extent are seen as fundamentally necessary if paramedics are to be able to fulfill their role and their obligations under section 38(1). As one paramedic described during a focus group:

_The Act lets us do almost anything, anything that is reasonable anyway, and God knows we need it. We are called to all sorts of dramas where lives are at stake, and we gotta act quickly if we are going to save them. We don’t have time to ask permission or to ask nicely, we gotta get on with it._

As outlined earlier, paramedics, like other emergency health workers, are expected to attend to incidents that carry significant real and potential threats to safety and wellbeing. They routinely work in high stakes, time critical, uncertain, and dynamic environments with ill-defined, shifting, and competing goals. Their acts are considered heroic (Reynolds, 2009). The demands placed on paramedics to render life-saving care to the sick and injured are considerable. Another paramedic participant suggested that:

_We run around at all hours of the day and night saving lives in people’s homes, on the streets, in ditches and gutters, and the world goes on. We never know what is going to happen, and when, but when shit hits the fan, it’s on. We gotta get on with it._

The preceding excerpts of talk illustrate the extent to which paramedics are aware of their mandate to protect individuals. They demonstrate the continuing influence of the historical and philosophical traditions of protection and transport, where paramedics are expected to display acts of heroism. The overwhelming mandate for a paramedic is to protect patients from danger or potential danger and to transport them to definitive medical care. In order to carry out such acts, Good Samaritans needed
protection, which was afforded to them by way of legislative indemnity, as discussed next.

**Protecting the protectors – Indemnity**

As mentioned earlier, Good Samaritans cared for others in distress and provided protection with no thought of reward. There existed no antecedent relationship for an individual—a Good Samaritan—to protect and care for another, and there was no expectation of remuneration or compensation (Daniels, 1999). Historically, Good Samaritans were ordinary, everyday people without training or skills in emergency or healthcare who provided refuge and care in the event of an emergency. They are willing to provide assistance in whatever way they could. In contemporary times, one participant in the study, a representative from the Office of the Medical Director, outlined:

> Good Samaritans act in extraordinary circumstances when little or no other help is available, following a principle of some intervention is better than no intervention. Doing something is better than doing nothing.

Although the acts Good Samaritans perform are considered necessary, the fear of being held personally responsible for an injured party and their outcome has been a significant barrier to individuals undertaking such acts (Daniels, 1999). If Good Samaritans were going to perform heroic acts in emergency situations, they needed to overcome any hesitation to act out arising from a fear of being held personally accountable for the individual’s outcome. This fear of litigation prompted governments around the world to introduce laws that shielded Good Samaritans from claims of negligence or a breach of tort. Typically speaking, Good Samaritan laws protect individuals who undertake Good Samaritan acts by providing them with a defence to negligence for acts performed in an emergency to save life (Daniels, 1999). The defence is, however, not absolute. The acts must be deemed necessarily life saving, and the actions must be consistent with what a reasonable person might do. Importantly, such laws do not apply to medical or health professionals (Forrester & Griffiths, 2009). Such laws exist in one form or another in many jurisdictions. In some countries, such as the United States and Canada, specific laws exist to provide protections to individuals who come to the aid of others who are injured or ill in an emergency with indemnity to certain liability. There is no legislative requirement for
bystanders to render assistance in an emergency in any Australian state or territory, the exception being the Northern Territory. In other Australian jurisdictions, the legal principle is established in common law. In Australia, there is no Doctrine of The Good Samaritan, but individuals are provided statutory indemnity by civil liability legislation and protected by precedent established in common law (Forrester & Griffiths, 2009).

In the practice context of this study, the Ambulance Service Act 1991 (Qld) provides paramedics with protection from certain liability for actions that are connected with their employment and prescribed role. Section 39 of the Act provides authorised officers of the QAS with certain indemnity, as the following extract illustrates:

**Section 39—Protection from certain liability**

1. The State is to indemnify every service officer against all actions, proceedings and claims in relation to—
   (a) Acts done, or omitted to be done, by the officer under section 38; or
   (b) Acts done, or omitted to be done, by the officer in good faith for the purposes of section 38.

2. For the purposes of subsection (1), a service officer includes a person required under section 38(2) (g) to assist an authorised officer. (p. 32)

Thus, the Act effectively indemnifies paramedics for the actions that they undertake in carrying out their duties as so authorised in policy and procedure, and those done in good faith. As one participant, a representative from the Office of the QAS Medical Director, commented during an in-depth interview:

*Like other emergency service workers, the Act provides paramedics with considerable protection from litigation when it comes to providing care to individuals in emergency situations. This is essential if we are able to rescue anyone.*

This feature is significant in terms of the problem that directed this study. As mentioned in Chapter 1, the complaint from the industrial organisation representing paramedics, the LHMU, to the QAS Commissioner was that its members were at significant risk of litigation from their actions relating to the assessment and care of persons with mental illness. The LHMU reported its members were concerned about being subject to litigation, which they directly attributed to insufficient education and training. This view appears to be at odds with provisions of section 39(1) of the
Ambulance Service Act 1991 (Qld), which clearly affords paramedics indemnity for their actions when managing patients in the emergency care setting. This would include all patients, including those deemed to be experiencing a mental illness. On the one hand, paramedics are provided with indemnity for their actions in the performance of their duties; but, on the other, paramedics and their industrial representative reported concern with a lack of protection. In this study, it emerged that this concern was related primarily to a view held by paramedics that the indemnity provided by the Ambulance Service Act 1991 (Qld) had not yet been tested in a court of law. As one paramedic in a focus group commented:

*I don’t care what the Act says, it’s not been tested yet, and I for one don’t wanna be the bunny in the hot seat.*

Thus, a key feature to emerge from this examination of the expectations of paramedics and their management of the mentally ill is their fear of retribution and personal harm. As the above extract indicates, there was a clear perception among the participants that the legislation that would reportedly indemnify them was untested. Moreover, the paramedics in the study were particularly averse to testing it personally. An antecedent to this is the absence of professional regulation.

**Paramedics as para-health professionals – The absence of self-regulation**

Paramedics have a significant role to play in the provision of emergency pre-hospital care. Yet in Queensland, and in most jurisdictions around the world, they lack professional self-regulation and consequently are not recognised as formal health professionals. Unlike physicians, nurses, psychologists and other recognised health professionals who are regulated by profession-based statutory authorities, paramedics and their practice in each Australian state and territory are regulated by their employing organisation. As a representative from the Office of the Medical Director stated:

*Paramedics are not regulated in the same way as nurses, doctors or psychologists. They come from a trade background—a bit like a blue collar medico. They are regulated only by their employing institution, which has many consequences. It means, among other things, that employing organisations are responsible for the training of staff. If a doctor wants to specialise in orthopaedics it’s up to him or her to complete the training.*
Paramedics are paid to learn and train and their skills are remunerated. The more skills you have the higher your pay. It’s a world away from medicine. This is changing with pre-employment training, but we are still a world away.

In this excerpt, the participant can be heard making a comparison of paramedics with health professions that are self-regulated, where individual ownership of education, training and professional development is a key demarcating feature. This segment illustrates how the work of paramedics lacks professional regulation and identification as a profession. This characteristic of paramedic practice was related to the terminology used to describe officers with respect to professionalism. Howrie-Willis (2009) suggests that:

> The emergence of the profession may consequently be traced terminologically in the semantic shifts from ‘ambulance driver’ in the 1950–60s, to ‘ambulance officer’ during the 1970–80s, and then to ‘paramedics in the 1990s and ‘ambulance professionals’ in the 2000s. (p. 22)

The peak association representing paramedics across Australia (Paramedics Australasia) defines paramedics as ambulance professionals, although legislation in Queensland and in other states and territories refers to them as ambulance officers. The phrase term *ambulance* is a legislatively protected title, and its use is restricted to certain organisations and entities. Existing literature (Reynolds, 2009) has described paramedics are paraprofessionals. That is to say, they work with medical professionals who sanction their practice. The reasons for this are complex and are associated with the volunteer and unpaid nature of paramedic work, where, traditionally, their primary role was transport. As another paramedic pointed out during a focus group:

> We were treated terribly by medical and nursing staff. As bearers and drivers they treated us like cleaning staff, wards men or taxi services. I guess we were to them – shiny cars, ironed uniforms and no idea what was going on with the patient. Most of the time our paperwork was thrown away.

Here the paramedic substantiates how the lack of professional regulation manifests itself in their everyday practice. There are strong characterisations of the work of paramedics as being unskilled and unprofessional, at least historically. As one senior station officer explained:
Dating back several decades, and I think for probably in the late seventies ambulance officers were, and prior to that, were [sic] little more than first aid stretcher-bearer type of people. They, in that time, started to see themselves as needing to increase their level of training and many ambulance officers looked to the allied professionals, nursing for example, to go in to get a little bit more understanding of health practice. Ostensibly, the ambulance service or various committees at that time had very, very little in the way of training. Even baseline first aid training, from my understanding, was extremely primitive. While ambulance officers had a reputation of being able to certainly put bandages on, or bandage very nicely, I heard extraordinary stories of people calling into the station to have to show the superintendent that the “V” on the spike are lined up when the patient’s pupils was [sic] dilating when they were having respiratory distress. So, there was a complete lack of understanding of broader emergency medical principles and that translation of the practice. Basically, just scoop people up off the road – scrape off the road, throw them onto canvas stretchers and then just rush them off to hospital. It was a lot like load and go.

Another participant, a senior ambulance manager, commented that:

We called ourselves, and were called, good first aiders up until, well into the seventies, perhaps for many people well into the eighties. You know we have horror stories of people saying if a patient needs more oxygen you would wind down the window and drive faster.

These talk segments highlight the limited standard of education provided to the then ambulance bearers and reflect the historical influence of the tradition of stretcher-bearers.

This characteristic of paramedic practice has important material consequences in the contemporary context, in that paramedics are not regulated health professionals. In 2008, the Council of Australian Governments reinforced this when it established an intergovernmental agreement about the health workforce regulation. The aim of this arrangement was to improve health workforce portability across the Australian states and territories while also providing for improved national governance of health professional regulation (Council of Australian Governments, 2008). The new system established a single national registration and accreditation system for 10 health professions: chiropractors; dentists (including dental hygienists, dental prosthetists, and dental therapists); medical practitioners; nurses and midwives; optometrists; osteopaths; pharmacists; physiotherapists; podiatrists, and psychologists. On 18 March 2011, the Australian Health Ministers’ Advisory Council announced that four
partially regulated health professions, namely Chinese Medicine practitioners, Medical Radiation Practitioners, Occupational Therapists, and Aboriginal and Torres Strait Islander health practitioners, will join the National Registration and Accreditation Scheme in June 2012 (Australian Health Ministers' Advisory Council, 2011). Paramedics are excluded from the National Registration and Accreditation Scheme because they are an unregulated profession. In some countries, such as South Africa, independent self-regulatory professional boards regulate paramedics and their practice. In Queensland, and the rest of Australia, they are government regulated, as mentioned earlier. This is significant as it has implications for the practice of paramedics in the wider health arena, particularly with respect to paramedic management of patients with mental illness, as addressed later.

Other contextual features reinforce the view that paramedics are emergency service workers rather than health professionals. The separation of the QAS from the State department of health in 1991 further reinforced the expectation of the role of paramedics as protectors and transporters rather than health professionals. Between 1991 and 2009, the QAS was a division of the Department of Emergency Services, and then became a division of Department of Community Safety. These departments are distinct from the State Department of Health. Moreover, the definition of health professional within the Mental Health Act 2000 (Qld)—the principal legislation governing the involuntary care and treatment of the mentally ill in Queensland—does not include paramedics. The lack of professional self-regulation of paramedics in Queensland occurs in a regulatory context where expectations of practice are asserted via a combination of legislation, policy, guidelines, and procedures as discussed next.

The regulatory dimension of the context and expectations of practice

As described earlier, paramedic practice in Queensland is determined by the QAS Commissioner and QAS Medical Director in accordance with the provisions of the Ambulance Service Act 1991 (Qld). The provisions outlined in the QAS Clinical Practice Manual, the main official text governing the delivery of pre-hospital emergency care, determines the standard of paramedic practice. Paramedics of all ranks and clinical classifications are expected to adhere to a common set of functions and duties, which are detailed in formal position descriptions. The following excerpt from an official position description for a QAS paramedic outlines their core
functions and duties. According to their position description, paramedics in Queensland:

1. Provide a high standard of pre-hospital emergency patient care and the provision of ambulance transport services for members of the community;
2. Comply with the Queensland Ambulance Service Act 1991, all Queensland Ambulance Service policies and procedures and the relevant Industrial Award and agreements;
3. Undertake and accept responsibility for the self-maintenance of patient care skills (theoretical and practical) for the provision of a high standard of pre-hospital patient care in accordance with QAS policies and procedures;
4. Have an appreciation of the needs of various client groups including but not limited to the aged, people from diverse cultural backgrounds, or with disabilities;
5. Maintain all Ambulance vehicles and equipment in a state of operational readiness and ensure that QAS premises are kept clean at all times;
6. Provide information and education on Ambulance related matters to members of the public and other training services as deemed necessary by the Commissioner, QAS;
7. Contribute to a safe and healthy working environment through an understanding of contemporary human resource management policies and practices and available staff support services such as “Priority One” Telephone Counselling Service and other departmental resources;
8. Provide supervision and guidance to Paramedic Student Officers in the provision of patient care. (Queensland Ambulance Service, 2010b, p. 2)

This excerpt demonstrates a number of key features. Point 1 indicates the expectation that paramedics will provide emergency patient care and transport services, reinforcing the expectation that paramedics will transport patients. It also reinforces compliance with the legislative requirements of the Ambulance Service Act (1991) (Qld) and the QAS policies and procedures. Thus, in terms of their core duties, paramedics are expected to protect and transport patients. The ways in which paramedics provide care and transport depend on their position, rank, and authority, which is four-fold.

**Positioning paramedics – Matters of rank**

First, all paramedics in Queensland are assigned a rank that reflects strong military and paramilitary traditions. Officers of the QAS hold commissioned or non-commissioned rank. Commissioned ranks are those at Station Officer Grade 1 and above. All others are non-commissioned, which comprise the vast majority of the
QAS workforce. Officers wear epaulettes on their uniform that identify their rank. Figure 11 illustrates the current epaulettes of rank of QAS.

Figure 11 – Rank Insignia of the QAS

(Queensland Ambulance Service, 2009b)

Rank in the QAS is critical to the function of the QAS and provision of emergency services. As one participant described:

*We need to have formal reporting structures in order to get stuff done. While we don’t follow the full tradition of army by saluting and all that business, we follow the code of rank. This is particularly important in multi-casualty situations. We need to have someone in charge, otherwise it becomes a mess. Someone has to be in charge.*

This participant’s talk of needing to have “someone in charge” reveals the importance of the system of rank and authority for directing or managing action and decision-making in the field, which was reflected in documents from the field. The emphasis given to seniority and rank was clear in multiple historical and contemporary documents from the field.
One historical document dating back to 1976 frames the authority of the paramedics in terms of ‘obedience’:

(b) Obedience:
An employee shall obey promptly all instructions given to him by the officer under whose immediate control or supervision he is placed by the Committee. If an employee considers he has grounds for complaint, he may appeal in writing to the Committee through the Superintendent (of the Secretary where appropriate) setting out fully such grounds. Until such instructions are altered by the Committee he shall carry out the instructions so given. (Queensland Ambulance Transport Brigade State Council, 1976, p. 22)

Typically, the authority to manage and supervise staff was vested in superintendents and officers-in-charge. This rank structure has carried forward to the QAS today, where many participants, such as this on-road paramedic, illustrated the relevance of this practice:

When I first started it was only do as you were told. The Superintendent and Committee had the power to hire and fire. If they liked you, you got on. If they didn’t you’d know about it. We did as we were told, because we wanted to keep our jobs. Things changed with Board, and now the Service. We still do as we’re told though.

Thus, paramedics act under the direction of others in authority, as discussed further in the case reports in the next chapter.

Second, a paramedic’s rank provides the authority to undertake certain practices and establishes seniority in the field. The First Officer at any scene or case assumes overall responsibility for the management of that case. Whether responding individually or in a pair, the First Officer is principally responsible for the clinical care of that patient or patients on scene, and is deemed the senior officer within the crew. In the instance where paramedics respond in pairs, the officer who is commissioned or more senior by way of rank, experience, or clinical skill is deemed the Senior Officer. This was traced back to historical traditions, as outlined in one document:

Where two Officers attend a case the Senior Officer makes contact with the patient or relatives while his assistant prepares the Ambulance vehicle etc. according to the nature of the case. The Junior Officer works under the
direction of his Senior Officer. (Queensland Ambulance Transport Brigade State Council, 1976, p. 36)

In these instances, the Senior Officer was the First Officer and the individual who completed the ambulance report form. Moreover, the First Officer was responsible for the assessment and management of the patient, and arrived at the decision to transport the patient to hospital.

Third, paramedics in Queensland are classified by the nature of the employment, as paid or unpaid employees. As established earlier, the history of the QAS is steeped in the traditions of volunteerism, so much so that for many years service to the QAS as an Honorary Officer was deemed to be a mandatory prerequisite to permanent employment. As one paramedic participant described:

_Honoraries are the backbone of the Service. Some of them have been with QATB or QAS for decades. I started as one, and you probably did too. Everyone did. That is our heritage, people from the community like butchers, carpenters, plumbers, and other blue collar staff volunteered their time to the ambulance as bearers. It’s funny, in the old days it wasn’t uncommon to have many ambulance bearers on staff that were missing fingers. They were butchers or sawmill workers who lost a finger at work and were attended to by ambulance bearers. To give something back they themselves then joined the service and volunteered their time to help others. It was such a proud and honourable tradition._

This segment of talk highlights a number of key features and themes. It substantiates the origins of volunteerism in ambulance services in Queensland, and highlights how much of the workforce consisted of blue-collar workers with no professional self-regulation. Service as an unpaid officer, or honorary officer, where individuals volunteered their time to the QAS without any expectation of remuneration, was a prerequisite for paid employment. Honorary officers were provided with uniforms and equipment, received no remuneration, and were assigned a clinical level based on their level of training. This volunteerism continues today in the QAS and many ambulance services nationally and internationally (Howie-Willis, 2009; Reynolds, 2009).

Finally, paramedics are assigned a clinical rank that establishes their level of clinical skill and authority to practice. In the QAS, there are four broad clinical skill levels: Intensive Care Paramedic, Advanced Care Paramedic, Advanced Skills
Paramedic, and Ambulance Attendant. Each level prescribes a particular skill level associated with specific requirements relating to educational qualifications and length of service, as detailed in Appendix 9. The QAS engages both paid officers and honorary officers across all clinical skills levels. Advanced Care Paramedics make up the vast majority of paramedics in Queensland. Officers are authorised to undertake clinical procedures and administer drugs in accordance with their individual clinical skill level and the protocols and principles of the QAS Clinical Practice Manual. Appendix 10 illustrates the various clinical authorities to practise for the different levels of paramedic in the QAS, and Appendix 11 illustrates the drug therapy protocols that apply to each type of paramedic in Queensland (Queensland Ambulance Service, 2010a). The way in which paramedics deliver patient care and are expected to accomplish clinical judgement and decision-making is referred to in the formal expectations of paramedic practices as the Systematic Approach, which places an emphasis on the paramedics’ ability to solve problems.

Providing care and transport – The Systematic Approach

The QAS Clinical Practice Manual is the authoritative document that prescribes the standards to which paramedics must practise. It articulates the expectations for paramedic clinical practice, including their scope of practice and approval to practice drug therapy. These are illustrated in Appendix 10 and Appendix 11 respectively. Moreover, the Manual articulates a standard model for paramedic problem solving that it refers to as the Systematic Approach. This approach is defined as:

... a systematic means of analysing the patient’s problems, determining how to solve them, carrying out a plan of action, and then evaluating the effectiveness of that plan and responding to it accordingly. The Ambulance Officer’s clinical judgment relies on a mix of knowledge, skill, experience, attitudes and intuition. In most circumstances, officers should attempt to identify the physiological linkages to presenting injury or illness and manage the presenting primary and potential secondary patient problems accordingly. The Ambulance Officer must endeavour to correctly analyse each situation and select actions that produce the best long-term patient outcomes. This process involves Assessment, Judgement, Planning, Implementation and Reassessment. (Queensland Ambulance Service, 2010a, p. 9)

The QAS Systematic Approach is aligned with the United States Department of Transportation National Highway Traffic Safety Administration Emergency Medical
Technician – Paramedic National Standards Curriculum (1998). This approach is contained, illustrated and described in the QAS Clinical Practice Manual (Queensland Ambulance Service, 2010a, p. 9) illustrated in Figure 12. Analysis of this representation yielded four key characteristics regarding how paramedics are expected to accomplish clinical judgement and decision-making of mental illness.

Figure 12 – The QAS Systematic Approach

(Queensland Ambulance Service, 2010a, p. 9)

The fundamental tenet – Paramedics as problem solvers

First, the Systematic Approach that paramedics are expected to adopt places an emphasis on problem solving. The QAS Clinical Practice Manual is designed to “assist clinical judgement, using the problem solving approach” (Queensland Ambulance Service, 2010a, p. 9). This document further defines the Systematic Approach to paramedic clinical judgement and decision-making as “a systematic
means of analysing the patient’s problems, determining how to solve them, carrying out a plan of action, and then evaluating the effectiveness of that plan and responding to it accordingly” (Queensland Ambulance Service, 2010a, p. 9). It provides “a systematic approach to the patient and scene assessment and assists the problem solving process by providing a framework from which the most critical issues are identified and managed early” (Queensland Ambulance Service, 2010a, p. 10). Thus, there is formal documentation of a clear expectation that paramedics will be problem solvers. Paramedics reinforced this in their comments during focus groups and interviews. Of particular interest was the nature of the problems that paramedics reported they were expected to solve. As one paramedic described during a focus group:

God, we run around at all hours of the night looking after people who get themselves into all sorts of stupid situations. Lots of social stuff like domestics, fights, relationships gone wrong. We might be called by some nosey neighbour to someone with an injury so minor it’s ridiculous, like a simple laceration, only to find someone blueing with their relatives, having a domestic about money and God knows what. It takes 30 seconds to put a bandaid on but 30 minutes to figure out what the hell the problem is.

This segment of talk illustrated the extent to which paramedics are expected to solve problems that are not just related to the patient’s health or medical state. The remark by the paramedic above reflects how he expects to encounter and manage a variety of his patients’ social problems. In this segment of talk, the paramedic points to the importance of characteristics of context when undertaking the Systematic Approach in the field. This perspective is supported by the view of a representative from the Office of the Medical Director, who suggested:

The contemporary everyday paramedic does much that hardly qualifies as medical care, even broadly as health care . . . . Comparatively speaking responding to true medical emergencies is only a small part of the role. The vast majority of it is transport and dealing with everyday problems. Lots of social problems, getting people out of all sorts of predicaments and ensuring their safety.

The two preceding segments of talk draw attention to the strong expectation that paramedic practice is concerned with transport and problem-solving, particularly social problems, as distinct from medical or health problems. The emphasis here is on
the early identification of the most serious of problems, which enables the paramedic to achieve their core goal of providing the best outcome for the patient.

**The focus of paramedic problem solving – Best possible patient outcome**

The second critical feature of the representation of the Systematic Approach relates to its focus. Graphically, the illustration is a portrayal of a dynamic, recursive but spiral, linear process with sequences that lead to a single goal: the achievement of the best possible patient outcome. This expectation is reinforced in other sections of the *QAS Clinical Practice Manual* (Queensland Ambulance Service, 2010a) which require that:

> Officers must consider the best possible care for the patient. The QAS Clinical Practice Manual is designed to assist clinical judgement, using the problem solving approach, to achieve best practice. It is acknowledged that every situation is different. Deviations from the guidelines will occur but must be documented and audited, and officers must be able to justify that their treatment was in the patient’s best interest. (p. 9)

This extract draws attention to the explicit expectation that paramedics will provide the best possible care for the patient, and in doing so, they will adhere to the relevant guidelines. Moreover, it prescribes that “deviations from the guidelines will occur”, and that when they do, they must be recorded and investigated to ensure that the best interests of the patient were maintained. To do so, a model of problem solving for their judgement practice is provided to paramedics.

**Elements comprising judgement practice**

The third critical interconnected feature of the Systematic Approach relates to the processes that the *QAS Clinical Practice Manual* specifies paramedics should employ in its implementation. According to the Manual, the Systematic Approach diagram presents five interconnected and recursive steps to solving people’s problems in paramedic practice: Assessment, Judgement, Planning, Implementation, and Reassessment (Queensland Ambulance Service, 2010a). Each of the sequences of the Systematic Approach is defined in the *QAS Clinical Practice Manual* (Queensland Ambulance Service, 2010a) as follows:

**Assessment**: This component of the process involves objective and subjective collection of all pertinent information, including: history,
symptoms, environmental factors, patient examination including vital signs, consideration of mechanisms and forces involved; and patterns of injury. Note: This information is primarily attained through well-developed clinical questioning and examination skills as well as an observant approach to the scene.

Judgement: During the assessment phase, the accumulating data is being continually analysed by the Ambulance Officer. This analysis is based largely on clinical knowledge, experience and intuition and involves a clarification process which may prompt additional data collection through further questioning, arriving at a particular judgement. The judgement may be a provisional diagnosis but more frequently is a summation of the main problems and even anticipated problems to be overcome in providing optimal patient care. These problems range from how best to treat undesirable clinical manifestations to environmental concerns such as crowd control or extrication difficulties.

Planning: From assessment and judgement, a patient management plan is derived. This is focused on the best possible patient outcome and should take into account: time & transport critical issues; logistics of scene/situation control; best utilisation of available resources; concurrency of actions; special precautions for specific therapies; potential problems.

Implementation: Implementation of the correct therapies and actions are entirely based upon sound abilities throughout the preceding processes of assessment, judgement and planning. Clinical skills competency is important here. Personal qualities of sound communication and leadership within each particular case circumstance will assist in implementation of the patient/case management plan.

Reassessment: In every case, the judgement, consequential management plan and the effectiveness of implementation are continually reassessed and modified to best achieve the desired outcomes. This reassessment involves further data collection and consideration and/or elimination of possible alternative judgements and solutions within the management plan. (p. 10)

As outlined, a paramedic’s assessment is expected to involve the “objective and subjective collection of all pertinent information, including: history, symptoms, environmental factors, patient examination including vital signs, consideration of mechanisms and forces involved; and patterns of injury” (Queensland Ambulance Service, 2010a, p. 10). The paramedics are expected to collect a variety of data. Some of the data—such as history, symptoms and vital signs—relate to the patient. Others—such as environmental factors, mechanisms, and forces involved—relate to the environment. Paramedics are expected to bring this information together and determine a pattern of injury. To do so, the paramedic is expected to rely on well-developed clinical questioning skills, and observation. What is not known is what kinds of information paramedics collect and rely on to make clinical judgements about mental state, and how this information is collected, or even if it is collected at
all. Moreover, there is a lack of systematic, sustained research on how paramedics implement the Systematic Approach and how they “pull it all together” (Bendall & Morrison, 2009, p. 109) in the field, as noted in Chapter 2. As will be described shortly, the *QAS Clinical Practice Manual* proposes a specific guideline for paramedics’ assessment of patients with mental illness. The utility of these guidelines when enacted by three paramedics in the field is examined in the case reports that follow this chapter.

The paramedic’s *judgement* occurs subsequent to assessment, and draws on the information and data collected. In this stage, the paramedic is expected to “analyse the information and arrive at a summation of the problem and a provisional diagnosis” (Queensland Ambulance Service, 2010a, p. 10). The emphasis in this stage is on the paramedic’s reliance on “clinical knowledge, experience and intuition and involves a clarification process which may prompt additional data collection through further questioning, arriving at a particular judgement” (Queensland Ambulance Service, 2010a, p. 10). What is notable, however, is that these terms are not described or defined in the formal documents, nor do the documents suggest how they should be enacted in the field. For the paramedic to “arrive at a summation of the problems” (Queensland Ambulance Service, 2010a, p. 10), the *QAS Clinical Practice Manual* expects the paramedic to formulate a judgement from an analysis of the data. The *QAS Clinical Practice Manual* defines paramedic clinical judgement as relying on “a mix of knowledge, skill, experience, attitudes and intuition” (Queensland Ambulance Service, 2010a, p. 9), although these terms are not themselves defined in any of the formal expectations of paramedic practice. The *QAS Clinical Practice Manual* outlines that a paramedic’s Systematic Approach and their judgement should be “based largely on clinical knowledge, experience and intuition and involves a clarification process which may prompt additional data collection through further questioning, arriving at a particular judgement” (Queensland Ambulance Service, 2010a, p. 10). In addition, the *QAS Clinical Practice Manual* (Queensland Ambulance Service, 2010a) states that:

> Clearly good judgement is heavily reliant on sound knowledge of pathophysiological processes and their clinical presentations, and experience of working in the pre-hospital setting. It involves a clarification process which may prompt additional data collection through further questioning, arriving at a particular judgement. (p. 10)
This extract from the *QAS Clinical Practice Manual* highlights the emphasis placed on using knowledge of diseases process and experience when working in the field, which is used to clarify data collected and assessed in a recursive manner. The existing literature indicates that experience (Snooks et al., 2005) and tacit knowledge (Wyatt, 2003) are important elements of paramedic clinical judgement and decision-making, particularly when managing the mentally ill in some settings (Roberts, 2007; Roberts & Henderson, 2009). What is not known, however, is the utility of knowledge, skill, experience, attitudes, and intuition by paramedics for accomplishing clinical judgement and decision-making of mental illness. This is revealed in the case reports that follow.

Moreover, the paramedic’s assessment is expected to give rise to a judgement that “may be a provisional diagnosis but more frequently is a summation of the main problems and even anticipated problems to be overcome in providing optimal patient care” (Queensland Ambulance Service, 2010a, p. 10). What is particularly noteworthy is the requirement in the *QAS Clinical Practice Manual* for paramedics to provide provisional diagnosis although no definition of this is provided, nor how it might be arrived at. As one paramedic described during an in-depth interview, a paramedic’s provisional diagnosis is:

*A bit of a guess as to what kind of thing is wrong with the patient. It’s very unspecific, mostly loose terms. I never write anything specific even if I’m fairly sure about myself.*

This view that a paramedic’s provisional diagnosis is more general than specific was reinforced, in part, by the comments of a participant from the Office of the Medical Director, who indicated that:

*Oh no, there is no formal diagnosis. They often know what is going on, or have a very good idea at least, but it never really sees the light of day, not at least in terms of their case notes. They will provide this during handover, but that is it. We ask them to provide us with a provisional diagnosis, but that is it. What is most valuable to the emergency physician is a solid and accurate description of the history; all the things that are out there in the field that are never around in the emergency department. All the clues from the patient’s house, the scene, the roadside, wherever they come from that help us with the*
diagnosis. An accurate provisional diagnosis is absolutely no substitute for a good history.

This segment of talk demonstrates the expectation that paramedics, in arriving at a summary of the problems and a provisional diagnosis, will acquire and record information about the patient and their history, and provide it to those to whom they refer the patient. As indicated earlier, the problems paramedics are expected to come to understand vary considerably from “how best to treat undesirable clinical manifestations to environmental concerns such as crowd control or extrication difficulties” (Queensland Ambulance Service, 2010a, p. 10). Clearly, the expectation is that paramedics will encounter and manage a variety of clinical and non-clinical problems, as indicated in accounts from paramedics provided earlier. Moreover, this segment of talk draws attention to the importance of the environment in which patients are situated, and the value of description of that environment, which paramedics make and relay to physicians and other professionals.

The paramedic’s assessment and judgement inform their planning to achieve the “desired outcome” (Queensland Ambulance Service, 2010a, p. 10). In this step, the paramedic is focused on “the best possible patient outcome and should take into account: time & transport critical issues; logistics of scene/situation control; best utilisation of available resources; concurrency of actions; special precautions for specific therapies; potential problems” (Queensland Ambulance Service, 2010a, p. 10). This excerpt from the QAS Clinical Practice Manual indicates how the problems paramedics are expected to solve are not just health related.

The final steps expected of paramedics and their Systematic Approach are implementation and reassessment. With respect to implementation, the QAS Clinical Practice Manual indicates that clinical skills, such as those that were examined earlier in the chapter, are critical at this stage of the process. Moreover, it outlines that particular interpersonal skills on the part of the paramedics, namely communication and leadership, will enable implementation to occur. The final step in the process, reassessment, directs paramedics back to assessment again and the collection of data for the “elimination of possible alternative judgements and solutions within the management plan” (Queensland Ambulance Service, 2010a, p. 10).
These features of expected paramedic clinical judgement and decision-making are significant to the research problem. In Chapter 1 of the thesis, the clinical care provided by health professionals is “concerned with the observation and treatment of disease in the patient” (Butler, 2009, p. 234). A health professional’s judgement is “the forming of an opinion, estimate, notion, or conclusion, as from circumstances presented to the mind” (Butler, 2009, p. 271), and their decision involved “the act of deciding; determination; a making up of one’s mind” (Butler, 2009, p. 321). A health professional’s clinical judgement and decision-making is “an assessment of the alternatives in treatment from which decisions or choices between alternatives for optimal treatment are made” (Dowie, 1993, p. 8). In terms of paramedics in the Queensland pre-hospital emergency care setting and the expectations of their clinical judgement and decision-making, the care they provide to patients explicitly includes clinical and non-clinical conditions. Paramedics are expected to follow a problem-solving approach where their assessment and analysis of data enable them to “arrive at a summation of the problems” (Queensland Ambulance Service, 2010a, p. 10). A paramedic’s Systematic Approach should rely on “a mix of knowledge, skill, experience, attitudes and intuition” (Queensland Ambulance Service, 2010a, p. 9), although these terms themselves are not defined in any of the official texts. Moreover, Queensland paramedics are expected to make decisions that are in “the best interests of the patient” (Queensland Ambulance Service, 2010a, p. 9).

Notably absent from the QAS Clinical Practice Manual and other formal documentation is any reference to the term decision-making. While the QAS Clinical Practice Manual and related formal texts define assessment and judgement, they are silent on the act or process of decision-making. With the exception of the formal element of reassessment, there appears to be little scope for the paramedic’s clinical judgement and decision-making to include an “assessment of the alternatives in treatment from which decisions or choices between alternatives for optimal treatment are made” as described by Dowie (1993, p. 8). This is related, in part, to the fact that the main document prescribing paramedic practice, the QAS Clinical Practice Manual, requires all patients to be “transported without undue delay” (Queensland Ambulance Service, 2010a, p. 10), in the best interests of the patient. For paramedics, transportation without undue delay is articulated in the form of a protocol, as the next section will reveal.
Solving problems – Protocols

To assist paramedics achieve the desired outcome and what is the best interest of the patient the *QAS Clinical Practice Manual* includes a series of case management guidelines. Bendall and Morrison (2009) report that “all Australian ambulance services operate using either protocols or clinical practice guidelines, or a combination of both” (p. 99). The *QAS Clinical Practice Manual* consists of, among other things, 32 case management guidelines. Each guideline consists of two parts—a case entry script providing information regarding diagnostic patterns and guiding principles, and a decision-tree or algorithm. An example of one of these guidelines, for seizures, is provided in Appendix 14 and Appendix 15.

The decision trees within the *QAS Clinical Practice Manual*, such as the one on seizures illustrated in these appendices, are intended to guide paramedics in their practice in the field. As described in Chapter 2, decision-trees can be regarded as an application of normative theoretical frameworks of judgement and decision-making. They outline how decisions should be made. Decision trees work by breaking down problems into smaller decisions and choices and include a comprehensive risk analyses to identify all possible risks, which are assigned a relative weight based on their probability of occurrence (Thompson & Dowding, 2002a). The decisions alluded to within the tree are based on the predictability of events using probability and statistical occurrence. Once each choice has been assigned a probability—assuming this is possible—the option with the highest utility for the decision maker can be calculated (Thompson & Dowding, 2002a). Such models attempt to quantify the probability of the most likely and most desirable event in an attempt to assist the individual or group in making that judgement or decision by making it known.

Organisationally, they reduce the risk associated with paramedic clinical judgement and decision-making. As a representative from the Officer of the Medical Director described during an interview:

> The protocols guide the paramedic to their duty. They act to provide them with a framework to manage the patient. All kinds of patients. There is one for every patient type. They are a risk mitigation strategy to protect patients and the Service. Without it paramedics would struggle to know what to do with whom, when and why. Our *QAS Clinical Practice Manual* is actually quite popular amongst medical students and residents.
This segment of talk alludes to the popularity and utility of the *QAS Clinical Practice Manual*. What is particularly significant is the way in which it directs paramedics to “transport without undue delay” (Queensland Ambulance Service, 2010a, p. 10). In the written record, there is an explicit expectation that paramedics will transport the patient to definitive medical care regardless of their intervention. The participant from the Office of the Medical Director further commented on this expectation as follows:

*I think it’s important to recognise that paramedics are not equipped or prepared to deal with injuries in the field in a definitive sense. They are not doctors, and do not diagnose patients. They work within a set of established protocols, and defer to the advice and authority of emergency physicians or other doctors. The reasons for this are two-fold. Protect the patient and to protect the paramedic and the QAS. Doctors don’t work in isolation—we refer patients that are outside of our expertise to our colleagues. The same applies to paramedics.*

In this segment of talk, the participant demonstrates the emphasis placed on the rank and authority of paramedics in the wider practice arena. It highlights how paramedics are expected to defer to the decisions of others more experienced or in authority, as has been the case historically for stretcher-bearers and their transportation of patients to medical care, described earlier. As a senior station officer described, historically the clear mandate was to transport, the corollary of this being that paramedics were discouraged from making judgements:

*I think the medical profession and the hospital environment actively discouraged ambulance officers from making those sorts of judgement calls. It was purely their role as a transport one, rather than any diagnosis of treatment. ‘Thank you for bringing the patient to us, now we will manage them’.*

The emphasis here is on the ability of the paramedic to provide care that is incidental to the overall goal, that being transport of the patient to definitive medical care, as mentioned earlier. As another paramedic described:

*Well, it goes to our history. We used to be the transport brigade. Ambulance bearers and drivers with shiny cars, polished hubcaps, and great service. Every now and again we get called drivers, which really annoys me. It depends. Sometimes people say it to put us down, like some annoying nurse.*
If it’s an oldie, I don’t get bothered. To them it was a mark of respect. Just depends on the patient, I guess.

This segment of talk provides further substantiation that, despite modern expectations of problem solving skills in a complex environment, the influence of the historical roles of stretcher-bearers and transportation in the contemporary practice context still dominates interactions with patients and other health professionals. Moreover, it characterises how these interactions are hierarchical, with paramedics transporting patients and deferring to the advice and instructions of others in authority. The expectation is that paramedics will, at all times, defer to those with expertise, namely physicians, and others in authority when making clinical judgements and decisions about patients. This finding is of critical interest when examining paramedics’ accounts of accomplishing clinical judgement and decision-making of mental illness. As the final section of this chapter will show, the multiple expectations of paramedics as problem solvers, protectors, and transporters are at times in tension in the field.

**Problem solving mental illness – Protocols for psychiatric emergencies**

As described earlier, the way in which paramedics manage individuals in the pre-hospital emergency care setting is prescribed by key regulatory documents, namely the *Ambulance Service Act 1991 (Qld)* and the *QAS Clinical Practice Manual*. The *Ambulance Service Act 1991 (Qld)* places emphasis on paramedics protecting individuals from danger and potential danger, and providing them with transportation. This obligation to protect and transport is inclusive of patients considered mentally ill. One of the case management guidelines in the *QAS Clinical Practice Manual* prescribes how paramedics are expected to manage individuals with a psychiatric emergency. This guideline is illustrated in Figure 13 and Figure 14. These documents exhibit a number of significant features in terms of the type and nature of the patients with mental illness whom paramedics can expect to encounter in the field.

**Expectations of the problem – Serious illness, danger, drugs, and violence**

The guideline provides the paramedic with a variety of signs and symptoms, from which diagnostic patterns may be established to accomplish clinical judgement and decision-making of mental illness. However, the pattern that the guideline
portrays is exclusively related to serious mental illness—psychiatric emergency. The *Psychiatric Emergency Case Management Guideline* illustrated in Figure 13 is the only clinical guideline in the *QAS Clinical Practice Manual* that deals with mental illness.

**Figure 13 – Psychiatric Emergency Case Management Guideline**

(Queensland Ambulance Service, 2010a, p. A13-1)

It defines a psychiatric emergency as “a serious disturbance of the mind resulting in behavioural abnormalities requiring immediate attention” (Queensland Ambulance Service, 2010a, p. A13-1), as illustrated in Figure 13. The *Psychiatric Emergency Case Management Guideline* (Queensland Ambulance Service, 2010a, p.
A13-2) also contains a protocol for managing patients experiencing a psychiatric emergency, which is illustrated in Figure 14:

Figure 14 – Clinical Practice Manual Psychiatric Emergency Decision Tree

(Queensland Ambulance Service, 2010a, p. A13-2)

The guideline creates an expectation that violent behaviour is a common feature of patients with psychotic disorders, and that paramedics should foremost “consider safety issues” (Queensland Ambulance Service, 2010a, p. A13-1). The directive to paramedics to preserve safety saturates the QAS Clinical Practice Manual, the
Ambulance Service Act 1991 (Qld), and other documents related to expectations of paramedic practice. As one paramedic suggested during one of the focus groups:

*We go to a lot of them, pumped up on drugs. You got to be really very wary of them.*

In the experience of this paramedic, and indeed many of his colleagues, the prevalence of mental illness is high. His account suggests an association between illicit drug use and mental illness, to which he reported being frequently exposed. Another paramedic in a focus group commented similarly that:

*You never know with those kinds of patients. They are unpredictable, usually on drugs or alcohol.*

In this segment, the paramedic characterises individuals presenting with a psychiatric emergency as unpredictably dangerous and violent, a characterisation reported by many participants in the focus groups. As one paramedic reported:

*Hell yeah, nut bags. All hours of the day and night, on all sorts of stuff. Weirdos.*

Such comments are directly relevant to the concerns raised by the LHMU as addressed in Chapter 1. In their written complaint, the LHMU argued that “our members have raised valid concerns regarding the duty of care QAS has in relation to the provision of a safe working environment for its employees” (Liquor Hoteliers and Miscellaneous Workers' Union Ambulance Secretary, 20 April 2002, p. 1). Moreover, the LHMU indicated their view was that the “QAS immediately issue an instruction to all Regions, that any potentially dangerous case must still have Qld Police Service involvement to provide maximum safety for attending paramedics” (Liquor Hoteliers and Miscellaneous Workers' Union Ambulance Secretary, 20 April 2002, p. 1). This finding is consistent with the literature that indicates that other emergency personnel come into contact with patients experiencing mental health problems more than ever before (Sharrock & Happell, 2000). The key point is that the case management guideline characterises mental illness as a psychiatric emergency, violent, and dangerous. A consequence of this characterisation and expectation is that it is largely
silent on how paramedics are to assess those with mental illness who are not violent or dangerous.

**The nature of assessment in problem solving – Describing**

As illustrated and described earlier, the first part of the *Psychiatric Emergency Case Management Guideline* prescribes that a paramedic’s assessment of the patient should include six key elements: general appearance, level of consciousness, physical behaviour, mood, speech, and intellectual function (Queensland Ambulance Service, 2010a, pp. A13-12). The second part, however, provides a decision-tree to which paramedics are expected to adhere. On comparison of the information contained within each of these, it is interesting to note that little of the material included in Figure 13 is included in Figure 14. Of particular interest is the configuration of the decision-tree in Figure 14. Specifically, the tree draws on only three of the key diagnostic features listed in Figure 13: (i) the presence of hallucinations and delusions; (ii) the presence of aggression or self-harm; and (iii) patient willingness to seek help. It requires paramedics to assess each of these aspects of their patient when undertaking the assessment phase of their Systematic Approach. As a participant from the Office of the QAS Medical Director described here, when it comes to assessing the mentally ill, paramedics are expected to be describers:

*The assessment pathway provided in the QAS Clinical Practice Manual is a part of their systematic approach. It provides them with a list of things to describe in their ARF [Ambulance Record Form]. This helps the receiving medical and nursing staff greatly by providing them with a description of the patient, where they’ve come from, things that they would not otherwise be privy to. Much of a mental health assessment involves an assessment of the environmental factors, and it requires an assessment of patients over a period of time. Paramedics don’t have time, and so the most they do is really describe.*

As this talk segment outlines, when it comes to managing the mentally ill, the role of the paramedics is to assess the patient and scene, and to make a written account in the form of an ambulance report. Moreover, the expectation is that paramedics will use the case management guideline and decision tree to guide their collection and description of information about the patient and the field. This talk segment highlights the expectations discussed earlier that require paramedics to
“arrive at a summation of the problems” (Queensland Ambulance Service, 2010a, p. 10) rather than a formal diagnosis. This was particularly evident in the interview with a representative from the Office of the QAS Medical Director, who, as noted earlier, argued that paramedics:

... are not doctors, and do not diagnose patients. They work within a set of established protocols, and defer to the advice and authority of emergency physicians or other doctors.

This segment of talk further lends support to the key feature of the expectation that paramedics work under the supervision of others with expertise, namely physicians. However, perhaps the most critical feature of this guideline, in fact all of the guidelines contained in the QAS Clinical Practice Manual, is that regardless of the outcome of the assessment or decision, the paramedic is directed to the same outcome. As far as the case management guideline for psychiatric emergency in the QAS Clinical Practice Manual is concerned, paramedics are expected to work universally towards a predetermined outcome of “transport without undue delay” (Queensland Ambulance Service, 2010a, p. A13-1). All patients, whether experiencing a psychiatric emergency or not, should be transported.

**Solving the problem – Expectations of transport**

An important feature of this case management guideline from the QAS Clinical Practice Manual and the expectation it places on paramedic clinical judgement and decision-making of mental illness is the emphasis it places on transportation. The decision tree prescribes that paramedics “transport without undue delay” (Queensland Ambulance Service, 2010a, p. A13-1). Regardless of the outcomes at each stage of the decision-tree, the resulting action is transportation. Thus, the way in which paramedics are expected to manage the mentally ill appears—at least in the official records—to be predetermined. The emphasis on transportation features systematically in the formal expectations of paramedic clinical judgement and decision-making. As described earlier, the origins of ambulance services are steeped in the traditions of transportation. The Ambulance Service Act 1991 (Qld) makes explicit an expectation that paramedics will protect patients from danger, whether real or threatened, and provide transportation to patients.
It is interesting to note, however, that the requirement to transport patients is a relatively recent formal expectation. Prior to 1990, there was a notable absence of mandatory transportation. The decision to transport patients was driven by the needs and request of the patient. As a participant from the Office of the QAS Medical Director described:

Prior to the late 80s and early 90s basically ‘you called we hauled’. If someone called an ambulance, we turned up. If they wanted to go to hospital we took; if they didn’t want to go to hospital, we didn’t. It was pretty simple. Basically, the feeling was very much prior to 1991 that if someone turned up and knocked on the door and you were said to have tricyclic overdose, you knock on the door and the patient refused and that was the understanding. So basically you only took someone if they agreed to go.

Thus at that time, ambulance officers and bearers left the decision of whether to transport or not to the patient. As another paramedic with more than 40 years with the QAS described, the same practice applied to patients who were considered mentally ill:

It applied to all patients, and was the general rule. My understanding certainly is that ‘you called, we hauled’. We turned up and you told us to ‘piss’ off, we did; if you jumped into the back of the truck, we drove you to hospital.

In this talk segment, the paramedic confirms that the decision to transport to hospital, or otherwise, was made by the patient, or others. Many other paramedics in focus groups reported similar themes. As one practising paramedic commented:

It goes back to our history, as I said before, shiny cars that sparkled. Compared to now, we have absolutely no idea what we were doing clinically, but we were always courteous and punctual. Our motto was ‘Ready Always’. What exactly we were ready for wasn’t exactly clear.

The analysis indicates that up until the 1990s, the decision to transport patients to hospital was made principally by the patient. If the patient called for an ambulance and requested transport, they were transported. If they refused transport, they were not transported. The reason for this is historical—members of the community subscribed to the ambulance brigade, and the community saw this as a service, primarily a
transport service. As outlined earlier, ambulance brigades were community-initiated and funded, and an entitlement of those who paid their annual subscription. As a senior ambulance manager described during interview:

*The superintendents and committees were very clear. Often the first question that was asked of the patient was “are you a subscriber”? If someone called for an ambulance for someone who was sick or injured, it was up to them if they wanted transport. Most often, their decision to be transported was directly related to their subscription status. If they weren’t a subscriber, they decline transport, didn’t matter how sick or injured they were. I use to go to people with horrific injuries who refused transport because they weren’t subscribers. We’d treat them and only charge them for a callout fee, a bit like casualty room fee that we had. Otherwise, it was so much per kilometre. Cabs were cheaper.*

This talk segment by another paramedic illustrates how the decision to transport was made principally by the patient. Moreover, he indicates that their decision to accept transport, or otherwise, was driven by financial rather than health reasons. The cost of ambulance transport for individual non-subscribers typically ran into hundreds or thousands of dollars, according to the distance travelled. A consequence of this was that patients did not receive appropriate medical care, as the participant outlines above.

As outlined earlier, this lack of appropriate care was, among other things, a key motivator for the reform of ambulance services in the 1990s. The almost century-old practice of transporting patients purely at the request or otherwise of the patient changed dramatically. The *QAS Clinical Practice Manual* required paramedics to provide clinical care as well as transportation to hospital. The requirement of transportation of patients to hospital or medical care was mediated by a duty of care the *Ambulance Service Act 1991* (Qld) imposed on paramedics when managing patients, something they had not previously experienced. One paramedic recalled the changes the reform of the QAS brought to his practice:

*The big change in 1991 with the Ambulance Service Act was it very specifically gave ambulance officers in Queensland a lot of powers. The ambulance officer could do a hell of lot and give the ambulance officers an awful lot of powers in terms of protecting people. We had a duty of care to properly assess people to sort out what is wrong with them, and we have a duty of care to take them.*
This segment of talk outlines the influence of the *QAS Clinical Practice Manual* in establishing a duty of care for paramedics to protect patients. As a participant from the Office of the QAS Medical Director described:

> It wasn’t until we introduced the Clinical Practice Manual that we started talking about having a duty of care, where the fact that somebody refused you just didn’t mean that you just left them. That took hold very much so from 1996.

Participants in the study reported a distinct time when this duty of care was introduced, along with the introduction of the expectation that patients would be transported to hospital. As a senior paramedic station officer revealed:

> Well basically the intent was to keep it fairly simple, the intent was to make sure, because prior to 1995–6 people with overdoses and clearly unsafe to leave who had basically said ‘piss off’ didn’t get left behind.

This station officer’s talk segment illustrates how paramedics report their experience of mental illness to be associated with drug overdose and self-harm. Moreover, it reveals the emphasis paramedics place on the safety of patients. As the following excerpt illustrates, there is a presumption that in calling for an ambulance, the patient, or a bystander, has deemed transportation necessary. As one participant, a senior paramedic station officer, suggested:

> So all the protocols are written around the premise that (a) the ambulance is called (b) the person is/has got some medical problem that they need to go to hospital. We are on the page talking abnormal behaviour, so presumably they have got abnormal behaviour that needs to go to hospital.

This further demonstrates the influence of the decision of others on the practice and decisions of paramedics. However, as has been described in the Chapter 1, the introduction of the *Mental Health Act 2000* (Qld) brought about another change to the regulatory expectations of the way in which paramedics manage the mentally ill.

### Additional expectations – The Mental Health Act

Although paramedic practice is regulated principally by the *Ambulance Service Act 1991* (Qld), there are other regulatory frameworks in Queensland that prescribe
how paramedics are to assess and manage the mentally ill. As Figure 19 illustrates, the *QAS Clinical Practice Manual* case management guideline for psychiatric emergencies directs paramedics to “consider the relevant provisions of the Qld Mental Health Act 2000” (Queensland Ambulance Service, 2010a, p. A13-1). Paramedic problem solving with respect to mental illness revolves around incidents referred to as psychiatric emergencies, where there are clear expectations of transportation for patients.

The *Mental Health Act 2000* (Qld) is the primary legislative instrument regulating involuntary treatment and protection of people who are mentally ill in Queensland. The purpose of the Act is to “provide for the involuntary assessment and treatment, and the protection, of persons (whether adults or minors) who have mental illnesses while at the same time safeguarding their rights” (Parliament of Queensland, 2002, p. 28). Moreover, the Act applies only to the involuntary assessment, treatment, and protection of persons experiencing a mental illness while at the same time safeguarding their rights. It states that “the Act does not prevent a person who has a mental illness being admitted to, or receiving assessment or treatment at, an authorised mental health service other than as an involuntary patient” (Parliament of Queensland, 2002, p. 29). Thus, it does not specifically provide for voluntary treatment of mental illness, and focuses on the aspects of mental illness that are not dealt with in other legislation. The Act was drafted to comply with the *National Standards for Mental Health Services* (Commonwealth Department of Health and Aged Care, 1997), the *United Nations Principles for the Protection of People with Mental Illness and for the Improvement of Mental Health Care* (1991), and a model for mental health legislation agreed to by all Australian states and territories. Not unlike mental health legislation in other Commonwealth countries—such as the United Kingdom—the Act was intended to reflect contemporary national and international trends in mental health care and broad community expectations. An important aim of the Act is to reduce the stigma associated with mental illness and to protect the rights of patients.

The purpose of the *Mental Health Act 2000* (Qld) is to provide for involuntary assessment, treatment, and protection of persons who are experiencing serious mental illness while at the same time safeguarding their rights. Its mandate is specific—the involuntary assessment and care of the mentally ill. Within the Act, mental illness is
defined as “a condition characterised by a clinically significant disturbance of thought, mood, perception or memory” (Parliament of Queensland, 2002, p. 32). The Act includes a number of exemptions for classifying someone as mentally ill. Sections 12(2) and 12(3) of the Mental Health Act 2000 (Qld) state that:

(2) However, a person must not be considered to have a mental illness merely because of any 1 or more of the following—
(a) the person holds or refuses to hold a particular religious, cultural, philosophical or political belief or opinion;
(b) the person is a member of a particular racial group;
(c) the person has a particular economic or social status;
(d) the person has a particular sexual preference or sexual orientation;
(e) the person engages in sexual promiscuity;
(f) the person engages in immoral or indecent conduct;
(g) the person takes drugs or alcohol;
(h) the person has an intellectual disability;
(i) the person engages in antisocial behaviour or illegal behaviour;
(j) the person is or has been involved in family conflict;
(k) the person has previously been treated for mental illness or been subject to involuntary assessment or treatment.

(3) Subsection (2) does not prevent a person mentioned in the subsection having a mental illness.
Examples for subsection (3)
1. A person may have a mental illness caused by taking drugs or alcohol.
2. A person may have a mental illness as well as an intellectual disability.

(4) On an assessment, a decision that a person has a mental illness must be made in accordance with internationally accepted medical standards.

Thus, the presence of one or more features listed in Section 12(2) in isolation from other evidence does not necessarily render a definition of mental illness. Moreover, it requires the assessing individual to arrive at a decision of mental illness in line with internationally accepted standards, which, generally speaking, are those that are set out in the Diagnostic and Statistical Manual of Mental Disorders IV (American Psychiatric Association, 2000).

The Mental Health Act 2000 (Qld) grants powers to groups of authorised health professionals to require individuals to undergo involuntary assessment and/or treatment. Under the Act, health care professionals include medical practitioners, registered nurses, psychologists, occupational therapists, and social workers engaged in a provision of health services. It is important to note that paramedics are not classified as health professionals. The Act defines health professionals as “a doctor,
registered nurse, occupational therapist or psychologist or a social worker engaged in providing health services; or a person appointed under section 505A(1)” (Parliament of Queensland, 2002, p. 318). A key feature of this distinction is the difference in standard of patient assessment required. Whereas authorised mental health practitioners are required to be “satisfied” (Parliament of Queensland, 2002, p. 37) the individual is mentally ill, paramedics are required only to form a “reasonable belief” (Parliament of Queensland, 2002, p. 43) that the patient is mentally ill.

Prior to proclamation of the *Mental Health Act 2000* (Qld), paramedics managed the mentally ill solely under provisions of the *QAS Clinical Practice Manual*, as the official text of the *Ambulance Service Act 1991* (Qld). Its predecessor—the *Mental Health Act 1974* (Qld)—included no specific provisions for paramedics. Under the *Mental Health Act 2000* (Qld), if a paramedic seeks to transport a patient involuntarily for assessment and treatment, they must adhere to the provisions of the Act. Therefore, when paramedics attend a patient who is mentally ill in the pre-hospital emergency care setting, the provisions of both the *Ambulance Service Act 1991* (Qld) and *Mental Health Act 2000* (Qld) apply. If the patient requests transport to hospital, or agrees to transport, then the *Mental Health Act 2000* (Qld) does not apply, and the paramedic works within the provisions of the *Ambulance Service Act 1991* (Qld). If, however, a paramedic is called to a patient they deem to be experiencing a psychiatric emergency, and the paramedic seeks to transport the patient to hospital in circumstances where consent from the patient is not forthcoming, specific provisions of the *Mental Health Act 2000* (Qld) apply, namely the preparation of an Emergency Examination Order (EEO).

**Emergency examination orders**

Emergency provisions under the *Mental Health Act 2000* (Qld) exist for police officers and paramedics, and for psychiatrists. Pursuant to section 33(1) of the Act, paramedics are able to make an EEO for involuntary assessment of an individual where the officer has a “reasonable belief” (Parliament of Queensland, 2002, p. 43) the individual exhibits features that meet two sets of criteria. These criteria are set out in section 33(1) of the Act, which must be met for the emergency examination order to be lawful:
Emergency examination orders by police officers and ambulance officers

33 Application of sdiv 1
This subdivision applies if a police officer or an ambulance officer reasonably believes—
(a) person has a mental illness; and
(b) because of the person’s illness there is an imminent risk of significant physical harm being sustained by the person or someone else; and
(c) proceeding under division 2 would cause dangerous delay and significantly increase the risk of harm to the person or someone else; and
(d) the person should be taken to an authorised mental health service for examination to decide whether a request and recommendation for assessment should be made for the person. (p. 43)

In the event that one or more criteria are not fulfilled, an emergency examination order cannot be met and this provision of the Act does not apply. In such circumstances, paramedics would manage the patient under provisions of the Ambulance Service Act 1991 (Qld), and do so using the protective provisions outlined earlier. If the paramedic reasonably believes that all criteria are met, they may make an emergency examination order, which enables them to involuntarily detain and transport an individual to an approved mental health facility for further assessment. Section 34 of the Act states that “the police officer or ambulance officer must take the person to an authorised mental health service for examination to decide whether assessment documents for the person should be made” (Parliament of Queensland, 2002, p. 44). In addition, the Act requires paramedics to complete the approved form when transporting the patient, as section 35 outlines below:

35 – Making of emergency examination order
(1) Immediately after taking the person to the authorised mental health service, the police officer or ambulance officer must make an order under this subdivision (an “emergency examination order (police or ambulance officer”) for the person.
(2) The order must–
(a) be in the approved form; and
(b) state the time when it is made.
(3) Immediately after making the order, the police officer or ambulance officer must give the order to a health service employee at the health service.
(4) The person may be detained in the health service while the order is being made. (p. 44)

A copy of an emergency examination order is included in Appendix 12 and Appendix 13. Of significance is that the form requires paramedics and police officers
to record how the patient meets the assessment criteria specified of the Act and the information they relied on to support a reasonable belief. The emergency examination order (Queensland Government, 2009) requires paramedics to justify their belief about the patient’s mental illness, as follows:

**Explain in your own words why you believe:**
- the person has a mental illness (include any behavioural, verbal and environmental cues you may have observed);
- because of the person’s illness there is an imminent risk of significant physical harm being sustained by the person or someone else;
- proceeding under a justices examination order would cause dangerous delay and significantly increases the risk of harm to the person or to someone else;
- the person should be taken to an authorised mental health service for examination to decide whether a request and recommendation for assessment should be made for the person. (p. 1)

The emphasis in this excerpt from the Act is on a paramedic’s description of the patient, the environment, and the situation. This reflects earlier noted expectations of the paramedic and their judgement practice as being a describer.

Once the EEO is made, section 34 of the Act requires that “the police officer or ambulance officer must take the person to an authorised mental health service for examination to decide whether assessment documents for the person should be made” (Parliament of Queensland, 2002, p. 45). On arrival at an authorised health service, the individual may be detained involuntarily for further assessment and treatment, as provided in section 36 of the Act:

**36 – Detention and examination**

(1) On the making of the order, the person may be detained for not longer than 6 hours (the examination time) in the authorised mental health service for examination by a physician or authorised mental health practitioner.

(2) In carrying out the examination, the doctor or practitioner must, to the extent that it is reasonable and practicable in the circumstances explain to the person, in general terms, the application of this subdivision to the person. (p. 47)

Legislatively, the order remains in force for a period of six hours or until such time as the individual is assessed and a determination of their mental state is made (Queensland Health, 2005). If the authorised mental health practitioner is satisfied the person’s condition warrants involuntary assessment and treatment, an order for
detention for involuntary assessment and treatment can be made. If, however, on further assessment the person’s condition does not warrant involuntary assessment and treatment, the emergency examination order lapses and the individual is released under their own recognisance. This process is set out in a decision tree within the *Mental Health Act 2000* (Qld) as illustrated in Figure 15.

**Figure 15 – Mental Health Act 2000 (Qld) involuntary assessment decision-tree**


With respect to managing the mentally ill, the *Mental Health Act 2000* (Qld) and the *Ambulance Service Act 1991* (Qld) are congruent in some respects. For example, both Acts focus on the protection of patients, and empower paramedics to take reasonable measures to do so. Both require paramedics to record their reasons and justification for taking such reasonable measures and both require paramedics to
defer to the advice of others. However, in other ways the Acts are incongruent, and appear to make different demands on paramedics. As the principal clinical policy governing paramedic judgement practice derived from the *Ambulance Service Act 1991* (Qld), the *QAS Clinical Practice Manual* requires paramedics to transport all patients without undue delay where there is a need to protect a patient. On the other hand, the *Mental Health Act 2000* (Qld) requires paramedics to formulate a reasonable belief that the patient and their condition warrants an emergency examination order, involving being involuntarily detained for transport, assessment, and treatment. The *QAS Clinical Practice Manual* requires paramedics to consider provision of the *Mental Health Act 2000* (Qld). These key official documents appear to impose different expectations for paramedic clinical judgement and decision-making of mental illness in the field.

**Critical features of the context and regulatory expectations of paramedic practice**

The purpose of this part of the study was to determine how paramedics are expected to accomplish clinical judgement and decision-making of mental illness, and to characterise the context in which paramedics and these formal expectations of their practice are situated—the Queensland pre-hospital emergency care setting. This analysis revealed that in the contemporary setting, paramedics are expected to be protectors and transporters. The analysis has revealed that the philosophical origins of paramedic practice are steeped in military traditions and acts of Good Samaritans. From their earliest beginnings, as early as the religious crusades of the 11th century, paramedics have been expected to protect individuals from harm. This practice continued for centuries, when in the 1700s, it was adapted for use in formal military conflict. In a bid to reduce the high rates of morbidity and mortality during battle, Napoleon’s Surgeon General Baron Dominique Jean Larrey introduced *stretcher-bearers* into Napoleon’s armies—individuals who would retrieve injured soldiers from the battlefield and ferry them on foot to makeshift field hospitals. Their role was to protect the injured soldiers by retrieving them from the frontline and transporting them to makeshift field hospitals for definitive medical care. Their key role was *protection* by retrieval and transport.

These characteristics feature prominently in the contemporary expectations of paramedic practice in Queensland. For almost a century since their formation in 1892,
ambulance services in Queensland were decentralised, where volunteer *ambulance bearers* transported patients to hospital at their request. It was not until the early 1990s that the QAS underwent enormous organisational reform, which saw the establishment of a centralised state-based service. This reform led to, among other things, centralised standards for paramedic practice, education, and training. Today, the QAS is a centralised quasi-military organisation within the Queensland Government. Paramedic practice and ambulance services are considered an emergency service rather than health service, and there continues to be an absence of professional regulation. There is a clear expectation that paramedics will be *protectors* of individuals. To protect patients, paramedics are expected to *transport* them to hospital or medical care, with transport deemed to be the best possible outcome, and ultimately in the patient’s best interests. Transporting patients enables paramedics to fulfil their role as protectors.

In providing protection and transportation to their patients, paramedics are expected to be *problem-solvers* and *describers*. The problems they solve are both clinical and non-clinical, and are centred on protecting the patient, others, and themselves from danger, both real and potential. To do so, paramedics are expected to enact a model referred to as the Systematic Approach, a model of problem solving of the assessment and analysis of data to arrive at a summary of the patient and their problems. The model calls on paramedics to use a mix of knowledge, skill, experience, attitudes, and intuition when managing patients. The approach has a singular aim—providing the “best possible outcome”. To assist paramedics to achieve this desired outcome, they are provided with formal policies and procedures set out in the *QAS Clinical Practice Manual*, to which they are expected to adhere. This documentation prescribes how paramedics will assess, treat, and manage a patient in the form of a clinical protocol contained within a series of case management guidelines. These guidelines create an expectation that paramedics will encounter individuals whose illness is deemed a psychiatric emergency—where the patient exhibits bizarre behaviour, is violent or dangerous, and typically self-harms. A key consequence of this characterisation of mental illness is the absence of guidelines for dealing with patients with mental illnesses of types that are not a psychiatric emergency, such as anxiety and depression, with these constituting the vast majority of mental illnesses. A notable feature of this document is the emphasis it places on the
transportation of all patients without undue delay. In this way, the document asserts that transportation of the patient is regarded as being in the best interests of the patient. Thus, for paramedics, transportation appears to be a core strategy of their treatment.

Finally, the analysis reveals the two official documents that relate to paramedic clinical judgement and decision-making of mental illness impose different conditions and expectations when it comes to their assessment and management of mental illness. One the one hand, the *Ambulance Service Act 1991* (Qld) places an expectation that paramedics will protect an individual from danger and potential danger. The *Ambulance Service Act 1991* (Qld) empowers the paramedic to take any reasonable measure to protect patients by transporting them to hospital where they can seek the advice of experts, namely physicians. Furthermore, paramedics are expected to transport all patients without undue delay. On the other hand, the *Mental Health Act 2000* (Qld) requires paramedics to justify their clinical judgement that involuntarily transportation and assessment are warranted. The analysis shows that since 2000, formal expectations that paramedics will assess and manage mental health patients have increased, with a particular emphasis on their duty of care to protect and transport patients. The *Mental Health Act 2000* (Qld) places particular obligations for paramedics to formulate their own judgements and decisions, as distinct from those of the patient or the physician.

In light of the demands and expectations of practice, the thesis now reports the analysis of three paramedics’ accounts of accomplishing clinical judgement and decision-making in the field, and what they consider influenced this aspect of their work. Each report and the analyses therein paid attention to the extent to which the formal expectations of practice—those of being *protectors, transporters, describers,* and *problem solvers*—featured in the accounts of paramedics, if at all. As will be revealed, when it came to paramedics’ accounts of actual judgement practice in the field, there were elements of their practice that reflected the formal expectations outlined in this chapter, and elements that did not.
CHAPTER 5 - THE CASES IN CONTEXT: PARAMEDICS’ ACCOUNTS OF ACTUAL JUDGEMENT PRACTICE IN THE FIELD

The thesis now turns to the cases, the paramedics, and particularization of the issue—accomplishing clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting. Chapter 5 presents three individual case reports, each report describing and analysing one paramedic’s account of judgement practice, and the factors they report as influencing this aspect of their work. The three case reports are those of paramedics Bill, Mary, and David. The analysis took a “sincere interest in learning how they function in their ordinary pursuits and milieus and with a willingness to put aside many presumptions while we learn” (Stake, 1995, p. 1). Each paramedic is understood as an holistic instrumental case, and the accompanying case report provides “a picture of the case and produces a portrayal of the case for others to see” (Stake, 2006, p. 3). The analysis drew on paramedics’ representations of actual judgement practice in the form of concept and process maps, their completed clinical job records, and in-depth interviews about those, as described in Chapter 3.

The reports that follow comprise three parts. They begin with a case description that introduces each paramedic and provides their demographic characteristics and work profile as it relates to clinical judgement and decision-making of mental illness. This is followed by case-based themes (Stake, 1995) that detail key features of the paramedic’s account of judgement practice in the field, and the factors they each reported to influence this aspect of their work. The case reports conclude with a discussion that relates their accounts to the formal expectations of practice detailed in Chapter 4. This brings to light aspects of their practice that are consistent with these expectations, and others that are not.
PART A – Within case analysis

Case Report 1 – Paramedic Bill

The first case was Bill, an experienced advanced care paramedic from a large ambulance station in South East Queensland. He joined the QAS in the mid-1980s as an Honorary Officer after completing Grade 10, the end of compulsory education. He has worked exclusively at stations within South East Queensland, and has no other ambulance service or health care experience. Bill has completed the QAS Mental Health Act Training Package, but has no other accredited or non-accredited training in mental health or mental illness. He has worked as an on-road officer exclusively for his entire career, and reported no personal experience with mental illness.

About Bill, his jobs, and his work

As described in Chapter 3, the analysis of Bill’s historical and current work, in the form of written and verbal accounts of his jobs, was undertaken. Data collection and analysis focused on jobs where Bill was First Officer because the First Officer is responsible for patient assessment and care, including clinical judgement and decision-making, as detailed in Chapter 4. Bill attended 56 jobs as First Officer where a primary or secondary complaint of psychiatric emergency was recorded, of which 35 were historical, and 15 were current. The analysis of his account focused on four areas: (a) the general characteristics of the job; (b) his assessment of the patient and the situation; (c) his treatment of the patient and management of the situation; and (d) the overall outcome of the job. Appendix 18 provides a descriptive summary of this data.

The majority of Bill’s jobs (n=45, 80%) were not, in his view, ambulance emergencies. He responded to only nine jobs under Code 1 (life threatening) conditions. More than three-quarters of the jobs he attended to were a Code 2 (non-life threatening) response. Police were not on scene, nor requested, for the majority of his jobs, and other health professionals were on scene in only a few (n=6, 14.2%) of the jobs.

With respect to Bill’s assessment of the patient and the scene, the majority of his patients (n=49, 87.5%) were recorded as having a history of mental illness. More than half (n=35, 62.5%) were noted to be on medication for mental illness. Few patients were assessed for, or reported to have, hallucinations or delusions. Approximately one-third
(n=19, 33.9%) of Bill’s patients reported being recently discharged from an acute mental health care facility. Fewer than 15% of his patients were documented as a suspected overdose, and approximately one-third (n=19) of his patients were recorded to have attempted suicide or self-harm, or to have ideations of the same. Almost half (n=27) of Bill’s patients were recorded to be emotionally distressed, with 23.2% (n=13) noted as anxious and 25% (n=14) as depressed. Fewer than one-quarter were documented as violent (n=8, 14.3%), agitated (n=10, 17.8%), or intoxicated by alcohol or drugs (n=8, 14.3%). Approximately one-third (n=18, 32.1%) of the patients requested transportation and admission for mental illness. Few patients underwent electrocardiography (n=10, 17.8%) or blood sugar analysis (n=3, 5.3%), although Bill used a mental status questionnaire for more than one-third (n=20, 35.7%) of patients.

When it came to treatment, approximately one-quarter (n=20, 23.2%) were recorded as receiving oxygen therapy. An emergency examination order—the instrument enabling involuntary transportation of a patient for assessment under the Mental Health Act 2000 (Qld)—was prepared for four patients. Two patients (3.0%) were recorded as being restrained physically or chemically, which occurred when a physician or intensive care paramedic were on scene. Almost all patients were noted to have vital signs recorded (n=53, 94.6%), and provided with psychological support (n=55, 98.2%), or reassurance (n=52, 92.8). Bill’s job records indicate the use of a nurse escort for only two jobs.

With respect to the outcome of his jobs, the majority of patients (n=45, 80.3%) were treated and transported by Bill. Six patients were recorded as having refused both treatment and transport. Of those patients, four were subject to an emergency examination order and transported involuntarily to hospital. The remaining two were treated by Bill, but transported to the hospital by the police. Two patients required transport without any treatment, and three were treated but not transported by Bill because another form of transport was secured. No patients were recorded to have received no treatment and no transport.

These characteristics of Bill’s work jobs and work history were particularly helpful when it came to understanding how he accomplished clinical judgement and decision-making of mental illness, and the factors he reported as influencing this aspect of this work. They provided insight into his clinical practice in the field, and his version of the Systematic Approach described in the preceding chapter. Of particular interest is
the priority Bill reported giving to adhering to the formal expectations of practice, in particular *protection* and *transportation*, and what occurred when he was unable to adhere to these expectations. Bill’s account of accomplishing clinical judgement and decision-making of mental illness, and the factors he reported as influencing this aspect of this work are presented as case-based themes in the section that follows.

The analysis of this case’s written and verbal account of practice in the field revealed that for Bill, accomplishing clinical judgement and decision-making of mental illness was made possible by using what he described as a “formula”.

**Bill’s “Formula” and “Triggers” for protection and transportation**

As discussed in the previous chapter, paramedics are expected to be *problem solvers*. For Bill, the application of the Systematic Approach was fundamental to his ability to solve patient problems and accomplish clinical judgement and decision-making of mental illness as expected of him. At the commencement of Phase 2 of the study, an in-depth semi-structured case entry interview was conducted with Bill using questions described in Chapter 3 and illustrated in Appendix 22. At this interview, de-identified copies of Bill’s historical clinical job records dating back 4 years were tabled. Bill was asked to prepare concept and process maps that represented his clinical judgement and decision-making of mental illness, which he was referred to throughout data gathering. Bill’s graphic representation of the processes he undertook to accomplish clinical judgement and decision-making is illustrated in Figure 16.

There are a number of significant features of Bill’s graphic representation in relation to the formal expectations of the Systematic Approach outlined in the *Q4S Clinical Practice Manual* described in Chapter 4. Whereas the formal expectation of the Systematic Approach outlined in chapter 4 consists of five recursive, dynamic and spiralling steps leading to the best possible outcome, Bill’s approach was *unidirectional* and *linear*, and was, in his words, *formulaic*. His processes are anchored between two points—the “survey and assessment of the patient and scene” (recorded as “Survey DRABC”) and “transport”. In this representation, there is no alternative decision or action point other than transportation, which is consistent with the formal expectations.
Bill emphasised the importance of his Systematic Approach being a “formula” that he adhered to for every patient. During the case entry interview, Bill remarked that:

*I follow that same formula really, pretty much. It’s the same processes over and over again. It’s just what we do. . .*

This segment of talk illustrates the importance Bill placed on his formula that he routinely relied on to fulfil his expectations of practice.

The analysis of Bill’s account reveals that his “formula” consisted of a number of interconnected elements that operated in the field, each comprising processes and sub-processes. These elements were four-fold: (i) Adherence to expectations of transportation for protection; (ii) Prior experience, Instinct and interpersonal skills; (iii) Gathering information for triggers and patterns; and (iv) Relationships with others. Bill’s summative graphic representation of his “formula” for the Systematic Approach is illustrated in Figure 16. For Bill, these elements worked side-by-side and in combination to enable him to achieve a single goal, the transportation of the patient,
which he deemed the best possible outcome for the patient, as the next section will show.

The mandate – Adherence to expectations of transportation for protection

For Bill, arriving at a decision to transport the patient was the fundamental aspect of his judgement practice with respect to mental illness. This permeated his accounts of practice, both written and verbal. As noted in his representation of his Systematic Approach in Figure 16, his judgement practice was focused unilaterally towards transportation. Transport was his primary goal, and his own expected outcome. During an initial interview, Bill remarked:

*I go to every case with the plan to transport, regardless of what is happening at the scene or the presentation of the patient.*

Thus, Bill attended each case with an expectation of transportation, which allowed him to adhere to the formal expectation of practice. Moreover, Bill saw the transportation of his patients as his key treatment. For him, arriving at a decision to transport (and enacting that decision) was necessary as it was in his view the best possible outcome. Consequently he routinely transported patients to hospital. What reinforced this were the findings of the analysis of Bill’s job outcomes described earlier. In none of Bill’s clinical jobs examined was there a patient who did not receive treatment or transport of some kind. Only two patients were documented as being transported without any treatment, and three were treated but not transported by Bill because they were transported by another means. Six patients were recorded as having refused both treatment and transport. Of those six patients, all were involuntarily transported by some means. Bill transported four patients under an emergency examination order and the police transported two. There were no patients recorded who received no treatment and no transportation. According to Bill, this was because transport was really the only option for the outcome of the job. In his view, there was little else he could do with patients who were mentally ill (or he suspected were mentally ill), other than to transport. During the initial interview with Bill at the beginning of data collection, he commented that:

*Well for us, there’s not much we can do with many patients, so treatment is transport.*
In this excerpt, Bill was heard describing how transportation was both a requirement of the formal expectation and the inevitable outcome of the job, notably because, in his view, the options for treatment were limited. This feature of limited treatment outcomes for patients who are mentally ill is realised later in the case report when examining the outcomes of his jobs.

Transportation was the inevitable and necessary outcome according to the formal expectations described in the last chapter, and it enabled Bill to fulfil the formal expectations of practice, which was particularly important to him. For Bill, transportation was inexorably linked to his adherence to another formal expectation of him—providing “the best possible outcome for the patient”. According to Bill, the best possible outcome for the patient was transportation because it enabled him to provide protection. In this way Bill saw himself as a protector of patients, which transportation to hospital provided. The following segment of talk from an interview about a current job exemplifies the importance of him being a protector of the patients:

... as far as understanding their mental illness, I think that in the capacity of the paramedic [the] role is to care and support and nurture, to get them, to get them to someone who can psychoanalyse, who does have the know-how to psychoanalyse, where my role is to give them support and a confidence to come with me.

In this talk, Bill emphasised the importance of providing support and care rather than making a clinical judgement. It also reveals the interdependence of protection and transportation. Thus for Bill, providing protection and transport was the fundamental motivating element to accomplishing clinical judgement and decision-making of mental illness. To achieve his goal of protection and transportation, Bill reported relying heavily on prior experience, instinct, and interpersonal skills.

Foundations – Prior experience, instinct, and interpersonal skills

For Bill, it was experience and what he referred to as “historical exposure” and “instinct” that were fundamental to accomplishing clinical judgement and decision-making of mental illness. While experience is one element that defined judgement in the QAS Clinical Practice Manual, as outlined in the previous chapter, for Bill it was the fundamental element. These features were reported by Bill from the very beginning and
were consistent themes throughout the analysis of current jobs. For example, during one interview, Bill remarked that:

\[\ldots\text{it comes back to experiential exposure. I learnt from experience.}\]

Here Bill signalled that his experience in the field and exposure to clinical jobs were fundamental to him accomplishing clinical judgement and decision-making of mental illness. What reinforced this feature was the location of experience in Bill’s concept map of clinical judgement and decision-making of mental illness, as illustrated in Figure 17.

**Figure 17 – Bill’s concept map**

![Concept Map](image)

This concept map exhibits a number of key features. It consists of eight propositions, the most fundamental of which is “historical exposure to similar events”, or experience. This proposition was fundamental in his graphic account of his enacted systematic approach and process of clinical judgement and decision-making in his map; it was what underpinned his accomplishment of clinical judgement and decision-making on mental illness. It was what he relied on to, as he said, “get him through”:
Mostly experience because it gets me through.

In addition to historical exposure and experience, Bill’s written account illustrated the importance of other psychosocial behaviours in clinical judgement and decision-making of mental illness that were related to emotion.

Not wanting to judge – Value connotations of language

In his concept map illustrated in Figure 17, having empathy for patients and being “non-judgemental”, “non-threatening”, and “understanding” are essential propositions in his construct of paramedic clinical judgement and decision-making of mental illness. The key reason Bill offered for this was that by exhibiting those qualities he was able to provide better patient care. Bill remarked that:

*If they don’t feel threatened or intimidated, they feel that you actually care about them as a person and about the position they find themselves in. They have a tendency to warm towards you and be more cooperative and more willing to impart information.*

This excerpt highlights the importance Bill assigned to being non-judgemental, which provided two important advantages. Being non-judgemental allowed him to fulfil his obligations to be a protector of patients, and it enabled him to gather better information about his patient. He suggested that:

*I’m here to look after them, not to judge them. If they sense I’ve judged them, they clam up, or get shitty. I feel bad, particularly for our frequent flyers. We go to them over and over and over again. Their lives are crap. They don’t need any more crap from me.*

As this segment of talk about a clinical job illustrates, Bill reported the experience of managing patients with mental illness to be emotionally challenging. This was particularly so for patients who repeatedly call for assistance, whom he referred to as “frequent flyers”. Moreover, it was important to Bill for his patients to feel that he was not at any stage making moral judgements about them or their circumstances during his encounter with them. Of particular importance to Bill was his patients’ awareness of the empathy he had for them and their circumstances:
You have to treat each job individually; every patient has their own history, own experiences and [you] need to listen and be aware and acknowledge that particular patient and make the patient feel heard, make the patient feel understood, and you’ve got to work it that... I don’t know how to explain it. . . . make the patient feel like a real person, rather than just an average nutter.

In discussing this job, Bill signalled his reluctance to stereotype the mentally ill when making clinical judgements and decisions about their care. He valued the holistic assessment of the patient. The analysis revealed differences between the written and verbal accounts of Bill’s account, in particular between the official account of the job, in the form of the job record, and the private and other unpublished account made available by his verbal account. For example, as illustrated earlier, Bill used terms such as “nutter” in his verbal account to describe patients, which was not present in his written account. While such terms may be heard as pejorative, they did not appear so across his overall accounts, and reflected context-specific language of his practice. In addition to this, Bill suggested that being judgemental made him more prone to mistakes. As he remarked:

Sometimes it’s hard, but if you walked in and because of the environment they are in you form this opinion, they are a no-hoper. Things like that, then there is a chance that you may not be as thorough in your clinical information gathering and you miss some vital information, which will lead to an inappropriate or inaccurate provisional diagnosis, which then further affects your clinical treatment of them.

The role of instinct and gut

In addition to experience and historical exposure, Bill reported relying heavily on instinct to guide his clinical judgement and decision-making of mental illness. For example, during one current job interview Bill suggested:

... it’s a feeling you get about a case. You can’t quite put ya finger on it, but it’s like you’ve seen it before.

For Bill, instinct was visceral and invoked powerful emotions. He associated his instinct with trust, which he considered was based in his “gut”:

My gut instinct, or a hunch I have. I always trust my gut instinct.
Thus, Bill relied on his experience and instinct in combination as a source of professional safety for himself. As he explained during one interview:

*I got to rely on my experience and my gut. It all comes basically back to experiential exposure and my gut. They are always the safest bet.*

As this excerpt illustrates, relying on his experience and his instinct or “gut” provided him with confidence in his actions, particularly of his own professional safety. For Bill, his instinct was not drawn from education or training, as he explained during one job interview:

*Interviewer: Or is it something you have been trained to do?*  
*Bill: I don’t – I think it’s more instinctive things. Some of these things you can’t train people.*

Thus, Bill’s reliance on experience and instinct contributed significantly to the knowledge he used to accomplish clinical judgement and decision-making of mental illness, and the sufficiency of his professional preparation, as the next section explains.

**Knowledge from experience**

For Bill, his experience gave rise to knowledge and life skills. Moreover, he considered experience as the primary source of his knowledge rather than other traditional sources, such as education, training, and professional development. Bill remarked that:

*You can develop knowledge of what you should do but it doesn’t mean to say you can actually do it. It is not actually until you are exposed to it that you are able to do it efficiently and timely.*

Here Bill described, in general terms, the value of knowledge acquired from experience in the field. For Bill the true value of knowledge lay in its application in practice.

*Initially, when you first come out of training you are very aware of...you come out with this sort of tricks in your bag. Then you find out it doesn’t work, and you gradually get your own bag of tricks or your knowledge base.*
He suggested that, while some forms of knowledge might outline how tasks should be done, the most useful knowledge was acquired and developed in the field—his experience. Interconnected with this was his account that he considered himself poorly prepared educationally with respect to managing mental illness. As Bill remarked:

*It’s not something that I have been trained. Oh shit no, we ain’t been trained properly at all.*

Bill expressed this view many times throughout the study. Although Bill thought his formal education and training for accomplishing clinical judgement and decision-making of mental illness were poor, he nevertheless held a view that he had applied in-the-field knowledge that was invaluable. It was imperative for him to develop his own knowledge base. One way he reported having done so was by using a mental status questionnaire, which is illustrated in Figure 18. Bill reported sourcing this test—an adaptation of the Mini-mental Status Questionnaire (MSQ) by Folstein, Folstein, and McHugh’s (1975)—from his nursing colleagues at one of the emergency departments to which he transported patients. The MSQ is typically used as a rapid test of the cognitive function of individuals, particularly elderly patients (Fontaine & Fletcher, 1999). It consists of 10 questions, each worth one point, as listed in Figure 18.

**Figure 18 – Mini–mental Status Questionnaire (MSQ)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is today's date?</td>
<td>1</td>
</tr>
<tr>
<td>What month is it?</td>
<td>1</td>
</tr>
<tr>
<td>What year is it?</td>
<td>1</td>
</tr>
<tr>
<td>What is the name of this town or city?</td>
<td>1</td>
</tr>
<tr>
<td>Where are you at the moment?</td>
<td>1</td>
</tr>
<tr>
<td>What is your age?</td>
<td>1</td>
</tr>
<tr>
<td>What is your month of birth?</td>
<td>1</td>
</tr>
<tr>
<td>What is the year of your birth?</td>
<td>1</td>
</tr>
<tr>
<td>Who is the current Prime Minister?</td>
<td>1</td>
</tr>
<tr>
<td>Who was the previous Prime Minister?</td>
<td>1</td>
</tr>
</tbody>
</table>

The test works on the premise that the higher an individual scores for correct answers, the better their cognitive function. A score of seven or less suggests cognitive
confusion, particularly in the elderly. His clinical job records indicated he used the mini–mental status questionnaire as a tool for gathering information for more than one-third of his patients. For Bill, “gathering information for triggers” and “patterns” was another key theme of his account of clinical judgement and decision-making practice, as discussed in the next section.

Making it happen – Gathering information for “Triggers” and a “Jigsaw”

A key feature of Bill’s account was his ‘gathering of information’ from the environment and his use of what he referred to as ‘triggers’ and a ‘jigsaw’.

Information gathering – Using a list

Bill’s diagrammatic representation of his approach to clinical judgement and decision-making in Figure 19 illustrates the gathering of information about the patient and the job from the environment. During an early interview, Bill drew attention to a formal document, the Queensland Ambulance Service Patient Documentation Forms: Instructions for Completion, which outlines how paramedics’ “written reports must be objective and not include opinions or value judgements of the Paramedic Officer, and any opinion that is not supported by fact should be avoided” (Queensland Ambulance Service, 2003, p. 5). The information Bill gathered and recorded in his job record was consistent with this requirement, and related directly to his physical assessment of the patient. Moreover, Bill’s gathering of information followed a list, an ordered array of information required in the formal written record of clinical jobs, the Ambulance Report Form. These forms were standard across the QAS, and included the following visual prompts to guide data gathering, as Figure 19 illustrates:

Figure 19 – Visual prompt for data gathering

| Presenting H | PMH | Meds | Allergies | R,BA | O/A | O/E | PA |

Transcription: Presenting history, past medical history, medication, allergies, treatment before arrival, on arrival, on examination, provisional diagnosis.

The eight acronyms listed in Figure 19 signify different types of information that the paramedic is expected to collect. These include (in order of presentation): presenting history, past medical history, medication, allergies, treatment before arrival, on-arrival,
on-examination, and provisional diagnosis. Bill’s account indicates his use of these groupings as headings as a list to guide his gathering and assessment of the information. His written and verbal account illustrated the systematic use of this list for the gathering and assessment of information, as one of Bill’s current clinical jobs illustrated in Figure 20. This job record exemplifies the layout, presentation, and content of all of Bill’s job records. Moreover, it provides further evidence of his adherence to formal expectations of practice, in this instance with respect to his gathering and recording or data.

Figure 20 – Correlation to formal prompts

Transcription:
Presenting history: 18-year-old male with overdose of query 15 to 20 Zoloft tablets this afternoon, suicidal talk and actions with Stanley knife AGGRESSIVE PATIENT threatening to kill himself with tablets, knife, gun. EMOTIONALLY UPSET.
Past Medical History: Operation to place band of stomach for dietary conditions, depression.
Medications: Zoloft.
Allergies: Nil known.
Treatment Before Arrival: Nil.
On Arrival: Patient lateral on the road in care of father outside their house.
On Examination: Central Nervous System = Glasgow Coma Score = 15, Mini-mental Status Questionnaire = 10; Grip = left = right = firm and level of consciousness well. Cardiovascular System: Good observed perfusion, pupils equal and reacting to light; Electrocardiogram: heart rate = 100 regular, [P wave less 0.12] Chest: Left = Right = Good Air Entry. Nil crepitis, Nil wheeze full field.
Provisional Diagnosis: Overdose on Zoloft with suicidal tendencies and aggressive.
Treatment: 1900hrs Serenance 10 mg
Intensive Care Paramedic on scene; 1825hrs vital sign assessment, Observations, psychological support, oxygen (100% saturation), monitor heart rate 98 regular, P wave 0.12).1905hrs: Transport. Qld Police Service on scene, escort with QAS in transport, father escort with QAS in transport, Intensive Care Paramedic escort. Patient in handcuffs for own safety. Filled in medical PTSC form for [anonymised]
In addition, Bill’s “formula” for clinical judgement and decision-making of mental illness comprised gathering of information that did not feature in the formal expectation of practice as outlined in Chapter 4. Specially, Bill relied heavily on gathering other information from the field by observation. Bill remarked that:

\[I\ \text{look for key things. My behaviour assessment looking at their body language, whether they are fidgeting, or if they have any, just looking around the house, or the scene, looking for different cues whether it be medication boxes; or knives; or behaviour of bystanders, relatives, or family; that goes into more detailed questioning about the patient’s medical history, past medical history, their medications they are on at the moment, their allergies.}\]

This talk segment exemplified his assessment of the patient and the scene for particular pieces of information, which he reported were ‘triggers’ for action.

**Specific information for action: Triggers**

Bill used specific information as a “trigger” to facilitate a particular action or outcome. For Bill, triggers enabled him to fulfil his obligation to protect and transport the patient. The key motivation Bill offered for developing these triggers was to allow him to manage uncertainty more easily when arriving at a clinical judgement. Moreover, they allowed him to determine how to manage the patient, as outlined in this segment of talk:

\[I\ \text{use them to decide what to do with the patient. If I have them then it makes it easier to deal with the patient.}\]

Here, Bill signalled that particular kinds of information gave him confidence when assessing patients to inform his judgement and related actions. According to Bill, this information made clinical judgement and decision-making of mental illness “easier”. Bill reported using two kinds of triggers, which he referred to as ‘hard’ and ‘soft’, for clinical judgement and decision-making of mental illness. These are elaborated in Figure 21. For Bill, “hard triggers” were specific pieces of information that he used to justify the action of providing treatment and transport. Their presence resulted in an automatic action and outcome. If a patient satisfied any one of those conditions, his justification for transport was absolute. Bill identified eight “hard triggers” that he used to gather specific information from the field. Some reflected behaviour of the patient.
### Figure 21 – Bill’s “triggers”

<table>
<thead>
<tr>
<th>Hard triggers – Any one justifies immediate transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prior judgement by a doctor, nurse, social worker, other paramedics, police officer</td>
</tr>
<tr>
<td>2. Personal knowledge/experience of current diagnosis of mental illness</td>
</tr>
<tr>
<td>3. Are on medications that are psychiatric</td>
</tr>
<tr>
<td>4. Any attempt or threat of suicide, harm, or overdose regardless of lethality</td>
</tr>
<tr>
<td>5. Request voluntary admission and transport</td>
</tr>
<tr>
<td>6. Patient has history of mental illness</td>
</tr>
<tr>
<td>7. Recent discharge from mental health facility</td>
</tr>
<tr>
<td>8. Very bizarre behaviour, speech, action</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Soft triggers – Two or more justifies immediate transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Prejudgement by ambulance communications personnel</td>
</tr>
<tr>
<td>10. Abnormal or disturbed behaviour, speech, actions</td>
</tr>
<tr>
<td>11. Can’t find a physical reason to explain their presentation</td>
</tr>
</tbody>
</table>

Others related to the artefacts from the field and the practice environment. In one job, the patient was recorded as having “feelings of self-harm” that triggered Bill’s decision to transport the patient, as illustrated in Figure 22.

### Figure 22 – Documenting the “hard trigger” of recent admission for mental illness

Transcription: Presenting History – Patient with feelings of self harm this afternoon. Patient statement she had not taken anything but feels like it. Patient transport to [anonymised].

For Bill, the prior judgement by a physician was a “hard trigger” for Bill, as illustrated in Figure 23.
Figure 23 – Documenting the “hard trigger” of prior judgement by a physician

Transcription:
Presenting History: Patient came to front door of QAS [anonymised] upset and complaining of sore wrists.
Past Medical History: Self-regulated psychiatric condition.
Allergies: Aspiring
Medications: Largactil, Epilim
Treatment Before Arrival: Nil
On Arrival: Patient at front door of QAS [anonymised]
On Examination: Psychologically upset, wanting to talk to Doctor at [anonymised]. Patient complaining of sore wrists from handcuffs and query medication skin rashes.
Provision Diagnosis: Psychological upset and sore wrists.
Treatment: 1200hrs – 1202hrs
Posture, vital signs, observations, psychological support, transport.
Patient stable during transport.

In another job, Bill recorded the patient’s statement that he planned to kill himself, which was a “hard trigger” that necessitated transportation, as illustrated in Figure 24.

Figure 24 – Threatened suicide as a “hard trigger”

Transcription:
Treatment: 0633-0723hrs
Posture, vitals, observations, psychological support, transport, electrocardiogram heart Rate 150 regular, P wave <0.12. Patient in the care of Qld Police Service and QAS.

[Asterisk]: Patient stated he cannot stand what is going on in his neighbour’s house (alleged rape of female) and was going to stab himself in his own heart at the first opportunity to kill himself. Patient stated this several times.
Although Bill reported that only one “hard trigger” was required to effect transportation of the patient to hospital, more than one was often identified during the job. In one job Bill identified two “hard triggers”—that the patient was taking medications for a mental illness, and prior judgement of the patient’s condition by a physician—that enabled him to fulfil his obligation to transport the patient to hospital. Evidence of this was documented in his written clinical job record illustrated in Figure 25.

**Figure 25 – Example of multiple “hard triggers” in a clinical job record**

In this written record, Bill noted two “hard triggers”. In such instances, Bill reported increased confidence in the justification for transportation and protection. He remarked that:

*One is all I need, but lots have more. Just makes it easier to justify if I get grilled by the docs [doctors] for dragging in a patient.*
Bill also reported using “soft triggers” to accomplish clinical judgement and decision-making of mental illness. His soft triggers comprised specific forms of information he collected from the field, which in combination with other triggers provided him with the justification for transport. Whereas Bill only required one “hard trigger” to effect transportation of the patient, two or more soft triggers were required to justify the action of transportation. The assessment of only a soft trigger was insufficient for Bill to invoke his predetermined plan to transport the patient, but met his requirements when combined with another soft or hard trigger. It was the use of triggers, both hard and soft, together with his prior experience, mainly his “historical exposure to events” that he reported relying on the most for clinical judgement and decision-making of mental illness.

Combining experience and “triggers”: “Jigsaws”

Bill relied on the metaphor of judgement as a “jigsaw” to describe how he conceptualised the task of accomplishing clinical judgement and decision-making of mental illness, and how he mobilised his experience in each of these situations:

... you put them together and create a jigsaw. ... It is a process I use to eliminate, or basically gauge, the extent of the injury.

Bill described how he put together pieces of information gathered from the field to build what he described as a “picture” of a patient. In doing so, he looked for patterns of patients drawing principally on his experience. He reported that it was his experience that was the foundation to his description and summary of the patient, and presenting this “picture”:

So if we look at historical exposure to similar events, basically what my concept of that is you had a similar sort of incident and so you have taken ideas of how you cope with that, what you thought went well, what went bad, and you have stored that away and then when you hit it again you sort of pull on that information that you had stored and tried bits. You built up gradually in this style of patient in the past these things have worked, and these things haven’t, so I will try some of these things.

In this segment of talk, Bill can be heard signalling the importance of his experience, in recognising particular patterns for action.
The picture is built from—historically, I suppose—from real cases or from your practical. So, what you have been exposed to through the years colours the way you see things.

The importance of relying on his experience coupled with instinct when there were no recognisable patterns available to guide his assessment and management of the patient was evident. Bill remarked that:

If none of them work well then you may look at some of the things that didn’t work in the past, see whether or not they are worked through. That is the sort of thing I am looking at with historical exposure compared to knowledge gained.

This was particularly relevant for Bill when he was not able to fulfil his obligations of protection and transport because of patient refusal.

Lacking triggers: The uncertainty of patient refusal

As revealed earlier, adhering to the formal expectations of protector and transporter were fundamental to Bill’s clinical judgement and decision-making of mental illness. These expectations enabled him to act in what he perceived as the best interests of the patient. He held that transporting patients to hospital for treatment was at the core of his judgement practice, and he derived considerable personal and professional satisfaction when doing so. Consequently, Bill associated the inability to protect and transport the patient with significant personal and professional dissatisfaction, even distress. As outlined earlier, six of Bill’s patients were documented as refusing both treatment and transport, although all were transported involuntarily one way or another. Four patients were transported via emergency examination order and the other two, by the police. For Bill, the reason patient refusal of both treatment and transport was a source of considerable personal and professional distress was because he was unable to comply with the formal expectations of practice. Bill was averse to not transporting patients to hospital:

I don’t like leaving them behind.
For him, his inability to transport the patient to hospital meant that the patient was not receiving care—in fact, the best possible care. In describing one of the cases where the patient refused transport, his higher level of concern was clear:

*Oh, that was crap. I hated that. Man, I was so worried. Still am. You never know what they are going to do.*

Here Bill signals the personal and professional distress that resulted from the patient’s refusal of treatment and transport. He expressed a strong fear of the potential consequences of failing to meet with the prescribed standard. This talk segment highlighted the influence that uncertainty had on his clinical judgement and decision-making of mental illness, and the potential consequences for him both professionally and personally. Bill reported this to be the main motivator for his adherence to the formal expectations of practice. To deal with this, Bill reported looking to another mechanism to meet his professional obligations, namely enlisting help from others.

**Meeting obligations – Relationships with “Others”**

For Bill, an important mediator in accomplishing clinical judgement and decision-making of mental illness was the role of others, and the relationship he had with them. This was most evident when looking at differences in his accounts of practice that occurred when patients requested or refused treatment or transport.

*The influence of the patient – Consent and refusal*

As described earlier, almost one-third of Bill’s patients (n=18, 32.1%) requested mental health admission, and more than three-quarters agreed to treatment and transportation. For Bill, the patient’s request and permission influenced his clinical judgement and decision-making of mental illness. As outlined earlier in this section, the request from a patient for assistance and transportation was a hard trigger. It provided Bill with the satisfactory justification for transportation. His written records indicated that many of his patients specifically requested transport to hospital for treatment. For example, the extract from one of Bill’s clinical job records in Figure 26 illustrates how Bill documented the patient’s request for transportation to hospital very early in his clinical job record.
As illustrated in Figure 26, the request from the patient for transportation featured early in his written account that justified his action. In these jobs, Bill deferred to the authority of the patient, which coincidentally enabled him to fulfil his practice obligations.

Patient refusal of treatment or transport was also a significant mediator in Bill’s accomplishment of clinical judgement and decision-making. As mentioned earlier, Bill associated patient refusal with considerable personal and professional distress. As discussed in the next section, when a patient refused treatment or transport Bill looked to others—typically a “responsible adult”—to accept some responsibility for the patient’s wellbeing, which enabled him in turn to discharge his obligations and duties, thus ameliorating his distress.

The “responsible adult” for patient refusal

If the patient refused transportation, Bill sought assistance from others. He did so, however, with great reluctance and apprehension. In three jobs, the patient accepted treatment but not transportation. In describing one case in which a patient refused transport, Bill reported discharging his professional obligations by leaving the patient in the care of someone else:

*If they refuse, I encourage her to stay in close contact with next of kin or family or somebody to keep an eye on her if you think that she’s gonna get any worse. Let the patient know that, hey, you can call us back if you need to.*
In this job, Bill was able to protect the patient by leaving them in the care of someone else, in this case the next of kin or a family member. In other jobs, Bill was able to hand the patient over to the police:

> Well, it made my job much easier. I wasn’t going to leave her by herself, but he was there, and the police were coming, so they could handle it. She didn’t need us.

Here Bill remarked that the patient did not require his services and that another authority would better meet her needs. Although the patient’s next of kin was not present, he was able to leave the patient in the care of the police, who would be arriving shortly. For this clinical job, the responsible adult was a police officer. The reasoning behind the decision to involve the police was made evident in the following segment of talk from Bill about the same case:

> I’m asking myself: Is this person safe?; Could I get myself into the shit, if I don’t transport this person then could she come to harm, because if she does, then I could be in trouble. Yes, she could come to harm, therefore she is coming to hospital. I can’t leave you, call the police and the police sit on them.

Bill’s justification for his action in this clinical job is important. Although he expressed concern for the safety and welfare of the patient, his primary motive for enforcing his obligation to transport was related to his own professional safety. Bill was fearful first for himself, then the patient, and then for bystanders. Bill’s account indicated that his greatest fear was for himself in terms of his own physical and emotional safety. The reasons reported related to his experience of patients with mental illness, with whom he associated high rates of violence and unpredictability. Bill described one job where he was required to attend a patient reported to be violent and having a psychotic episode. In this particular job, Bill held a view that the patient was mentally ill and required transportation to hospital. The patient, however, flatly refused treatment and transport. In Bill’s written record of the job, he details how he discharged his professional obligations of treatment and transport of the patient by leaving the patient in the care of a responsible adult, in this case the patient’s wife and the police. This is evident in his written account of the job, illustrated in Figure 27.
In discussing this job, Bill commented that:

Thank God his wife was there. If she wasn’t, then I wasn’t going to leave him behind. Absolutely no chance.

In this segment of talk, Bill illustrated how he deferred to other trusted individuals at the scene, in this case the patient’s wife. In this way, he was able to fulfil his obligations to protect and transport by deferring to others.

The prior judgements of “Others”

For Bill, other agencies had a bearing on how he accomplished clinical judgement and decision-making of mental illness. A key theme in Bill’s account was the “pre-judgement” of others. Bill reported that accomplishing clinical judgement and decision-making of mental illness was easier when a reputable judgement already existed. In this clinical job series, the source of judgement came from those whom he viewed in positions of authority, including the QAS Communications officers, police officers, health care workers—namely physicians, nurses, and mental health professionals—and, most importantly, the patient. As outlined earlier, these were elements of Bill’s hard and soft triggers, which acted to justify the action of treatment and transportation for protection. This featured consistently throughout his account. For example, in instances where there was a physician or nurse present, Bill’s clinical job record was significantly
The job in Figure 28 illustrates that Bill deferred to the judgement of the local medical officer and nurse.

**Figure 28 – Deferring to registered nurses**

In another job described earlier, Bill recorded that the local medical officer attended prior to arrival and that his role narrowed to transport of the patient for a “psychiatric admission”. Bill’s written account of the job illustrated in Figure 25 illustrates his documentation of three hard triggers: (i) that the patient requested admission to hospital; (ii) that there was a physician on scene who made the judgement for admission; and (iii) an artefact in the form of a doctor’s letter. All of Bill’s clinical job records contained less information when a physician, nurse, or other person of authority was recorded to be present in the field. In such instances, Bill reported always deferring to the opinion of the physician, nurse, or person of authority, as this extract indicates:

*Interviewer – I note that compared to your other cases, there is little written. Is there any reason?*

*Bill – Well, they’re [doctors] the ones who know the patient, and are trained. Why would I need to do any of the work? Unless they are completely hopeless, I just follow the direction and do as I’m told. I’m just there to transport.*

In this talk segment, Bill can be heard using his “hard triggers” to narrow the focus of his assessment and judgement practice for an outcome of transport. This was characteristic of Bill’s account of judgement practice. If a physician was present, Bill reported always deferring to them for a judgement of mental illness and adopting their judgement in accomplishing his own. This also extended to nurses or police officers.
who were present on scene. In one job, QAS Communications dispatched Bill to a female patient in labour who was also mentally ill. A local medical officer had requested transportation of the patient for psychiatric admission. In his written job record, provided in Figure 29, Bill demonstrated his deferral to the authority of the nurse and the physician, so much so that he provided no patient assessment or treatment other than transportation. Bill happily relinquished responsibility to the nurse escort.

**Figure 29 – Bill’s written account illustrating the authority of the doctor and nurse**

<table>
<thead>
<tr>
<th>Transcription:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter-facility transfer with nurse escort.</td>
</tr>
<tr>
<td>Labour 15 minus apart. Local medical officer request.</td>
</tr>
<tr>
<td>[Treatment]: 1210 to 1220. Posture, vitals, observations, psychological support, transport. Patient stable.</td>
</tr>
</tbody>
</table>

In commenting on this feature of his clinical job record, Bill indicated that:

> When a nurse is there, I stay right off it. They got it sorted, particularly if they are a psych nurse.

Bill reported valuing the judgements of others in authority who he encountered in the field, including police officers and QAS communications officers. As examined earlier, one of Bill’s soft triggers was the prior judgement of “prejudgement by Communications”. Although the judgements of QAS communications officers were not a hard trigger, which would render an automatic judgement of mental illness, they carried significant weight in Bill’s clinical judgement and decision-making processes:

> Comms? Well, they get some cases right, but others they screw up. Most of the psych cases I go to are psych cases. If communications says it’s psychiatric, then it usually is.

Bill’s account of practice suggested that the judgement by QAS Communications was correct most of the time, and that this was a reliable indicator of the patient complaint:
They’re usually on the money for cardiac and respiratory arrests, trauma like hanging, obviously, and the psychs. They’re crap for chest pain and shortness of breath. Everyone has chest pain and shortness of breath. Everyone knows if you want an ambulance faster, say you got chest pain, or they’re not breathing.

In this segment of talk, Bill indicated that QAS Communications reliably advised him of the patient’s condition before he arrived. This information was particularly useful to Bill, and he routinely used it to accomplish his clinical judgement and decision-making of mental illness. Bill also assigned considerable weight to the judgements of police officers. For Bill, the judgement of police officers was a hard trigger, as illustrated in Figure 21.

In instances where police officers were present and they had a patient they reported was mentally ill, he reported routinely deferring to their judgement to fulfil his practice obligations. In effect, he considered the judgement and decision-making of police officers to be superior to his:

Interviewer: So, in this case you were sent to a case where a patient was reported to be violent that required police on scene. Was that information influential?
Bill: Well, if the coppas [police officers] are there, and the patient flipped out, well, there ain’t nothing to think through. Pretty clear cut—patient a nut.

Here, Bill signals the frequency of police involvement in patients presenting with mental illness. Moreover, he suggested that police attendance to such patients was most often justified. In his experience, police were not likely to be called to a patient who was mentally ill unless they were really needed. He noted, however, that in his experience the same did not hold true for paramedics:

I can’t ever remember being to a case where the coppas [police officers] had a patient who was mentally ill, and they weren’t. They don’t muck around. They are always going to them, particularly the violent nutters.

Thus, Bill assigned considerable weight to the judgements of police officers and their authority in the hierarchy of judgement.
The Others that are not

There were some “others” whose opinions and advice Bill did consider with significant caution. When family or friends of the patient, or bystanders at the scene, provided a judgement of mental illness, Bill was more likely to assess the veracity of their claim and to treat their assessment with caution, particularly in instances where the judgement was that the patient did not require treatment or transport. Bill’s concerns about relying on the advice of relatives and friends, and the potential consequences of such events were twofold—first, the potential consequences to himself; and then the potential consequences to the patient. Bill made this evident in the following talk segment:

*She might be a sweet little old lady, but they’ve been known to try to knock off the old man. It’s never happened to me that I know of, but a mate of mine up north [got] stung recently. He and his partner were in the shit big time.*

The motivation for this for Bill was affective. His distrust of the relatives’ motives was reflected in his own expectation as to how he should manage the patient. He suggested that:

*Oh no, no, no. Relative and friends, they are different. You can never know what they’re up too.*

As revealed earlier, Bill reported relying routinely on other paramedics to some extent in accomplishing his clinical judgement and decision-making of mental illness. However, this was conditional. It is standard practice that the First Officer assumes responsibility for the clinical job. There were jobs where Bill, as Second Officer, reported being concerned about the clinical judgement and decision-making of his First Officer. While this occurred rarely, Bill amended the written record of the job to reflect his concerns, as illustrated in Figure 30. For example, in one job Bill disagreed with the decision of the First Officer to not transport that patient. He noted his disagreement on the case record form in an attempt to protect himself professionally, as he recalled having significant concerns about the quality of his colleague’s clinical judgement and decision-making:
I was working with [anonymised], and he can be a bit dippy sometimes. I thought this patient needed to go, but he was in charge, and I didn’t want to get him riled up. So I just added the note to cover my ass.

Figure 30 – Amending the written record of his colleagues

Transcription: Patient stable during full 38 minutes QAS on scene. Glasgow Coma Score = 15. Mini-mental Status Questionnaire. = 10. Cardiovascular Good observed perfusion. Psychiatric patient with panic attack. Seen by QAS earlier. Claiming he can’t stand smell of aftershave on officers attending, both times. Refusing transport as feeling better after talking to us. Patient advised to call QAS if needed to call local medical officer instead, which they will. Patient left in the care of a responsible adult.
Bill’s annotation: Patient advised of importance of taking medications. Patient refused to have vitals done by QAS

Bill reported that his on-road partner influenced his clinical judgement and decision-making of mental illness in this way most often in two circumstances—working with students, and when working with those he did not trust. In the instances when he worked with a student paramedic, which he suggested was very common, he indicated that he took a much more cautious approach:

Every second paramedic is a student. We’ve lost so many guys over the years, guys from my era. Students are everywhere. They’re great, but so green and haven’t really got a clue.

In addition, Bill also reported extra caution on the less frequent occasions he was required to work with officers who were known for poor clinical performance:
We don’t get them so much now, but we use to. They would be crap, and go missing in the middle of a case.

There were some jobs, however, where it was not clear who had made the judgement of the need for ambulance help. During one of his interviews, Bill made the following remark about transporting patients who did not display overt signs of mental illness, or hard triggers:

Interviewer: I mean if they are not hallucinating and they are not violent, then why transport them?
Bill: If they are not hallucinating and not violent, then the assumption is that someone has called the ambulance, somebody has made a decision that this person needs to go to hospital.

Here, Bill signalled his willingness to rely on someone, such as a caller, even when his or her identity was unknown. This lends further support to the earlier observation that his personal and professional need to transport and protect the patient dominated.

Critical interpretations of Bill’s account – The enacted and the expected

When relating Bill’s account of clinical judgement and decision-making of mental illness to the formal expectations described in Chapter 4, a number of significant observations are made. Chapter 4 presented a discussion on the social nature of the problems that paramedics are expected to solve in the field. First, much of Bill’s problem solving and work in accomplishing clinical judgement and decision-making of mental illness involved solving problems that were primarily social rather than medical. As his account illustrates, few of the jobs he attended were medical or psychiatric emergencies, despite the QAS Clinical Practice Manual creating a clear expectation that most patients present in this way. As described in Chapter 4, the psychiatric emergencies case management guideline in the QAS Clinical Practice Manual is the only one that addresses mental illness in any regard. In Bill’s account of actual practice, few patients were psychiatric emergencies, and his accomplishment of clinical judgement and decision-making of mental illness required him to care for patients with clinical and non-clinical conditions.

Second, Bill’s account illustrated that his accomplishment of clinical judgement and decision-making of mental illness was aligned with the formal expectations of
practice described in Chapter 4. Bill’s account shows adherence to the expectations of protection and transportation, which he deemed the best possible outcome for the patient. Moreover, Bill’s account illustrated how there was no expectation of an alternative decision or outcome, which is consistent with the formal expectations of protection and transportation as described in Chapter 4. Few deviations from this expectation occurred, and those that did not were a source of considerable personal and professional distress to Bill, borne primarily out of a fear of failure to protect the patient, and a fear of retribution in the event that the patient subsequently came to harm.

Third, Bill’s account was in some ways similar to the formal expected Systematic Approach in the QAS Clinical Practice Manual. Bill’s approach was grounded in assessment and gathering of information. He gathered information, summarised the main problems, and arrived at a provisional diagnosis. However, Bill’s account of practice has striking differences from that of the formal expectations of practice articulated in the QAS Clinical Practice Manual as described in Chapter 4 QAS. The official systematic approach in the QAS Clinical Practice Manual consists of five recursive, dynamic and spiralling steps leading to the best possible outcome, whereas Bill’s approach was unidirectional and linear, and in the main “formulaic” in nature. Bill emphasised the importance of his Systematic Approach being a “formula” to which he adhered for every patient, with the explicit aim of protecting and transporting the patient. For Bill, protection was afforded through transportation. To achieve the expected goal of protection and transportation, Bill relied on the contribution and interplay of several interconnected elements in his own enacted systematic approach: Adherence to expectations of transportation for protection; Prior experience, instinct and interpersonal; Gathering information for triggers and patterns; and Relationships with others. As illustrated earlier, these processes together comprised his clinical judgement and decision-making and enabled him to achieve a single stated goal—transportation of the patient, which he deemed to be in their best interest.

There are a number of important features of Bill’s account when it is related to the elements of the formal expectations of practice set out in the QAS Clinical Practice Manual. With respect to assessment, Bill undertook information gathering. Bill’s collection of information was systematic, and he gathered different kinds of information. Bill gathered both objective and observational information, including a history of the patient and scene, patient signs and symptoms, and findings from his
physical examination such as their vital signs and signs of physical injury. To do this, Bill follows a systematic line of questioning that followed the sequence of information he was expected to record in the clinical job record, the ambulance report form. He also drew on information from the environment, including artefacts, and behaviours and others in the field.

When it came to his judgement, Bill’s gathered the information to identify triggers and patterns for action. The information Bill gathered was specific and was used to satisfy triggers and patterns that enabled him to satisfy his main goal—transportation of the patient. Bill reported relying on his experience to accomplish clinical judgement and decision-making of mental illness, which was his primary source of knowledge. Moreover, his experience was heavily mediated by instinct and other interpersonal attributes. Bill arrived at a provisional diagnosis of the patient, but for the most part, his records provide a summation of the main problems of the patient. Bill’s problem-solving approach enabled him to gather information for triggers and patterns. The formal expectations provided a pattern of illness that, in Bill’s experience, few patients satisfied. Moreover, Bill’s triggers included, but were considerably more complex than, the information-gathering points listed in the psychiatric emergency case management guideline. His collection of additional data for triggers enabled him to fulfil these expectations, which for the most part are not identified in the QAS Psychiatric Case Management Guideline described in Chapter 4. For Bill, accomplishing clinical judgement and decision-making of mental illness was much more complicated than was described in the case management guideline from the QAS Clinical Practice Manual, as illustrated in Figure 12.

When it came to planning, his patient management plans were focused solely on the transportation of the patient. In this way, Bill worked to justify what he took to be the predetermined outcome of transportation. Whereas clinical judgement and decision-making is generally an “assessment of the alternatives in treatment from which decisions or choices between alternatives for optimal treatment are made” (Dowie, 1993, p. 8), for Bill, there was little in the way of alternatives for treatment because transportation was the optimal treatment.

In terms of implementation, Bill’s attitudes towards patients and the manner in which he dealt with them was significant. The QAS Clinical Practice Manual describes the importance of attitudes and personal qualities of communication and leadership in
effecting the patient management plan, which is transportation. For Bill, interpersonal skills and attributes were essential to accomplishing clinical judgement and decision-making of mental illness. This was particularly significant in his account. As illustrated, Bill considered the language he used to be an important mediator for clinical judgement and decision-making of mental illness. Bill considered the word “judgement” as being loaded with moral connotations, and pejorative, where undertaking a judgement is synonymous with being judgemental. His written and spoken language reflected a preference for the term “assessment” rather than “judgement”. Moreover, he worked to ensure the patient was emotionally comfortable with him, and he worked actively to avoid situations where the patient might misconstrue his interactions as morally judgemental. As he indicated, having empathy with patients, being non-judgemental and understanding, and appearing non-threatening were important to accomplishing clinical judgement and decision-making of mental illness.

Whereas the QAS Clinical Practice Manual requires continuous reassessment of the patient and the scene, Bill’s account suggests that reassessment of the patient and the scene was limited to situations where there was an absence of clear patterns for action. For Bill, this occurred in instances of patient refusal. Once conditions for his triggers for action were satisfied, Bill saw little or no need for reassessment of the information gathered. Consequently, Bill saw triggers as both enabling him to fulfil his professional obligations, and as a reinforcer of the same. Some of his triggers related to the other individuals, such as the patient and others who Bill considered held authority. If the patient requested transportation, he provided it without question. If individuals with authority made a judgement of mental illness warranting transportation, such as police officers, doctors and other paramedics, Bill would adopt their judgement and provide transport without question. He was both obliged to and justified in deciding to provide the patient with transport by whatever means for their protection, and he held no expectation that this would be otherwise. Accordingly, there was little avenue or need to ratify his judgement. This reflected the influence relationships and others had on Bill’s accomplishment of clinical judgement and decision-making of mental illness, and his adherence to the formal expectation of transportation.

This influence of relationships and others was evident in other ways. For the most part, as indicated, Bill transported his patients. When patients refused transportation, Bill deferred to others to assist him in accomplishing his intended goal of transportation.
and protection of the patient. In the few jobs where the patient refused treatment or transport, and Bill’s triggers and patterns for treatment and transport had been satisfied, Bill looked to the police for assistance, and called on them to transport his patient. In such instances, Bill was still able to fulfill his obligations of protection—the police protected the patient for him by transporting them to the hospital for medical care. Thus, for Bill, deferring to the authority of other individuals, namely physicians, police officers and nurses, were a feature of his triggers, because this enabled him to meet his personal commitment to transport and protect the patient. There were few patients where Bill’s triggers were not enacted, and when this occurred, it was a source of great personal and professional distress. In these instances, Bill discharged his obligation to protect the patient to another responsible adult.

In summary, this case report reveals the complexity of judgement practice in the field for this paramedic, who, using his words, relied on formulas and patterns when putting pieces of the jigsaw together for action. It has brought to light that Bill relied on the mix of elements to constitute his enacted systematic approach or “pull it all together” as Bendall and Morrison (2009, p. 109) say, which did not feature in the formal expectations of practice revealed in Chapter 4.

The next case report is of David, another advanced care paramedic.
Case Report 2 – Paramedic David

The second case was David, an advanced care paramedic from a station in the Brisbane Region. David’s entire ambulance career has been with the QAS. Since completing compulsory education in the 1990s, he has worked exclusively as an on-road paramedic at stations across Queensland. His ambulance career began in a small rural town, where he was stationed for two years. From there he moved to a station in a major city for 10 years and then to Brisbane, where he has been ever since. David has completed the Associate Diploma of Applied Science (Ambulance) and the QAS In-service Continuing Education Program 1. He has completed the QAS Mental Health Act Training Package, but no other accredited or non-accredited training related to mental health or mental illness. David reported no personal experience with mental illness.

About David, his jobs, and his work

David’s written and oral accounts of work in the field were gathered and analysed in the same manner that had occurred for Bill. Data collection and analysis focused on jobs where David was First Officer because the First Officer is responsible for patient assessment and care, including clinical judgement and decision-making, as detailed in Chapter 4. David attended 65 jobs as First Officer where a primary or secondary complaint of psychiatric emergency was recorded, of which 35 were historical, and 15 were current. The analysis of his account focused on four areas: (a) the general characteristics of the job; (b) his assessment of the patient and the situation; (c) his treatment of the patient and management of the situation; and (d) the overall outcome of the job. Appendix 19 provides a descriptive summary of the analysis of these jobs.

Most of David’s jobs were not emergencies. He responded to just over three-quarters (n=50, 76.9%) of the jobs under Code 2 (non-life threatening) conditions, and was dispatched under Code 1 or life-threatening conditions for 14 jobs. Police were on scene prior to his arrival, or requested by David, for almost half of his jobs (n=30, 46%), and a nurse or physician was recorded on scene for only six jobs (9.2%).

From his assessment of the patient and the scene, the majority of David’s patients had a recorded history of mental illness (n=54, 83.0%). Just under three-quarters of his patients were recorded to be taking medication for mental illness (n=48, 73.8%). Few
patients were recorded with hallucinations (n=3, 4.6%) or delusions (n=5, 7.6%). More than half of David’s patients (n=45, 61.5%) were noted to have been recently discharged from a mental health care facility. More than one-quarter of his patients (n=19, 29.1%) had attempted, or had ideation of, suicide or self-harm. David suspected drug overdose for 10 (15.3%) of his patients. The majority of David’s patients were noted to be emotionally distressed (n=52, 80%), with 25 (38.4%) noted as anxious and 31 (47.6%) as depressed. Fewer than one-quarter were recorded as violent (n=6, 9.2%) or agitated (n=12, 20%). Almost one quarter of his patients were documented to be under the influence of alcohol or drugs (n=16, 24.6%). More than half of his patients (n=36, 55.3%) requested transportation and admission for mental illness. Few patients underwent electrocardiography (n=4, 6.1%) and his records indicated that no patient underwent blood sugar analysis.

When it came to treatment provided and management at the scene, David administered oxygen to more than one-quarter (n=21, 32.3%) of his patients. He prepared an emergency examination order for three patients. He recorded using physical restraint on one patient. Chemical restraint was not used on any patient. There was no record of David consulting a local medical officer for any patient. David recorded his assessment of vital signs for all of his patients, and his records indicate that he provided psychological support to all patients. Almost all patients (n=62, 95.3%) were recorded to have received reassurance. A nurse escort was present for two (3%) of his jobs.

With respect to the outcomes of his jobs, David provided treatment and voluntary transport to the majority (n=58, 89.2%) of the 65 patients for whom he was First Officer. Of the remaining seven patients, four patients refused all forms of treatment and transport, but all four were treated and transported involuntarily under an emergency examination order. David prepared an ambulance emergency examination order for three of these patients, and the police for the other. The remaining three patients agreed to treatment but not transport. The job records indicate that David provided treatment to these three patients, but that they were transported to hospital by police.

The analysis of David’s account of practice—his written and spoken account of historical and current jobs—revealed that, for him, accomplishing clinical judgement and decision-making of mental illness occurred by enacting a series of processes that he referred to as mental mapping.
David’s “Mental Mapping” for “Summing up” and “Making sense”

For David, accomplishing clinical judgement and decision-making of mental illness was dependent on using his version of the Systematic Approach described in Chapter 4 that he referred to as mental mapping. During the in-depth case entry interview, David remarked that, for him mental mapping was fundamental to his judgement practice in the field:

*It’s not an easy thing to sort these patients out, as so much is going on. I use the systematic approach and mental mapping to get them sorted and to get on with it, otherwise I’d be there for ages.*

This particular excerpt from David highlights a number of important features that were characteristic of his judgement practice in the field. For him, this part of his work was complex and challenging, and he signalled that many competing demands exist in the field. Moreover, the excerpt highlighted that his approach to problem solving and judgement practice was focused on, as he described, getting patients “sorted”. This was for David a time consuming feature of his work and judgement practice, which, he indicated, was made easier by his process of “mental mapping”. David reported the experience of preparing a graphic representation of what he meant by “mental mapping” as a new experience, and one that he enjoyed.

David’s map, illustrated in Figure 31, bears a number of significant features identified in the formal expectations of practice outlined in the *QAS Clinical Practice Manual* described in Chapter 4. His representation was unidirectional and consists of two types of interconnected shapes—ovals and diamonds. Oval shapes dominated his graphic representation, and for him, were points at which his assessments and actions occurred. As David described:

*The round parts are markers for me to consider, where I assess the patient or the scene and then go on to do something to get on with it.*
As his representation illustrated, among the oval shapes were three diamond shapes from which two arrows emerged, one in the affirmative and one in the negative. These were, for David, key points of discernment in his judgement practice:

*That’s where I make sense of the information, and decide what to do about it.*

For David, his “making sense” and knowing “what to do about it”, was unidirectional and focused on one goal—a positive outcome. However, as his graphic representation illustrates, and the analysis of his account of actual practice that follows will show, David was able to achieve this through one of two pathways. The following
report will show that both of these pathways represented David’s routine practice, although one was deployed less frequently and was used to achieve the same outcome in situations when, as he described, “things didn’t go to plan”. David’s representation in Figure 31 showed a striking resemblance to the Psychiatric Emergency Case Management Guideline from the *QAS Clinical Practice Manual* discussed in Chapter 4, and took the form of a decision tree. This illustrated the regulatory influence of one of the prescribed approaches to judgement practice, specifically with reference to psychiatric emergency. A further point is that whereas the formal Systematic Approach set out in the *QAS Clinical Practice Manual* described in Chapter 4 (see Figure 12) is recursive, dynamic and spiralling, David’s representation was unidirectional and procedural, with no recursive elements. As the findings from the analysis of his written and verbal account of his current jobs will show, little, if any, reassessment of the patient occurred once David arrived at a decision to transport the patient to an appropriate facility for a positive outcome. For David, accomplishing clinical judgement and decision-making of mental illness in the field was focused on arriving at a positive outcome.

The analysis of David’s mental mapping revealed four key procedural elements: *Routine mapping for positive outcomes – Solving problems for safety; Problems of Safety – Using information; Achieving the outcome – “Summing up” and “Making sense”; and Dealing with deviation in the routine – Procedural flexibility.* Each of these is now discussed in turn, drawing on David’s talk, written job records, and other artefacts from the field. The following discussion shows how these elements are interconnected and interdependent, and how they came together to enable him to achieve his ultimate goal—solving the presenting problem for safety. A key observation is that the elements of his judgement practice were procedural; that is to say, David moved through each element sequentially. As the following shows, these constituted his routine for judgement and decision-making practice in the field.

“Mapping” for positive outcomes – Solving safety problems

The analysis of David’s account of practice revealed that his accomplishment of clinical judgement and decision-making of mental illness was concerned exclusively with achieving positives outcomes. During the case entry interview, David remarked that:
Keeping my patients happy is very important to me. It’s what I do. It’s not so much about fancy drugs and procedures.

This excerpt demonstrates the emphasis David gave to achieving positive outcomes, including safety and keeping patients happy. This features consistently throughout his written and oral accounts of work. As mentioned earlier, this was consistent with the formal expectation of the Systematic Approach described and illustrated in Figure 12 from Chapter 4. The formal expectations of practice call for paramedics to act in “the best interests of the patient”. For David, this meant “keeping patients happy” and achieving a “positive outcome”, which in the main was transportation, as outlined next.

Making patients safe – Routine procedures for transportation

As outlined in the case description earlier, the vast majority of David’s patients were provided with voluntary treatment and transport. Only four patients out of the 65 refused all forms of treatment and transport, although all were involuntarily transported under emergency examination orders. The remaining three patients were noted as being treated by David but were transported by police to hospital. These characteristics of David’s practice are significant, in that they were largely consistent with the formal expectations of practice. Specifically, they highlighted his expectation of transportation of patients to an appropriate facility for their safety, usually at their request. This feature of his judgement practice, represented in the shaded section of his graphic representation of practice illustrated in Figure 32, was, for David, his routine. It was what he expected to occur. David’s representation of his Systematic Approach bears a striking resemblance to the case management guideline in the QAS Clinical Practice Manual. Key decision points in his process related to the presence of a patient with “bizarre/abnormal behaviour”, an assessment of the safety of the patient and himself, and the patient’s willingness to seek help. These accounts showed the importance he gave to safety in his judgement practice, particularly the safety of the patient and himself, and that there was significant consistency between the formal expectations of practice and his actual practice.
Consistent with this observation was David’s concept map of his clinical judgement and decision-making of mental illness, as illustrated in Figure 33.
As his concept map shows, for David, achieving safety—which he deemed to include that of himself and his patients—was critical to his accomplishing clinical judgement and decision-making of mental illness. As illustrated in his concept map, “safety (personal and patient)” was the superior proposition. David’s concept map consisted of 11 propositions, the most basic being “positive outcome” and the most complex being “safety (personal and patient)”. Six of the propositions in David’s concept map were affective, which highlighted the importance to him of his own interpersonal skills for assessment and management of patients. The following remarks by David emphasise this strongly:

Transcription: Pt = patient; QPS = Queensland Police Service.
My patients are at their wits end with everything. They reach out to me for help. How I behave plays a big part. They are scared, and need kindness. For some, uniforms can be intimidating, so I take a very non-threatening approach with them.

In this excerpt, David illustrated the importance of his own interpersonal skills when it came to managing patients. This approach featured consistently in his account of work, in both his historical and current jobs, and was made particularly apparent when he managed patients he described as being “difficult”. For example, David recounted a job with a difficult patient:

This woman was going off, completely off. I walk in and she was smashing plates, yelling, crying, saying how it was all too much. The neighbour was with her in the house, and that seemed to make it worse. I pissed her off, and let her rant for a few minutes, which she seemed to appreciate, and she quietened down. If I had of heavy-handed with her that would have, I think, made her worse. A few minutes of ranting and a few plates later, she calmed down.

David’s account of this job highlights not only the importance of interpersonal skills for managing the safety of the patient, but also the value of them for his own safety. As he saw it, they were mutual, where achieving one enabled the other, as the next section will show.

Safety for Patient and Self—“Two sides on the one coin”

A key feature of David’s judgement and decision practice was the priority he gave to the safety of patients and himself, which he realised through their transportation to an appropriate facility. As his representation provided in Figure 33 illustrated, and the following account of work reveals, his patients’ safety and his personal safety were interconnected and interdependent. David described that:

What the patient does affects me, and what I do affects the patient. It’s two sides of the same coin. If I don’t look after them properly, it will come back to bite me, sometimes sooner such as a smack in the head, or later [by] a complaint to the Commissioner.

This excerpt from David’s talk highlighted how he considered his personal safety to be comprised of two dimensions—physical safety and professional safety (see Figure 32). Specifically, he made the point that the care he provided to a patient had direct
consequences, not only for the patient but also for him, including the possible physical and professional harm in the immediate period or later by way of patient complaints to the Commissioner.

Although David prioritised safety of the patient and himself in his judgement practice, few of his patients (n=6, 9.2%) were reported to be experiencing a psychiatric emergency, and few were violent. While the safety of the patient was a critical feature of his judgement practice, his own safety was of equal importance. As he described during one job interview, responsibility for his safety rested predominately with himself, and what he did in the field to minimise any risk:

David: I have to take care of myself, but it’s about defusing the situation mostly. If I don’t then it can get dangerous, but not usually. A hands-off and calm approach usually works. The bottom line is the safety of the situation.
Interviewer: Safety for?
David: Them and me. It goes both ways. They suffer, I could get in trouble, and vice-versa. This way it’s squeaky clean. It’s kept me above board.

This particular excerpt highlighted a number of important features of his judgement practice. In his experience, violence was not a significant mediator in his accomplishing clinical judgement and decision-making of mental illness, but the interdependence of his safety and the safety of the patient was. As he alluded in the previous excerpt, when the patient’s safety was assured, his own safety was assured. While he prioritised the safety of the patient and himself, the safety of the patient was antecedent to his own safety. Likewise, when the patient’s safety was compromised, his personal and professional safety was compromised. As he indicated in the excerpt above, he “could get in trouble, and vice versa”. To achieve safety for both himself and the patient, David reported sourcing and mapping particular kinds of information, as shown in the next section.

Problem solving safety – Using information

For David, sourcing and mapping of information were procedurally fundamental to accomplishing clinical judgement and decision-making of mental illness. The analysis of David’s written and verbal account of his practice indicated that he sought three broad types of information. He sourced information from and about the patient, the scene and the environment, and from others in the field. Importantly, all of these were used by David to gauge the safety of patients and to assess any risks to their safety.
The Patient: Statements and observations

David consistently sourced information that related directly to, or came from, the patient. Moreover, he sourced five particular types of information, in the form of statements and observations, which were used to indicate a potential or real threat or challenge to patient safety.

The most frequent of these was information indicating the patient’s request for treatment and transport. As described earlier, more than half of David’s patients were reported to have expressly requested transportation to hospital for admission. This characteristic featured in David’s graphic representation of accomplishing clinical judgement and decision-making (see Figure 32) of mental illness, and was prominent in his written and verbal account of his historical and current jobs. As David commented:

*So many of my patients want help and want to go to hospital, so who am I to say they can’t? I’m here to help them and to make it happen, and that I do. When they want to go, life is so much simpler.*

As he described, and as his graphic representation of his routine procedures in Figure 32 shows, accomplishing clinical judgement and decision-making of mental illness was simpler when patients requested help and transport. David’s judgement practices were more complex and required that he adapt them when patients refused treatment and transport. How he carries out deviations in his routine procedures is examined later. This was, however, illustrative of how he saw his role as serving the needs of the patient, which he reported to be easier when the patient requested transport to hospital or agreed to transport. For example, David noted in one job that the patient had expressly requested transportation to hospital for admission citing current mental health problems and an inability to cope. David recorded this information at the very beginning of his job record, illustrated in Figure 34. Such jobs and patients constituted routine practice for David, and were consistent with what he expected to occur in the field. As he detailed:

*What the patient wants, and what I find and think should happen influences what kind of path I will take in my mind. Asking for help is a big ticket item for me. As I said before, it makes life so much simpler. Everyone gets what they want.*
In this talk segment, David revealed how a patient’s request for transportation made his practice easier and “simpler”. Moreover, it highlighted how David and his patients shared a common goal when they sought transportation. The following extract from another of David’s job records exemplified the way in which these jobs, and the recording of information about them was, according to him, routine and straightforward.

Figure 34 – David's job record documenting patient request for transport

Transcription: 76-year-old male feeling severely depressed attempted to cut himself in a suicide attempt but was unable to and became even more despondent. Past medical history: Depressive, query epilepsy, atrial fibrillation.

Transcription: Patient complaining of severe depression and requested transport to mental health facility.

In the clinical job record presented in Figure 35, David recorded how the patient reported feeling “stressed” and was “agitated” and “passive aggressive” on his arrival. The record indicates that the patient refused treatment but requested transport. During the job interview, David remarked that these types of situations were routine and somewhat expected, and that they made achieving his goal of a positive outcome easier:

[They] just wanted to go hospital. That’s fine with me. . .

This talk segment illustrated how meeting the patient’s needs or request for transport enabled David to fulfil his own expectations of judgement practice. Moreover, it demonstrated how influential having a common or shared goal between himself and the patient was in his judgement practice.
Figure 35 – Exemplar job record: Patient request transport but no treatment


The second most featured type of patient-based information David sourced for clinical judgement and decision-making of mental illness related to the behaviour of the patient. For David, accomplishing clinical judgement and decision-making of mental illness was about assessing the patient for behaviour that was, in his words, bizarre or abnormal. David’s written job records routinely commenced with a description of the incident, which included a description of the patient’s behaviour that he or others had witnessed, and any statement made by the patient or by others about the patient. The following extract of David’s written account of one job illustrates how David collected and recorded patient-based behavioural information early in the clinical record.

In the record illustrated in Figure 36, David recorded his observations and the themes of the statements the patient made that reflected her experience of “not being
able to cope” along with an “increase in the voices and sensations of pressure in her head”.

**Figure 36 – Written job record with multiple patient-based types of information**

Transcription: 23 year old female suffering from increase in symptoms of psychiatric conditions this evening, felt she is no longer able to cope with the voices the increase in voices and the sensation of pressure inside her head. Patient called QAS requesting Royal Brisbane Hospital psychiatric (facility) as she is regulated there. Past medical history: Schizophrenia, manic depression, regulation at Royal Brisbane Hospital patient stated. Medications: Flupenthixol (Flupenthixol), Seroquel.

In addition, he documented the patient’s request for transportation to the hospital where she disclosed she had been an inpatient. David recorded her medical history, which included psychotic illness, for which she was currently medicated. During this interview, David remarked that:

*Clear cut case. I walked in, she told me what she wanted, and away we went. Hearing voices and feeling things, along with her request. All the rest just confirmed it.*

In this excerpt, David described how his assessment of particular behaviours, the hearing of voices and pseudo-sensory experience, coupled with other patient-based information enabled him to accomplish his clinical judgement and decision-making of the patient’s mental illness. Moreover, it illustrates how the patient cues David’s assessment and management in, specifically by what the patient said and did. In another job, David’s written account indicated his assessment of particular behaviours by the patient. For example, David attended a patient who reported ingesting half a teaspoon of
cooked rolled oats that he reported to be “contaminated by chemicals”. This job record is illustrated in the Figure 37.

**Figure 37 – Recording observations of and statements by patient**

Transcription: 46-year-old male ingested half teaspoon of cooked rolled oats he believed to be contaminated by chemicals. Patient vomited and called QAS. Past Medical History: Query psychiatric. Ross River Fever

Transcription: Secondary survey – Patient stated he has premonitions he would be poisoned over the past 7 days. Patients also stated he predicted September 11.

When discussing this job, David described how he considered it important to describe in as much detail as possible the behaviours or features that aided him in accomplishing his clinical judgement and decision-making of mental illness.

_I wrote that specifically as is, and it is important because (a) it is directly what happened and (b) it does in my mind show the odd behaviour very nicely. Who is going to poison oats that he just cooked? He couldn’t tell me who poisoned them, or reasons why, and that’s odd._

This particular excerpt demonstrated David’s attempt to gauge the validity of the patient’s claims and corroborate the information he had before him. In instances where he was unable to corroborate the claims of the patients, David was inclined to suspect a mental illness. In fact, David’s account illustrated how he often encountered patients and situations in which he could find no information or evidence to corroborate the patient’s claims of a physical illness, and inevitably led him to conclude that their complaint was psychiatric as illustrated later in this report.
The third patient–specific information was related to threat, real or potential, to patient safety in the form of attempted or threatened suicide or self-harm. For David, any attempt at suicide or self-harm was a grave threat to patient safety that he took seriously. During a job interview, he remarked that:

There isn’t anything more risky than attempted or threatened suicide.

As described earlier, just over one-fifth of David’s patients attempted or threatened suicide, all of whom he treated and transported to hospital. The job record in Figure 38 is illustrative of his written account of practice.

Figure 38 – David’s record of patient with attempted suicide

Transcription:
23 year old female known self mutilator, self inflicted with multiple superficial and deep tissue lacerations to left and right forearms query as a result of [an episode] of depression. Friends called QAS.
Past Medical History: low platelets, alcoholism, depression, history of violence
Medications: Xanac, Cipromil.
Allergies: Augmentin.
Treatment Before Arrival: Haemorrhage control – effective.
On Arrival: Patient standing in bedroom.
On Examination: Central nervous system Glasgow Coma Score 15, pupils equal and reacting to light 3 mm, oriented to time, date, person, and place. Patient appeared intoxicated. Patient stated patient had half bottle of vodka this morning. Patient double dosed on her Cipromil and Xanac.
Cardiovascular System: Heart rate 82 beats per minute, blood pressure 100 mmHg, Skin normal
Respirations: Rate 16 and normal, oxygen saturation of 97% on room air, air entry left equals right.

Secondary Survey: Patient has multiple superficial lacerations left and right forearms, laceration to right wrist in need of suture. Old laceration left wrist treated at [anonymised] yesterday afternoon. Patient prone to violence - friend calming effect.
Provisional Diagnosis: multiple self-inflicted forearm lacerations for investigation.
Treatment: 1313hrs Primary survey, 1320 hrs wound dressing, observation and support, 1325 observation.
Specifically, his assessment of the patient includes a secondary survey, which, as described in Chapter 4, is a thorough physical assessment of the patient, also referred to as a head-to-toe. Although attempted or threatened suicide was, for David, the most serious risk to patient safety, the analysis of his account revealed that his concerns were not, for the most part, shared by others at the receiving hospital. According to David, many of the patients he transported to hospital following attempted or threatened suicide did not receive adequate care. Specifically, he indicated that physicians provided the patient with basic treatment but often discharged them immediately after. When discussing his experiences of managing patients who attempted or threatened suicide, David remarked:

Mind you, the doctors don’t seem to think so. I bring them in, they let them out.

Thus, according to David, patients whom he transported following attempted or threatened suicide were often discharged, and did not receive the care that they needed. This key feature of David’s judgement practice is further detailed later in this case report, which documents jobs where he transports patients following attempted and threatened suicide using an emergency examination order (the formal instrument for managing psychiatric emergencies described in Chapter 4) only to have the order not upheld and the patient discharged by the physician.

The fourth form of patient-based information used by David was a relevant recent history of mental illness. As described earlier, the overwhelming majority of patients were documented to have a history of mental illness. For David, documenting patients’ current or previous history of mental illness was important in informing his judgement practice. Often, the patient’s relevant history of mental illness was substantial, as in the patient described by David in Figure 39. David’s records indicated that, in his opinion, the patient had no fewer than four mental illnesses. In discussing this patient, David remarked that:

I wasn’t sure what was real and what wasn’t, but she listed them off in rapid sequence and pulled out her medications. With that, I was sold.

What can be heard in this excerpt of talk is how David corroborated the information he sourced with the patient’s stated complaint. Specifically in this job, the patient’s
disclosure of a psychiatric history, coupled with current medication, satisfied David’s clinical judgement that the patient was mentally ill and required further care.

Figure 39 – David's documentation of multiple mental illnesses

Transcription: 22-year-old female believes she suffered a miscarriage 3 days ago and has been bleeding ever since. Patient complaining of abdominal pain and muscle spasms and was concerned she was about to fit. Past Medical History: Self mutilation, suicide attempt, asthma, Borderline Personality Disorder, Depression, Posttraumatic Stress Disorder, Obsessive Compulsive Disorder. Medications: Effexor, Largactil.

The fifth type of information David reported relying on was his own professional knowledge or experience of the patient and their clinical history. For example, in one job, David attended a patient at a residence that he had been to before on many occasions. His written record of this job, shown in Figure 40, showed that his first entry was a description of the patient from his knowledge of their medical history.

Figure 40 – David's previous knowledge of the patient's self-harm

Transcription: 23-year-old male known self mutilator, self-inflicted multiple superficial and deep tissue lacerations to left and right forearms query as a result of depression episode. Friend called QAS. Past Medical History: low platelets, alcoholism, depression, history of violence [underscored]. Medications: Xanac, Cipromil.
The critical element here was that David knew the patient professionally. Having first-hand knowledge of the patient made accomplishing clinical judgement and decision-making of mental illness and solving the patients’ immediate problem, much easier. In particular, David routinely gave this kind of information primacy in his written record of jobs where it was relevant to the success of his judgement practice, and achieving a positive outcome through transportation of the patient to an appropriate facility.

In discussing this particular job, David made the following remarks:

_I have regular patients who self harm. I know [Anonymised] very well. She’s in and out of hospital. Never catches a break. When I see her, it’s time for a trip to hospital again._

This particular excerpt not only highlighted the value he placed on the patients’ medical history to accomplish clinical judgement and decision-making of mental illness, but also his perspective of the lives of the chronically mentally ill, especially those whom he saw regularly. He was able to relate the present event with his experiences and knowledge of other events. David pointed out, however, that on many occasions information about a patient’s history of mental illness was not directly relevant to his immediate interaction with the patient. As David remarked:

_Just because someone had depression a decade ago doesn’t mean it’s a problem for them now. I know people who’ve had it and recovered and they’re fine. It is important if they say it’s an issue, otherwise it just part of their medical history I write down._

This talk segment illustrates how, for David, a medical history of mental illness did not automatically lead to his assessment that the patient was currently experiencing a mental illness. David recounted his experience of another patient whom he attended earlier that day where his history of mental illness was not relevant:

_I went to a guy this morning who fell off his bike while riding to work. He had a few cuts and grazes, nothing exciting. While I was dressing them, I asked about his medical history and he disclosed he suffered from reactive depression some in the late 1990s, but has recovered fully. I wrote that down as history, but it was irrelevant to his bike accident._
This excerpt illustrated how, for David, a history of mental illness was not always
directly relevant to the problem at hand, or had any bearing on the problem for which
the patient sought assistance.

The sixth key patient-based type of information David reporting using was his
observational and non-verbal. For example in one job illustrated in Figure 41, David
recorded the patient’s state of dress and their avoidance of him on arrival. In this job,
the patient’s appearance and her behaviour were important in his judgement practice.
David reported routinely sourcing information regarding the patient’s appearance and
social behaviours, such as attempting to leave the scene, to inform his judgement
practice. David noted this as a distinct procedure of his routine practice in his graphic
representation of his mapping for judgement practice illustrated in Figure 32, which as
explored later in this report, comes together through “making sense” and “summing up”
for a provisional diagnosis of the patient’s problem.

**Figure 41 – Recording a patient’s general appearance and behaviour**

<table>
<thead>
<tr>
<th>On Arrival</th>
<th>Patient had absconded from scene despite ladies’ attempts to restrain patient. Patient found walking outbound Samford Rd, crossed street to avoid QAS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Examination</td>
<td>Central Nervous System Glasgow Coma Score 15 (query Altered mental state). Pupils equal and reacting to light 3 mm; No motor deficit. Cardiovascular system – Heart Rate 100, Blood Pressure 190/100. Skin warm and flushed. Respiration rate normal; left equals right for air entry. Secondary Survey – Patient dressed long dress with flannelette shirt over no shoes, no identification. Patient anxious. ** Provisional diagnosis:** Exposure (query psychiatric).</td>
</tr>
</tbody>
</table>

In another job, David recorded the appearance of the patient’s skin. This is
illustrated in Figure 42.
Figure 42 – Documenting the non-verbal information: Appearance of the skin

Transcription: On Examination: Central nervous system Glasgow Coma Score 15, Alert to time, date, person, and place; Pupils equal and reacting to light 3mm. Cardiovascular System: Heart Rate 110, Blood Pressure – not taken, Skin Filthy [underscored].

For this patient, David described how he found no sign of physical injury, but that the patient’s skin was dirty, which was abnormal and was consistent with signs of mental illness indicated in the QAS Clinical Practice Manual as revealed in Chapter 4. David’s job record of another job, illustrated in Figure 43, reported the patient’s state of dress and physical appearance, noting what she wore and that she was anxious:

Figure 43 – David describing the patient's physical appearance


Thus for David, sourcing information about the patient by way of observation of their behaviour and the statements they made was important in gathering observational data to accomplish clinical judgement and decision-making of mental illness. Related to this was the second group of information in his practice—information from the scene and the broader environment.

From the scene and the environment

In addition to patient-based information, David sought information from the scene and the environment when mental mapping his clinical judgement and decision-making of mental illness. For example, in one job David responded to a patient post fall in the
home. David’s written record of this job illustrated in Figure 44 demonstrated how he recorded information from the scene that was important for his assessment of the patient’s mental state. He recorded that “on arrival the patient was fussing around the kitchen” and the “electric kettle [was] boiling over violently”.

**Figure 44 – David recording observation from the scene**

![transcription]

*Transcription: On arrival patient fussing around kitchen. Electric kettle boiling over violently.*

In this job, David paid attention to information from the scene and the environment that may have been useful in providing an indication of the patient’s mental state. Here, the evidence of the patient’s behaviour, combined with the absence of any physical injury that was materially significant to the patient’s condition, led him to suspect that the patient was experiencing a mental illness. As he described:

*The poor dear was in such a state, fussy about where things were in the kitchen, while her kettle was boiling over like crazy. She didn’t seem to be bothered by that, even when I pointed out. I thought this poor dear has lost it.*

Of particular interest to David was that the patient was not “bothered” when he identified to her the danger of the kettle “boiling over like crazy”. The patient did not appear to be concerned about the risk the boiling kettle posed to her safety.

The final type of information David sourced to accomplish clinical judgement and decision-making of mental illness came from other individuals.

*From others: Relatives, bystanders and staff*

The analysis of David’s accounts, in particular his written records, illustrated how he routinely sourced and recorded information regarding the safety of the patient from other individuals in the field. David sourced information from three main groups: relatives, bystanders, and staff. In the job depicted in Figure 45, David’s written account indicated that he was unable to source any information that led him to believe the patient’s condition was physical or strictly medical.
Air entry left equals right. Secondary Survey: Patient clutched chest grimacing then held hands in praying position, alternating between chest and abdomen. Patient refused active treatment stating it would harm her baby. Patient stated she would rather die than harm her baby. On arrival at hospital – Patient began speaking clearly, stating she was fine just a little depressed and wanted to go home.

Provisional Diagnosis: Chest pain and abdominal pain secondary to psychiatric condition.

1125 hrs Handover. 1127hrs Primary (survey). 1130

When discussing this patient, David remarked that:

As far as everyone was concerned on scene, she was a sick patient, chest pain, shortness of breath. Well, there was nothing particularly wrong with her medically that I could see or find. She was manic, having delusions and hallucinations, talking to people who were clearly not in the room.
In this excerpt, David signalled his disagreement with the reported condition of the patient provided to him by the bystanders. Other examples of David sourcing information from bystanders and staff, are provided in Figure 46.

**Figure 46 – Examples of David's use of information from others**

<table>
<thead>
<tr>
<th>Information from patient’s boyfriend</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 year old female called boyfriend at approximately 10am and told him she has taken an overdose of medication. Boyfriend came home from work and called QAS. Patient has taken 28 Dothep, seven Stilnox and five Seroquel [tablets].</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information from staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff stated patient behaviour has become very abnormally erratic, and query paranoid psychosis. Staff query unsteady gait side effect of Zyprexia. Requested psychiatric evaluation.</td>
</tr>
</tbody>
</table>

With the required information pertinent to the safety of the patient in hand, obtained from the patient, from the scene, or from others, David reported then undertaking a process of “summing up” and “making sense” to achieve his stated expected goal—a positive outcome through transportation to an appropriate facility for safety of the patient and self. Each of these are now discussed in turn.

**Achieving the Outcome – “Summing up” and “Making Sense”**

*Summing up – Preparing a “provisional diagnosis”*

For David, clinical judgement and decision-making of mental illness in the field required a process of “summing up” from which he arrived at a provisional diagnosis.
For David, arriving at a provisional diagnosis allowed him to make sense of the information that he had sourced regarding the patient’s safety. He described how preparing a provisional diagnosis gave him something to focus on to substantiate his decision to transport the patient:

*I normally give the triage nurse my provisional diagnosis. I know we don’t diagnose, but it makes it easier to tell the nurse what is going on, or what I think is going on with the patient.*

David described how it was professionally important for him to be able to document and communicate his assessment of the patient’s complaint to nurses and physicians. When discussing one particular patient about whose medical condition he was not clear, David remarked:

*There has got to be a reason for transporting them, otherwise we are just a taxi service. It is what I think is going on with the patient, but it is by no means fixed. That’s for the doctor to sort out.*

This excerpt from David’s verbal account of the job illustrated the purpose of providing a provisional diagnosis. Moreover, it emphasises that, for him, the judgement he expressed in the written record was in fact provisional, and that he relied on the medical practitioners to determine a definitive diagnosis. Thus, arriving at a provisional diagnosis as an integral part of clinical judgement and decision-making of mental illness was important to David, as he used it as the basis of his clinical interactions with other health professionals.

What was notable in David’s written account was the manner in which he represented his making sense of the information, particularly his use of symbols, which are consistent with the mental health disciplines. As illustrated in examples of his job records, such as in Figure 41, David used standard acronyms and symbols when recording the information he had sourced about the patient. However, examination of his written records illustrate that he used a particular symbol Ψ, the Greek letter Psi, in particular job records. This symbol was commonly used in written notes to replace the words psychological or psychiatric (Martin, 1999). As discussed later in the report, David’s use of this symbol was consistent with a particular kind of job, namely when he disagreed with the patient about the nature of their clinical complaint, and suspected
their problem to be psychiatric. In many jobs, the patient complained of a physical injury or problem, but David suspected the problem to be psychiatric.

David’s use of symbol $\Psi$ was related to another important characteristic of his judgement practice, namely the importance of documentation, which featured consistently in his verbal account of practice. For David, the written record was critical to his fulfilling his role in ensuring safety for the patient. As he explained:

*We’ve had it drilled into us that if it’s not on the ambulance report form it never happened, so I’m meticulous about that. I source and write up the same way in the same sequence, and it works for me.*

This particular excerpt exemplifies the emphasis David placed on the benefit of his training in knowing the basic principles of sourcing and documenting particular information, and the extent to which his written account guided what information was collected and how it should be recorded. Thus, ensuring the formal job record form was complete was important for carrying through to completion his clinical judgement and decision-making of mental illness. The nature of the information David sourced, and the way it was entered into the written record, was strikingly consistent across his jobs. According to David, this permitted him to “make sense” of the job and arrive at the expected outcome, for which he relied heavily on field knowledge. To arrive at a provisional diagnosis to “make sense”, David pointed to his reliance on field knowledge, and on what he described as “what works”, as illustrated in the next section.

*Making Sense—Drawing on field knowledge and using what works*

Accomplishing clinical judgement and decision-making of mental illness, or as he described it to “make sense”, was dependent principally on his ability to draw on what he knew worked. Specifically, David valued most highly knowledge that was applied or field-derived. Of particular interest in David’s account was the interconnectedness of “knowledge” and “experience”. According to David, his knowledge was broadly inclusive of his professional experience. He was emphatic in his view that his knowledge was not equivalent in any form to that of medical practitioners, and that they should not be, as his remarks below indicate:

*I’m not a clinical psychiatrist, but my training and dealing with patients has taught me what to expect and what comes into play. I don’t have the same level*
knowledge as a doctor. Why would I, I’m not one. What I’ve got is good enough for me and I know it works. I can do my job.

In this talk, David made clear the value of knowledge derived from the practical application of education and skills in the field. David was clear in his appreciation of the basic education and training he had received. The following excerpt exemplifies David’s view about the sufficiency of his own education and training. In their complaint detailed in Chapter 1, the LHMU called for improved education and training for its members, outlining that its members were insufficiently prepared. David emphatically expressed a different view, suggesting that:

We got basic training in basic mental illnesses with the AD [associate diploma], which obviously you build onto in later life. How is that different to any other job?

In this particular excerpt, David signalled the importance of building on formal knowledge through practice. Moreover, it highlights that his experience of education in the ambulance service may be no different from individuals in other jobs, and that it was field knowledge that he valued most because, as was noted earlier, it was upon this that he relied. For him, field knowledge provided him with confidence about how to arrive at an informal and usually multifaceted judgement. Unlike the complaint asserted by the LHMU of a lack of formal education, David made no apology for valuing field-tested knowledge, and stated emphatically that what he knew was sufficient for him:

Lots of ambos go on about not enough training. I think we could have more, but really what would we do with it anyway. I don’t see how it would change what I do from day to day. Like I said before, what I know gets me through and it works. Why would I change it?

This excerpt exemplifies a consistent theme in David’s account—the premium he placed on his existing knowledge and experience. As noted, David’s remarks are at odds with the general view expressed by the LHMU, as outlined in Chapter 1. In spite of the reported lack of education and training, David reported that it was his knowledge of what worked in the field that allowed him to “makes sense”.


Chapter 5 – Findings II (Case report David)

What demonstrated David’s reliance on field knowledge to “make sense” in his practice was his account of some jobs where there were deviations, and things did not go according to plan.

Dealing with deviation in the routine – Procedural flexibility

The analysis of David’s historical and current clinical jobs revealed that, for the most part, patients were treated and transported voluntarily. To do so, David engaged his systematic approach of mapping for problem solving to effect transportation of the patient for their safety, which he considered the appropriate outcome. For the most part, this was, for David a routine exercise, where he engaged in what he described as his standard practice to achieve a positive outcome. However, there were some jobs where David encountered problems or impediments to achieving the goal of transportation of the patient for a positive outcome. In these instances, David adopted a different set of procedures, or an alternative “mental map”. As he stated when describing his actions in one of these jobs:

*Things don’t always go to plan, but I get there in the end. It just takes a bit longer and I do a few extra things.*

In this excerpt David can be heard describing how in some circumstances when things don’t “go to plan”, he employed other methods to arrive at the same outcome. This involved procedural deviations, which are evident in his graphic representation of mapping and the systematic approach by shading in grey in Figure 47. These feature prominently in David’s written and verbal account of two particular types of jobs he encountered in the field.

These procedural deviations were used first when there was difference in opinions between himself and the patient about the nature of the problem, and second when the patient refused transportation. These procedural differences were, for David, an alternative “mental map”, and to some extent a kind of routine. When patients were violent, or declined or refused transport, he adopted alternative mapping for judgement practice. What was notable, however, was that the outcome for both these patient groups was the same in that David’s procedures arrived at the same actions of “basic cares”, “psychological support”, and “transport to an appropriate facility” for the ultimate goal of a positive outcome, as discussed next.
Differences in opinion – Patient says physical, David says mental

In more than a quarter of David’s cases (n=20, 30.7%), his written and verbal accounts reflect that he suspected the patient’s complaint of a physical illness or injury to be in fact psychiatrically mediated. The principal antecedent to this was David’s inability to identify physical signs of the injury or illness that were consistent with the patient’s complaint. In other words, David was unable to source and map information for clinical judgement and decision making with respect to that injury or illness. While
his record indicated the recording of information to substantiate, or otherwise, the patient’s physical condition, he also recorded in an understated manner information that confirmed his suspicion that the patient’s problem was actually psychiatric. For example in one job, David was called to a patient who reported a dislocated shoulder. An extract from David’s job records is provided in Figure 48.

Figure 48 – Patient complains physical injury but David suspects psychiatric


His record indicated that on arrival and examination of the patient, David could find no evidence of dislocation. His written record detailed his assessment, but he did not go so far as to disbelieve the patient’s stated problem. With this patient, David suspected the patient’s problem to be psychiatric, as distinct from physical for a number of reasons, most notably because the patient did not seek assistance when ordinarily they would. As he explained:
He wouldn’t let me see his shoulder. It didn’t look disfigured or out of place, but if he thinks it’s dislocated, so be it. I didn’t think so, because the way he was guarding it was odd. If your shoulder is dislocated, it’s going to hurt and you’re going to guard it, not strap it and not show someone who is there to help.

David’s written record detailed his assessment of the patient using his mapping processes, and the type and sequence of information he recorded was consistent with his other cases. However, he provided specific information that he used to indicate his reasoning for suspecting a mental illness. As David explained, he did not dispute the patient’s claims of the particular illness, but rather proposed an alternative problem that he suspected was psychiatric. This featured consistently in David’s account of judgement practice. For example, in one job, a patient complained of gynaecological pain, but David suspected otherwise. In Figure 49, an extract of his job record, he noted that the patient complained of gynaecological pain, which he did not dispute, but added that “pain ↑[increases] when husband yells at her”.

**Figure 49 – David suggesting a psychiatric cause for illness**

![Transcription: Secondary patient complained of dull, sharp, aching vagina 8/10 [pain score] constant pain. Radiated to abdomen. Patient stated pain increased is sitting or standing. Pain increased when husband yells at her. Provisional diagnosis – Query psychiatric induced vaginal pain.]

In commenting on this patient, David remarked:

*She probably did have vaginal pain. She said so, so who am I to tell her otherwise. But it was odd that she said it got worse when her husband yelled at her. Headache, maybe so, but vaginal pain I wouldn’t have thought so. She went on and on about it, and I thought something was odd.*
In both his written and oral account, David expressed a view that the patient believed her pain to be genuine, which he did not dispute. However, David did record on the form information, which, as he put it, was meant to show that something “wasn’t quite right”, as indicated below. In David’s explanation:

*I wrote that in because that is what she said, and because if the doctor reads they’ll get it that I thought something wasn’t quite right.*

In that way, David was able to disclose his suspicions about the patient’s mental health to the receiving medical staff in a non-verbal manner and without appearing fixed in the idea. Specifically, this involved his use of symbol Ψ to convey his suspicion that the patient’s problem was psychiatric.

In another job illustrated in Figure 50, the patient complained of chest pain. David provided care that was standard for such a complaint, including a full secondary survey of the patient and found no abnormality. He recorded a provisional diagnosis of “? [query] psychiatric-induced chest pain”, again using the symbol Ψ to signal his judgement that the patient’s problem was psychiatric. In this instance, the patient complained of a physical illness, and after David found no physical information to support this claim, he suspected the patient’s problem was psychiatric. David’s job record illustrated that when he disagreed with the patient’s stated complaint and considered their problem to be psychiatrically related, he performed and documented a secondary survey of the patient, which was a physical examination of the patient from head to toe during which he sourced information about the patient. David performed the secondary survey to source additional patient-based information that he reported using to gauge the safety of the patient, which was, as explained earlier, interconnected with his own safety. This alternative procedure in David’s mapping for judgement practice occurred particularly where the patient declined or refused transportation.
**Figure 50 – Patient says cardiac, David suspects psychiatric**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisional Diagnosis: Query psychiatric-induced chest pain.</td>
<td>0345 Primary. 0346 Observations. 0347 Psychological Support.</td>
</tr>
</tbody>
</table>

**Managing refusal – Using force, for what it’s worth**

As indicated earlier, few of David’s patients declined or refused treatment and transportation. In total, seven patients refused treatment or transport in one form or another. Of these, four patients refused all forms of treatment and transport, but all four were involuntarily transported for assessment—three by David under an emergency examination order and one by the police under an emergency examination order. The remaining three patients accepted treatment from David but refused transport from him, and were transported involuntarily by police to hospital. David completed three emergency examination orders during data collection for this study. The analysis of David’s account provided insight into the perceived value of these formal processes. Of the three cases, the receiving physician upheld only one emergency examination order prepared by David. For the other two, the patient was later discharged from the emergency department. In discussing these jobs, David was quick to highlight a number...
of critical features about how emergency examination orders influenced how he accomplished clinical judgement and decision-making of mental illness. Most notable of these was that, in his experience, emergency examination orders added little or no value. For example, in one of the three jobs where he prepared an emergency examination order, David described how he prepared what he viewed as a “solid” patient history that demonstrated that the patient was not safe and that she needed further assessment and admission. Figure 51 provides a copy of this ambulance job record, and Figure 52 contains an extract from his emergency examination order.

**Figure 51 – David’s record for a patient under an emergency examination order**

<table>
<thead>
<tr>
<th><strong>Transcription:</strong></th>
</tr>
</thead>
</table>
According to David, emergency examination orders made no difference to the patient outcome or the outcome of his judgement practice with respect to mental illness. When discussing this job, David remarked:

*This case is a classic. Patient who threatens suicide, has already self harmed, and says she will cut herself as soon as she finds a blade. The threat is imminent for her. If I turn my back and she cuts herself, I’m screwed. She refused treatment, so I had to get the police to help us get her out of the house. I filled out the emergency examination order that is supposed to be filled out in these situations, and the doctor takes one look and says she can “guarantee her safety” [emphasis added by participant during talk]. You make sense of it. I can’t.*

This excerpt exemplifies the connection David made between patient and staff safety, as described earlier in the case report. In this excerpt, David can be heard as referring to physicians as the expert or final determiner of his judgement practice, which is illustrated in illustrated in Figure 53.

**Figure 52 – Extract of David’s emergency examination order for a patient**

*Transcription: Patient called QAS complaining of chest pain. Patient stated to QAS that pain had eased. Patient stated that she had been assaulted by male person in the residence (?query true). Patient stated she has attempted suicide by self harm (wrist laceration) and stated she will cut herself as soon as she can find a blade. Patient stated many times she wishes to self harm.*
In this job, the physician did not uphold David’s assessment of the patient and dismissed his concerns about the patient’s safety and welfare, as recorded in the emergency examination order. In David’s record (Figure 52), he documented the patient’s statements regarding both attempted suicide and threatened suicide, such as “patient stated she will cut herself as soon as she can find a blade” and that the “patient stated many times that she wishes to self harm”. In comparison, the receiving physician, in his record, stated that the “patient was able to guarantee her safety, denying any current self harm/suicidal ideation”. Consequently, the physician did not uphold the emergency examination order. That is to say, the physician did not detain the patient involuntarily for a thorough mental health assessment. David recounted this experience of having his assessment dismissed by a medical practitioner as common and frustrating:

*What the hell am I supposed to do? Why should I fill out an emergency examination order when it doesn’t make any difference? It didn’t matter what I said on what form, the doctor made up his own mind. Most of the time I could write the patient thinks he’s the President of the United States and they wouldn’t read it. They do what they want. I don’t bother with emergency examination orders anymore. Doesn’t change what I do anyway, and it’s just another form to complete.*

In this talk segment, David signals his frustration with the utility of the emergency examination order in the field and the manner in which the health system operates for mental illness more broadly. Moreover, it illustrates how his interaction with medical
practitioners within the emergency department influenced his judgement practice. In his experience, physicians paid little attention to his accounts of managing the mentally ill in the field, or to the information that he provided in his account. His testimony was that completing an emergency examination order for a patient who refused treatment and transport was of no value because it had no bearing on the outcome of the job on arrival at the hospital. As far as he was concerned, he was still able to transport the patient without having to use an emergency examination order.

*Leaving it to the police*

In the few cases that patients declined or refused transportation, David called upon the assistance of the police to carry through clinical judgement and decision-making of mental illness. Figure 54 provides an extract from one of David’s job records where police were engaged to facilitate transportation of the patient.

**Figure 54 – Documenting police restraint and emergency examination order**

![Documented police restraint and emergency examination order](image)

**Transcription:** Central Nervous System – Glasgow Coma Scale 15, Pupils equal and reacting to light with size 3. Alert to time, date, person, and place. Patient extremely distressed and irrational. Severe mood swings. Cardiovascular System – Heart rate 96, Blood Pressure 90 on palpation, Skin normal.
The patient consented to treatment from David, but not to transportation to hospital. To achieve his intended goal of transportation of the patient, David deemed it necessary to call upon the assistance of the police. David remarked that:

*She was carrying on, drunk, very distressed, and simply refused to go. She was very distressed about the domestic assault. I couldn’t figure out who did what, and she wasn’t safe. She refused to go, so it was time for the police.*

David’s description of the patient and the event unearthed some important features of his judgement practice. In particular, it indicated the importance of safety when accomplishing clinical judgement and decision-making, and David’s reliance on the police when violence was present, either from the patient or within the scene. Later in this interview, David went on to describe how, in his experience, police were often called to patients or incidents of this nature, but in his opinion, they were not needed unless there was violence or danger. He remarked that:

*I get the police involved if they are violent, which is hardly ever really. Often they are there on scene before we arrive. If I don’t need them, I let them get on with real police work. They are a bit like us—jobs backed up, and unless the patient is violent and is refusing to go, their time is better spent elsewhere.*

This excerpt from David’s talk highlighted the role police play in accomplishing clinical judgement and decision-making of mental illness. Moreover, it reveals his view that police were too often involved in managing patients with mental illness, and that they had other duties to which they should be attending. David’s account highlights the well established and documented residual effect of the criminalisation of mental illness historically, which, as outlined earlier in Chapter 1, continues to be problematic today.

**Critical interpretations of David’s account – The enacted and the expected**

When relating David’s account of clinical judgement and decision-making of mental illness to the formal expectations described in Chapter 4, seven significant observations are made.

First, much of his work and problem solving with respect to mental illness involved dealing with a variety of patients with what he described as bizarre or abnormal behaviour that was not so severe as to be regarded an emergency. Unlike the
assertions of the *QAS Clinical Practice Manual* for paramedics’ problem solving for mental illness, which relates to patients with serious disturbances in mood, and violent or suicidal behaviour, the vast majority of David’s patients were not, in his view, experiencing a psychiatric emergency. His account illustrated that few of the jobs he attended were medical or psychiatric emergencies, which is inconsistent with the *QAS Clinical Practice Manual* creating an expectation otherwise. With few exceptions, the patients he attended requested treatment and transport. The majority of them he reported to be burdened with chronic mental illness.

Second, when it came to managing patients with mental illness, David’s primary concern was achieving a positive outcome. The analysis of his accounts indicates broad consistency between his practice and the formal expectations of practice described in Chapter 4. For David, clinical judgement and decision-making of mental illness was about providing safety to the patient, which, according to him, was facilitated by transporting them to an appropriate facility. David gauged the success of his clinical judgement and decision-making of mental illness by his ability to achieve a positive outcome, which principally was transport. His clear preference was that he transported the patient himself. However, as his accounts demonstrated, who transported the patient was less important than ensuring that they were transported. While he preferred transporting patients, he considered transportation of patients by police as a suitable option. This feature of David’s account of clinical judgement and decision-making of mental illness was consistent with the formal expectations outlined in Chapter 4.

Third, to effect transportation of the patient for safety, David’s clinical judgement and decision-making of mental illness was characterised by a series of procedures and processes within what he referred to as “mental mapping”. His mental mapping and the procedures he undertook, illustrated graphically in Figure 31, characterised his practice in the field. The analysis of David’s account of practice revealed his procedural approach. There are parallels between how David achieved safety through a process of mental mapping and the formal expected Systematic Approach in the *QAS Clinical Practice Manual*. The similarities between David’s mapping and the decision tree provided in the *QAS Clinical Practice Manual* are striking, which highlights the influence of his training. His account of judgement practice was less like the formal Systematic Approach (the series of five recursive, dynamic and spiralling steps leading to the best possible outcome) and more like the decision tree located within the formal
case management guideline. His approach was unidirectional, linear, and procedural. Moreover, the analysis of his account of practice revealed that David had different procedures for different circumstances in the field, which centred on whether or not the patient requested transportation or was willing to be transported. As was illustrated in this chapter, the vast majority of patients requested assistance and transportation. Accordingly, David accomplished clinical judgement and decision-making of mental illness for transportation of the patient using particular procedures, which were, for him, routine and expected.

David’s procedural approach to judgement practice consisted of routine “mental mapping” where he went about “solving safety problems” primarily through transportation. This was dependent on four elements: Routine mapping for positive outcomes – Solving problems for safety; Problem solving safety – Using information; Achieving the outcome – Making sense and summing up; and Dealing with deviation in the routine – Procedural flexibility. It was noted that two of the three procedural elements of David’s judgement practice, namely Problem solving safety – Using information, and Dealing with deviation in the routine – Procedural flexibility, required considerably more work and were more sophisticated than the other, namely Achieving the outcome – Summing up and making sense. This reflects the influence of the regulatory frameworks, namely the QAS Clinical Practice Manual, on David’s practice described in Chapter 4, which provided limited options with respect to the process and outcomes of judgement practice. However, his practice was not wholly governed by these regulatory frameworks. Thus, David’s practice was responsive and accommodating of the many challenges he encountered in the field that did not feature in the formal expectations of practice. This provides an opening for considering the influence of actual context on judgement practice in the field, where context was taken to include the interactions between the paramedic, the patient, and others in the environment.

Relating David’s account of judgement practice to that expected of him by way of the Systematic Approach in the QAS Clinical Practice Manual detailed in Chapter 4 yielded a number of key observations. When it came to assessment, David sourced information in a systematic manner in accordance with his mental mapping procedures. The information he sourced was specific—it related to the safety of the patient and himself. David sourced three kinds of information: patient-based information,
information from the scene and the environment, and information from others. To do so, David undertook a systematic line of questioning that followed the sequence of information he was expected to record in the clinical job record. David sourced the information he was required to in accordance with the formal expectations of practice described in Chapter 4—namely an assessment of hallucinations or paranoia, and whether or not the patient was willing to seek help. However, he routinely sourced additional information, including patients’ general appearance and evidence of bizarre or abnormal behaviour. He sourced and recorded statements by the patient and others on the scene, namely relatives, bystanders and staff, and physical evidence from the scene such as signs of injury from self-harm. The sourcing of this information in these three groups was central to his judgement practice, and a surrogate marker for the relative safety of not only the patient but also himself.

When it came to his procedure for judgement, David “summed up” and “made sense” of relevant information about the patient and their problem. David sourced information that enabled him to justify the transportation of the patient to an appropriate facility for their safety. Safety for the patient and himself was realised through the systematic observation and sourcing of information, from which David formed a judgement in the form of a provisional diagnosis that the patient’s problem was mental, inevitably resulting in transportation. As outlined earlier this was, for David, his own measure of success—whether he could achieve a positive outcome through transportation of the patient. Whereas clinical judgement and decision-making was defined earlier in Chapter 1 as generally an “assessment of the alternatives in treatment from which decisions or choices between alternatives for optimal treatment are made” (Dowie, 1993, p. 8), for David there was little in the way of alternatives for treatment because transportation was the outcome he planned for and expected to occur. David prepared a provisional diagnosis of the patient after summing up the information he sourced. He used the provisional diagnosis to communicate his assessment of the patient to other health professionals. Importantly, understanding of the patients’ problem or complaint was provisional—that is, it was what he suspected the patient’s complaint to be rather than a definitive diagnosis. To arrive at this provisional diagnosis, David reported relying on knowledge, which was derived from the application of his basic training coupled with experience in the field. David acknowledged the value of his in-service education, but considered that its value was only realised when applied in the
field. Noteworthy also was that some of the information David sourced, particularly from the scene and from others, was not explicit in the formal psychiatric emergency case management guideline described in Chapter 4.

With respect to planning, David’s clinical judgement and decision-making of mental illness was focused exclusively on achieving a positive outcome, which, as explained earlier, was equivalent to transportation of the patient to an appropriate facility. David’s planning in his clinical judgement and decision-making of mental illness was consistent with the formal expectations of achieving the “desired outcome” (Queensland Ambulance Service, 2010a, p. 10), as described earlier in Chapter 4. In this step, the paramedic is focused on “the best possible patient outcome and should take into account: time & transport critical issues; logistics of scene/situation control; best utilisation of available resources; concurrency of actions; special precautions for specific therapies; potential problems” (Queensland Ambulance Service, 2010a, p. 10). David’s planning was broadly consistent with these expectations, as was his focus of achieving a positive outcome.

The analysis has revealed that when it came to implementation, David’s account of what was required to accomplish clinical judgement and decision-making of mental illness was consistent with those of the formal expectations outlined in the QAS Clinical Practice Manual in Chapter 4. For David, particular interpersonal skills were important to accomplishing clinical judgement and decision-making, namely being nurturing, having empathy, as well as being reassuring and supportive, caring, and non-threatening. These were important elements of David’s practice and clinical judgement and decision-making of mental illness. However, there were specific differences in David’s account of planning for, and implementing of, clinical judgement and decision-making when compared to the formal expectations. Specifically, the procedures David undertook for planning and implementation were more context-responsive than those described by the QAS Clinical Practice Manual. As outlined, David’s approach to accomplishing clinical judgement and decision-making of mental illness was procedural, where different procedures were implemented when different conditions were met. David expected patients to request help and transportation, for which he had a routine procedure. Here he relied principally on the patient’s request for transportation for procedural certainty. In other jobs, which occurred infrequently, patients refused transportation. In such instances, David called upon the police for assistance to
accomplish his clinical judgement and decision-making of mental illness. For all jobs, David sourced information from the patient, the scene, or others in the environment, such as relatives, bystanders, or staff, which ultimately enabled him to achieve the expected goal of providing a positive outcome through transportation, which afforded him and the patient safety. This illustrates the extent to which others influenced David’s clinical judgement and decision-making, which do not feature in the formal expectations of practice described in Chapter 4.

Finally, whereas the *QAS Clinical Practice Manual* outlines the continuous reassessment of the patient and the scene to eliminate “possible alternative judgements and solutions within the management plan” (Queensland Ambulance Service, 2010a, p. 10), David reported little reassessment of the patient once the decision to transport had been made. David’s reassessment of patients was restricted to two key situations: when his assessment of the patient was inconsistent with the patients’ stated condition, and when the patient refused transportation. David had many jobs where his assessment of the patient’s problem, or provisional diagnosis, differed from the patient’s stated clinical problem. Put simply, some patients said they had a physical condition but David suspected a psychiatric condition. For these, David’s assessment and judgement informed his provisional diagnosis of the patient where he recorded the condition the patient claimed to have, but supplemented this with the Greek symbol Ψ in brackets afterwards. This was David’s way of recording his suspicion that the patient’s problem was psychiatric rather than physical. The use of this form of coding, coupled with the recording of information that corroborated this judgement, such as statements made by patient, was David’s way of expressing his judgement in the clinical record. In such instances, little, if any, reassessment occurred once the decision to transport was made. How to manage situations such as these do not feature in the *QAS Clinical Practice Manual* and other formal guidelines described in Chapter 4. They do not incorporate any provision or procedure for patients who present inconsistent signs or symptoms.

Thus, for David, reassessment was specific to achieving safety of the patient through transportation to an appropriate facility. Once this goal was achieved, David deferred further assessment or reassessment of patients to receiving medical staff because, as he pointed out, that was the extent of his role. This highlighted the role other staff, namely receiving medical staff, had on David’s judgement practice. Having a
medical officer or other health professionals to handover to allowed David to demarcate what he was expected to achieve in the field from the expectations of others, and was a significant influence in his judgement practice. As illustrated, David prepared a provisional diagnosis of his patients, which incorporated his suspicions of the nature of their problem, but left the formal diagnosis to physicians. This indicated how, to some extent, David relied on physicians in his judgement practice, as they would inevitably finalise judgement and from this, David derived professional comfort. This was despite the fact that according to him physicians often dismissed his concerns for the safety of the patient, and therefore himself. David tailored the formal standards outlined in the *QAS Clinical Practice Manual* and other clinical guidelines described in Chapter 4 to meet his professional needs and the demands of everyday practice in the field.

The next case report is of Mary, an intensive care paramedic.
Case Report 3 – Paramedic Mary

Mary was the third case, an experienced intensive care paramedic from a large QAS station in Brisbane Region. Mary has worked as a paramedic with the QAS for more than 10 years, and has practised in many ambulance stations across Queensland. As an intensive care paramedic, Mary holds the Associate Diploma of Applied Science (Ambulance) and the Advanced Diploma of Applied Science (Paramedic). She has completed the QAS Mental Health Act Training Package, but no other accredited or non-accredited training related to mental health or mental illness. She has worked primarily as an on-road officer, but has relieved in managerial positions. She reports no personal experience with mental illness. As had occurred for Bill and David, Mary’s accounts of her work, in the form of written records and talk of those jobs, were collected. Mary attended 37 jobs as First Officer where the primary or secondary patient complaint was psychiatric emergency, of which 22 were historical and 15 were current. The analysis of Mary’s accounts of these jobs paid attention to four main areas: their general characteristics, her assessment of the patient, her treatment of the patient, and the outcome of the job in view of the formal expectations of practice described in Chapter 4. Appendix 20 provides a descriptive summary of this data.

About Mary, her jobs, and work

The majority of jobs to which Mary was dispatched were classified by ambulance communications as emergencies (n=31, 83.4%), although as revealed later in the report, few of these were, in her own view, emergencies. Police were present at almost one-third (n=11) of her jobs, either prior to her arrival (n=6, 16.2%) or at Mary’s request (n=5, 13.5%). A physician assisted Mary with two of her jobs.

With respect to assessment of the patient and scene, the overwhelming majority of Mary’s patients had a recorded history of mental illness (n=29, 78.4%). More than half were recorded to be currently taking medication for mental illness (n=20, 54.1%). Few of Mary’s patients were recorded to be experiencing hallucinations (n=4, 10.8%) or delusions (n=4, 10.8%), which were co-morbidities with the other in each instance. The overwhelming majority of Mary’s patients (n=30, 81.1%) were recorded to have been discharged recently from a mental health care facility. Almost all of Mary’s patients (n=30, 81.5%) had attempted, or had ideation of, suicide or self-harm. Mary suspected
drug overdose in almost two-thirds (n=24, 64.8%) of her patients. The majority of Mary’s patients were noted to be emotionally distressed (n=28, 78.4%), with 27 (72.9%) noted as anxious and 13 (35.1%) as depressed. Fewer than one-quarter were recorded as violent (n=10, 27.2%) or agitated (n=12, 32.5%). More than half of Mary’s patients were documented to be under the influence of alcohol or drugs (n=22, 59.4%). Almost three-quarters of her patients (n=27, 72.9%) requested transportation to hospital for admission due to mental illness. Almost one-third of patients underwent electrocardiography (n=9, 24.3%), and blood sugar analysis was performed on just over half of her patients (n=20, 54.0%).

When it came to treatment provided, more than half of Mary’s patients were administered oxygen therapy (n=21, 56.7%). Mary prepared emergency examination orders for three patients. Three (8.1%) patients were chemically restrained and six (16.2%) were physically restrained. Mary consulted a local medical officer when providing treatment to the three patients who received chemical restraint. Vital signs were recorded in the job record for all but two patients (n=35, 94.6%). Almost all patients were recorded as receiving psychological support (n=35, 83.8%) and reassurance (n=31, 83.8%).

With respect to the outcome of her jobs, Mary provided treatment and transport for the majority of her patients (n=26, 70.3%). Four of Mary’s patients refused both treatment and transport, of which three were transported under an ambulance emergency examination order, and one patient was transported under a police emergency examination order. Mary provided treatment but not transport for two patients, and transport but not treatment for another two patients. Mary handed three of her patients over to police to transport after providing them with initial treatment. There were no patients recorded who received neither treatment nor transportation.

The analysis of Mary’s written and verbal accounts of these jobs revealed that, for her, accomplishing clinical judgement and decision-making of mental illness was centred on providing “appropriate patient care”. To do so, her judgement practice consisted of three interconnected and dynamic stages: Building a profile – Working from the data and evidence; Tuning in – Patients, their profile and provisional diagnosis, and Thresholds for action – Testing what constitutes appropriate patient care. Each of these is discussed in turn, drawing on Mary’s talk, her written job records, and other artefacts from the field. Each of these stages was dynamic, consisting of
multiple, interconnected processes that, in places, incorporated reassessment of data and judgement. They are detailed here sequentially for clarity. Together, these stages comprised Mary’s everyday judgement practice in the field, enabling her to achieve her goal—providing “appropriate patient care”. A key observation was Mary’s data-driven approach to judgement practice, and how she moved through each stage and arrived at a point where she made a judgement about the significance of the patient’s profile, what the appropriate patient care might consist of, and how to provide it.

**Mary’s “Profiles” and “Thresholds” for “Appropriate Patient Care”**

For Mary, providing “appropriate patient care” was the central focus of her judgement practices and accomplishing clinical judgement and decision-making of mental illness. Mary remarked that:

> We are here for patients and their care. What that means differs from case to case. Most of the time that’s transport for further treatment and special care, but that depends. Emergency departments are the last place these patients need to go.

This talk segment exemplified how Mary focused on the needs of the patient holistically. Mary can be heard describing tailoring her care to patients in ways that were responsive to their individual needs and circumstances. The analysis revealed that for the majority of jobs, patient care was facilitated by the transport to hospital. Mary can also be heard expressing her dissatisfaction with the suitability of emergency departments as places for routine care for patients with mental illness, and not all of her patients were transported to hospital as revealed later in this report. What constituted appropriate patient care varied from patient to patient, which she determined through rigorous data collection and assessment of the available evidence to establish what she referred to as a “threshold of need”. Mary’s account of practice—her written and spoken account of historical and current jobs—revealed that her judgement practice relied on using a version of the Systematic Approach described in Chapter 4. This was fundamental to her judgement practice, as she remarked during her first in-depth interview:

> I use the Systematic Approach. We all do, I think. It’s one of those basic ambulance skills we are taught from day one. It’s all about systems, systems, systems.
Here, Mary can be heard emphasising the influence of her basic ambulance training in her everyday judgement practice, and the importance of using a standardised approach. Mary was asked to reflect upon her Systematic Approach for accomplishing clinical judgement and decision-making of mental illness, and to describe it graphically and verbally. Mary’s graphic representation (see Figure 55) bears a number of significant features and characteristics when related to the formal expectations of practice described in Chapter 4. Her graphic representation was unidirectional but comprised of multiple cyclically interconnected elements and processes. As illustrated in Figure 55, her enacted Systematic Approach was comprised of conditional stages and processes. Each element in this representation was sequential, which, in practical terms gave her a set of steps to follow. This “framework”, as her application of the Systematic Approach, was important to Mary, as she remarked:

*The Systematic Approach is my way of doing things. It gives me a framework to work within, and something to follow.*

Thus, for Mary, the Systematic Approach was something she relied on to guide her in her judgement practice. As she described, it provided her with a framework to “work within”, and “something to follow” for accomplishing clinical judgement and decision-making of mental illness. This “framework” was fundamental to Mary’s everyday practice. As noted earlier, the analysis of her account of this work revealed that her judgement practice and her Systematic Approach was comprised of three interconnected stages that were sequential, which enabled her to provide what she referred to as “appropriate patient care”. As will be illustrated later in the report, what constituted “appropriate patient care” varied from patient to patient. For some patients, this was involuntary transportation. For others, it was treatment, but no transportation. Central to all of her judgement practices and patient care was providing treatment in the form of assessment and advice. Her written and verbal account revealed a heavy emphasis on the “assessment” and “reassessment” of her patient and the scene, where data and characteristics were identified. Moreover, the analysis of her account revealed a routine practice of engaging in “explanations” with the patient and others on scene, and the importance of interpersonal skills to do so. Central to Mary’s judgement practice was establishing a shared understanding of mutual expectations, which was not only what the patient might come to expect from her, but also what she expected from the patient.
To achieve this, Mary’s clinical judgement and decision-making comprised the collection, assessment and reassessment of data to “build a profile” of the patient and the situation, as the next section will show.

“Building a profile”– Working from the data and evidence

*I build a bit of a profile of the patient; what is wrong, and what is going on or happening on scene. I use these to establish a course of action.*

Mary’s remark here exemplified her routine judgement practice in the field. For Mary, “building profiles” was central to determining what was “wrong” with the
patient, which reflected the importance she placed on the individual in context. Moreover, it was her assessment and use of data and evidence to “build a profile” of the patient that enabled her to determine a “course of action” for providing “appropriate patient care”. The act of “building” began when Mary was first “called to the case”. It involved identifying and mitigating danger and threats to her own safety, thereby enabling her to engage with the patient to determine and foster patient “compliance”.

Establishing safety of the scene and patient “compliance”

The analysis of Mary’s judgement practice reveals that her Systematic Approach described earlier commenced when she was “called to the case”. Her approach to the patient and the scene was mediated by the continuous assessment and reassessment for risks to safety, as evident in her graphic representation illustrated in Figure 55. Mary expressly refused to attend to patients if they were violent or overtly aggressive, and she was emphatic in her intolerance of violence. Patients who were violent and who she was unable to de-escalate were referred directly to the police out of concern for her own safety. For Mary, assuring her own safety was paramount:

I’m not sticking my neck out for anyone. If they want help, they’ve got to play by the rules. I don’t tolerate any nonsense. If they play up, I’m out and the police are in.

This talk segment emphasises Mary’s intolerance of violence in the field. Moreover, it exemplifies a key feature of her judgement practice, where her patients had to “play by the rules”. It signals the expectations Mary had of her interactions with patients in the field, detailed in the following sections. A hallmark of these expectations and of primary importance to Mary was the requirement for safety. Moreover, fundamental to her safety in the field was being able to de-escalate a violent patient using her interpersonal skills. When describing her approach to patients she deemed to be, or suspected of being, mentally ill, Mary remarked:

I work hard to establish clear boundaries with patients. They know why I am there, I know why I’m there, and together we get on with sorting out the problem. I’m upfront and honest with them, a bit like a contract. They do their job and I’ll do mine.
In this particular talk segment, Mary can be heard describing how, as part of her routine practice, she created a situation with the patient where there was mutual connectedness and frank clarity of her expectations of the patient. As Mary described, establishing “clear boundaries” was a process that required active work on her part if she was to participate in “sorting out the problem”. Mary’s description of doing so involved establishing something akin to a “contract” between herself and the patient, albeit verbal. It was through this contract that she and the patient created a shared understanding of the requirements for achieving the desired goal, which was providing “appropriate patient care”. To establish a shared understanding of their mutual obligations, Mary brought specific expectations to her judgement practice that were realised early during her encounter with them, notably during assessment of the patient and the situation, as discussed below.

_Data-driven assessment_

Central to Mary’s processes for providing “appropriate patient care” was her assessment of the patient. In the main, her assessment of the scene and situation preceded her assessment of the individual, and incorporated a complex array of tasks and procedures used to source evidence of illness and injury. What made this clear was the consistency with which Mary routinely and systematically described the scene and the immediate “past history” of every patient. Mary’s written and verbal accounts comprised descriptions of the pre-arrival information provided by ambulance communications and any relevant “past history” from the field. An exemplar of this is provided in Figure 56. This particular account began with a description of the antecedents to the job; that is, the written and verbal reports about the job obtained from communications, her assessment, and observations of the scene and other information she deemed relevant. Mary recorded data from a variety of sources. In her job record, she noted her observations of the patient, the scene, and the general surroundings. She routinely provided demographic data about the patient, the physical position they were in on her arrival, and her assessment of particular artefacts or evidence of mental illness from the field. For example, in the job record illustrated in Figure 56, Mary noted an “open bottle of tablets” and a “suicide note”.
Transcription:
Past History: 59 year old female altered level of consciousness – overdose of Oxazepam 25 [tablets] Atenex 5mg times 50 [tablets] (bottle already open), Mogadon 5mg times 25 [tablets]. Found by husband after approximately 40 minutes downtime. Patient has been at golf drinking champagne all day, came home tonight and had a domestic with daughter. Told husband she intended to “kill herself” and wrote a suicide note.
Past Medical History: Asthma, depression
Medications: Oxazepam, Atenex, Mogadon, Seretide.
Allergies: Unknown.
Treatment Before Arrival: Nil.

On Arrival: Patient lying left lateral altered level of consciousness. Pulse and respirations present.
On Examination: Neurological assessment – Unresponsive, Glasgow Coma Score 6 when stimulated.
Respirations: Rate 32 and shallow, Air Entry left = right.
Pelvis: Nil abnormality. Limbs – Nil abnormalities detected.
Provisional diagnosis: Overdose – Suicide Attempt.
Treatment: 1838 – Primary survey, oxygen by bag mask ventilation oximetry 100%, Monitor Sinus Rhythm Nil Abnormalities, Observations. 1843 – Cannula 18 gauge right hand, Sodium Chloride flush 10 ml Intravenous line patent; Scoop – extrication; Hartmanns [solution] 500 ml Total @ [Anonymised hospital]; oropharyngeal airway size 3; Observations, Blood Sugar level 5.1; Secondary survey, observations.

Furthermore, she recorded the content of conversations reported to her by third parties on the scene that related to recent events of significance, in this case the patient’s husband and what was told to him:
He was quite distressed the poor fellow, but gave me very useful information to consider.

Here, Mary can be heard describing the importance of the individual’s account of the situation. For Mary, collecting this data was critical to her judgement practice because she used it to “build a profile” of the patient. In discussing this particular job, Mary remarked:

I go to a fair bit of trouble to document the recent history of events. The guys in the ED [emergency department] find this material quite helpful, and it helps me to figure out what is going on. I use it a lot during handover mostly to give the nurse and doctor a snapshot of the patient and their profile.

This talk segment highlights the importance of assembling data from the scene and acquiring a recent history in presenting an evidence base for her judgement. In particular, Mary signalled the importance nurses and physicians assigned to this kind of data and the utility it had for providing appropriate patient care. She was mindful of the influence her clinical judgement and decision-making might have on the judgement practices of others, namely physician and nurses. For Mary, communicating this data by way of a “profile” was achieved by arriving at a “provisional diagnosis”. She relied on a process she described as “tuning in” to arrive at this provisional diagnosis, as discussed further below.

Mary’s job record illustrated in Figure 56 exemplifies her written accounts of assessing patients in the field where she collected and assembled data about the patients, including her assessment of their physiological and anatomical systems. This was characteristic of Mary’s approach to “working with the evidence”, where she collected data using the “primary” and “secondary survey”, as shown next.

Using primary and secondary surveys

Central to Mary’s judgement practice with respect to mental illness was her use of what she referred to as the “primary” and “secondary” surveys. As outlined in Chapter 4, paramedics’ Systematic Approach to patient assessment and management incorporates a primary and secondary survey. For Mary, her primary survey comprised the assessment of:
Key things about the scene and patient and a rapid assessment of the patient’s vital signs to determine if life-saving interventions are needed. If they’ve arrested and need resus [resuscitation].

This account is consistent with the formal expectations of practice detailed in the QAS Clinical Practice Manual, as described in Chapter 4. In addition to performing the primary survey, Mary also conducted a secondary survey of the patient, which she defined as:

The good old head-to-toe. I go through each system of the body from head-to-toe and document my findings, by comparing what I find to what should be normal. Basic stuff really, but I find it important for psych [psychiatric] patients because it prevents me from missing things.

Mary’s account of the survey is also consistent with the formal expectations of practice detailed in the QAS Clinical Practice Manual, as described in Chapter 4. Mary undertook a primary and secondary survey of all patients, where permitted. As noted, two of Mary’s patients refused treatment but agreed to transportation, and there were others who refused treatment and transportation altogether. In both situations, Mary’s assessment of the patient was restricted to elements of the primary and secondary survey that were observational and did not require physical contact with the patient. Importantly, Mary’s assessment of the patient continued even in the event the patient restricted the type and amount of data available. In such instances, she paid particular attention to observational data:

You can tell a lot by looking around at the scene and at the patient. When a patient refuses assessment or treatment, it forces me to observe them closely to tune into what might really be going on. Not that it happens often. I can usually convince them of the importance of a thorough assessment, and what I am there to do.

This segment of talk highlighted a number of key features of Mary’s judgement practice. It exemplified the emphasis she placed on the non-physical elements of the secondary survey, where she relied on visual assessment and observation for providing data and evidence. Mary signalled how, at times, conditions in the field necessitated the modification of her judgement practice, namely how she assessed the patient and the restrictions that patient refusal of treatment placed on those processes. The analysis of
her account shows an explicit emphasis on undertaking a comprehensive secondary survey when patients are “non-compliant”—that is, they do not adhere to their contractual obligations for a shared understanding and mutual expectations. Instances when patients refused treatment and/or transport resulted in a greater emphasis on elements of the secondary survey. Moreover, analysis of these particular jobs clarified how Mary went about “convincing patients” about the work she was to undertake and the responsibility she shared with the patient for appropriate patient care. It exemplified the importance interpersonal skills played in accomplishing clinical judgement and decision-making of mental illness, as the next section will show.

The necessity of interpersonal skills

Central to Mary’s judgement practice was her ability to “build rapport” with her patients. This was a consistent feature of her judgement practice, as recorded in both written and verbal accounts of practice, and most notably in her concept map of paramedic clinical judgement and decision-making of mental illness, illustrated in Figure 57. Mary’s concept map gives prominence to interpersonal skills in her judgement practice. Critical to this most basic proposition was being “attentive” and the clarity and intonation of her voice. Mary’s concept map consists of sixteen propositions centred into three key propositions, the most basic being “communicate” and the most complex being “build rapport”. Between these was “make assessment”, which was dependent on a combination of knowledges, prior experience, training, and data assembled from individuals and the environment, which will be explored later in the report. For Mary, “rapport” was the superior proposition, which highlighted the importance to her of her own interpersonal skills for assessing and managing patients. The following remarks by Mary show this strongly:

"I'm here to provide and facilitate patient care. Provided people play by the rules, which are pretty basic, such as not yelling at me or threatening me, then they deserve all the assistance I can provide. There is a trick to approaching patients who are mentally ill, and if you follow the basics then most of time there’s no worries. Not always, but mostly."
This excerpt illustrates the expectations Mary brought to her judgement practice and the process of establishing a shared understanding. Mary can be heard describing the expectation of mutual respect as being routine or “basic”. It details the expectations she has of the patient and her dealings with them. Moreover, it exemplifies the specific conditions and caveats she placed on her patient-centred approach, and detailed what care she would provide and the judgement practices she used to achieve this, which she expressed as “rules”. To Mary, establishing these rules for mutual safety and respect, and expecting patients to adhere to them, was central to her judgement practice. The analysis makes these private rules and unpublished “rules” known. They highlighted not only the importance Mary gave to herself in her judgement practice, but also the fundamental human rights that patients, in her view, deserved. This highlighted the importance of interpersonal attributes to proposing a provisional diagnosis, a process Mary referred to as “tuning in”.

Figure 57 – Mary's concept map
“Tuning in” – Patients, their profile and provisional diagnosis

It’s not easy to describe how it’s done, but in essence I work from the evidence before me, albeit from the patient or the scene, I step through my assessment, step by step and work towards aligning the patient to a profile.

These remarks were what Mary used to describe what she referred to as “tuning in”. This particular talk segment reaffirms the sequential nature of her judgement practice, where she worked through “steps” incorporating the appraisal and reappraisal or reassessment of data. It also highlights her procedural, or “step by step”, assessment and reassessment of the data and evidence. Moreover, it exemplifies how her judgement practice, comprised of her assessment of the data, and the patient’s profile she constructed, served as an evidence-base from which she proposed a “provisional diagnosis”. For Mary, central to discerning a “provisional diagnosis” was undertaking an assessment of the patient and their profile, and discerning the profile as being “medical” or “mental”.

Distinguishing key profiles – Medical and mental provisional diagnoses

The outcome of her appraisal as medical or mental, or both, was associated with particular expectations about the care to be provided and the overall outcome of the job. Figure 58 provides the results of an analysis of Mary’s jobs in which she deemed the patient’s profile to be mental, their associated assessment features, and the outcomes she enacted. As noted in Figure 58, the assessment of the patient as compliant, semi-compliant, or non-compliant was associated with a variety of expected treatment and transport outcomes. The analysis of Mary’s 37 jobs yielded five distinct job outcomes. The features of the respective outcome categories, the jobs therein, and Mary’s associated judgement practice are detailed later.

Mary reported that particular factors mediated her judgement practice. As noted, the use of data and evidence was central to these assessments and outcomes. Mary reported that the amount of time and effort required of her judgement practice varied from patient to patient, and depended largely on the amount and type of data available. For the majority of jobs, Mary reported arriving at a judgement of the patient’s profile as being mental illness early in the encounter.
Figure 58 – Mary’s profiles of patients with mental illness

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Outcome</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliant patient accepting treatment and transport when indicated</td>
<td>Yes treatment – Yes transport</td>
<td>26</td>
</tr>
<tr>
<td>Compliant patient accepting treatment but transport not indicated</td>
<td>Yes treatment – No transport</td>
<td>2</td>
</tr>
<tr>
<td>Semi-compliant patient accepting treatment and refusing indicated transport but facilitated voluntarily by other means</td>
<td>Yes treatment – Refuse Transport</td>
<td>3</td>
</tr>
<tr>
<td>Semi-compliant patient refusing treatment when indicated but accepting transport</td>
<td>No treatment – Yes transport</td>
<td>2</td>
</tr>
<tr>
<td>Non-compliant patient refusing treatment when indicated</td>
<td>Patient refused treatment/transport</td>
<td>3</td>
</tr>
<tr>
<td>Non-compliant patient refusing treatment and transport when indicated</td>
<td>Patient refused treatment/transport</td>
<td>1</td>
</tr>
<tr>
<td>Non-compliant patient refusing indicated treatment or transportation</td>
<td>No treatment – No transport</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 59 – Mary's record of patient fitting the profile–Attempted suicide

Transcription:
Past History: 50-year-old female who claimed she intended suicide, locked herself in her bedroom with kitchen knives, police in attendance.

Past Medical History: Psychiatric history of violent patient within mental health unit at [anonymised], approximately one month ago. Also states she has been a regulated patient in the past. No other medical problems.

Medications: Zipaxia, Painex
Allergies: Penicillin

Treatment Before Arrival: Nil.

On Examination:
Neurological Alert, Oriented to Time, Place, Date and Person, Eyes – pupils equal and reacting to light. Motor sensory - nil abnormalities detected.
Respiration: Rate 20 breaths per minute. Crying.
Cardiovascular: Pulse 62 beats per minute. Rhythm – nil abnormalities detected.

Patient mildly dyskinetic during transports but cooperative. Denies any medication overdose. Has attempted similar before and has self-mutilated her right wrist in the past.

Provisional diagnosis: Psychiatric Assessment.

As noted, the overwhelming majority of Mary’s patients had attempted self-harm or suicide, which, in her words, established an “immediate profile” of the patient from the dispatch of her crew to the job. For example, Mary was called to a 50-year-old patient for attempted suicide. Her job record, presented in Figure 59, shows an entry at the beginning of the record where she describes the relevant past history, in this instance a 50-year-old female patient claiming she intended suicide. When discussing this job, Mary remarked:

*The dispatch code gives me a good indication of what is going on when it comes to suicide or self-harm, as there is a different code from communications when the injury has been verified by an individual in scene.*

Here, Mary described how the response code provided to her by ambulance communications provided her with preliminary data that was evidence of a profile of the patient requiring treatment and transport. This assessment was, to some extent, anticipated:

*Most of the time [anonymised] communications are right, and I arrive at what the job was called in as.*

In this segment of talk, Mary can be heard describing how she undertook a process of verifying the preliminary assessment of the patient with that of her own. Moreover, she revealed how ambulance communications and the information they provide had a significant role in informing her practice. For these and other jobs, assessing the need for a patient’s profile depended largely on what Mary referred to as “knowing”.

**Knowing patients and their profiles**

Central to Mary’s judgement practice with respect to mental illness was her knowledge of the particular types of patients and the profiles she assigned. During a job interview, Mary remarked that:

*I think doing any job for long enough you see the same types of things. Same kinds of patients with the same kinds of needs. Others go on about no two patients being alike. If you’ve been around for as long as I have, either they do or I am gifted with déjà vu.*
Here, Mary can be heard signalling how her judgement practice was informed by previous experiences, where the characteristics of the patients she attended to were familiar. For Mary, her experience played a significant role in providing referents for her judgement. Her reference to experience featured prominently in her verbal account of judgement practice. Mary also drew particular reference to this in her concept map, illustrated in Figure 57. Mary’s graphic representation illustrated how her assessment was dependent on different types of knowledge and other propositions, namely experience, training, and data. Mary was asked to clarify the meaning of each of these propositions. To her, her ability to assess the “visual, auditory, tactile and stimuli and from patient, people, place” was dependent on “prior experience”, “QAS training”, and forms of knowledge. For Mary, “QAS training” and her “prior experience” were fundamental to her judgement practice. During an interview about one job, Mary reflected:

*I attribute so much of what I do to what we did back in training school and from the many people I have worked on road with. They have taught me so much.*

In this talk segment, Mary highlighted the importance she ascribed to both basic training and the application of that training in the field, which she referred to as “the road”. Moreover, Mary acknowledged the contributions of others with whom she has worked to develop her skills and abilities as an ambulance paramedic. Her reference of thanks in this talk segment was directed to other paramedics and health professionals from whom she had learned.

Mary described how learning from others—including other paramedics, health professionals, and patients—had contributed to her knowledge over many years. Interestingly though, Mary categorised the kind of learning she had done and the knowledge obtained in different ways. Her graphic representation illustrated in Figure 55, made the distinction between “formal” and “informal” knowledge. Mary clarified this distinction initially during the concept-mapping interview, and later on during the data collection. The origin of the information was the primary distinguishing characteristic separating “formal” and “informal”. Put simply, “formal” knowledge included that which was obtained from sources that could be verified, whereas
“informal knowledge” had no readily identifiable origin that was grounded in evidence as elaborated below.

Mary made available a variety of different examples of “formal knowledge” in her verbal account, which included her reading of textbooks or journal articles, and knowledge obtained in other ways post basic ambulance training. For example, during one particular interview about a patient who had attempted suicide via drug overdose, Mary described how her participation in a clinical audit meeting and the information derived therein comprised her “formal knowledge”:

> At the [clinical audit] meeting, we discussed a couple of OD [overdoses] cases, one where the patient had a cocktail of drugs in his system. [Anonymised – Regional Medical Officer] provided an article trends on polypharmacy in emergency medicine, which was useful.

In this talk segment, Mary can be heard valuing this particular form of formal knowledge, which in this instance was facilitated by her regional medical officer during clinical audit. On the other hand, she described “informal knowledge” as knowledge that she possessed for which there was no evidentiary base. For Mary, informal knowledge was the term she used to describe her “intuition”. Mary noted that her intuition, or her “informal knowledge”, played a significant role in her judgement practice. However, her inability to document her “intuition” in the written account of the job records meant that she treated that knowledge with caution, and always sought evidence or data to support the associated claim. As outlined earlier, using data and assessing the evidence was fundamental to Mary’s judgement practice.

> You call it intuition, I call it informal knowledge. It is what I know but it’s not something that I can point to easily in a report. I can’t write on the ARF [ambulance report form] “I’ve got a feeling the woman is mentally ill”. I need evidence and data, and if I don’t have any I say I don’t have any, rather than put down a hunch.

This talk segment brings into focus Mary’s approach to the collection and assessment of data and evidence, highlighting the regulatory influences of the formal guidelines of practices, in particular the *QAS Clinical Practice Manual* and the *Guidelines for Completion of the Ambulance Report Form*, both of which communicate expectations
around the objectivity of data collection and statements made. Moreover, it highlights how Mary did not rely exclusively on her “hunch” in her judgement practice.

As outlined earlier, there were times when there was a lack of evidence to support her proposed provisional diagnosis, as well as instances where Mary could find no data or evidence to verify the condition the patient claimed to be experiencing. This feature was particularly evident in Mary’s account of judgement practice where she had trouble in distinguishing the patient’s primary profile, as the next section will show.

**Difficulty in distinguishing profiles – Defining “what was by what it was not”**

Mary reported difficulty in distinguishing the patient’s profile as medical or mental for some patients because, for some, both determinants were relevant. In these instances, a combination of both was advanced into the provisional diagnosis. In addition, there were jobs where Mary made a provisional diagnosis of mental illness, because of an absence of any evidence to support a provisional diagnosis of medical illness. In six of her jobs, Mary provided a provisional diagnosis for the patient that was non-specific. That is, her provisional diagnosis was an exclusion of specific conditions, rather than a judgement of what it actually was. All of these occurred when Mary was called to a patient with chest pain. Ordinarily in ambulance practice and in health care more generally, any patient complaint of chest pain is considered to be of cardiac origin until proven otherwise (Queensland Ambulance Service, 2010a). In instances where Mary found little or no evidence to support a patient’s medical profile with a provisional diagnosis of cardiac-related chest pain, Mary proposed a provisional diagnosis of “non-cardiac chest pain”, as illustrated in Figure 60.

**Figure 60 – Defining what it was by what it was not**

*Patient very emotional/distressed at house and during transport. Difficulty in coping with domestic situation. Admitted to suicidal thoughts. PA – Non-cardiac chest pain.*

**Transcription:** [Asterisk] Patient very emotional/distressed at house and during transport. Difficulty in coping with domestic situation. Admitted to suicidal thoughts. Provisional Diagnosis – Non-cardiac chest pain.
The extract of Mary’s written record in Figure 60 exemplified her written account of judgement practice where there was a lack of evidence to support a conclusive provisional diagnosis. By referring to the patient’s condition as “non-cardiac chest pain”, Mary signalled to the receiving health professionals that while the patient reported experiencing chest pain, in her view the cause of this pain was not cardiac. In Mary’s case, she goes so far as to report in her written account what the patient is complaining of, but signals her judgement that its origins are not cardiac. In such instances, it is customary to consider the chest pain as being psychogenic, that is associated with mental illness.

Mary’s interpersonal skills played a vital role in these particular jobs and were critical to successfully building the “profile” of the patient; a profile indicated what she thought was wrong with the patient by outlining what she thought was not wrong. These skills, her knowledges and her experience were what enabled her to “tune in” to the needs of the patient in these circumstances to propose an expected outcome for “appropriate patient care”. What constituted appropriate patient care and the resultant expected outcome were subject to further appraisal by Mary by applying what she referred to as a “threshold for action”.

“Threshold for action” – Testing what constitutes appropriate patient care

Mary routinely questioned the validity her own assessment of the patient, the profile she constructed, the provisional diagnosis she assigned, and the opportunities therein to provide appropriate patient care. This reappraisal of her judgement practice was elementary to a process she referred to as “considering the consequences”.

Considering the consequences

As far as Mary was concerned, she was always able to provide some form of treatment to the patient, even if that occurred in the form of a visual patient assessment. As revealed in Chapter 4, the QAS Clinical Practice Manual establishes an expectation that paramedics will transport psychiatric emergencies “without undue delay”. The analysis of Mary’s accounts suggests that her assessment and management of “psychiatric emergencies” were consistent with this prescribed standard. Specifically, in instances where she was called to a patient she assessed to be experiencing a psychiatric
emergency (defined predominately as a real or significant potential threat of self-harm or suicide), Mary unequivocally decided to transport them to hospital. Mary achieved this in a number of different ways, including the use of physical and chemical restraint, and emergency examination orders completed by either herself or the police. There were, however, other patients to whom Mary responded who were not, in her assessment, experiencing a psychiatric emergency. The QAS Clinical Practice Manual does not specifically accommodate this type of situation. As noted in Chapter 4, all case management guidelines within the QAS Clinical Practice Manual state that paramedics must “transport [the patient] without undue delay”. According to Mary, such a proposition was often unworkable.

I know what the CPM [QAS Clinical Practice Manual] says, but that is only a guide and if I followed that to the letter of the law then the patients and I would be in serious trouble. If it is an emergency, then of course I will transport, but not everything I go to ends up an emergency. I might be sent there Code 1, but that doesn’t mean it is life threatening. So, I’ve got ask myself what constitutes appropriate patient care, and consider the consequences.

This talk segment shows Mary’s approach to patients, where she challenges herself to establish what constitutes “appropriate patient care”. Moreover, Mary was heard questioning the sufficiency of the formal guidelines, namely the QAS Clinical Practice Manual, for everyday practice. Further, it exemplifies a prominent feature of Mary’s judgement practice, where she formulated her own guidelines on particular judgement practices not adequately addressed in the QAS Clinical Practice Manual. As noted in Figure 58, there were seven distinct patient outcomes for Mary’s jobs, in which conditions for transport were notably distinct. In practical terms, this was achieved in one of two ways. Patients were either compliant and voluntarily agreed with Mary’s decision to transport, or they were non-compliant and were transported involuntarily for further assessment and treatment using restraint and force, as the next section will show.

When the need for transport is established

Mary provided treatment and transport to the majority of her patients (n=26, 70.3%). For all of these jobs, Mary determined that the most appropriate patient care would be provided by transporting the patient to hospital or other medical care for further assessment and treatment. Patients were either voluntary or involuntary with respect to transportation. A distinctive feature of Mary’s judgement practice with
respect to mental illness was that the overwhelming majority of patients requested treatment and transport, and, according to Mary, were compliant. As was outlined earlier, Mary provided treatment and transportation to the majority of her patients (n=26, 70.3%). Having patients request treatment and transportation resulted in Mary having to modify her “approach” to the patient, as she recounted during an interview:

Well, I don’t need to convince them to come with me, and that changes my way of approaching them and the situation. It’s a bit less that I have to be concerned with, although sometimes I have trouble convincing them that they don’t need transport.

In addition to influencing her approach, having patients request treatment and transport resulted in a reduction in “concerns”. In the above talk segment, Mary signalled that on occasion, the reverse was true, and she had to work to convince the patient that transport was not warranted. When asked to elaborate, Mary remarked:

Oh not often, wouldn’t that make a pleasant surprise. It’s really only for patients that I am called to very often who have chronic mental illness, mostly anxiety and depression. I think it turns out to be a bit of a social call for them.

This situation revealed how in some jobs Mary determined the patient was seeking treatment and transportation very early in the encounter. For example, as the written job record illustrates in Figure 61, Mary was called to a patient who was reported to be complaining of chest pain. When discussing this job, Mary remarked:

The minute I saw the chap, I knew he had mental illness. He didn’t fit the profile of chest pain, but looked more like he had mental problems.

Here, Mary highlighted how she made an initial visual assessment of the patient and applied the data she obtained to a profile that reconciled with the primary nature of their complaint. The use of visual and observational data from the scene and that of the patient, particularly during the primary assessment, was a consistent feature of Mary’s account. Mary was asked specifically what she based this assessment on:

I tuned into what he was saying. He looked like he was dying to tell me a story, a complete stranger, and told me a story he did. When pressed about the specifics, he couldn’t tell me names or addresses, and then let it slip that he wanted somewhere warm to go. Heard it before.
Past History

- 30-year-old male complaining of chest pain – central and non-radiating pain subsided by time QAS arrived. Patient states he “walked” from New South Wales. He apparently lives with a carer (reasons unknown) and has decided to visit his sister who lives in Brisbane – He states not to know the address and phone number. Patient also states “he wanted somewhere warm to go”.

Past Medical History: Unknown by patient.
Medications: Also unknown. Allergies: Stated nil.
Respiratory: 16 normal, nil difficulty with speech, denies cough or flu.
Cardiovascular: Pulse 98 beats and regular; Blood pressure 138/93 sitting, Skin = nil abnormalities detected.
Provisional diagnosis: Psychiatric problem.

In this instance, Mary used what the patient was saying when building a profile to tune into a profile of mental illness. It was the familiarity with the patient profile and associated expected outcomes that were significant elements in how she accomplished clinical judgement and decision-making of mental illness.
Mary regarded few of the jobs she attended to as emergencies, despite being dispatched to them by ambulance communications as an emergency. The case record depicted in Figure 62 was one such job, where Mary was dispatched under emergency conditions to a patient with self-inflicted wounds to the neck.

Figure 62 – Physical evidence of self-harm not an emergency

Transcription:
Past medical history: 33-year-old male presenting with a 5cm laceration to left side of neck – Self inflicted with a scalpel – minor haemorrhage. Self regulated to psychiatric ward at [anonymised hospital] last week. Patient states he attempted to harm himself while at [anonymised hospital].
Medications: Brenda, Flixotide, Serevent, Luvox.
Allergies: Stated nil.
Treatment Before Arrival: Nil.
On Examination:
(Asterisk) Delayed access to patient due to family not answering the door.
Provisional Diagnosis: Psychiatric episode – Attempted Suicide.
Treatment: 2112 Reassurance, Observations, Transports. 2120 – Pad and Bandage.

During her discussion of this particular job, Mary remarked:

It did sound serious at first, and I was expecting something very unpleasant and difficult to deal with, but it turned out to be not serious at all, which I was pleased about.
Mary’s verbal account of this job highlighted once again the extent to which information received and sent by ambulance communication was a significant influence on Mary’s judgement practices, particularly in relation to preparation and planning for assessment and the influence of the circumstances on her emotionally. As outlined earlier, comparatively few jobs necessitated rapid transport of the patient to hospital for treatment.

When exploring this feature of her judgement practice, Mary proposed that her clinical rank as an intensive care paramedic meant that she was ordinarily dispatched to those jobs that were most serious:

*Comms [Communications] generally keeps alpha [intensive care paramedics] crews for the most clinically serious cases, so I don’t do a lot of mental health work in that regard, although we’re becoming busier and busier, so it’s the first available crew.*

In the talk segment, Mary revealed how the clinical rank of paramedics influenced the deployment of ambulance resources with respect to patients with mental illness. What made this feature of Mary’s judgement practice particularly prominent was the fact that there were patients to whom Mary attended who were transported to hospital because, in that instance, it was the most appropriate form of patient care. For example, in one job Mary was dispatched to a 77-year-old female who reported a “sudden onset of tremors”. The written account of this job, illustrated in Figure 63, details Mary’s assessment of this patient, who, according to Mary, was not unwell, but rather unsafe:

*The poor sweet dear wasn’t oriented and was disorientated, and it wasn’t because it was early morning. The dear didn’t know what was happening, and it wasn’t safe for her to be left alone. People like her leave the oven on and burn the house down.*

Mary’s description of the circumstances of this case was characteristic of a particular group of patients, where their needs were not an emergency but were considered by Mary to be important nonetheless. Moreover, it highlighted Mary’s assessment of the consequences of judgement practice, in this instance for the welfare and safety of the patient. Mary frequently referred to considering the foreseeable consequences of her judgement practice when deliberating her course of action. For example, Mary was particularly vocal about the welfare of the elderly with mental illness.
Figure 63 – Example of when the need is not an emergency

Transcription:
Past Medical History: 77-year-old female sudden onset of severe tremors after she got up to go to the toilet. Transported to hospital twice during the last fortnight for same. No evidence of tremor on QAS arrival.
Past Medical History: Patient can’t remember (poor historian).
Medications: Cartia, Somac, Pravarnol, Printill.
Allergies: Penicillin.
On Examination: Neurological—Alert; Motor-sensory—Nil abnormalities detected.
Respirations: Nil abnormalities detected.
Cardiovascular: Nil abnormalities detected.
Abdominal: Nil abnormalities detected.

*Patient “can’t” remember events/details of medical history and treatment. Unable to state how long the tremors lasted etcetera or how she felt during episode.
Provisional Diagnosis: Anxiety – Query Alzheimer’s.
Treatment: Primary. 0515 Observations, Transport. 0520 Monitor – Nil abnormalities detected. 0530 Observations.

In one interview, Mary remarked:

*I can’t tell you how many times I’ve taken patients up to the ED with a psychiatric condition only to return to the ED every hour to see them sitting in the waiting room still. Particularly the old ducks, sitting on a cold hard chair in a room full of yobbos in the middle of the night, scared out of their wits. It’s cruel, and I won’t do it.

This talk segment further exemplified the frustration Mary expressed about the poor standards of health care in emergency departments, as noted earlier in the report. This featured in much of her verbal account, where she was often heard describing how, in her view, emergency departments provided limited care for patients experiencing mental illness. It highlighted her own expectations of appropriate patient care that she
brought to her judgement practice and the limited ability of the health system she worked in to provide these outcomes. Mary’s frustration with the health system more broadly, and the influence this had on her judgement practice, was particularly evident when examining her account of patients who refused treatment and transport.

However, there were some jobs that Mary attended where patients were “non-compliant”, resulting in involuntary assessment and treatment using restraint and force. As described earlier, four of Mary’s patients refused both treatment and transport. Of those four, three patients were transported under an ambulance emergency examination order, and one patient was transported under a police emergency examination order. With respect to these patients, Mary reported during her job debrief that there was no question that the use of involuntary assessment orders and in some instances physical and chemical restraint were indicated. Moreover, Mary noted that:

_These patients are flagged in our clinical auditing as ICPs [intensive care paramedics] so they undergo mandatory case review by the clinical support officer and local medical officer._

Mary noted that the organisational practice of mandatory auditing jobs where physical and/or chemical restraint of patients occurred was in fact advantageous to her professionally, and influenced her judgement practice. Mary described that:

_I know my cases are being audited. That’s a part of life. It helps me review my practice. Quite helpful really. Mind you, it took a bit getting use to, as it’s not something I had as a QAO [Qualified Ambulance Officer]._

This talk segment illustrated the influence the organisation’s clinical governance framework had on her work as an intensive care paramedic, and the value she derives from the regulatory aspects therein. Perhaps the most significant feature of Mary’s judgement practice as an intensive care paramedic was the way in which she determined that, for some patients, transport was not the most “appropriate patient care”, as this final section of the case report will show.
Disestablishing the need for transport: Other appropriate patient care

For a small but distinct number of patients, Mary determined that transport was not the most appropriate form of patient care. When examining all of these jobs, three particular scenarios became apparent.

Analysis of Mary’s account of practice revealed that the patient’s next of kin influenced her judgement practice. In the instance where treatment was provided, which consisted of assessment and advice, but transport was not indicated, Mary delegated responsibility for the patient’s follow-up care to their next of kin. Figure 64 provides an exemplar of this. Here, Mary was called to attend a female patient who self-reported that she was “not breathing”. After her assessment and profiling of the patient as requiring treatment but no transport, Mary delegated follow up of the patient to her husband. During her debrief of this job, Mary remarked:

This lady was interesting. She clearly was chronically unwell, and there was nothing particularly different about that event that particular call out. She just wanted some reassurance that she wasn’t not breathing, which I gave, repeatedly.

Thus, for this patient, Mary deemed that the appropriate patient care in this instance was to leave the patient in the care of her husband, and to advise them to seek a review by her medical practitioner. Mary’s justification for this was outcome was as follows:

Her psychiatrist is what she needed, but it certainly wasn’t urgent, particularly at that time of the night.

In another job, Mary delegated responsibility for follow-up care to the patient’s mother. In doing so, she determined that to be “appropriate patient care”. There was one job where Mary delegated responsibility for the patient’s follow-up care to both the next of kin and to the attending medical practitioner.
Past History: 53-year-old female complaining of “not breathing”. Patient states she suffers from anxiety attacks (and) attended [Anonymised] hospital and prescribed “Luvox” which she took at 0900hrs today. Onset of “not breathing” while watching TV tonight. Also states she becomes anxious while on her own during the day – advised to get a pet!

Medications: Luvox 100mg taken once only this morning advised by Dr [Anonymised] to stop taking this medication initially prescribed by Dr. Premia 625mg. Allergies: Nil known


Cardiovascular: Pulse 82 normal, Blood Pressure 150/80, Skin Nil abnormalities detected. Advice Given: Discontinue medications, observations by husband → QAS will return if required or private transport to [Anonymised]. (Asterisk) No allergic reaction signs or symptoms.

Provisional Diagnosis: Anxiety Episode.

The second scenario occurred when Mary attended a patient and a medical practitioner was on scene. In this job, Mary was called to assist another ambulance unit attending a patient who was reportedly violent. The paramedics already in attendance, both of whom were advanced care paramedics, had recorded in their job record that the patient, after initially refusing to go, agreed to be transported to hospital. However, as they began transport, the patient became increasingly agitated and then refused to go, as illustrated in the extract of their job record in Figure 65. As an intensive care paramedic, Mary was clinically senior to the other paramedics and accordingly had responsibility for the patient. In this job, Mary and her colleagues accepted the judgement and decision of the patient’s physician, who was in attendance, which was that the patient should remain at home and did not require transportation.

Figure 65 – Mary refers patient to medical practitioner

Transcription: 3rd visit to this psychotic patient. Doctor [Anonymise] on scene. Patient refusing to go to hospital. Before doctor’s arrival we have convinced patient to go to hospital and actually got him to get into ambulance but as we commenced to move off, he became very agitated and irate and demanded to get out of unit. At which [Anonymised] he lunged at officer [Anonymised] in the back of the unit. Queensland Police requested immediately. Patient told to stay inside house until Queensland Police Service arrived. Doctor’s decision was to leave patient at home who was saying all he wanted was a sleep. (Asterisk) Nil Transport (Asterisk). Queensland Police Service spoke to defacto and advised her that they will be transporting him if he calls QAS again tonight.
Mary remarked that:

*I didn’t agree with Dr [Anonymised], but he was his doctor and knew what he was going on about. He accepted the patient, so end of story; we were done.*

This talk segment highlights the influence of authority and power in her interactions with others with respect to judgement practice. It exemplifies the role that others in authority, in this instance the physician, had on her judgement practice, even when she did not necessarily agree with the assertion they made. Mary’s written job record referred to the patient’s agitation and violence for which she had little tolerance as outlined earlier in the report. However, this particular job record also included evidence of Mary’s rules about the expectations she had of the patient and those on scene, specifically that the police “will be transporting him [the patient] if he called QAS again” that evening. This highlights the third and final scenario where treatment but no transport was provided—when the job became a matter for the police.

In three jobs, Mary delegated the responsibility for the patient to the police. An example of one such case is illustrated in Figure 66. In each of these jobs, the primary determining factor was her concern for her own safety, even though the police were present. Mary remarked in her verbal account that an emergency examination order was not warranted for these patients, but that at the same time she was not prepared to tolerate their violent behaviour. In recounting one of these jobs, Mary remarked:

*It wasn’t an emergency, so the emergency examination order is not applicable, and his injuries were far from life-threatening, so I left him to the police. I was not putting up with that. That’s their area of expertise.*

In this talk segment, Mary can be heard not only placing the safety of herself to the fore, but also signalling her decision that an emergency examination order was not applicable in this situation as it was not an emergency. Moreover, she highlighted that police had the “expertise” for dealing with patients of this nature. What was particularly significant about Mary’s verbal account of her judgement practice with respect to particular jobs, where the need for transport was disestablished, was her view that not providing treatment was more of a concern than not providing transport. Mary reported a professional view of treatment that was broad, and not limited purely to physical acts and interventions.
Figure 66 – When it is a matter for the police

Translation: Patient said to have been stabbed in the arm – On arrival, intoxicated middle-aged female had several minor scratches/cuts to inside left forearm. The wounds were in a random pattern, no defence wounds. Patient had multiple similar scars to left and right forearms; self-inflicted. The patient refused transport to [Anonymised] as last time she went there they would not talk to her and she had to catch the train home. Patient left in the care of QPS.

Rather, treatment comprised at the very minimum of providing advice to the patient, especially in instances where the patient refused physical treatment and transport.

As far as I’m concerned, advice constitutes a form of treatment, and what I write in the ARF [ambulance report form] is the same. It goes back to our duty of care to patients.

In this talk segment, Mary signalled that, for her, at its most basic level, a simple assessment and advice constituted treatment, and consequently some form of treatment was rendered for all patients.

Critical interpretations of Mary’s account – The enacted and the expected

When relating Mary’s account of clinical judgement and decision-making of mental illness to the formal expectations described in Chapter 4, a number of significant observations were made. Mary was dispatched by ambulance communications to relatively few patients who were reported to be mentally ill. Of the jobs that she did attend, the majority of patients were in her view experiencing mental illness, but few
were psychiatric emergencies. While the majority of Mary’s work comprised attending to individuals who were violent, suicidal, or under the influence of drugs or alcohol, which is consistent with the formal expectations of practice detailed in Chapter 4, Mary did not consider the majority of them to be psychiatric emergencies. Most of Mary’s patients were recorded as having a medical history or active diagnosis of mental illness, and many were noted to be receiving medical treatment. For Mary, her primary role in the field was to provide “appropriate patient care”. In this way, Mary’s judgement practices were patient-centred. The single caveat to providing “appropriate patient care” was violence, about which she was intolerant. Her need for safety took priority over all else. In this way, Mary’s account of practice was consistent with the formal expectations of practice that mandate the safety for self. These expectations feature consistently in her judgement practice.

As noted earlier, the formal Systematic Approach for paramedic practice in the QAS Clinical Practice Manual consists of a series of five recursive, dynamic and spiralling steps—assessment, judgement, planning, implementation and reassessment—which is accompanied by a case management guideline in the form of a decision tree. Mary’s version of the Systematic Approach was comprised of three interconnected and dynamic stages, namely (i) *Building a profile – Working from the data and evidence*, (ii) *Tuning in – Patients, their profile and provisional diagnosis*, and (iii) *Thresholds for action – Testing was constitutes appropriate patient care*. Mary used these to achieve appropriate patient care. As noted, Mary applied a series of expectations to every patient and every job. Mary shared and negotiated with the patient what they could expect from her and vice versa. This shared and mutual understanding comprised something of a contract for Mary, which she expected the patient and herself to honour. This notion of shared decision-making does not expressly appear in the formal expectations of practice.

When it came to *assessment*, Mary sourced information and built patient profiles through the systematic assessment of the patient and the scene, and the assembling of data and evidence. The information she sourced was specific—it related to the safety of the patient and herself, and the extent to which the patient was “compliant” with a shared understanding. Mary’s judgement practice revealed a heavy emphasis on continuous assessment, with reassessment of not only the data and evidence obtained, but also of her assessment of that data and other observational evidence. In doing so,
she established a rapport with the patient, which fostered mutual understanding and shared responsibility for the outcome. Mary conveyed what the patient could expect from her and what she expected of the patient. In doing so, Mary brought her own expectations to her judgement practice in a manner that was consistent with, but in furtherance of, those set out in the formal guidelines. Her assessment for data and evidence followed an established standard of the primary and secondary survey of the patient. Mary sourced this data from the patient, other individuals, the environment, and from herself by way of her own interpretations.

Mary’s processes of conducting primary and secondary surveys was central to her process of “building of profiles” to meet her primary objective—providing “appropriate patient care”. A key observation was Mary’s evidence-driven approach in her judgement practice, guided by the use of primary and secondary surveys of the patient and the scene. The analysis revealed how she moved through each stage and arrived at a point where she made a judgement about the significance of the patient’s profile, and determined appropriate patient care. There were consistencies between Mary’s version of the Systematic Approach and that expected of her as described in the QAS Clinical Practice Manual. Both are linear and take the form of a decision tree, highlighting the influence of regulatory frameworks. Mary’s representation was more characteristic of the Systematic Approach than of the QAS Psychiatric Case Management Guideline. Her judgement practice was dynamic and recursive, and involved the assessment and reassessment of data and information. Mary brought specific expectations to her judgement practice with respect to assessment. She made clear her obligations to the patient, and the responsibility the patient and others on scene had in achieving the shared goal of “appropriate patient care”. Mary’s assessment paid attention to establishing the level of patients’ compliance. Importantly, this compliance referred to the patients’ obligation to participate in the encounter to facilitate appropriate patient care. It was not specific to an agreement to being transported to hospital, which is what the formal expectations required. For Mary, patient compliance was a function of them taking responsibility for their care as was appropriate, and meeting their obligations to achieve that outcome. The perpetration of violence by the patient voided their shared understanding, which Mary dealt with by referring them to the police. This, in part, shows the influence of the formal expectations of practice set out in the QAS Clinical Practice Manual. However, the formal expectations do not identify or articulate
particular expectations that the paramedic will have of the patient, other than being transported to hospital. As noted, not all patients were transported to hospital, and not all of these patients were deemed “non-compliant”. Rather, there were instances where, in Mary’s judgement, an intervention other than transportation without undue delay was the most appropriate form of patient care.

When it came to her judgement and planning, Mary reported using a process she referred to as “tuning in” to assess the emerging profile of the patient and to formulate a provisional diagnosis. Critical to her assessment of data were interpersonal skills, which Mary relied on to “tune” into the emerging profile of the patient. This enabled her to formulate a provisional diagnosis, where the patients’ problems were assessed as medical or mental. Mary’s clinical judgement and decision-making was in some respects an “assessment of the alternatives in treatment from which decisions or choices between alternatives for optimal treatment are made” (Dowie, 1993, p. 8). As outlined earlier, interpersonal skills were critical to Mary for successfully building the “profile” of the patient, for judgement of its significance, and for planning and implementation of the outcome. This was characterised of her reassessment in judgement practice. Mary’s account was consistent with the QAS Clinical Practice Manual, which required continuous reassessment of the patient and the scene, where the paramedic returns to assessment again and the collection of data to eliminate “possible alternative judgements and solutions within the management plan” (Queensland Ambulance Service, 2010a, p. 10). However, Mary’s account provided evidence of not only the reassessment of patient and the scene for data, but also of her own assessment of those judgements.

This practice of reassessment also featured in Mary’s implementation, which paid attention to the original goal of providing appropriate patient care given the particular circumstances. Her use of interpersonal skills and different knowledge and experience enabled her to “tune in” to the needs of the patient, and propose an expected outcome for “appropriate patient care”. In this way, her “tuning in” extends to her care.

Importantly, Mary reported relying on different types of knowledge not described in the formal expectations of judgement practice. Paramedics are expected to use instinct and intuition for accomplishing clinical judgement and decision-making of mental illness. Mary reported intuition and instinct, which she called “informal knowledge”, as being elements of her judgement practice, but she used them cautiously. Mary was sceptical of
judgements that she arrived at using intuition and instinct where she was unable to obtain any corroborating data or evidence. In her view, this enabled her to provide patients with “appropriate patient care” where the outcomes suited the needs of the patient. What constituted appropriate patient care was not fixed or universal, and depended on a variety of factors, all of which centred on the needs of the patient. Appropriate patient care, and how she implemented this care, depended on the profile of the patient, the assigned provisional diagnosis, and the anticipated patient outcomes. Compared to the QAS Clinical Practice Manual articulated requirement for providing the “best possible outcome”, which is “transportation without undue delay”, her preference was for treatment and/or transportation depending on which of these, in her opinion it, was indicated. As noted, transportation of the patient was less important in some instances than providing forms of treatment. In Mary’s view, transport was not always warranted, and therefore not always provided. Patients who, in her view, were experiencing a psychiatric illness and required treatment and transport were provided this, either voluntarily or involuntary. There were other patients, however, for whom transportation was not required, either immediately or even at all. While she preferred transporting patients, she considered immediate transportation of patient by police, or the independent transportation of the patient to a physician later, to be appropriate care for some patients. For Mary, providing treatment other than transport was important for those patients not experiencing a psychiatric emergency.

The analysis revealed that in the main, Mary’s judgement practices not only met the formal expectations set out in the QAS Clinical Practice Manual, but also beyond them to provide what she described as “appropriate patient care”. Mary paid attention to the patient and their individual needs throughout her judgement practice, which at times resulted in patient outcomes that differed from those required by the QAS Clinical Practice Manual. Specifically, for her “transportation without undue delay” was not the universal expected outcome for all patients. In some jobs, outcomes other than transportation resulted, such as leaving the patient in the care of a next of kin, a physician, or the police. The analysis revealed the importance of role relationships and social interactions in Mary’s judgement practice. It also shows the influence of many aspects and features of the context of her practice—the pre-hospital emergency care setting. Moreover, her account demonstrated her own expectations of the patient and others in her judgement practice, some of which can be traced back to the formal
expectations outlined in the *QAS Clinical Practice Manual*. However, others were peculiar to her practice. In the jobs analysed and the accounts provided, the regulatory frameworks for paramedic judgement practice, namely the *QAS Clinical Practice Manual*, did not wholly govern Mary’s judgement practice. This going beyond the formal standards outlined in the *QAS Clinical Practice Manual* and other clinical guidelines described in Chapter 4 was necessary for Mary to meet the expectations of everyday paramedic practice in the field.

**Moving from within-case analysis to cross-case analysis**

Each of the preceding case reports provided one paramedic’s account of judgement practice in the field with respect to mental illness. The reports were comprised of three sections. Each opened with a *case description*, introducing the paramedic, providing demographic characteristics and a descriptive analysis of their job and work profile relative to their judgement practice. Following this were *case-based themes*, detailing key features of the paramedic’s account of judgement practice in the field and the factors they each reported to influence this aspect of their work. The analysis of historical and current jobs focused on the general characteristics of their jobs, their assessment of the patients and the situations, the treatment provided their management of the scene, and the job outcomes. The reports concluded with an analysis of how the paramedic’s account of actual practice related to and compared with the formal expectations of practice detailed in Chapter 4. These findings provide the opening for a *cross-case analysis*, an analysis of the three instrumental cases’ accounts of judgement practice, focussing on what was similar and distinct, as discussed next.
PART B – Cross-case analysis

The following section reports the findings of the cross-case analysis of the preceding accounts of judgement practice. In the analysis, consideration was given to both the aspects of practice common across the cases and those particular to each individual case. Essentially, the analysis was interested in the cases for “both their uniqueness and commonality” (Stake, 1995, p. 1). Ten key findings were identified. These included: (i) the types of patients paramedics encountered and the nature of their problems; (ii) the priorities for the paramedics’ judgement practice when solving those problems; (iii) the basis for these priorities; (iv) paramedics’ reliance on standardisation and routines for problem solving; (v) the importance on information in arriving at a provisional diagnosis; (vi) the nature of paramedic knowledges, experience and intuition; (vii) the influence of uncertainty on judgement practice; (viii) the necessity of interpersonal skills and communication; (ix) concerns about safety and welfare; and (x) enabling safety and welfare with the help of others. Consideration is also given to how these accounts related to the formal expectations of paramedic practice—the Ambulance Service Act 1991 (Qld), the QAS Clinical Practice Manual, and the Mental Health Act 2000 (Qld). Collectively, there were aspects of judgement practice that reflected these formal expectations, and others that did not, as discussed next.

Few patients, particular problems

The first key finding when looking across the accounts of judgement practice was that Bill, Mary and David attended relatively few patients reported to be experiencing mental illness, and those that they did attend presented with particular problems. Over the 24-month period of data collection, Bill, David, and Mary attended 56, 65, and 37 jobs respectively for which they reported a clinical judgement of mental illness. This equated to, on average, between two and three mental health jobs per month for Bill and David, and fewer than two for Mary. Moreover, few of the patients they did encounter for whom they made clinical judgements of mental illness were, in their view, experiencing a psychiatric emergency. Bill, David, and Mary reported six, four, and three of their patients respectively to be suffering a psychiatric emergency. As noted, these patients were reported to be violent, suicidal or self-harming, and often under the influence of alcohol or drugs. While the paramedics were dispatched by ambulance
communications to most jobs under Code 1 (or emergency conditions), on assessment by the paramedics few of the patients, in their view, met the criteria for psychiatric emergency as set out in the *QAS Clinical Practice Manual*. There was some variation in the nature of their patients’ complaints. According to Bill and David, few of their patients had attempted suicide, self-harmed, or had suicidal ideations. By comparison, Mary reported that more than 80% of her patients were suicidal, self-harming, or had suicidal ideation, although she did not regard the majority to be psychiatric emergencies. However, the vast majority of patients were reported to be emotionally distressed, anxious, agitated, or depressed, particularly in the experiences of Bill and David. The majority of patients for all three paramedics had a recorded history of mental illness, and a significant proportion had reported being recently discharged from a mental health facility. The reported rates of current medication for mental illness among the patients were high for all three paramedics.

The difference in the number of patients each paramedic encountered and the nature of their presenting complaint was, to some extent, a reflection of the difference in the clinical rank of each of the paramedics. Bill and David were advanced care paramedics; Mary was an intensive care paramedic. As noted earlier, the QAS intensive care paramedics are typically dispatched to the most serious jobs, such as attempted suicide.

**Paramedics’ priorities – Protecting and transporting patients**

For all three paramedics the priority for judgement practice was the safety and protection of the patient, themselves, and others on the scene, from danger, both real and potential. The imperative to protect patients featured prominently in both written and verbal accounts. Although the particular way in which each paramedic reported protecting the patient differed, their underlying intent was the same. Bill and David protected patients by working towards the “best possible outcome”, which was consistent not only with the expectations of the *QAS Clinical Practice Manual*, but also the language of this document. The language Mary used to describe how she protected her patients—by providing “appropriate patient care” was different from that of Bill and David, and the *QAS Clinical Practice Manual*.

All three paramedics protected patients in four main ways: (i) assessing the patient and the scene and removing them from danger; (ii) administering basic clinical
treatment as required; (iii) providing psychological support; and (iv) transporting them to hospital. The importance of each of these varied from paramedic to paramedic, and job to job. Common to all, however, was their use of a problem-solving approach for their judgement practice for assessing the patient and the scene, as detailed later in this section. This approach included an assessment for immediate threats to safety, followed by a clinical assessment. The clinical treatment provided by the paramedics consisted mainly of oxygen therapy, which was provided to between one-third (Bill and David) and half (Mary) of the patients, and the dressing of wounds associated with acts of self-harm or attempted suicide. For all three paramedics, assessing the psychological needs of their patients and providing them with psychological support was important to them, and featured consistently and prominently in their verbal and written accounts. Finally, protection was provided by transporting the patient to hospital. The overwhelming majority of patients encountered by all three paramedics were treated and transported to hospital by ambulance, most often at their own behest. Few patients refused treatment and/or transportation.

Although all three paramedics reported a clear preference for transporting their patients to hospital, there was some variation across the cases. Bill and David reported transportation to be the central focus of their judgement practice, and were more inclined to transport patients to hospital than Mary. This was highlighted when patients refused treatment and transportation. Although few in number, these patients were a source of concern for the paramedics in this study, especially for Bill and David. For them, the prospect or reality of a patient refusing transportation was a source of significant personal and professional distress. Bill treated three patients for whom he did not provide transport to hospital, as these patients were reported to use other means of transportation. He reported significant personal distress and “worry” about the safety of these patients. David encountered seven patients who refused treatment and transport, all of whom were transported involuntarily under an emergency examination order completed by himself or the police.

Mary also reported a preference for transporting patients where she deemed it constituted what she referred to as “appropriate patient care” in the particular instance. For Mary, transportation was not as critical to her treatment of her patients because, in her view, transporting the patient was not the only way she protected patients. Four of Mary’s patients were reported to have refused treatment and transport. Of those, not all
were transported to hospital, but all received treatment. In her view, it was her assessment of them and the advice she provided to the patient or others on scene that constituted her treatment. As noted, Mary’s judgement practice included providing the patient with advice, which, in her view, was an acceptable form of treatment instead of transport. Thus, there were patients for whom she provided treatment but no transport, because in these cases transport did not constitute “appropriate patient care”. Although Mary reported transportation of patients to hospital as important, it was not the exclusive expected outcome of her judgement practice.

Overall, the treatment provided by the paramedics comprised assessment of the patient, administering oxygen therapy, attending to wounds, providing psychological support and reassurance, advice, and in most instances transport. The paramedics themselves transported the majority of patients, with a few transported by the police or a third party. Of note across all three paramedics was that there was no patient who was recorded to have received neither treatment nor transport, a provision which was consistent with the formal expectations of paramedic practice.

The basis of prioritising – Adherence to, and use of, the formal expectations

For all three paramedics, the focus of providing protection and transportation to patients with respect to mental illness reflected their adherence to the formal expectations of paramedic practice—the Ambulance Service Act 1991 (Qld), the QAS Clinical Practice Manual, and the Mental Health Act 2000 (Qld). As noted earlier, two laws govern paramedic judgement practice with respect to mental illness: the Ambulance Service Act 1991 (Qld), and the Mental Health Act 2000 (Qld). The principal legislation governing paramedic practice is the Ambulance Service Act 1991 (Qld). This Act places an obligation on paramedics to protect an individual from danger and potential danger. It empowers the paramedic to take any “reasonable measure” to protect patients and transport them to hospital for further treatment. It is from this Act that the QAS Clinical Practice Manual, the primary clinical policy that guides paramedic practice, is derived. Contained within this manual is the QAS Psychiatric Case Management Guideline, which requires paramedics to transport all patients “without undue delay”. All case management guidelines in the QAS Clinical Practice Manual include the requirement to transport patients without undue delay, and there is no other clinical guideline relevant to mental illness. In addition, the Mental Health Act
also governs the paramedic’s practice with respect to the mentally ill. It enables paramedics to make emergency examination orders to transport patients to hospital involuntarily in instances of a psychiatric emergency.

The judgement practices of all three paramedics were broadly consistent with these formal expectations of paramedic practice. All three paramedics treated and transported the overwhelming majority of their patients, in the main, using provisions of the *Ambulance Service Act 1991* (Qld) and the *QAS Clinical Practice Manual*. As noted earlier, the majority of patients requested treatment and transportation to hospital. The provision of the *Mental Health Act 2000* (Qld) to manage patients suffering a psychiatric emergency—the emergency examination order—was rarely used. Across the data corpus, including interview transcripts and completed job records, few patients they encountered were assessed as suffering a psychiatric emergency. Of those deemed to be suffering a psychiatric emergency, few refused treatment and transportation, thereby precluding the use of an emergency examination order under the *Mental Health Act 2000* (Qld). The use of emergency examination orders by all three paramedics was restricted to jobs where: (i) the patient was violent and the paramedic was unable to de-escalate the violence; (ii) the patient refused treatment and transport; and (iii) the paramedic held concerns for the safety of the patient or others in the field. All three paramedics reported encountering patients of this kind, albeit rarely. Bill, David and Mary completed four, three and three emergency examination orders respectively. For these few patients, emergency examination orders were prepared by the paramedics or by police officers who were on scene.

The usefulness of emergency examination orders to judgement practice varied among the three paramedics. Overall, they reported being generally able to manage patient refusal of treatment and transport without using emergency examination orders. For Bill and David, it was interpersonal and communication skills that were critical to transporting patients who refused treatment and transport without the use of emergency examination orders. Mary reported emergency examination orders to be useful when patients were violent and refused treatment and transportation. There were, however, instances where the paramedics called into question the usefulness of emergency examination orders. David reported that emergency examination orders were of little value in the field because, in his experience, they had little or no influence on the patient outcome in the hospital setting. In his experience, physicians exhibited a “blatant
disregard” for his assessment and judgement of patients that he communicated on emergency examination orders. This reflected David’s concern for the patient, and his judgement practices related to them, after the patients left his care. He reported, and provided written accounts, of instances where physicians discharged patients about whom he had provided what was to him compelling evidence demonstrating the severity of their mental illness. Therefore, to him, emergency examination orders were of little use in the carrying forward of paramedic judgement practice to others.

**Problem-solving approach to judgement practice – Standardisation and routines**

Common to all three paramedics was their reported reliance on a problem-solving approach to judgement practice, which each referred to as their “Systematic Approach”. They reported relying on their individual application of the formal Systematic Approach contained in the *QAS Clinical Practice Manual*. A key characteristic of their problem-solving approach to judgement practice was the use of a standardised framework over time, from which they generated particular routines for use in the field.

The way in which each of the paramedics standardised their judgement practices, and the routines that resulted, varied significantly across the cases and when compared with the Systematic Approach featured in the *QAS Clinical Practice Manual*. This difference in their accounts, both written and verbal, reflected their tailoring of the Systematic Approach to enable them to meet the needs of patients and manage the challenges present in the field. As noted earlier, Bill and David’s approaches were linear and procedural, comprised of fewer steps, and were more reflective of the *Psychiatric Case Management Guideline* than the Systematic Approach within the *QAS Clinical Practice Manual*. Bill’s routine consisted of using his “formula” for gathering specific information in the form of “triggers” that were based principally on his experience. The term “trigger” features commonly in the discourse of emergency service workers, which for Bill represented a set of criterion-based processes that enabled him to transport patients. David’s routine comprised of a process of “mental mapping” during which he used his field knowledge when “summing up” and “making sense” of the patient and their problem. Mary’s routine was recursive and dynamic, and incorporated multiple processes for building a patient “profile” that enabled her to “tune in” to the patient and their needs. She reported testing the validity of her judgements in two ways. First, by cross checking against data sources and points for validation, and second, by testing the
result of her assessment against the needs of the patients via what she described as a “threshold for action” to determine what constituted “appropriate patient care”.

Both Bill’s and David’s routines for judgement practice reflected little reassessment or re-evaluation. In contrast, Mary’s account of her judgement practice incorporated continuous assessment and reassessment for information from the patient and scene, as well as her own interim judgements. Central to their individual routines for problem solving in their judgement practice and their versions of the Systematic Approach was the assessment of the patient and the scene and the collection and analysis of data, which they used to arrive at what they all called a “provisional diagnosis”.

**Using information in problem solving for a provisional diagnosis**

Fundamental to the judgement practice of all three paramedics was the gathering and assessment of information for a “provisional diagnosis”. A central aspect of their information gathering and assessment was that it too was standardised and followed a published routine. There were similarities and differences in the type, method of collection, use, and recording of information in their written accounts of judgement practice. All three paramedics gathered information that was patient-based and scene-based. Patient-based information included the patients’ vital signs, clinical signs, and symptoms, information regarding the patient’s past and current medical history, and information regarding their behaviour, speech, and general state of presentation. Scene-based information included data and evidence of artefacts from within the field, such as suicide notes, prescriptions for medications for mental illness, weapons, and evidence of previous violence on scene.

Each of the paramedics used the information they gathered in different ways that reflected their routines for judgement practice. Bill’s judgement practices relied on his gathering of specific information that he used as his “triggers”. To Bill, “triggers” were specific information-based conditions that, when detected, enabled a particular action in his judgement practice. Bill reported having eight “hard triggers” and three “soft triggers”. A “hard trigger” was a particular kind of information about the patient that justified the action of mandatory transport of the patient to hospital. He reported that any one of the eight, such as the patient requesting to go to hospital or threatening self-harm or suicide, was all he required to justify his decision to transport the patient,
thereby protecting them. In most jobs, his assessment yielded more than one hard trigger. “Soft triggers” were particular observed characteristics of the patient or scene that, when present in combination with other soft triggers, provided him with the justification for transportation of the patient. According to Bill, he “put the triggers together” in a “jigsaw” approach. This approach culminated in the recording of a “provisional diagnosis” of the patient, which, for Bill, was a summary of the patient’s problem.

David’s “mental mapping” required him to gather patient-based and scene-based information that he used to “sum up” the patient and their problem. The focus of this information gathering and assessment was safety, for himself and the patient, which in his words were “two sides of the same coin”. His routines for collecting data followed a system of “primary and secondary survey” of the patient, which varied in particular circumstances. His assessment included six broad types of information, including statements made by the patient, his observations of their behaviour, prior knowledge, and experience of the patient’s medical history, non-verbal information, artefacts from the scene, and information from others. His “summing up” of the information at hand about the patient and situation, and “making sense” of it culminated in his arrival at a “provisional diagnosis”, which was his way of articulating his judgement of the patient’s complaint.

To Mary, gathering information and data was fundamental to her judgement practice. Although she gathered similar types of information to Bill and David, she reported a greater emphasis on data and evidence that was objective and verifiable. This information enabled her to build a “profile” of the patient, which she determined to be primarily medical or mental. It was from this “profile” that Mary reported a process of “tuning in” to the needs of the patient and their condition, to which she applied a “threshold for action” to determine what constituted “appropriate patient care”. Mary communicated her “profile” of the patient and the proposed course of action she determined to be “appropriate patient care” via her “provisional diagnosis”.

Common to all three paramedics’ judgement practice was how their gathering and assessment of information from the patient and scene culminated in a “provisional diagnosis”. It was through their provisional diagnoses that the paramedics were able to carry forward to others, typically nursing and medical staff, what they suspected the patient’s problem to be, or what they thought was wrong with the patient with respect to
mental illness. When recording their provisional diagnoses in the written record—the ambulance report form—the paramedics typically included statements and symbols that had particular meanings. As noted in the case reports, the paramedics often recorded their provisional diagnosis as being “for investigation”. These remarks reflected how they referred their clinical judgements and decisions to the receiving nursing and medical staff at the facility. The paramedics used question marks in their ambulance report form to signal areas where there was a lack of information, to signal uncertainty about the validity of the information reported by the patient, or when they were unsure about an aspect of their recorded assessment.

There were also some jobs where the paramedics used their provisional diagnosis to convey to the receiving nursing and medical staff what they thought was not wrong with the patients. An example of this was recording a provisional diagnosis of “non-cardiac chest pain” when the patient complained of chest pain of cardiac origin, but the paramedic considered it to be psychogenic because of a lack of evidence or information to support its cardiac origin. In particular, David communicated what he believed was not wrong with the patient in a subtle manner, using symbolism. He reported encountering patients who complained of specific physical injury that would ordinarily have overt physical signs and symptoms that were absent in the patient, such as a dislocated shoulder. The provisional diagnosis David documented for these patients in his ambulance report form reflected the patients’ complaints as stated. His record also, however, contained symbols that he used to signal to others that he disagreed with the patient’s stated complaint as being the cause of their condition. These symbols included the use of a question mark, to symbolise uncertainty as mentioned earlier, alongside the Greek letter Psi that is a universal symbol for “psychiatric” within the health professions. In this way, David conveyed particular information to other health care professionals who would receive the patient from him at the hospital. Of particular note was that the expectation that paramedics would arrive at a “provisional diagnosis” did not feature explicitly in the formal expectations of paramedic practice.

*The nature of paramedic knowledges, experience, and intuition*

Fundamental to the judgement practices of all three paramedics was their reliance on different combinations of “knowledge”, “experience”, and “intuition” as core elements of judgement practice. Each of the paramedics ascribed a particular meaning
to these terms. In some instances, the meanings were consistent; in others, they were
different. These concepts were the fundamental basis of their judgement practice with
respect to mental illness in the field.

Knowledge was fundamental to the judgement practice of all three paramedics,
although what constituted knowledge varied considerably. For Bill, the basis of his
knowledge was his experience, which he referred to as his “prior experience” and
“historical exposure to similar events”. It was from this experience and his instinct that
he developed his system of “triggers” described earlier, which were the product of many
years of successful practice in the field. For Bill, using “triggers” and his instinct were
fundamental. This was because according to him, the knowledge he gained from
training school, which he described as a “bag of tricks”, was insufficient, and “didn’t
work in the field”. It was from his experience that he reported obtaining his “own bag of
tricks”. Thus for Bill, judgement practice is comprised of experience-based knowledge
derived from the field, and his use of “triggers” and “instinct”.

Unlike Bill, David valued greatly the knowledge he obtained during training
school, which he reported to be fundamental to his judgement practice. David was
emphatic in this, and reported that having a basic training was what allowed him to
develop his own experience. In particular, it was by applying his basic training to his
practice in the field over many years that he augmented his knowledge base. To David,
combining basic training with the application of knowledge acquired in the field over
many years was what he saw as his primary source of knowledge, which he referred to
as “field knowledge”. It was this knowledge that was particularly useful to him when he
had to “make sense” of the patient and their complaint in the field, to inform a
“provisional diagnosis”.

Mary reported valuing knowledge highly, and for her it consisted of three types.
Mary valued knowledge derived from “training” provided by the QAS, as well as
“formal” and “informal” knowledge. Mary saw “training” as providing her with the
basis for practice, which she augmented with other types of knowledge. There was her
“formal knowledge” for which she could identify a verified source or origin, such as the
information she obtained from her medical colleagues, or from reading textbooks or
journal articles. “Informal” knowledge was knowledge she possessed that had no
verifiable or objective source. Mary used the term “informal knowledge” to describe
what might traditionally be referred to as intuition. As she stated, “you call it intuition. I
call it informal knowledge.” Mary regarded training, knowledge (both formal and informal) and her assessment of patients as critical to her judgement practice. She reported gaining knowledge from others with whom she had worked. However, in addition, Mary reported possessing and making use of different types of knowledge, both formal and informal, which were separate from training and prior experience. Using this knowledge and experience, and other elements such as interpersonal skills, enabled her to assess the patient, to construct a patient “profile”, and discern what constituted “appropriate patient care”, which was the foundation of her judgement practice.

Worthy of mention from the cross-case analysis was that, although they reported a need for more education and training in mental illness, they did not regard their overall knowledge base or state of preparedness as deficient. For these paramedics, different combinations and permutations of knowledge, experience, and intuition came together to enable judgement practice in the field.

Judgement practice and uncertainty in the field

All three paramedics reported uncertainty as a central aspect of their judgement practice with respect to mental illness. The nature of this uncertainty, and the extent to which it influenced their judgement practice with respect to mental illness, varied from paramedic to paramedic, and job to job. They each reported uncertainty as something they expected to encounter and contend with routinely in their work, but in two distinct ways.

Bill, Mary, and David encountered much uncertainty during the clinical judgement and decision-making process. For example, the lack of information about the patient and their condition during the process of making judgements and decisions about the patient in their problem solving was a source of uncertainty for all three paramedics. Bill and David reported considerable uncertainty arising from those jobs where patients presented with vague symptoms or without clear physical signs or symptoms, which limited their gathering and use of information for developing a provisional diagnosis. For Bill, this occurred when he lacked ‘triggers’ in his judgement practice. For David, this was prominent when his assessment yielded a “provisional diagnosis” of the patient that differed from that which the patient believed was wrong with them. For Mary, this was reported to occur when her assessment of the patient yielded insufficient
information to form a “profile” of the patient against which she could then test the “threshold” in terms of it being “appropriate patient care”.

They also encountered uncertainty after their judgements and decisions were made. This residual uncertainty reflected their concerns about the safety and welfare of the patient and themselves that might arise from consequences of their judgement practice. As noted, patient refusal of treatment and/or transport created uncertainty for these paramedics. To them, patient refusal represented a departure from not only the formal expectations of practice, but also from that which they expected of their own practice. The significance of this departure, and the way they managed it, varied from paramedic to paramedic, and from job to job. The uncertainty created by patient refusal was most significant for Bill and David, who reported it as a cause of considerable personal and professional distress. For them, this distress reflected the concerns they held for their personal and professional safety, should the patient who refused treatment and transport subsequently come to harm. They expressed concern about being held liable for claims of negligence and breaching their duty of care, which was to protect and transport patients. To Bill and David, the uncertainty was created because failure to transport a patient was akin to failing to protect them.

By comparison, Mary was less concerned with the uncertainty created by not transporting her patients routinely. Whether or not the patient refused treatment or transport was an important process in her judgement practice for determining whether the patient was, in her words, “compliant”. To her, patient compliance was a measure of the extent to which she and the patient were able to strike agreement, or in her words make a “contract”, about what her role was during the encounter. This “contract” also set out the patient’s obligations to Mary, thus setting out mutual responsibilities. These were cooperating with her requests and enabling her to carry out a thorough assessment, accepting the advice she provided from that assessment, and agreeing to any actions she deemed necessary, such as transportation. According to Mary, not being able to establish mutual agreement that would enable her to render “appropriate patient care” created uncertainty in her judgement practice. In addition, Mary reported uncertainty when looking to her “informal” knowledge, or intuition, in her judgement practice in the absence of verifiable information to support that type of knowledge.

For all paramedics, dealing with patient refusal of treatment and/or transport reflected how there were competing demands of their judgement practice. The
competing demands were between rigid clinical policy frameworks requiring the transportation of all patients, and the views and wishes of the patients regarding accepting treatment and transportation. All three reported that departing from the formal expectations had potentially serious consequences for the patient and for themselves, creating an uncertainty that influenced their clinical judgement and decision-making.

The necessity of interpersonal skills and communication

All three paramedics identified well developed interpersonal and communication skills as being important to their judgement practice, and necessary to their being able to provide psychological support and reassurance. For all three paramedics, their attributes both supported the conditions for informed judgement practice and were necessary to successfully undertaking judgement practice in the field. To Bill, being understanding, non-threatening and having empathy were necessary in successful judgement practice. For David, having a nurturing, reassuring, caring, and supportive disposition was important as it influenced his perceptions of the patient and their surroundings. Adopting a non-threatening approach with patients and having “presence” and “strength” were important for successfully accomplishing judgement practice. Interpersonal skills were also important to Mary in her judgement practice. Skills such as having empathy and compassion, and being attentive, open, and non-threatening were fundamental. In addition, Mary reported that particular communication styles were also important in her judgement practice. These included using a clear and calm voice with a normal pace, modulating her speech, actively listening, using open verbal communication, and being mindful of her non-verbal communication styles. These interpersonal skills and styles of communication were important to Mary for determining what she referred to as “patient compliance”, that being the shared agreement between herself and the patient about their respective roles during the encounter and the care the patient could expect from her.

Concerns about safety and welfare for self and patients

Another key finding relevant to all three paramedics was particular concerns they had for their safety, and the safety and welfare of their patients. Their concern reflected one of the formal expectations of practice—namely the QAS Clinical Practice Manual—which reinforces the need for paramedics to be vigilant with respect to danger
and their own safety. The assessment of the patient and the scene for danger and threats to safety was a routine process in their assessment and judgement practice. The ways in which paramedics assessed and judged this risk varied. They assessed the patient and scene for particular artefacts as markers of danger, including weapons, suicide letters, patient medication for mental illness, and alcohol and drugs. Their judgement practice also considered patient-based characteristics, including the patient’s general appearance and cleanliness, and behaviour and speech as indicators of safety and wellbeing of the patient. For Bill, such characteristics and information comprised his “triggers”. David and Mary combined this information with other elements in their judgement practice, which carried different weight in different situations and contexts. Whereas Bill regarded any verbalising of a desire to self-harm or suicide, or a recent history of mental illness as grounds for mandatory transportation, David and Mary reported considering the significance of this information in light of other evidence and observational data in specific contexts.

The paramedics in this study held concerns for the safety and wellbeing of the patients they treated in both the pre-hospital and hospital care setting. In their own words, the patients they encountered were experiencing mental illness of a kind that was different from that described in the formal expectations of practice. As noted, the majority of patients they encountered were experiencing anxiety and depression, but not so severe for it to be considered a psychiatric emergency. As noted earlier, the only clinical guideline in the QAS Clinical Practice Manual related to mental illness is the Psychiatric Case Management Guideline. There are no clinical guidelines for patients presenting with mental illnesses that are not a psychiatric emergency. For these paramedics, there was little scope in the formal expectations of paramedic practice for them to manage mental illnesses other than those classified as a psychiatric emergency.

Mary reported limitations with existing systems of health care in the emergency care context, and called for better integration of the paramedic role into mainstream mental health care systems to allow her to make contributions that are more meaningful to her patients. Mary’s judgement practice was most indicative of this, where she advocated for alternatives to the requirement to transport patients experiencing mental illnesses that were not psychiatric emergencies to emergency departments. As she explained, taking patients who are not suffering psychiatric emergency—particularly the elderly patients to emergency departments—was “cruel” and something she would not
do. The accounts of David and Mary in particular raise questions about the sufficiency of the wider health system within which they work to meet the needs of such patients.

Another type of concern for safety brought to light was the concern the paramedics reported for their own personal and professional safety when patients refused treatment and transport. For Bill, in particular, this concern materialised as distress and fear, predominately of litigation arising from a breach in his duty of care to protect. To him, this posed an unacceptably high risk to his own personal and professional wellbeing. David and Mary also reported a heightened sense of risk, though to a lesser extent than Bill. Although they reported anecdotes of others for whom this had been a problem, they were not subject to such actions and their fears were not realised during this study. To address the concerns they had for their safety and that of their patients, all three paramedics enlisted the help of others to accomplish their clinical judgement and decision-making of mental illness.

**Enabling safety and wellbeing with the help of others**

The accounts of all three paramedics reflected the role and influence that other individuals had on their judgement practice in the field. Four groups of “others” were identified. All three paramedics reported an unquestioning respect for police officers. They reported relying on them when deciding what to do with patients who were violent, threatening or perpetrating harm, or refusing treatment and/or transport. Each paramedic reported instances where the patients they encountered were violent, or the scene they attended was dangerous, placing them at risk of harm. Bill and David viewed the decision to call on police as a matter of last resort, typically for patients who were violent, suffering a psychiatric emergency, and/or refusing treatment and transport. Mary called on police to assist her to manage such patients as well, although she deemed police to be a suitable alternative to ambulance treatment and transport of such patients. The use of police officers in the judgement practices of these paramedics to secure the scene for danger and transport violent patients reflected the formal expectations of practice.

The role and influence of physicians, and the paramedics’ interactions with them in the field, were a central aspect of the accounts of judgement practices of all three paramedics. All three paramedics’ accounts reported a high standard of professional respect for the authority of physicians, which reflected the historical traditions of
paramedics as assistants to physicians. However, the level of respect differed among the paramedics. Bill’s regard for the authority of physicians was unquestioning. This was particularly evident in instances where he was called to a patient recently assessed by a physician who had left instructions for the attending paramedic, which Bill carried out diligently. David was highly respectful of physicians, but was more inclined to question them and their actions with respect to patients experiencing mental illness. There were instances where, in his experience, physicians held little respect for his judgement practice and management of the patient. He cited particular examples of times when he was convinced of the nature of a patient’s mental illness that, according to him, the physician disregarded. Mary too held physicians in high regard, but not to the same extent as Bill and David. For her, respect for physicians and their decisions was not universal, and not dependent on mutual agreement about a particular patient and their condition. All three paramedics saw themselves as providing information to facilitate the decision-making of the physicians and nurses to whom they would hand over the patient. They all reporting carrying their judgement practice forward to physicians, nurses and other health professionals, but noted that little feedback was routinely provided. Moreover, physicians ultimately sanctioned their clinical judgement and decision-making and patient care. Physicians also determined the extent to which the paramedic clinical judgement and decision-making carried forward to their own clinical judgement and decision-making and the future care of the patient.

The role and influence of relatives and bystanders, and the paramedics’ interactions with them in the field, were also important in the judgement practices of Bill, David, and Mary. All three paramedics incorporated relatives and bystanders in their judgement practice as a source of information about the patient and the scene. The usefulness of relatives and bystanders, and the information obtained from them by paramedics for their judgement practice, varied from paramedic to paramedic, and from job to job. Bystanders and relatives were important in providing background information to the paramedics, particularly for gathering information about what had happened prior to their arrival. All three paramedics, particularly Bill and David, reported engaging them to assist with the collection of information when it was not forthcoming from the patient, or as a corroborating source for what the patient reported to them. David and Mary reported using bystanders to corroborate information obtained from the patient, to assist them with collecting and assessing information from the
scene, and to source information when it was not forthcoming from the patient. For some jobs, the paramedics relinquished their duty of care to a patient by passing responsibility for them over to a relative, a next-of-kin, or a “responsible adult”. For Bill and David, this was something of a last resort and only occurred when patients refused transportation, particularly so for Bill as he reported being wary of the possibility that these “others” had ulterior motives that were not in the best interest of the patient. For them, such jobs were associated with significant personal and professional distress. For Mary, in some jobs, designating responsibility for the care of the patient was a suitable alternative to transport, as, in her view, that constituted the most appropriate care.

Finally, the actions of other ambulance personnel were reported to influence the judgement practice of these paramedics, to a greater or lesser extent. For Bill, the judgement practices of other paramedics were important to his own decision-making, again acting as a “hard trigger”. This was particularly the case in relation to judgements made by paramedics senior to him. Advice provided by the ambulance communications officers that the patient was experiencing a psychiatric emergency was a “soft trigger”, which, when combined with other “triggers”, provided him with the justification for transporting the patient to hospital. He therefore was not very reliant on this advice. This was not so for David and Mary, although, as their accounts demonstrated, their judgement practices were influenced by information from other sources and agencies. The accounts of David and Mary were largely silent on the role of other paramedics in their judgement practice. Such silence suggests the judgement practice of these paramedics was highly individual and privatised.

This cross-case analysis identified 10 key findings regarding how paramedics accomplished clinical judgement and decision-making of mental illness in the field, and the various influences on this aspect of their work. The final phase of this case study is the interpretation of these findings in terms of the original purpose of the study, the existing literature, and the philosophical and theoretical literature that guided the inquiry. This interpretation of the findings yielded a new conceptualisation of paramedic judgement practice with respect to mental illness. The conceptualisation, along with the contribution it makes to the literature on paramedic judgement practice, the theoretical and philosophical literature, and the research methods that guided the inquiry, are discussed next.
CHAPTER 6 - CONCEPTUALISING PARAMEDIC CLINICAL JUDGEMENT AND DECISION-MAKING OF MENTAL ILLNESS AND LESSONS LEARNED

This chapter presents a conceptual interpretation of the findings of this study. First, the chapter conceptualises the issue—how the cases, the ambulance paramedics, situated in the context, the Queensland pre-hospital emergency care setting, accomplish clinical judgement and decision-making of mental illness, and the factors reported to influence this aspect of their work in the field. Following this is a discussion of the lessons learned from these findings in light of the existing research and the theoretical and philosophical concepts that guided the inquiry. The significance of these findings in terms of the research questions and the problem from which they originate are discussed in Chapter 7.

**Conceptualising paramedic judgement practice of mental illness – An overview**

Conceptually, paramedic clinical judgement and decision-making of mental illness, and the factors that influence this aspect of their work, can be seen as being comprised of three interconnected elements—the Contextual Element, the Practice Element, and the Mediating Element. This conceptualisation is represented graphically in Figure 67. These interconnected elements and their respective dimensions collectively constitute clinical judgement and decision-making of mental illness for the paramedics in this study.

The foundation of paramedics’ judgement practice is the *Contextual Element*, an amalgam of organisational and occupational factors associated with various historical, cultural, educational, political, and regulatory dimensions of the Queensland pre-hospital emergency care setting. It is fundamental to paramedic clinical judgement and decision-making in the field, and establishes the framework for considering the status and roles of paramedics within a hierarchy of medical treatment.

The *Practice Element* of their contextualised clinical judgement and decision-making of mental illness is comprised of *field actions* and *individual factors*. The process of clinical judgement and decision-making consisted of their individualised enacted systematic approach. Their enacted systematic approaches were comprised of...
seven components: expectations of protection and transport; gathering and assessing data; describing the problem in objective detail; assessing the nature and severity of the problem; making a provisional diagnosis; proposing and implementing actions; and achieving a favourable outcome. These processes reflect the influences of the regulatory, educational, political, historical, and cultural dimensions of the setting. Coupled with field actions are individual factors, being knowledge, experience, interpersonal skills, and personal traits. The paramedics’ field actions, their Enacted Systematic Approach, and their individual factors, being knowledge, experience, and interpersonal skills, were used in differing measure according to the individual jobs and patients they encountered. Paramedic judgement practice is a highly contextualised exercise in problem solving, and is more complex and sophisticated than suggested in the regulatory dimensions of the context of practice. Their responses to the many jobs they encountered illustrated that the Official Systematic Approach is not sufficient to represent clinical judgement and decision-making of mental illness. Moreover, their response to the many competing priorities and demands of practice demonstrated that their clinical judgement and decision-making were not wholly governed by the formal regulatory expectations of practice that had otherwise contextualised their practice.

The Mediating Element further shaped and influenced the Practice Element of paramedic clinical judgement and decision-making of mental illness. Factors mediating paramedic clinical judgement and decision-making of mental illness include the scene, the patient, and individuals with authority. In their view, the paramedics’ interactions with these dimensions determined the success of their clinical judgement and decision-making of mental illness. The interactions the paramedics had with particular individuals, namely the patient, physicians, relatives, bystanders, and other individuals with authority, and the roles they ascribed to those individuals, are critical to clinical judgement and decision-making of mental illness.
Figure 67 – Conceptualising paramedic clinical judgement and decision-making of mental illness in the field

CONTEXTUAL ELEMENT

- a) Historical & Cultural
- b) Education & Political
- c) Regulatory

PRACTICE ELEMENT

- Field Actions
  - Enacted Systematic Approach
    - Expectations of protection & transport
    - Gather and assess data
    - Describe problem objectively
    - Assess nature/severity of problem
    - Make provisional diagnosis
    - Implement actions
    - Achieve best possible outcome

INDIVIDUAL FACTORS

- Knowledge/s
- Personal Values, Traits, Skills
- Experience

INTERACTIONS IN THE FIELD

- The Scene
- The Patient
- Individuals with Authority
The Elements and their dimensions

The three interconnected elements—Contextual, Practice, and Mediating—and the various factors therein collectively constitute paramedic clinical judgement and decision-making of mental illness. Each element bears a continuing influence on the others as a going concern, resulting in a conceptual framework of paramedic clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting that is dynamic and ever evolving, as discussed next.

The Contextual Element – Judgement and decision-making as contextualised practice

The accounts of the paramedics in this study demonstrated that their practice of clinical judgement and decision-making of mental illness was contextualised. This contextualisation was three-fold: historical and cultural, educational and political, and regulatory dimensions of the setting in which they were situated—the Queensland pre-hospital emergency care setting.

Historical and cultural dimensions

The paramedics’ accounts showed that two historical and cultural dimensions of their practice context, namely **protection** and **transportation**, were fundamental to their clinical judgement and decision-making of mental illness. As discussed in Chapter 4, the origin of protection as a priority for paramedic practice dates back to the Knights of the Order of St John and the religious crusades of the 11th Century. The Order established refuges where volunteers cared for sick and injured pilgrims who had sustained injury when set upon by opponents to their religious faith. Volunteers were Good Samaritans and protectors of individuals. The protection of individuals evolved over time to include transportation. In the 1700s Napoleon’s Surgeon General, Baron Dominique Jean Larrey, adapted the philosophy of the Order of St John in a bid to reduce battle-related morbidity and mortality. He did so by extending the role of the protector to include transportation, whereby stretcher-bearers went into the battlefield on foot to administer basic first aid to wounded soldiers in an attempt to stabilise their life-threatening injuries, before transporting them on canvas stretchers to physicians at field hospitals. By administering basic first aid and transporting patients to physicians, the stretcher-bearers also protected patients from further harm.
These 900-year old volunteer and military traditions of patient protection and transportation underpin paramedic practice in the Queensland pre-hospital emergency care setting. Altruistic volunteers from the community established ambulance services in Queensland. The services were staffed by ambulance bearers who protected patients by rendering first aid and transported them to hospital and into the care of a physician. As noted in Chapter 4, the obligation and duty of care on paramedics to protect patients from real or potential harm has been imported into Queensland legislation and other regulatory frameworks. Bill, David, and Mary all commenced their ambulance careers as volunteers. Volunteer service has been the expected pathway for employment by the ambulance service, and was, until recently, a prerequisite to paid employment.

For Bill, David, and Mary, protection of the patient, themselves, and bystanders from real or potential harm was a universal priority and a recurring theme throughout their accounts. All three paramedics identified protection and safety as a priority concept in their concepts maps. Bill’s concept map began with the acronym ‘DRABC’ where D stands for Danger (see Figure 16). For David, a priority concept was “patient/personal safety” (see Figure 31). Mary’s priority concepts were “identify safety concerns” and “mitigate risks” (see Figure 55). The protection and safety of the patient, themselves, and bystanders was realised by transporting the patient to hospital. The accounts of Bill and David demonstrated that patient transportation was the expected outcome for each job, and was fundamental to their protection of their patients. Transportation was the final concept in their concept maps and the outcome for the overwhelming majority of patients on their job records. The few patients whom they did not transport by ambulance were transported by other means, namely the police or relatives. As Bill noted, he went to “every case with the plan to transport”, and “treatment is transport”. Mary too protected the majority of her patients by transporting them to hospital. However, for some patients she determined that protection was provided without transportation. In those jobs, she considered using relatives, police officers, physicians and other individuals to provide protection. These accounts demonstrate an imperative to protect patients that can be traced back to the historical and cultural traditions.
Interconnected with these historical and cultural dimensions of protection and transport are particular educational and political dimensions of the setting. As noted earlier, volunteers established ambulance services in Queensland and continued to provide these services for decades. These volunteers were typically from non-professional backgrounds. For almost 100 years, the criteria for paid employment as a paramedic were a current driver’s licence, basic first aid training, and service as a volunteer. The local medical superintendent, decided what training would be provided, when it would be provided, and to whom. The ambulance careers of Bill, David, and Mary all began with volunteer service. Physicians determined their education and training, and their scope of practice. A key feature of this education and training was the emphasis placed upon providing basic first aid and transport at the behest of the patient.

The reforms of the 1990s established, among other things, a greater duty of care on paramedics to protect patients by providing pre-hospital emergency care and transportation under the direction of physicians. They saw the establishment of centralised statewide ambulance services and the introduction of accredited vocational education and training and statewide clinical practice policies for technicist practice. Moreover, the reforms led to the formal imposition of a duty of care on paramedics to protect patients by providing pre-hospital emergency care and transportation under the direction of physicians. Paramedics with different levels of training and scope of practice replaced the single ubiquitously skilled paramedic. A clinical hierarchy within paramedics was introduced, which was linked to education attainment. During these reforms, all three paramedics were up skilled to the rank of advanced care paramedic. Mary furthered her education and training and became an intensive care paramedic. Paramedics completed the accredited Associate Diploma of Applied Science (Ambulance), which later was replaced by a diploma level qualification. Both educational qualifications are vocational in nature, and prepare individuals for technician-type practice. As noted earlier, the scope of paramedic practice in many international jurisdictions is technician-based. In the USA, paramedics at all level of clinical skill are referred to as emergency medical technicians. Though paramedics were never referred to as emergency medical technicians in Queensland (or Australia for that matter), their vocational educational qualifications prepared them for technicist practice, which was to provide pre-hospital emergency care in the form of protection and
transportation. The paramedics in this study, and all others in Queensland, are expected to adhere to the *QAS Clinical Practice Manual* in a technicist way. The role of the paramedic is to work beside physicians, reflecting the physician dominance of paramedic practice.

The dominance of paramedic education, training, and practice by physicians was a recurring theme in the accounts of paramedics in this study, and was a political contextualisation of paramedic practice. For centuries, paramedics have been subordinate to physicians with respect to health and medical care, where their role has been to assist physicians in providing care. The accounts of judgement practice of the paramedics in this study demonstrated the physician-dominated nature of paramedic clinical judgement and decision-making. As noted, the *QAS Clinical Practice Manual* prescribes the paramedics’ scope of practice in a prescriptive manner, using rigid policies and guidelines. This dominance was materialised in the formal expectations of practice set out in the *QAS Clinical Practice Manual*, which explicitly expects paramedics to transport patients to a hospital for assessment and treatment by a physician. Bill’s, David’s, and Mary’s practice was broadly consistent with the *QAS Clinical Practice Manual*, in that the overwhelming majority of patients were protected and transported to hospital for further assessment and treatment by a physician. In doing so, paramedics carried forward their clinical judgement and decision-making to physicians, who sanctioned or rejected it. As noted, the sanctioning or rejection of paramedic clinical judgement and decision-making by physicians was a recurring theme within the accounts of Bill, David, and Mary. For Bill, a directive by a physician was what he referred to as a “hard trigger” that enabled him to implement the action of transporting the patient. As Bill noted, when it came to the relationship of physicians and nurses to his clinical judgement and decision-making, he would “just follow the direction and do as I’m told”. Moreover, Bill, David, and Mary all reported viewing their role as assisting the physicians by providing a comprehensive description of the patient, their recent medical and social history, the scene in which the patient was found, and the circumstances surrounding the event. The written accounts of practice for all three paramedics, in the form of the clinical job record, often included a provisional diagnosis that was for further investigation by the receiving physician. The paramedics prepared the “provisional diagnosis” to enable them to communicate their findings to medical and nursing staff. This is in line with expectations set out in the *QAS Clinical
The paramedics carry forward their clinical judgement and decision-making of the patient, and the care they provide, to physicians and staff at the receiving hospital.

All three paramedics reported respecting the authority of physicians, although there were instances where the paramedics disagreed with their assessment of patients, most notably with David and Mary. Despite this, they acknowledged that their clinical judgement and decision-making was second to those of physicians. This is due, in part, to the absence of professional self-regulation. As noted in Chapter 4, physicians and other formally recognised health professions consider paramedics to be quasi-military, paraprofessional emergency service workers. Although regarded as of lesser medical status than physicians, all three paramedics reported having the necessary knowledge, experience, and skill to make informed clinical judgements and decisions with respect to the treatment and care needs of their patients experiencing mental illness. A consequence of the absence of professional self-regulation of paramedic practice is that they are not subject to traditional regulatory influences that apply to regulated health professionals.

Regulatory dimensions and formal expectations

The accounts of all three paramedics demonstrated the strong regulatory influence of the Ambulance Service Act 1991 (Qld), the Mental Health Act 2000 (Qld), and the QAS Clinical Practice Manual on their paramedic clinical judgement and decision-making of mental illness in three key ways. First, they establish an expectation that paramedics will protect patients. Second, they establish an expectation that patients will receive particular kinds of treatment. Third, they establish that the treatment and protection paramedics provide should consist of transportation. These laws and guidelines are explicit in their expectations of paramedics and their practice, particularly with respect to clinical judgement and decision-making.

As noted earlier, providing protection and transportation of patients was the priority for all three paramedics. Protection was a shared priority for the paramedics’ practice of clinical judgement and decision-making, although there are clear differences in how they achieved this. Bill and David protected the patient by transporting the patient, which was for them an expected routine. Mary too saw transport as a significant element of her treatment, provided it constituted what she referred to as “appropriate
patient care”, as noted earlier. All three paramedics provided some form of treatment and/or transport to all patients. No patient went without some form of treatment and/or transport, even those who formally refused both. As a minimum, all three paramedics provided advice to patients who formally refused treatment and transport. This was particularly evident in the case of Mary, as to her the advice she gave patients constituted a form of treatment, which she documented in her job records.

Different training and clinical skills can explain the variation in judgement practice between Mary, and Bill and David. Mary is an intensive care paramedic, whereas Bill and David are advanced care paramedics. The formal educational qualification for intensive care paramedics has been a vocational advanced diploma, which, in recent times, has been replaced by the graduate diploma with the move of ambulance education from the vocational to the tertiary sector. Accordingly, intensive care paramedics are better prepared to undertake work that requires greater knowledge, skills, and cognitive ability, such as making judgements and arriving at decisions using processes that go beyond clinical guidelines and policies, and other normative and prescriptive instruments.

Common across the cases was an expected outcome of protection and transportation, although Mary was sometimes comfortable to deviate from that outcome. What made this particularly evident was the differences between the Official Systematic Approach located within the QAS Clinical Practice Manual and the paramedics’ own Enacted Systematic Approach. While the accounts of judgement practice of all three paramedics were broadly consistent with the formal expectations, they were also more sophisticated and less technicist than the Official Systematic Approach otherwise suggested.

**The Practice Element – Field actions and individual factors for problem solving**

Central to the practice of clinical judgement and decision-making for the paramedics in this study were particular field actions and individual factors. These further reflected the context in which the paramedics are situated—the Queensland pre-hospital emergency care setting.
Field actions for problem solving – The Enacted Systematic Approach

All three paramedics identified an array of field actions for clinical judgement and decision-making in their accounts of practice. All three paramedics adapted the Official Systematic Approach from the QAS Clinical Practice Manual and developed their own Enacted Systematic Approach. As noted in Chapter 4, the Official Systematic Approach is a prescriptive model of paramedic problem solving that is set out in the QAS Clinical Practice Manual. It is depicted as a dynamic, recursive, spiral, and linear process with sequences that lead to a single goal—achieving the best possible patient outcome. There are five sequences—assessment, judgement, planning, implementation, reassessment—that repeat three times through reassessment until the “best possible patient outcome” is achieved. To do this, the model calls upon paramedics to use a mix of knowledge, skill, experience, attitudes, and intuition when managing patients, but it is silent as to how these are used and in what combination. This Official Systematic Approach is accompanied by a psychiatric emergency case management guideline. This guideline is depicted as a flow chart and decision tree, and it prescribes the steps that paramedics should follow when they encounter a patient experiencing a psychiatric emergency. Absent from the QAS Clinical Practice Manual is a case management guideline for managing patients with mental illnesses of types that are not a psychiatric emergency, such as anxiety and depression, which constitute the overwhelming majority of mental illnesses. Another notable feature of the QAS Psychiatric Case Management Guideline is that regardless of the processes and actions undertaken, the patient is to be “transported without undue delay”. The guideline asserts that transportation of the patient is the “best possible patient outcome”, and consequently is the core strategy of their treatment.

The paramedics’ own version and adaptation of the Official Systematic Approach, namely their field actions that constituted their Enacted Systematic Approach, were consistent with the formal expectations of paramedic practice. It comprised a series of processes that operated in different combination and measure depending of the demands of the individual job and patient. Their field actions included an expectation of protection and transport that they met through: (i) gathering and assessing data; (ii) describing the problem in objective detail; (iii) assessing the nature and severity of the problem; (iv) making a provisional diagnosis; (v) proposing and implementing actions; and (vi) achieving a favourable outcome. Collectively these comprised their problem
solving field actions for clinical judgement and decision-making of mental illness, and their Enacted Systematic Approach.

Central to their Enacted Systematic Approach was the expectation of protecting and transporting patients. For the most part, protection of the patient was realised by their transportation to hospital, as discussed earlier. Indeed, for Bill and David, transportation of patients was the primary way by which they provided their patients with safety and protection. Transportation most often occurred at the request of the patient, which the paramedics readily facilitated. In doing so, Bill and David were also able to meet a priority of their own—their safety. Their physical, personal, and professional safety was a key priority for the judgement practice of all paramedics, although the manifestation of this varied from paramedic to paramedic. For Bill and David, the safety of the patient and the paramedic depended almost entirely on their transportation of the patient to hospital. The protection and transportation of the patient were also priorities for Mary, although they were not always mutually dependent. Mary transported the majority, but not all, of her patients. To her, there were instances where transport was not, in her view, “appropriate patient care”, and she protected the patient in other ways, as noted earlier. Notwithstanding, the fundamental process for all three cases was planning protection and transportation for the patient.

The process of enacting the expectation of protecting and transporting the patient began with the gathering and assessment of information. The information they gathered varied in type and amount, and included patient-based and scene-based information. Each paramedic gathered many types of information, some common to all and others specific to one. Each paramedic assessed the information they gathered using methods in individualistic ways. They recorded their assessment systematically and in detail in the ambulance report form. Each of the paramedics described the problem in objective detail and assessed the nature and severity of the problem. Each did this in a particular way, as discussed in the case reports. Their accounts revealed how they adapted aspects of the regulatory contexts of practice for their assessment of the nature and severity of illness. David’s representation of his assessment most closely resembled the psychiatric emergency case management guideline, although he had developed variations that enable him to deal with deviations in practice. Bill’s Enacted Systematic Approach closely resembled the QAS Psychiatric Case Management Guideline, but included considerable detail about the “formula” and “triggers” he relied on to undertake his field
actions. Mary’s Enacted Systematic Approach closely resembled the Official Systematic Approach in that it comprised a set of dynamic, spiralling, recursive field actions in complex detail.

The paramedics expressed their assessment of the nature and severity of the patients’ problems as a provisional diagnosis. This typically had components: a statement to reflect their judgement and decision of the patients’ chief problem, and an action statement. The paramedics’ provisional diagnosis also usually gave an indication of a proposed course of action for managing their problem. As noted, the paramedics would often set out a provisional diagnosis, such as psychiatric illness, followed most often by a recommendation of “for investigation”. This act of proposing an action “for investigation” whereby the paramedic referred the patient to physicians reflected the regulatory influences on their practice. The intended goal of their approach, the field actions therein, and their practice of clinical judgement and decision-making was the best possible outcome. This goal, which they each expressed in their own way, recurred in the accounts of all three paramedics. Achieving a favourable outcome was a priority feature of their concept maps. For Bill, the favourable outcome in his concept map unequivocally was transportation. For David, it was achieving a “positive outcome”. For Mary it was about providing “appropriate patient care”.

At times, the paramedics reported difficulty with fulfilling their duty to protect the patient because of refusal of treatment and transport. For all three paramedics, patient refusal of treatment and transport created uncertainty about the future safety and wellbeing of the patients, as well as their own personal and professional safety. While uncertainty was a concern for all three paramedics, it was more evident for Bill and David than Mary. To Bill and David, patient refusal of treatment and transport represented their own failure to adhere to both the formal expectations and their own expectations of practice. This type of uncertainty appeared less troubling for Mary, who considered that transportation was not always, as she put it, “appropriate patient care”. For Mary, the decision not to transport patients resulted in another form of residual uncertainty—the reliability of her judgement practice to ensure the future safety of patients whom she did not transport. Central to their systematic approach and to their field actions for managing the uncertainty that came with patient refusal of treatment and transport for all three paramedics were three key individual factors, and components
of the Mediating Element of paramedic clinical judgement and decision-making, as discussed next.

Individual factors – Knowledge, experience, and interpersonal skills

The paramedics’ accounts demonstrated the interactions of three individual factors in their practical field actions and enacted systematic approach to clinical judgement and decision-making of mental illness. Fundamental to the paramedics’ implementation of their systematic approach were (i) knowledge; (ii) interpersonal skills and personal traits; and (iii) experience. Each paramedic ascribed particular meanings and values to each of these, which in some instances were common to all three paramedics.

Reliance on knowledge and experience was fundamental to their practice, although what constituted knowledge varied considerably. For Bill, the basis of his knowledge was his experience, which he referred to as his “prior experience” and “exposure to similar events”. It was from his experience that he reported developing his version of the Official Systematic Approach. Unlike Bill, David greatly valued the knowledge he obtained during training, which he reported to be fundamental to his judgement practice. This basic training provided the foundation for developing his Enacted Systematic Approach. Combining basic training with the application of knowledge acquired in the field over many years was what he saw as his primary source of knowledge, which he referred to as “field knowledge”. Mary also greatly valued knowledge, which for her consisted three types—the training she was provided by the QAS, “formal” and “informal” knowledge. As noted, her “formal knowledge” was information that had a verified source or origin, such as the information she obtained from her medical colleagues, or from reading textbooks or journal articles. On the other hand, “informal” knowledge was information for which Mary did not have an identifiable objective source, which she equated with intuition.

Interpersonal skills and personal traits were important to all three paramedics in their clinical judgement and decision-making. Providing psychological support and reassurance were important to all three paramedics in their practice. For Bill, being understanding, non-threatening, and having empathy were necessary in successful judgement practice. For David, having a nurturing, reassuring, caring, and supportive disposition was important, as it influenced his perceptions of the patient and their
surroundings. Adopting a non-threatening approach with patients and having “presence” and “strength” were important for judgement practice. Interpersonal skills were also important to Mary in her judgement practice. Interpersonal skills and personal traits, including empathy and compassion, being attentive and non-threatening were particularly important to all three paramedics when they encountered patients experiencing mental illness. These skills and traits were, in some instances, considered by the paramedics to be more important for patients experiencing mental illness than some other conditions. Mary reported particular communication styles were also important to her in her judgement practice. These included using a clear and calm voice with a normal pace, modulating her speech, active listening, using open verbal communication, and being mindful of her non-verbal communication styles. These interpersonal skills and styles of communication were important to Mary for creating a shared agreement between herself and the patient about their respective roles, and the care the patient could expect from her. The importance of interpersonal skills and personal traits for clinical judgement and decision-making can be traced back to the particular historical and cultural dimensions of the setting that contextualised paramedic practice, namely volunteerism and Good Samaritanism. The importance of interpersonal skills, personal traits, and communication were reinforced in the regulatory expectations of practice, namely the QAS Clinical Practice Manual.

While the paramedics’ field actions and individual factors for clinical judgement and decision-making were in many respects consistent with the formal expectations of practice, they were also in some ways inconsistent and variant. Specifically, they comprised field actions that did not feature in the formal clinical guidelines and policy. This variation from the formal expectations of practice reflected how clinical judgement and decision-making was a highly individualistic practice, and how it was more complex and sophisticated than the formal expectations of practice suggested. Moreover, their accounts demonstrated that their judgement practice was not wholly governed by regulatory and other dimensions of the setting that contextualised practice, which previous research of hypothetical paramedic clinical judgement and decision-making has reported (Smith, 2010). In addition to their Enacted Systematic Approach, and their use of different knowledges, experience, and interpersonal skills and traits, paramedic clinical judgement and decision-making of mental illness is also a practice involving complex interactions in the field. The paramedics’ interactions in the field,
with the scene, the patient, and individuals with authority, constituted the third element of their clinical judgement and decision-making of mental illness—the Mediating Element.

**The Mediating Element – Interactions in the field**

In addition to the Contextual and Practical Elements, there is a Mediating Element to paramedic clinical judgement and decision-making of mental illness. The paramedics’ interactions in the field with others mediated and influenced their clinical judgement and decision-making of mental illness in differing measure according to particular jobs. These interactions in the field were of three distinct types: (i) the scene; (ii) the patient; and (iii) individuals with authority.

**The Scene – Danger, risk and uncertainty**

For all three paramedics, there were aspects of the scene that influenced how they made judgements and arrived at decisions regarding patients experiencing mental illness. These factors, namely danger, safety, risk, and uncertainty, influenced the work of paramedics in differing measure, according to particular jobs. This was often associated with environmental hazards on scene, patient refusal of treatment and transport, and the inability to gather information about the patient, such as clinical signs, symptoms, and their presenting clinical history. All three paramedics came to anticipate these factors and influences, based on their knowledge and experience.

**The Patient – Clinical characteristics and Expectations**

The patients’ clinical characteristic, that is the nature and severity of their illness, was significant in the paramedics’ clinical judgement and decision-making practice. Although the *QAS Clinical Practice Manual* provided guidelines for managing patients with a psychiatric emergency, few of the patients the paramedics encountered in this study were, in their view, experiencing a psychiatric emergency. Of all the patients who were mentally ill, they reported the vast majority were experiencing anxiety, depression, and stress. One of the paramedics, Mary, was dispatched to jobs assessed by ambulance communications personnel to be psychiatric emergencies. However, few were so, in her assessment.
The patient’s expectations of and preferences for care, treatment, and outcome were also important factors. The vast majority of patients all three paramedics encountered requested assistance and transportation to hospital. For some of the paramedics, a request or demand from a patient for transportation was sufficient evidence for their process to justify their decision to transport. In such instances, the paramedics’ Enacted Systematic Approach was short-circuited. For example, for Bill a request or demand from a patient to transport was one of his “triggers”, which provided him with the necessary information to justify his decision to transport the patient. For him, such a request automated his judgement and decision-making processes to an action of transport. Bill and David used other patient-based information to automate their clinical judgement and decision-making of mental illness, including a reported history of mental illness, the expression of intent of suicide, and physical signs and symptoms indicating mental illness such as trauma from self-harm or poor personal hygiene and appearance. Again, the utility of this information differed across the cases. For Bill, any one of these patient-related signs provided the necessary justification for mandatory transportation, whereas for Mary this was not necessarily so. As noted in the case report, to David and Mary a history of mental illness alone did not automate their clinical judgement and decision-making processes and justify immediate transportation. For Mary, the threat of suicide too did not automate her clinical judgement and decision-making processes, whereas it did for Bill and David. This difference in patient outcomes was particularly noticeable between clinical levels and seniority of the cases—between the advanced care paramedics and the intensive care paramedic. Bill and David, the advanced care paramedics, were more inclined to transport patients than Mary, the intensive care paramedic. This difference can be explained by the different standards of educational preparation of the paramedics, where intensive care paramedics have different knowledges, skills, and abilities to bring to their clinical judgement and decision-making practice.

The patients’ expectations were an important mediator in other ways for paramedic clinical judgement and decision-making of mental illness. This was reflected in the paramedics’ practice, as it related to patient request or refusal of treatment and transport. As noted earlier, the vast majority of patients requested treatment and transport, which Bill, Mary, and David provided. In these instances, the expectations that the paramedic and patient brought to the encounter were consistent, and mutually
beneficial. However, there were instances of patient refusal of treatment and transport, which for the most part were highly problematic for paramedics because they created uncertainty. To them, patient refusal represented a departure from not only the formal expectations of practice, but also that which they expected of their own practice. The significance of this departure, and the way they managed it, varied from paramedic to paramedic, and from job to job. The uncertainty created by patient refusal was most significant for Bill and David, who reported it as a cause of considerable personal and professional distress. For them, this distress reflected the concerns they held for their personal and professional safety, should a patient who refused treatment and transport subsequently come to harm. They expressed concern about being liable for claims of negligence and breaching their duty of care, to protect and transport patients. As noted, for Bill and David failing to transport a patient was akin to failing to protect them, which created uncertainty. On the other hand, for Mary not routinely transporting her patient was not always a concern. The significance of patient refusal of treatment and transport was mediated by her assessment of whether it constituted appropriate patient care. All three reported that departing from the formal expectations had potentially serious consequences for the patient and for themselves, creating an uncertainty that influenced their judgement practice that varied between them to a greater or lesser extent.

The lack of specific clinical guidelines for mental health conditions that are not psychiatric emergencies, coupled with patient expectations and preferences in particular circumstances, created challenges for the paramedics and their clinical judgement and decision-making. For these paramedics, the clinical characteristics and the expectations of the patient were the basis of their clinical judgement and decision-making. The absence of clinical guidelines that were sensitive to the clinical characteristics of the patients they encountered meant that they had to rely on their individual factors to accomplish clinical judgement and decision-making, namely their knowledge, interpersonal skills and personal traits, and experiences. Noteworthy in their accounts was the resilience of all three paramedics in attending to these situations and challenges, for which they reported making judgements and decisions that they believed were appropriate.
Individuals with Authority

The interactions paramedics had with four groups of others in the field—police officers, physicians, relatives and bystanders, and other ambulance personnel—were influential in their judgement practice.

All three paramedics reported an unquestioning respect for police officers, and viewed them as necessary for their judgement practice in particular circumstances. Physicians featured significantly in the judgement practices of these paramedics, and all paramedics accorded them a high standard of professional respect, which reflects the historical traditions of paramedics as assistants to physicians. All three paramedics saw themselves as providing information to facilitate the decision-making of the physicians and nurses to whom they would hand over the patient. The authority of the physician ultimately bound the paramedics and their judgement practice, although there were instances where they did not agree with physicians’ assertions. While the paramedics did not report questioning the authority of police during their interactions, they did report doing so with physicians. This was related, in part, to the paramedics’ frustration with the reported poor standard of health care services provided to the mentally ill within the wider mental health system, which is under considerable demand-related stress. Mary and David, in particular, expressed views that many patients with mental illness receive poor care at emergency departments. In their view, emergency departments offered limited support to the mentally ill not suffering from psychiatric emergencies. The clinical judgement and decision-making practice of Mary in particular reflected her view that other forms of treatment and intervention were warranted.

While all three paramedics reported respecting the authority of physicians, there were instances where the paramedics disagreed with the views expressed by physicians. David reported that often physicians did not value his clinical judgements and decisions. He noted that it was not uncommon for physicians to disagree with his assessment of mental illness in patients whom he had transported, leading to situations where he would “bring them in, they let them out”. There were a few jobs where Mary reported disagreement with the judgements or decisions of physicians. However, David and Mary both acknowledged that regardless of their disagreement, physicians ultimately sanctioned their judgement practice, which influenced how they accomplished this aspect of their work.
The interactions the paramedics had with relatives and bystanders were also important mediating dimensions in the judgement practice of Bill, David, and Mary. All three paramedics incorporated relatives and bystanders in their judgement practice as a source of information about the patient and the scene. The usefulness of relatives and bystanders, and the information obtained from them by paramedics for their judgement practice, varied from paramedic to paramedic and from job to job. For some jobs, the paramedics were able to fulfil their expected outcome (and obligation) to protect the patient by leaving them in the care of a relative, a next-of-kin, and other “responsible adults”. For David, and particularly Bill, this was not a routine practice, and was something of a last resort in their judgement practice. Bill was routinely suspicious of the motives of the patients’ relatives, and was reluctant to leave the patient with relatives or bystanders. To Bill, and a lesser extent David, the prospect of not transporting a patient reflected poor care and a failure to meet their obligations to the patient. On the other hand, Mary did in some instances delegate responsibility for the care of the patient to other relatives, because in her view that was a perfectly suitable alternative to transport and constituted “appropriate patient care”. For her, such field actions were part of her routine practice. Thus, the interactions paramedics have with relatives, bystanders and others on scene are an important mediator in their clinical judgement and decision-making.

Bill incorporated advice from others in his systematic approach, and established a hierarchy of adherence to advice from paramedics senior to him (a “hard trigger”) to ambulance communications officers dispatching him to a patient experiencing a psychiatric emergency (a “soft trigger”). While David and Mary’s clinical judgement and decision-making practice were influenced by other agencies, their accounts were largely silent on the role of other paramedics, highlighting an independent approach to clinical judgement and decision-making.

This conceptualisation and model is considered further in the analysis of implications in Chapter 7. In this chapter, the following discussion explores the contribution this conceptualisation and the model makes to both the existing research and professional literature and the theoretical frameworks that guided the inquiry.
Lessons learned

For the existing research and professional literature

The findings of this study contribute to six areas of the existing literature on paramedic judgement practice.

Paramedic clinical judgement and decision-making of mental illness

As noted in Chapter 2, much of the existing related paramedic research has examined the quality and accuracy of paramedics’ clinical judgement and decision-making for a variety of conditions. Few published works have examined paramedic clinical judgement and decision-making of mental illness. Some studies have determined the demographic and clinical characteristics of patients encountered by paramedics and transported by ambulance to hospital. No published studies were identified that examined how paramedics accomplish clinical judgement and decision-making of mental illness in the field, or the identified factors influencing this specific aspect of their work.

These findings provide an evidence-base to the previously reported claims that paramedic judgement practice is focused on problem solving (Sanders, 2006; United States Department of Transportation, 1998). Deber and Baumann (1992) suggest that while nurses and physicians both seek to achieve a positive outcome in their judgement practice, nurses seek a single correct solution. Moreover, they argue that nurses adopt a problem-solving approach to their clinical reasoning, which is focused on obtaining the one correct solution to the problem or problems, and that physicians’ clinical reasoning involves decision-making where they choose from several alternatives and partake in trade-offs. The paramedics in this study in the main searched for the single “correct” solution to a problem, which for the most part was transportation, with little or no scope for an alternative outcome within the Queensland regulatory framework. Mary indicated that although she favoured arriving at a single correct solution, that solution was not always transportation, as it was for Bill and David. Mary’s accounts of clinical judgement and decision-making revealed the search for an outcome that, in her words, was in the best interest of the patient, which was not always transportation. In this way, Mary’s judgement practice was more akin to that of physicians, and Bill and David’s
judgement practice was more akin to that of nurses, when applying Deber and Baumann’s definitions.

For the paramedics in this study, judgement practice is a highly contextualised exercise in problem solving, involving complex interactions in the field. In practical terms, this materialised as efforts to arrive at a single outcome, which was what was in the best interest of the patient. For Bill and David, this outcome was, in the main, protection by transportation. However, as noted, there were instances where several alternatives were available and pursued by the paramedics, in particular, Mary. Moreover, for all three paramedics, the practice of clinical judgement and decision-making involved combining their prior evaluative knowledge and experience with insights derived from their interactions in the field with aspects of the scene, the patient, and individuals with authority. These findings indicated some consistencies between the judgement practice of paramedics with those of nurses and physicians as described by Deber and Baumann (1992).

As noted earlier, Deber and Baumann (1992) argue that the clinical reasoning of nurses and physicians combined elements of decision-making and problem solving, and is influenced by four sets of variables: (i) disease- and treatment-specific factors; (ii) patient-specific factors; (iii) institutional and environmental factors; and (iv) practitioner-specific factors. Paramedics’ judgement practice is comprised of three key elements—Contextual, Practice, and Mediating—which collectively constitute paramedic clinical judgement and decision-making of mental illness. The Contextual Element is fundamental to paramedic practice, and is comprised of an amalgam of organisational and occupational factors associated with various historical, cultural, political, educational, and regulatory dimensions of the Queensland pre-hospital emergency care setting. This importance of context to paramedic practice and clinical judgement and decision-making is consistent with the broader literature that demonstrates the importance of context in professional practice (Fish & Higgins, 2008). The Contextual Element in paramedic clinical judgement and decision-making of mental illness is consistent with the institutional and environmental factors that constitute nurses’ and physicians’ judgement practice accordingly to Deber and Baumann. Similarly, Deber and Baumann suggest that there are practitioner-specific factors to the judgement practice of nurses and physicians. For the paramedics in this study there were equivalent practitioner-specific factors that influenced their clinical
judgement and decision-making, namely field actions (the paramedics’ enacted systematic approach) and individual factors (the paramedics’ knowledge, experience, interpersonal skills, and personal traits respectively). Furthermore, there were factors and influences in paramedic clinical judgement and decision-making of mental illness that were also equivalent to Deber and Baumann’s disease-specific, treatment-specific, and patient-specific factors. The Mediating Element influenced the paramedics’ contextualised practice of clinical judgement and decision-making of mental illness in differing degree during different jobs. These included the scene, the patient, and individuals with authority, and the roles they ascribed to those individuals, and were critical to clinical judgement and decision-making of mental illness. In this way, there are parallels between the judgement practices of nurses, paramedics, and physicians.

Existing literature (Alexander, 2010; Bendall & Morrison, 2009) has suggested that paramedic judgement practice is comprised of one or more of five cognitive decision-making strategies—algorithmic, pattern recognition, worst-case scenario (rule out), event-driven, and hypothetico-deductive. Literature suggests that algorithms are common in ambulance services, the use of pattern recognition is “rife” (Bendall & Morrison, 2009, p. 99), and information is essential to their judgement practice. As noted, some recent research has also suggested that paramedics identified and solved problems primarily by pattern recognition but without adequate hypothesis testing, and that their patient assessment and illness scripts were “inadequately developed, disorganized, and, in some ways, faulty” (Alexander, 2010, p. 160). Alexander’s research reported that paramedics generated pseudo-information, used cognitive bias in their problem solving, and had a low threshold for initiating treatment and provided inappropriate treatment. However, Alexander’s research, involving the cognitive assessment of simulated paramedic judgement practice, adopted a classical theoretical framework that overlooks the influence of context and interaction in judgement making, and assumes individuals are rational, as noted in Chapter 2. Moreover, the study by Alexander examined simulated paramedic judgement practice and did not include paramedic clinical judgement and decision-making of mental illness. The findings from this study of paramedic clinical judgement and decision making of mental illness revealed central to the paramedics’ practice was the enacted systematic approach, a form of routine incorporating the assessment of information for patterns and decision-making using basic algorithms. Moreover, they all reported preparing a form of
hypothesis, which they referred to as a provisional diagnosis based on careful gathering and assessment of information from within the field.

The nature of paramedic culture and ambulance work related to mental illness

The findings of this study of the nature of paramedic judgement practice and their roles, personal schemas, and values add further evidence consistent with limited previous research. Research by Sine and Northcutt (2008) identified seven personal values and traits of paramedics. These were: (i) having compassion for those they serve; (ii) having absolute clinical objectivity; (iii) advocating for patients; (iv) having established medical authority amongst their emergency services colleagues; (v) setting aside personal biases in practice; (vi) providing survivor care; and (vii) being competent in treatment and knowledge of procedures. All three paramedics identified well-developed interpersonal and communication skills as being important to their judgement practice, and necessary for providing psychological support and reassurance to the degree they determined to be essential to the job at hand. Specific values and traits reported to be important to the paramedics in this study included being attentive, open, understanding, non-threatening, non-judgemental, compassionate, nurturing, and reassuring, as well as having empathy, presence, and strength. In addition, particular communication styles were also important to the paramedics, including speaking in a clear and calm voice with a normal pace, using active listening, using open verbal communication, and being mindful of non-verbal communication styles. The findings of this study revealing the interaction of personal values and traits of paramedics in clinical judgement and decision-making of mental illness reinforce the findings of Sine and Northcutt (2008).

The basis of ambulance tradition in volunteerism noted in existing research (Reynolds, 2009) was also found in this study. As noted, existing research by Reynolds (2009) characterised paramedic culture, documenting the predominance of volunteerism in the history of ambulance work, and the apprenticeship model of knowledge development. Volunteerism was a significant feature of the historical context of paramedic practice. While its influence did not feature specifically in the accounts of these paramedics, they had all commenced their paramedic careers as volunteers.

A key theme in the existing literature is that ambulance work is viewed as “heroic and masculine” (Reynolds, 2009, p. 31). Heroism was a prominent feature of the
contexts of their practice—particularly historical, cultural, and regulatory. The paramedics in this study, however, did not report themselves to be heroes. They described encountering very challenging patients and situations involving difficult circumstances. They also reported being, in the main, successful in accomplishing their judgement practice and achieving the desired outcome described in the main. Roberts (2007) found that a culture existed where some paramedics viewed those with mental illness as being less important than other types of patients—so much so that some officers were labelled by their peers as social workers when they spent time with a patient with a mental illness. While some paramedics participating in the first phase of the study reported this anecdote, it was not a feature of the paramedic clinical judgement and decision-making of mental illness in this study, as detailed in Chapter 5.

Reynolds’ (2009) description of the culture of paramedics as being uncontrolled and high-pressured was also reflected in the accounts of these paramedics. Uncertainty was a competing demand in their judgement practice in this study, which generated professional and personal distress for the paramedics. As noted, some of the uncertainty was anticipated; however, other aspects were not. To overcome this, the paramedics relied on their routines, or their enacted systematic approach, and their intuition, but in differing measure. The value and utility placed on intuition was not consistent among all three paramedics. Bill and David reported being great proponents of intuition as a way of dealing with uncertainty, particularly when they encountered jobs where there was a lack of information at hand. On the other hand, Mary was much more cautious about using intuition in the absence of evidence and data to corroborate its influence on her judgement practice.

This study of paramedic clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting revealed that paramedics are reliant on knowledge, experience, instinct, and interpersonal skills, all of which featured in the formal expectations of practice. All three paramedics, but especially the advanced care paramedics, reported using what might be referred to as “artful persuasion and rhetoric” (White & Stancombe, 2003, p. 6) to convince patients to agree to transportation. The advanced care paramedics were the most concerned with providing transportation to the patient, as the principal—and, in their case, often the only form of treatment. On the other hand, the intensive care paramedic was less inclined to transport
patients, and proposed alternatives to transportation that were, in her view, the most appropriate form of patient care.

Existing literature describes paramedics as paraprofessionals working in a hierarchical system in which they are answerable to a variety of health professionals, most notably physicians (Gonsoulin & Palmer, 1998; Hawks & Hammond, 1990; Reynolds, 2009). The literature suggests that the inter-professional relationships between nurses, physicians, and paramedics are complicated by “turf wars, distorted communication, and professional jealousy” (Reynolds, 2009, p. 34). Reynolds (2009) argued that the role of the paramedic is ambiguous, and there is much blurring of the professional boundaries in hospital and pre-hospital care. Closely associated with this in the literature is the absence of any genuine professional self-regulation of paramedic practice in Australia (Sheather, 2009). The findings of this study reveal that paramedics and their clinical judgement and decision-making of mental illness are positioned within a medical hierarchy, where they are second to the judgements and decisions of physicians. The paramedics in this study reported being respectful of physicians, and being acutely aware of how their judgement practices would inevitably be scrutinised by physicians. In their reported experience, they also saw their judgement practices as an important way of assisting the physician and other health professionals in the pursuit of a favourable clinical outcome for the patient. The literature suggests nurses are positioned above paramedics within the broader medical hierarchy (Reynolds, 2009), although nurses featured rarely in the judgement practices of paramedics in this study.

However, the findings of this study into paramedic clinical judgement and decision-making of mental illness reveal that there are non-health professionals who feature prominently in paramedics’ judgement practices, and with whom they have a hierarchical relationship. This has not been reported previously in the published literature. The paramedics in this study reported unquestioning respect for police. This was not the case, however, for physicians. They reported being respectful of physicians and mindful of how their judgement practices would inevitably be scrutinised by them, as there were times when physicians and paramedics did not agree about what constituted a favourable patient outcome. This finding may reflect the shared identity police officers and paramedics have as emergency services workers. Moreover, the paramedics identified more with police officers than physicians when it came to their practice of clinical judgement and decision-making of mental illness.
Paramedic recognition of the severity of mental illness and patient outcomes

The existing literature has examined the ability of paramedics to recognise the severity of particular patients' illnesses, the quality of their patient outcomes, and their ability to predict such patient outcomes. As noted in Chapter 2, much of this work has focused on areas such as triage; trauma; and a variety of medical conditions, including heart attacks (Grzybowski et al., 2000; Morgan, 2003; Price, 2006; Smith et al., 2010; van't Hof et al., 2006), blood loss (Williams & Boyle, 2007), cardiac arrest (Hick et al., 1998; Lockey & Hardern, 2001), stroke (Bray & Bladin, 2009; Bray et al., 2010; Cox et al., 2006), multi-casualty incidents (Kilner, 2002), congestive cardiac failure (Drake, 2002); and, the inter-hospital transport of critically ill patients (van Lieshout et al., 2008). The results of these studies generally have been mixed, but suggest overall that paramedic recognition of the severity of these conditions is poor, particularly when compared with the diagnostic accuracy of physicians, who these studies position as providing the gold standard of decision-making (Ackerman & Waldron, 2006). These studies advocate for the use of decision-support such as clinical guidelines, and physician-guided assistance for paramedic judgement practice. However, absent in this research is the examination of paramedic judgement with respect to mental illness.

In this study, paramedics reported being able to identify the severity of the mental illnesses particular patients were experiencing. Moreover, they also reported being able to predict or foreshadow the outcomes for particular patients arising from their actions and judgement practice. As noted, all paramedics acknowledged that hospitals and emergency departments were critical to the treatment of patients experiencing a psychiatric emergency. However, their views were less certain for patients who, in the view of the paramedics, were not experiencing a psychiatric emergency. Overall, there was no evidence that the paramedics’ assessment or treatment was deficient, although such an assessment would require the adoption of a normative theoretical framework, which was not the focus of this study. Although at times they perceived that medical staff considered them overly sensitive when patients were not admitted for treatment, the paramedics did not necessarily see their own judgements and decisions as wrong or inadequate. Although emergency physicians’ judgement practices may be regarded as the gold standard for paramedics, existing research has demonstrated deficiencies in emergency physicians’ decision-making of mental illness when compared with their clinical superior, the psychiatrist (Tse, Wong, Lau, Yeung, & Tang, 1999). In fact, two
of the three paramedics expressed views that suggested the inadequacy and unsuitability of emergency departments as points of care for the majority of patients they encountered. One paramedic expressed particularly strong views about this, so much so that for her the transportation of patients to hospital emergency departments did not always, in her words, constitute “appropriate patient care”. In this way, the paramedics’ judgement practices are influenced by their anticipations of future quality of care should a particular course of action be adopted.

Hammond (1996) argues that in arriving at judgements and decisions, individuals inevitably make assumptions about what the outcome of that judgement and decision might look like in the future. The practices of the paramedics in this study of anticipating consequences of their actions for the patient and themselves (in different ways for the different cases) were an example of this. In doing so, they looked forward to the future and proposed an outcome and consequences for their actions. For two paramedics, their assessment incorporated a fundamental concern for their own welfare, whereas the intensive care paramedic was more concerned about the needs of the patient, save for instances of violence and risk of harm to self. The findings of this study of paramedic clinical judgement and decision-making of mental illness in Queensland are in some ways consistent with other related research (Roberts, 2007; Roberts & Henderson, 2009) that has examined the implications of mental health reforms and the effects they had on the ambulance service in South Australia. In her study, Roberts found that paramedics were frustrated working in an environment where the workload of mental health cases was significant, and where the wider mental health care system was under considerable stress, which were concerns reported by the paramedics in this study.

**Use of decision-support systems, protocols, and guidelines**

As noted, the science of clinical judgement and decision-making has been primarily about improving accountability and the quality of patient outcomes in healthcare. Clinical guidelines and policies are instrumental in achieving this aim. Individuals and organisations use them widely with the aim of creating consistency in the standard and quality of care provided. Though intended to guide and improve practice, clinical protocols and guidelines—such as the *QAS Clinical Practice Manual*—are far from infallible. An often-overlooked feature of official texts, such as
legislation, clinical guidelines, and protocols, is that they are socially constructed. They are forms of social policy—that is, they “propose regulatory principles of action for adoption by individuals, groups and organisations” (Hammond, 1996, p. 35). They provide accounts and representations of people, events, and contexts at any one point in time in a given set of circumstances. Moreover, clinical guidelines, such as ambulance protocols, are crafted communicative objects. Freebody (2003) suggests that the crafting process serves to position users in certain ways. In this study, the users are paramedics, and the policies exert normative and prescriptive influences. White and Stancombe (2003) argue that “clinical judgement and decision-making, and the policies that bind them, are subject to important social and moral dimensions that are too often unaccounted for” (p. IIX). In this study, clinical policies contextualise paramedic clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting. They exerted significant influences on paramedics’ contemporary practices, reflecting historical and cultural traditions. The historical traditions of paramedics as protectors and transporters were reflected in the accounts of all three cases.

Although clinical guidelines are at the heart of quality improvement (Field & Lohr, 1992), Rycroft-Malone (2002) argues that they are not, nor should they ever be viewed as “the panacea (or a replacement) for professional clinical decision-making or judgement” (p. 162). They are often viewed as the flagship of quality reform, particularly when promulgated by professional bodies, associations, and government. They are official texts designed to assist individuals in making quality judgements and decisions about patient care. In principle, they are systematically developed statements designed to assist practitioners and patients with decisions about appropriate health care in specific circumstances (Field & Lohr, 1990). There is considerable evidence in the literature that supports, in principle, the improvement clinical guidelines can have on practice and standards of care (Rycroft-Malone, 2002; Thompson & Dowding, 2002a). There is also, however, research indicating that the extent to which an improvement is made by their introduction depends on multiple factors, and may vary considerably (Hammond, 1996). Clinical guidelines that are not evidence-based or comprehensive, are without context, or are applied incorrectly or inconsistently can have detrimental effects on the quality and safety of care. Moreover, the rigid use of clinical guidelines to
reduce variability in individual decision-making to reduce uncertainty and errors will inevitably precipitate problems in practice.

Existing research has examined the use of clinical guidelines, protocols, policies, and other forms of decision support for paramedic clinical judgement and decision-making and practice in the field (Cheney et al., 2008; Dale et al., 2003; Dale et al., 2004; Donnelly & Weston, 1995; Dowie, Gregory, Rowsell, Annis, Gick, & Harrison, 1998; Feldman et al., 2005; Figgis et al., 2010; Grzybowski et al., 2000; Hein et al., 2010; Jones & Woollard, 2003; Karlsten & Sjoqvist, 2000; Marks & Daniel, 2002; Marks et al., 2002; Neal, 2009; Nurmi et al., 2006; Rittenberger et al., 2005; Schmidt et al., 2000; Yeh & Cone, 2000), as examined in Chapter 2. Overall, the findings of this body of work recommend the use of decision-support processes, such as protocols and guidelines, for paramedic judgement practice. Much of this literature evaluating the use of decision-support systems such as protocols and guidelines has been prescriptive, and or normative in nature. That is to say, they have sought to use decision-support processes and systems to establish how paramedics should accomplish clinical judgement and decision-making of mental illness, to suggest how to improve the quality of their judgement practice, and evaluate those attempts in terms of the quality of patient outcomes.

This study adopted a descriptive theoretical framework when interpreting paramedics use of clinical protocols and guidelines for their judgement practice. For the paramedics in this study adherence to the formal expectations of practice was central overall to their judgement practice. However, as noted, their judgement practices in the field were not wholly governed by them, and they are not objectively isolated practices as existing theoretical research of paramedic clinical judgement and decision-making has claimed (Smith, 2010). Although the paramedics reported such measures as having a regulatory effect, their accounts suggest the official systematic approach does not reflect the complexity and responsiveness of actual judgement practice in the field. The nature of their judgement practice and the patients they encountered were, in many ways, different from those presented in the QAS Clinical Practice Manual. In this study, the accounts of the paramedics revealed an individualisation of the elements of this Manual in their clinical judgement and decision-making of mental illness in the field. This reveals the importance of ongoing research to examine the utility and suitability of clinical guidelines in practice. With the exception of the 2002 amendment that
introduced the *Mental Health Act 2000 (Qld)*, the *Psychiatric Case Management Guideline* has not been revised since it was first published in the early 1990s. While these guidelines serve an essential purpose to their contemporary judgement practice, they should be systematically reviewed and updated as knowledge about their sensitivity becomes available. As noted, each paramedic adapted the official systematic approach and created their own enacted systematic approach, which was to a greater or lesser extent consistent with the formal expectations of practice.

**Conveyance and non-conveyance of mental health patients**

As explored earlier, paramedic non-conveyance of patients, or failure to transport patients to definitive medical care, has been a major focus of recent research (Balcar, 2004; Brown et al., 2009; Dale et al., 2003; Kawakami et al., 2007; Marks et al., 2002; Porter et al., 2007; Seldin et al., 1991; Snooks et al., 2004a; Snooks et al., 2004b; Snooks, Kearsley, Dale, & Halter, 2000; Snooks et al., 1998; Snooks, Nicholl, Brazier, & Lees-Mlanga, 1996; Wrigley et al., 2002; Wrigley et al., 1999; Zachariah et al., 1992). These studies generally have been conducted to address two competing challenges in ambulance service delivery: (i) to reduce the cost and resource burden of unnecessary ambulance transportation; and (ii) to reduce poor patient outcomes that result from the non-conveyance of patients who required treatment and transport. This body of research is relatively recent, and, as noted, there is little known about how ambulance personnel make decisions on whether to take patients to hospital or to leave them at home, and the usefulness and suitability of guidelines or protocols for making the decision to leave patients at the scene (Snooks et al., 2005).

This study has found that paramedics’ decision-making regarding whether or not to transport patients to hospital was influenced by a variety of factors that relate to individual paramedics. For the paramedics in this study, the expectation and preference for transportation were inexorably linked to their role as protectors of patients, where for the most part protection was afforded by the transportation of the patient. In recent times, decision-support in the form of clinical protocols and guidelines has featured prominently in ambulance practice in Queensland. A key finding of this study is that the paramedics conveyed the vast majority of patients to hospital, most often at the patients’ request. Few patients were not transported to hospital by one method or another. Moreover, the study has revealed that the formal expectations of practice, namely the
QAS Clinical Practice Manual, established that all patients should be conveyed to hospital without undue delay. This reflects an adherence by the paramedics in this study to the regulatory influence of clinical policy. Moreover, it is consistent with findings in previous research that paramedics are not formally prepared to make decisions to leave patients at the scene, and nor do ambulance protocols favour such actions (Snooks et al., 2005).

**Interactions in clinical judgement and decision-making**

There is limited research examining the influence patients and others have on requests for ambulance assistance and the influence their behaviours have on paramedic judgement practice. In particular, recent research (Porter et al., 2007) suggests that the patient, and to a lesser extent family and friends of the patient, influence paramedic judgement practices via a process of shared decision-making. From this study, it is evident that paramedic clinical judgement and decision-making of mental illness are influenced by, and to some extent dependent on, particular individuals to whom roles are ascribed, namely the patient, police officers, nurses, physicians, relatives, bystanders, and other ambulance personnel. These findings reveal that although many aspects of paramedic clinical judgement and decision-making of mental illness are highly independent, there are particular circumstances where paramedics relied on their interactions with others in context to accomplish clinical judgement and decision-making of mental illness.

In addition to contributing to the scant published research, this study has contributed to the theoretical frameworks that guided this inquiry and their application in clinical judgement and decision-making research.

*For the theoretical frameworks that guided the inquiry*

As noted in Chapter 3, one distinct feature about the case study in the methodological literature is the disagreement between different scholars about the relationship of theory to case study. Stake (1995) argues that theory may be absent from case study research when the focus is on understanding and describing the case and its issues. Yin (2008) suggests that theory may be useful for guiding exploratory case study research. Creswell (2007) says that theory is employed toward the end of the study,
providing a theory-after perspective in which other theories are compared and contrasted with the theory developed in the case study (Harling, 2002).

This thesis did not seek to theorise paramedic clinical judgement and decision-making of mental illness. Other recent research has sought to theorise other aspects of paramedic clinical reasoning and problem solving that are not related to mental illness (Alexander, 2010). Nonetheless, a theoretical framework guided the study. Of the three fundamental theoretical frameworks of judgement and decision-making (descriptive, normative and prescriptive), this inquiry adopted a descriptive theoretical framework, as it was consistent with the aims of this inquiry and Stake’s (1995) naturalistic approach to case study. The dearth of published research about paramedic clinical judgement and decision-making—particularly with respect to mental illness—and the nature of the problem and the background, justified adopting a descriptive theoretical framework for the inquiry. The descriptive theoretical framework is naturalistic and is interested in understanding how individuals actually make judgements and decisions in the real world (Bell et al., 1988b). As noted, descriptive theoretical frameworks make no judgement about whether individuals, in this case paramedics, are rational and logical, or irrational and illogical (Bell et al., 1988b). Instead, they seek to understand how individuals make judgements and decisions in the real world, focusing on the actual conditions and contexts in which they are made (Thompson & Dowding, 2002a). This study was concerned with coming to understand paramedics’ judgement practices in real, everyday settings. The paramedics were viewed as inherently skilled and experienced individuals, who drew on their skills and experiences when dealing with real-life constraints such as time pressure, high stakes, personal responsibility, and shifting conditions.

Adopting a descriptive theoretical framework of inquiry into paramedic judgement practice, and using Stakes’ (1995) naturalistic framework for case study, have revealed the importance of contexts and interactions in paramedic clinical judgement and decision-making of mental illness. This study looked beyond the traditional science of clinical judgement and decision-making to understand how paramedics cope with the contextual challenges of judgement practice. For the paramedics in this study, their judgement practice with respect to mental illness was a complex and demanding exercise in problem solving, played out in a setting of competing priorities and demands. This complexity, and the competing demands and
priorities therein, reflected how their judgement practice in the field was bounded within the multiple contexts of the Queensland pre-hospital emergency care setting. Accomplishing judgement practice in a bounded system comprised of multiple contexts gave rise to particular demands and competing priorities in differing measure according to the characteristics of the individual jobs. Each of these contexts and their dimensions were reflected in their judgement practice, to a greater or lesser extent. Key to their success for judgement practice was their interaction with others in the multiple contexts of practice, and the roles they ascribed to particular individuals to assist them with their judgement practice, namely the patient, police officers, physicians, relatives, bystanders, and other ambulance personnel.

The study design yielded a rich and detailed account of the contexts and interactions that were central to paramedic judgement practice with respect to mental illness, which were tacit and private, and would otherwise have remained inaccessible. Higgs and Jones (1995) suggest that health professionals need to develop the ability to cope and perform competently when dealing with people and the messiness of their reality. By all accounts, these paramedics coped and performed competently when attending to people with mental illness, in the messiness of the reality of practice in the field. They did so in unique but in not altogether inconsistent ways. Adoption of a descriptive theoretical framework successfully revealed this knowledge, and brought the strong influences of context and interaction to light, in a way that a pure normative or prescriptive theoretical framework would have eroded and devalued.

The findings of this research can contribute to future normative or prescriptive endeavours regarding paramedic clinical judgement and decision-making of mental illness. As noted earlier, the problem at the centre of this study is influenced by normative and prescriptive imperatives. The unprecedented demand for quality and safety in health care, particularly with respect to mental health and illness, applies to paramedics, whose clinical judgements and decisions should be ethical, of high quality, and safe. This study augments the limited existing body of knowledge and research that is predominantly prescriptive in nature, and has theoretical implications for the future development of knowledge on paramedic clinical judgement and decision-making, as discussed in the following chapter. As noted earlier, there is a clear mandate for examining paramedic judgement practice with respect to mental illness with a view to improvement—that is, how can we improve clinical judgement and decision-making,
and assist individuals in this endeavour? Moreover, there is a call for research into
clinical judgement and decision-making to serve a dual purpose—the study of clinical
judgement and decision-making can benefit clinical practice and conversely clinical
practice should advance the study of clinical judgement and decision-making (Chapman
& Sonnenberg, 2000; Thompson & Dowding, 2002a; White & Stancombe, 2003). This
work fulfils this call, and contributes not only to the body of knowledge on paramedic
judgement practice, but also to the clinical practice role.
CHAPTER 7 - POST CASE REFLECTIONS:
IMPLICATIONS AND CONCLUSION

This final chapter provides the post-case considerations of the study. First, it returns to the background, problem, purpose, and aims of the study. It then provides a summary of the key findings of the study, followed by a critique of the research methods employed. The chapter and the thesis conclude with implications of the study.

Returning to the problem and the purpose of the study

This thesis was concerned with the study of paramedic clinical judgement and decision-making of mental illness. As described in Chapter 1, the study originated from issues raised in a complaint made by the Ambulance Secretary of the Liquor and Hoteliers Miscellaneous Workers Union (LHMU), the formal industrial organisation representing paramedics in Queensland, made to the QAS Commissioner regarding the inadequacy of training provided to its members about new mental health legislation. The LHMU raised three issues in their complaint. First, they reported that the training provided to staff—the QAS Mental Health Act In-service Education Package—had failed to prepare members for the introduction of the Mental Health Act 2000 (Qld). In their view, the package highlighted deficiencies in the knowledge and skill base of their members with respect to managing patients with mental illness. Moreover, they argued that this deficiency, coupled with an increase in the prevalence of mental illness in the community, meant that their members were ill-prepared to manage patients with mental illness. Second, the LHMU reported concerns from their members who foreshadowed problems with administering the new Mental Health Act (2000) Qld. Specifically, members of the LHMU expressed concerns that they could be subject to litigation arising from allegations of negligence and breaches in their duty of care to patients. They claimed such litigation would be a direct result of insufficient education and training. Third, the LHMU reported concerns for the personal and professional safety of their paramedic members. They asserted that their members were at significant risk of harm from patients with mental illness, and that the QAS had a duty of care to its staff to provide a safe working environment. In summary, the view of the LHMU was that their members were ill-prepared, insufficiently skilled, and inadequately supported
professionally to make clinical judgements and decisions about mental illness in the pre-hospital emergency care setting.

As noted in Chapter 1, the complaints reported by Queensland paramedics through the LHMU were thought to be concerned with a lack of preparedness of paramedics to assess and manage mental illness in the field, and the insufficiency of existing education and training programs, clinical guidelines, policies, and legislation for ensuring quality practice. It was thought that differences existed between what was expected of paramedics and their clinical judgement and decision-making of mental illness, and how they actually accomplished this aspect of their work in the Queensland pre-hospital emergency care setting. These concerns, coupled with a lack of literature that might address them, highlighted the need for a deeper understanding of the issue—how paramedics accomplished clinical judgement and decision-making of mental illness, and the factors that influence this aspect of their work. Thus, the questions in this study were how do paramedics accomplish clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting, and what factors influence this aspect of their work? Interconnected with these were other questions about the relationship between the formal expectations of paramedic practices—in the form of legislation and clinical policy—and their actual judgement practice in the field.

The study adopted a descriptive theoretical framework of judgement and decision-making (Bell et al., 1988a), and used Stake’s (1995) case study approach for the inquiry. Central to Stake’s approach to case study is the examination of a case in context so as to arrive at an understanding or “particularization” (p. 8) of an issue. In this study, the cases were paramedics, the context was the Queensland pre-hospital emergency care setting, and the issue was how they accomplished clinical judgement and decision-making of mental illness and what influenced this aspect of their work.

To understand the issue, it is necessary to first understand the context in which the cases are situated (Stake, 1995). Thus, the analysis began with an examination of the context in which paramedics and their judgement practice are situated—the Queensland pre-hospital emergency care setting. This analysis, presented in Chapter 4, examined the historical, cultural, political, educational, and regulatory dimensions of the context of paramedic practice. In particular, it examined how paramedics are expected to accomplish clinical judgement and decision-making of mental illness as prescribed by
three key documents—the *Ambulance Service Act 1991* (Qld), the *QAS Clinical Practice Manual*, and the *Mental Health Act 2000* (Qld).

Following this analysis, the study then turned to the analysis of the *cases*, ambulance paramedics, to understand the *issue*—how they accomplished clinical judgement and decision-making of mental illness, and the factors they reported as influencing this aspect of their work. First, the accounts of actual clinical judgement and decision-making of mental illness of three ambulance paramedics, each an instrumental case (Stake, 1995), were examined using concepts maps and additional qualitative data from interviews and clinical job records. The analysis was undertaken with a “sincere interest in learning how they function in their ordinary pursuits and milieus and with a willingness to put aside many presumptions while we learn” (Stake, 1995, p. 1). Each case study included a comparison of the paramedic’s account of actual clinical judgement and decision-making with the formal expectations of practice described in the preceding chapter. Following the within-case analysis was a cross-case analysis of each of the case studies. This analysis looked across all three cases and their accounts to discover “both their uniqueness and commonality” (Stake, 1995, p. 1). The analysis examined how the paramedics’ accounts compared with one another and how they related to the formal expectations of paramedic practice. The analysis reported their practice of clinical judgement and decision-making in the form of individual case studies and the 10 key themes that emerged from the cross case analysis are reported in Chapter 5. As noted, there were aspects of the judgement practices of these paramedics that were common to all, and others that were not. Similarly, there were aspects of the paramedics’ judgement practices that reflected the formal expectations of paramedic practice, and others that did not.

**Summary of the key findings**

This research has revealed that paramedic clinical judgement and decision-making of mental illness is a highly individualised, complex, and sophisticated component of paramedic practice. In this study, paramedic clinical judgement and decision-making of mental illness is not a simple technicist activity, but rather is one comprised of, and influenced by, particular contextual and mediating elements.
Conceptually, paramedic clinical judgement and decision-making of mental illness, and the factors that influence this aspect of their work, can be seen as being comprised of three interconnected elements—the Contextual Element, the Practice Element, and the Mediating Element. Within these interconnected elements are dimensions that collectively constitute clinical judgement and decision-making of mental illness for the paramedics in this study. Fundamental to paramedic clinical judgement and decision-making of mental illness was the Contextual Element, an amalgam of organisational and occupational factors associated with various historical, cultural, political, educational, and regulatory dimensions of the Queensland pre-hospital emergency care setting. This amalgam provided the specific organisational and occupational factors that are the basis of contemporary paramedic clinical judgement and decision-making in the field. The Practice Element of paramedic clinical judgement and decision-making of mental illness within this setting was comprised of field actions and individual factors for problem solving that reflected particular regulatory, educational, political, historical, and cultural dimensions of the setting. Paramedic judgement practice is a highly contextualised exercise in problem solving, and more complex and sophisticated than suggested in the regulatory dimensions of the context of practice. The paramedics’ responses to the many competing priorities and demands demonstrated how their clinical judgement and decision-making was not wholly governed by the formal regulatory expectations of practice that had otherwise contextualised their practice. In addition, there were individual factors, namely their knowledges, experience, and interpersonal skills and personal traits. In the field, these individual factors augmented their field actions for problem solving, their Systematic Approach, in differing measure according to the specific jobs and patients they encountered.

Collectively these three elements, the Contextual, the Practice, and the Mediating, with the various dimensions and factors therein, constitute paramedic clinical judgement and decision-making of mental illness. Moreover, these elements influence one another in a dynamic and evolving way resulting in a continuous contextualisation of paramedic clinical judgement and decision-making of mental illness in the Queensland pre-hospital emergency care setting.
Critique of the research method

Carroll and Johnson (1990) provide six criteria for the evaluation of decision research—discovery, understanding, prediction, prescriptive control, confound control, and ease of use—some of which are key to case study research.

Stake’s (1995) method of case study was used because the purpose of the study was discovery, and it was descriptive and interpretive rather than evaluative. It illustrated how the paramedics in this study were highly responsive to, and accommodating of, the demands of judgement practice with respect to mental illness. Despite the multiple competing demands of them and their practice, they undertook their work and fulfilled their duties. They each operated as an integrated system. Stake argues that a “case is an integrated system. The parts do not have to be working well, the purposes may be irrational, but it is a system” (p. 2). This study has made available the system of clinical judgement and decision-making of mental illness of three paramedics. For each of them, having a system was fundamental to clinical judgement and decision-making of mental illness in the field, where the stakes were often high, there was much uncertainty, and they faced significant risks. They each, to quote Stake, had “a boundary and working parts” (p. 2). For the paramedics in this study, their working parts afforded them, in their view, success in their judgement practice in the field. Their working parts comprised of prioritising protection and transportation of patients; adopting a problem-solving approach to their judgement practice; employing particular interpersonal and communication skills; gathering and assessing information, and engaging various kinds of knowledge, experience, and intuition for arriving at a provisional diagnosis that resulted in safety of themselves and the patient, often with the assistance of others. They each did so in unique but not inconsistent ways. What was important and influential when dealing with the multiple competing demands of their judgement practice in the field were the interactions the paramedics had with the various elements therein.

An important limitation to note is that the study asked about paramedics’ clinical judgement and decision-making. It did not provide an objective assessment of clinical judgement and decision-making practices, which ordinarily is undertaken using in vivo assessment and direct observation. Observation of paramedics and their judgement practice in the field may indeed provide an additional layer of insight. However, as described earlier, the resource implications and the logistical difficulties posed by such
a design were prohibitive. The thesis did not assess the quality of paramedic clinical judgement and decision-making of mental illness in search of the perfect judgement or decision. Instead, it adopted a descriptive theoretical framework within the broader theoretical trichotomy described by Bell et al. (1988a) to examine how paramedics accomplished clinical judgement and decision-making of mental illness, and the factors that they reported to influence this aspect of their work. The study generated a conceptualisation of paramedic judgement practice with respect to mental illness, rather than testing the applicability of an existing theory as other research has done (Alexander, 2010). The study did not attempt to reveal a match or fit of any individual paramedic’s accounts of clinical judgement and decision-making with existing theories or models. The approach was inductive rather than deductive. It examined paramedics’ accounts of judgement practice to gain insight into how they accomplished clinical judgement and decision-making of mental illness and the factors that influenced this aspect of their work. To that end, the study was successful, conveying an understanding of paramedics’ accounts of judgement practice with respect to mental illness, revealing tacit accounts that are ordinarily unpublished.

A well documented strength of case study is its strength of prediction and prescriptive control for discovery and understanding at a local level (Carroll & Johnson, 1990). Case studies are good for prediction at the level of the individual, or a case. In this research, following individual cases over a lengthy period permitted aggregation of themes that characterised their judgement practice. Over time, features of their judgement practice came to be expected and were confirmed during analysis. Moreover, the diversity of examining a series of jobs for each case provided the opportunity to examine different aspects of their judgement practice and the utility of particular elements and processes. This predictive and prescriptive control is restricted to the cases examined. As noted in Chapter 3, case study does not permit generalisation of the findings to other paramedics in other jurisdictions and settings. This was not the aim of this study, and no such claims are made. What the study does demonstrate through a considerable body of systematic data is that the decision-making processes of just three paramedics show complex and contextual interaction of several dimensions, rather than a simple, technicist practice.

The strength of this research its “particularization” (Stake, 1995, p. 8) of an issue at the local level; making available otherwise private and tacit accounts of paramedic
judgement practice of mental illness. The findings of this study do not claim to be representative of all paramedics within the QAS. The study was conducted in one of the seven regions of the QAS. This region is predominately urban. The choice of cases was influenced by logistical and financial considerations. Other paramedics are likely to have other particular experiences. For example, some have additional training in mental health, such as registered nursing, registered psychiatric/mental health nursing, psychology, or psychotherapy. Other studies of the characteristics of the population of the QAS would be more likely to provide this level of detail. In addition, the problems associated with the transport of the mentally ill in rural areas have been known for some time (Queensland Emergency Medical System Advisory Council, 2003b). Further research could examine the context of paramedic practice in rural and remote settings, and the factors that influence their clinical judgement and decision-making of mental illness. Moreover, the non-experimental nature of case study research is such that confound control was not relevant, nor sought, as it was theoretically and methodologically opposed.

With respect to ease of use, a very large data set was collected over an extended period of time and prolonged engagement, which made analysis challenging. Only primary analytic techniques were employed due to the large size of the data corpus and its manageability for this study. Only exemplars of text and talk are presented in this thesis. Analysis of parts of this very large and rich data set using other ethnographic and ethnomethodological analytic methods would yield answers to questions related to the primary research questions, and perhaps to those arising from the findings.

Implications

The findings from this study have implications in five areas.

For paramedic clinical practice

The findings of this study have implications for paramedic clinical practice. As outlined earlier, mental illness is a significant health problem. Emergency mental health has been, and will become, an increasingly important component of community and primary health care in the pre-hospital context (Lowthian et al., 2010; Saddichha & Vibha, 2011). In an environment where the demands for quality and safety in health care dominate the health care reform agenda, the ways in which paramedics make and
The safe and effective management of mental health emergencies is a very important component of a comprehensive system of services to individuals with mental illness and their families. Often, that is the point of entry to treatment, and frequently, it is a time of distress and turmoil. Good quality care at this point prepares a path for recovery and constitutes a critical opportunity to affect both immediate and long-term benefits. (p. 7)

Paramedics are at the point of entry to the mental health care system, and can no longer be considered peripheral health workers when it comes to mental health. While paramedics experience particular challenges in the care of the mentally ill, they largely lack visibility and explicit involvement in the broader mental health agenda. Interdisciplinary integration of hospital and community services in areas such as ambulance services takes on a new importance when considering the quality and safety of mental health care. The National Mental Health Plan 2006–2011 (Council of Australian Governments, 2006) recommended increased participation by a wide range of health, welfare, and disability professionals and organisations in the provision of services to people with mental disorders. Further, this plan calls for increased knowledge and understanding of mental health and mental disorders for all health care professionals, an awareness of the additional needs of patients in community settings, and increased community interest and involvement in mental health issues.

In Australia, until the Commonwealth Government published the National Action Plan for Mental Health 2006–2010 (Council of Australian Governments, 2006) paramedics had no visibility within the wider mental health care system. Despite this publication, and widespread international reform calling for greater interdisciplinary collaboration, the contributions paramedics may make to the care of the mentally ill in the wider continuum of health care remain unrealised. Calls for greater participation of paramedics in mental health care (Chan & Noone, 2006; Commonwealth Department of Health and Aged Care, 2000; Council of Australian Governments, 2006; Mental Health Council of Australia, 2005; Roberts, 2007; Roberts & Henderson, 2009; Shaban, 2004, 2009a, 2009b) have been asserted.
For legislation, guidelines, policies, and procedures

This study revealed the many factors that influence the ways in which paramedics interpret and enact the policies and guidelines that govern their judgement practice with respect to mental illness. Their priority was the safety and protection of their patients, and their aim was to make meaningful contributions to their care within the wider health system. To do so, paramedics must be positioned appropriately within wider professional practice, policy, and legislative frameworks. Although the scope of practice of paramedics and emergency care practitioners is expanding (Cooper, Barrett, Black, Evans, Real, Williams, & Wright, 2004; Cooper et al., 2007; George, 1995; Raven et al., 2006), little, if any, of this has focused on mental illness. In some international settings, such as India, paramedics are taking on new mental health counselling roles in the pre-hospital emergency care setting (Naved et al., 2009). The debate about the expanding role and scope of practice of paramedics must encompass the contributions they may make in the wider mental health agenda.

Although some of the mentally ill patients the paramedics encountered were, in their view, psychiatric emergencies, the vast majority were not. In reality, these paramedics encountered a different patient group: individuals experiencing non-emergency mental illnesses, particularly anxiety and depression, which are far more prevalent in the community. A renewed emphasis on paramedic judgement practice and management of the mentally ill whose illness does not constitute an emergency is required. The formal expectations of practice are currently largely silent about non-emergency psychiatric conditions. While such conditions do not feature in the QAS Clinical Practice Manual, in the experience of these paramedics they made up the majority of patients they saw who were mentally ill. This, coupled with a lack of clinical guidelines to support them to assess and manage non-emergency mental illness, creates a missed opportunity for maximising the visibility of the otherwise well-documented prevalence of mental illness experienced by individuals who paramedics encounter in the community.

The findings of this study indicate that while paramedic judgement practices are largely consistent with the formal expectations of practice, they are not wholly governed by them. The accounts of the judgement practices of the paramedics in this study suggest that they go beyond the formal expectations of practice in meeting the needs of their patients. These accounts suggest the need for a revision of the guidelines to reflect
the complexity and responsiveness of practice in contexts. Alternatives to mandated or expected transportation of patients as the definitive outcome have been explored in other settings with other patient groups, and should be considered in this setting.

**For paramedic professionalism**

The lack of integration of paramedics within the wider mental health system is due, in part, to the lack of professional self-regulation. Although paramedics in Australia are not self-regulated health professionals, the findings of this study suggest the practice and clinical judgement and decision-making of paramedics in this study exhibit features consistent with recognised health professions (Fish & Higgins, 2008). In Australia in 2009, the Commonwealth Agreement of Governments moved to establish a national system of professional regulation for nine health professionals. Paramedics are not included in these reforms, although recent commentary suggests that the Australian Health Ministers’ Conference (AHMC) has given in principle support for the national registration of paramedics from as early as 2014 (Cotton, 2010). More recently, on 16 September 2010 the AHMC released the new National Mental Health Standards calling for better integration of government, the non-government sector, public and private services, and private office-based service in the delivery of mental health services, which are now community-based (Australian Health Ministers' Advisory Council, 2010). In this study, paramedics expressed dissatisfaction with their professional positioning in the health system. The positioning of paramedics within these reforms may facilitate better integration of community-based mental health services, thus allowing them to make greater contributions to the health and wellbeing of the patients and the communities they serve, most notably those with mental illness.

**For education, training, and professional development**

A notable feature of the accounts of judgement practice of all three paramedics was that, although they reported a need for more education and training in mental illness, they did not regard their overall knowledge base or state of preparedness as deficient. For these paramedics, different combinations and permutations of knowledge, experience, and intuition came together to enable judgement practice in the field. The education and development of paramedics in the future should take into consideration the context and interactions associated with paramedic judgement practice. The findings
of this study are now well placed to contribute to the future development of education and training programs, and add new knowledge that would not otherwise be available. Importantly, the findings of this study revealed how, for these paramedics, the context had a significant influence on their clinical judgement and decision-making. Plans to extend or improve paramedic clinical judgement and decision-making of mental illness must take into account the influence of the Contextual Element, namely the historical and cultural, educational and political, and regulatory dimensions of the Queensland pre-hospital emergency care setting, as well as the Mediating Elements, namely the scene, the patient, and individuals with authority.

Interconnected with efforts for professional self-regulation are standards of education, training, and professional development. As noted, the level and standard of education of paramedics have moved dramatically from non-accredited, in-house vocational training to accredited vocational training and tertiary programs such as graduate diplomas and research higher degrees in just over 15 years. Future education and training programs must take stock of the dynamic nature of paramedic practice, and prepare paramedics to assess and manage mental illness in the field. Critical to this is the sufficiency of education and training programs and their integration with clinical guidelines, policy, and legislation for ensuring quality practice.

For future research

There has been little research examining the role and practice of paramedics with respect to mental illness in the pre-hospital emergency care setting nationally, and indeed internationally. This has meant that the impact of the reform of mental health services on the care of the mentally ill in emergency and pre-hospital emergency care settings has gone on largely unexamined. This study represents one small step forward in addressing that gap. One clear consequence of this is that it provides seemingly endless opportunities for future research. Additional programs of research that focus on paramedic clinical judgement and management of mental illness in pre-hospital emergency care settings are required to further explore the contributions paramedics may make to the care of the mentally ill within the wider healthcare system.

Since completing this study, the QAS and other ambulance services across Australia and around the world have abandoned paper-based records for electronic record keeping. A key feature of the Electronic Ambulance Report Form (E-ARF) is
that it prompts the paramedic to provide particular types of information for particular types of patients. In this study, the required format for documenting clinical records in the ambulance report form was influential in judgement practices. Moreover, it revealed a difference between paramedics’ written and verbal accounts of judgement practice, where events that were materially significant to accomplishing judgement practice were not documented. Future research could examine the role that electronic record systems have in prompting paramedic clinical judgement and decision-making. In this study, the prescribed recording format was a significant influence on their judgement practice. Accordingly, changing from a paper-based to an electronic document recording system may also influence paramedics’ clinical judgement and decision-making practices could be the subject of further research.

One feature notable by its absence was gender issues associated with clinical judgement and decision-making. Existing theorists and research (Zeldow, 1975) have argued that gender is influential in clinical judgement and decision-making. As noted, previous research by Reynolds (2009) characterised the culture of paramedic practice as overtly masculine. The cases in this study comprised two males and one female. Although there were no distinct gender-specific issues relevant to paramedic judgement practice in this study, it is not to say that they do not exist. Future studies should examine whether gender, in particular the masculinity of ambulance culture reported by Reynolds, is relevant to paramedic judgement practice. Future research could examine whether socioeconomic factors, such as age, gender, household income, and patients’ possession of a car that have been documented in previous research (Kawakami et al., 2007) to influence the medical necessity of ambulance transportation of patients are relevant to the judgement practices of paramedics with respect to mental illness.

Missing from the literature is an examination of the mental health patients’ experience of judgement practice, assessment, treatment, and management by paramedics. This research found that the patients comprised a key element of paramedic judgement practice. The actions, behaviours and expressions of patients, particularly in recent times, have had a significant influence on paramedics’ judgement practice. Other research has examined the patients’ experience of health professionals’ judgement and clinical practice specific to mental illness. Given that, for the paramedics in this study, the patient was a significant feature of their judgement practice, future research could examine perspectives of other health professionals or patients in paramedic judgement
practice. As noted earlier, such studies would require significant financial and human resources, which are warranted given the findings of this study. Future research should examine the perspectives of patients given the significant role that they have in the judgement practices of the paramedics in this study.

Research into emergency care should include the views of patients, providers, policy makers, academics, and researchers (Peconi, Snooks, & Edwards, 2008). Recent research has demonstrated the value of inter-professional partnerships between paramedics and nurses when dealing with non-urgent emergency calls (Machen, Dickinson, Williams, Widiatmoko, & Kendall, 2007; Widiatmoko, Machen, Dickinson, Williams, & Kendall, 2008). Future research could examine the suitability of such programs for managing individuals experiencing non-urgent emergency calls for mental illness, which could have implications for better use of ambulance resources, and reduce unwarranted transport of patients to hospital emergency departments.

Conclusion

The future engagement of paramedics to recognise, assess, and manage mental illness in the pre-hospital setting is dependent on the sufficiency of the practice environment, including legislation, policies, and guidelines for enabling high quality and safe mental healthcare in the pre-hospital emergency care setting. This study has revealed that paramedic clinical judgement and decision-making of mental illness is not a simple, technicist activity, nor is it wholly governed by legislation, policies, guidelines, and other normative and prescriptive instruments. Rather, paramedic clinical judgement and decision-making of mental illness is a highly individualised practice that is comprised of, and influenced by, particular contextual and mediating elements.

This thesis makes an original contribution to the understanding of how paramedics’ accomplish clinical judgement and decision-making of mental illness and the factors that influence this aspect of their work. The study provided paramedics with the opportunity to reflect on, and talk about, their in-the-field judgement practice, generating insights into what had previously been private and unpublished. That is, their judgement and decision-making had not been subject to formal critical inquiry, nor has this aspect of paramedic work been the subject of sustained research. The thesis has significance for efforts to better understand and improve the rapidly evolving nature of
paramedics’ practice for meeting the mental health needs of individuals in the community.
REFERENCES


"non-serious" emergency ambulance service patients. *Quality & Safety in Health Care, 13*(5), 363-373.


Harris, I. B. (1993). New expectations for professional competence. In L. Curry, J. Wergin & Associates (Eds.), *Educating professionals: Responding to new
expectations for competence and accountability (pp. 17-52). San Francisco: Jossey Bass.


Liquor Hoteliers and Miscellaneous Workers' Union Ambulance Secretary (20 April 2002). [Letter to QAS Commissioner regarding Qld Mental Health Act].


Shaban, R. (2004). Mental health assessments in paramedic practice: A warrant for research and inquiry into accounts of paramedic clinical judgment and decision-
Shaban, R. (2009a). *Invited submission for review of Western Australia mental health policy and mental health services*. Minister for Mental Health, Government of Western Australia.


Appendices 1 to 6 have been removed to comply with copyright conditions.
Appendix 7 – Summary of data gathered in Phase 1

<table>
<thead>
<tr>
<th>Phase</th>
<th>Data</th>
<th>No</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1A: Document and Policy Analysis</td>
<td>Documents, archival records, physical artefacts</td>
<td>87</td>
<td>Name</td>
</tr>
<tr>
<td>Phase 1B: Interviews and Focus Groups</td>
<td>Participant, Office of QAS Medical Director</td>
<td>1</td>
<td>P1-X</td>
</tr>
<tr>
<td></td>
<td>Participant, Office of LHMU</td>
<td>1</td>
<td>P2-X</td>
</tr>
<tr>
<td></td>
<td>Participant, Office of Commissioner</td>
<td>1</td>
<td>P3-X</td>
</tr>
<tr>
<td></td>
<td>Participant, QEMS</td>
<td>1</td>
<td>P4-X</td>
</tr>
<tr>
<td></td>
<td>Participant, QAS Education Services</td>
<td>1</td>
<td>P5-X</td>
</tr>
<tr>
<td></td>
<td>Participant, QAS Staff Support Services</td>
<td>1</td>
<td>P6-X</td>
</tr>
<tr>
<td></td>
<td>Participant, Office in Charge</td>
<td>1</td>
<td>P7-X</td>
</tr>
<tr>
<td></td>
<td>Focus Group 1 (4 Advanced care Paramedics)</td>
<td>4</td>
<td>FG1-X</td>
</tr>
<tr>
<td></td>
<td>Focus Group 2 (4 Intensive care Paramedics)</td>
<td>4</td>
<td>FG2-X</td>
</tr>
<tr>
<td></td>
<td>Focus Group 3 (4 Honorary Paramedics)</td>
<td>4</td>
<td>FG3-X</td>
</tr>
</tbody>
</table>

Appendix 8 – Documents, policies and artefacts accessed during Phase 1

- *Ambulance Service Act 1991* (Qld) and it predecessors
- *Mental Health Act 2000* (Qld)
- QAS Clinical Practice Manual
- QAS Mental Health Act In-service Education Program
- CNN64 Associate Diploma of Applied Science (Ambulance) – Curriculum
- Diploma of Health Science (Pre-hospital Care) – Curriculum
- Diploma of Paramedical Science (Ambulance) – Curriculum
- QAS Abnormal and Disturbed Behaviour – Module QAS010 Workbook.
- DHS013 Psychosocial Aspects of Health Care I Readings: Diploma of Health Science.
- DHS013 Psychosocial Aspects of Health Care I Workbook: Diploma of Health Science.
- DHS035 Psychosocial Aspects of Health Care II Workbook: Diploma of Health Science.
- Mental Health Act 2000: QAS In-Service Education Marking Guide.
- Patient Documentation Forms: Instructions for Completion. QAS 2002/2003
- Patient Documentation Forms: Instructions for Completion. QAS 2004/2005
- Transport of patients with mental illness in Queensland. (Queensland Emergency Medical System Advisory Committee)
- CNHEA019 Diploma of Health Science (Pre-hospital care) Syllabus.
- CNHEA020 Advanced Diploma of Health Science (Pre-hospital care) Syllabus.
### Appendix 9 – Definitions of the clinical levels of QAS paramedics

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Intensive Care Paramedics (P4)** | A Paramedic 4 within the Queensland Ambulance Service (QAS) provides Intensive Care skills as per the QAS Clinical Practice Manual. Intensive Care Paramedics are clinical leaders and assist the QAS in the maintenance of clinical quality assurance.  
- Advanced Diploma of Health Science or Graduate Diploma in Intensive Care Paramedical Practice or equivalent; and  
- Demonstrate a minimum of 5 years experience as a paramedic in the pre-hospital care, emergency environment with a minimum of 2 years full time as a qualified Intensive Care Paramedic or equivalent; and  
- Competent in Intensive Care procedures. |
| **Advanced Care Paramedic (P3)** | A Paramedic 3 within the Queensland Ambulance Service (QAS) provides advanced care as per the QAS Clinical Practice Manual.  
- Diploma of Paramedical Science (Ambulance) OR CNN64 Associate Diploma of Applied Science (Ambulance) PLUS ISCEP 1; or equivalent; and  
- 3 years experience as a paramedic in a pre-hospital care, emergency environment. Casual and volunteer officers must demonstrate 5500 hours or greater in patient care; and  
- Competent in Advanced Care procedures. |
| **Advanced Skills Paramedic (P2)** | A Paramedic 2 within the Queensland Ambulance Service (QAS) provides care with advanced skills as per the QAS Clinical Practice Manual.  
- The Associate Diploma of Applied Science (Ambulance) or equivalent; and  
- 3 years experience as a paramedic in a pre-hospital care, emergency environment. Casual and volunteer officers must demonstrate 5500 hours or greater in patient care; and  
- Competent in Advanced Care procedures. |
| **Ambulance Attendant (P1)** | A Paramedic 1 within the Queensland Ambulance Service (QAS) provides basic life support as per the QAS Clinical Practice Manual.  
- Certificate IV in Basic Emergency Care or equivalent; and  
- 1-year experience as a paramedic in pre-hospital care, emergency environment. For casual and volunteer officers you will need to demonstrate 1800 hours or greater in patient care. (Station standby is not considered as appropriate experience – actual patient care experience needs to be demonstrated); and  
- Competent in Basic Life Support skills; and  
- Provide evidence of recent currency of experience within this field. |

(Queensland Ambulance Service, 2010a)
Appendix 10 – QAS paramedic scope of practice

The following information (indicated by √ or ×) details the procedures required by QAS Advanced Care Paramedics (P3) and Intensive Care Paramedics (P4).

<table>
<thead>
<tr>
<th>Procedure</th>
<th>P3</th>
<th>P4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Assessment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic life support procedures - systematic approach</td>
<td>√</td>
<td>×</td>
</tr>
<tr>
<td><strong>Airway Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oropharyngeal airways</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Nasopharyngeal airways</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Laryngeal mask airways</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Laryngoscopy and Magill's forceps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endotracheal intubation and Bougie</td>
<td></td>
<td>×</td>
</tr>
<tr>
<td>Capnography</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tracheal suctioning</td>
<td></td>
<td>×</td>
</tr>
<tr>
<td>Oro/Nasopharyngeal suctioning of a Neonate</td>
<td></td>
<td>×</td>
</tr>
<tr>
<td>Cranial pressure</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Cricothyrotomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse oximetry</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Intermittent Positive Pressure Ventilation (IPPV)</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Intermittent Positive Pressure Breathing (IPPB)</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Adult CPR</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Child CPR</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Infant CPR</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td><strong>Defibrillation/Cardiac Monitoring</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiac monitoring - basic rhythm recognition - sinus, VT, VF etc.</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Cardiac monitoring - 12 lead ECG</td>
<td>√</td>
<td>×</td>
</tr>
<tr>
<td>Defibrillation - automatic</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Defibrillation - semi-automatic</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Defibrillation - manual</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Synchronised cardioversion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transcutaneous Cardiac Pacing (TCP)</td>
<td></td>
<td>×</td>
</tr>
<tr>
<td><strong>Drug/Fluid Administration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.M. injection</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Intravenous cannulation</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Extra jugular venous cannulation</td>
<td>×</td>
<td>√</td>
</tr>
<tr>
<td>Fluid replacement</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Drug administration via an endotracheal tube</td>
<td></td>
<td>×</td>
</tr>
<tr>
<td>Intra-osseous access</td>
<td></td>
<td>×</td>
</tr>
<tr>
<td><strong>Moving a patient</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of a scoop stretcher</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Use of a basket stretcher</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Use of a stair chair/chair seat</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Use of a Kedrick Exstiration Device (K.E.D.)</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>NEI</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Use of a drop wheel stretcher</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Use of exstiration boards</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td><strong>Fracture Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of vacuum splints</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Use of vacuum mattress</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Use of traction splints eg Donway Splint</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Use of cervical collars - hard</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Use of cervical collars - soft</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Helmet removal</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>SAM Pelvic Binder</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td><strong>Other procedures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of envenomation</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Decompression of a tension</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Pneumothorax</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Gastric intubation</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Medical anti-shock trousers (M.A.S.T.)</td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Breach delivery</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Normal cephalic delivery</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Glucometry</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Queensland Ambulance Service, 2009a, p. 7)
### Appendix 11 – QAS drug therapy protocols

<table>
<thead>
<tr>
<th>Pharmacological Agents</th>
<th>P1</th>
<th>P4</th>
<th>Pharmacological Agents</th>
<th>P1</th>
<th>P4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylsalicylic Acid</td>
<td>✓</td>
<td>✓</td>
<td>Hartmann’s</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Activated Charcoal</td>
<td>X</td>
<td>X</td>
<td>Heparin</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Adenosine</td>
<td>✓</td>
<td>✓</td>
<td>Hydrocortisone</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Adrenaline</td>
<td>✓</td>
<td>✓</td>
<td>Ketamine</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Amiodarone Hydrochloride</td>
<td>✓</td>
<td>✓</td>
<td>Lignocaine</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Atropine</td>
<td>✓</td>
<td>✓</td>
<td>Mannitol</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Benzodipine</td>
<td>✓</td>
<td>✓</td>
<td>Magnesium Sulphate</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Benzylpenicillin</td>
<td>✓</td>
<td>✓</td>
<td>Methoxyflurane</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Box/waljfish Anti-vene (consult for P1 and P2)</td>
<td>✓</td>
<td>✓</td>
<td>Metoclopramide</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Calcium Gluconate</td>
<td>✓</td>
<td>✓</td>
<td>Midazolam</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ceftriaxone Sodium</td>
<td>✓</td>
<td>✓</td>
<td>Morphone</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Chlorphenamine</td>
<td>X</td>
<td>X</td>
<td>Naloxone</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Clopidogrel</td>
<td>✓</td>
<td>✓</td>
<td>Paracetamol</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Dextrose 50%</td>
<td>✓</td>
<td>✓</td>
<td>Promethazine</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Dextrosegl</td>
<td>✓</td>
<td>✓</td>
<td>Salsbutamol Neb</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Diazepam and Diazemuls</td>
<td>✓</td>
<td>✓</td>
<td>Salsbutamol i.v.</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Fenaslyl</td>
<td>✓</td>
<td>✓</td>
<td>Sodium Bicarbonate</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Fussemide</td>
<td>✓</td>
<td>✓</td>
<td>Sodium Chloride</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Glucose IMI</td>
<td>✓</td>
<td>✓</td>
<td>Syntemetrine</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Glucose gel</td>
<td>✓</td>
<td>✓</td>
<td>Teracetoplas</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Glucose 10% IV.</td>
<td>✓</td>
<td>✓</td>
<td>Tremadol</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>GTN</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


(Queensland Ambulance Service, 2009a, p. 7)
Emergency examination order
(police or ambulance officer)

Mental Health Act 2000 Queensland
Sections 35 & 41

- This form must be completed on arrival at the health service by a police or ambulance officer.
- The person may be detained in the health service while the order is being made.
- The person may be detained for up to six (6) hours after the order has been made.
- If there is no authorised mental health service readily accessible for a person’s examination or assessment, the person may be taken to a public hospital e.g. in a rural or remote area.

<table>
<thead>
<tr>
<th>BLOCK LETTERS</th>
<th>Person’s details</th>
</tr>
</thead>
<tbody>
<tr>
<td>The person who needs to be examined</td>
<td>Given names</td>
</tr>
<tr>
<td>Also known as</td>
<td>Residential address</td>
</tr>
<tr>
<td>Town/suburb</td>
<td>Phone No.</td>
</tr>
<tr>
<td>Date of birth</td>
<td>Male</td>
</tr>
</tbody>
</table>

PLEASE PRINT
Explain in your own words why you believe:

- the person has a mental illness (include any behavioural, verbal and environmental cues you may have observed);
- because of the person’s illness there is an imminent risk of significant physical harm being sustained by the person or someone else;
- proceeding under a justices examination order would cause dangerous delay and significantly increase the risk of harm to the person or someone else, and
- the person should be taken to an authorised mental health service for examination to decide whether a request and recommendation for assessment should be made for the person.

Reasons

Name of health service the person is taken to

Health service

continued over page...→
Appendix 13 – Emergency Examination Order Page 2

### Officer’s declaration

<table>
<thead>
<tr>
<th>Person’s name:</th>
<th>DOB: ______ / ______ / ______</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Police officer / ambulance officer</th>
<th>Mark [ ] applicable box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Date: ______ / ______ / ______</td>
</tr>
<tr>
<td></td>
<td>Time: ______/ ______/ ______</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>police officer</th>
<th>ambulance officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Given name</td>
<td>Family name</td>
</tr>
<tr>
<td>Rank</td>
<td>Station</td>
</tr>
<tr>
<td>Phone No.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To:</th>
<th>health service employee of the health service</th>
</tr>
</thead>
<tbody>
<tr>
<td>To:</td>
<td>administrator, authorised mental health service— if assessment documents ARE made</td>
</tr>
</tbody>
</table>

### Complete this section if assessment documents are NOT made

Examiner must complete this section if assessment documents are not made after an emergency examination order - s41(b)

- If assessment documents are not made at the end of the examination time then as soon as practicable the authorised mental health service is responsible to make arrangements—
  - for the person’s return to the place from which the person was taken for the examination, or
  - for the person to be taken to another place the person reasonably asks to be taken.

**PLEASE PRINT**

Provide reasons why assessment documents were not made

<table>
<thead>
<tr>
<th>Reasons</th>
</tr>
</thead>
</table>

### Examiner’s details

**BLOCK LETTERS**

<table>
<thead>
<tr>
<th>Examiner’s details</th>
</tr>
</thead>
<tbody>
<tr>
<td>doctor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Given name</th>
<th>Family name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of authorised mental health service</td>
<td></td>
</tr>
<tr>
<td>Phone No.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Examiner</th>
<th>Signature</th>
<th>Examination Date: ______ / ______ / ______</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Examination Time: ______/ ______/ ______</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time: ______/ ______/ ______</td>
</tr>
</tbody>
</table>

| To: | administrator, authorised mental health service |

### To be completed by administrator, authorised mental health service

**Notice to Director of Mental Health**

Assessment documents have not been made for this person.

<table>
<thead>
<tr>
<th>Administrator, authorised mental health service</th>
<th>Signature</th>
<th>Print name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Date: ______ / ______ / ______</td>
</tr>
</tbody>
</table>

| To: | Director of Mental Health |

---

dmv:035/01 version: 1a March 2002
Appendix 14 – QAS Case Management Guideline Seizures Page 1

Diagnostic Pattern:

**GRAND MAL SEIZURES**
- Loss of consciousness
- Rigidity and contraction of body muscles often including hyperextension of the back (tonic phase)
- Rapid spasmodic muscle contractions (clonic phase)
- Tongue biting
- Incontinence

**FOCAL SEIZURES**
Continuous or spasmodic uncontrolled muscle tension localised to one area of the body. Some focal seizures may progress to grand mal seizures.

Convulsions may manifest differently in children. There will sometimes be a loss of consciousness or vacant stare with little gross muscle tonicity. There may be accompanying but subtle focal manifestations such as eye or facial muscle fluttering or twitching.

Guiding Principles:
- Hypertonicity of respiratory muscles means hypoxia is a serious side effect, if not a cause, and must be treated.
- While convulsing, patients have a high potential to injure themselves and should be protected from this. Potential for fractures following hypertonic contractions should be considered.
- The grand mal seizure is a significant CNS emergency and should be ceased as soon as possible regardless of cause, however where the cause is known this should be treated. Always consider hypoglycaemia, cerebral hypoxia or poor perfusion, overdose, hyperthermia, and head trauma as being contributory to the convulsion.
- Gathered history should include duration of convulsion, whether or not it had focal onset, if so where was the focus, as well as past history of fits.
- Febrile convulsions are usually self-limiting and don’t require treatment other than controlling temperature if less than 5 minutes in duration. Consider administration of paracetamol following cessation of febrile convulsions.

Caution
Beware first seizure.
A seizure in a patient, particularly adults, with no history of epilepsy may have a serious underlying cause and not be self limiting.
Appendix 15 – QAS Seizure Case Management Guideline Page 2

Seizures

Altered Level of Consciousness / Collapse

Basic cares

Seizures

- Maintain patent airway
- Protect from self injury
- Admin. high concentration O2
- Make clinical judgement to guide further treatment.

Can seizure be quickly ceased by treating cause?

Yes

Consider management as per specific guidelines

No

Notify receiving facility as appropriate

Midazolam

M. I.V.

Patient still convulsing?

Yes

Transport without undue delay

- Vital signs
- ECG
- Manage other concomitant problems
- Consider paracetamol post pelvic convulsion

(See Guidelines / Procedure)

No

Hypo / Hypovolaemia

Hypothyroidism

Drug Poisoning

Trauma

Hyperthermia

Officers are only to perform procedures for which they have received specific training and authorisation by the QAS

Version 2.1 issued by authority of the Queensland Ambulance Service - revised January 02

Appendix 16 – Phase 1 focus group question schedule

Welcome, introducing myself.

**Purpose of the study:** To examine how paramedic make and account for the clinical judgment and decision-making of mental illness in the prehospital care setting. What are the factors that influence paramedic clinical judgment and decision-making of mental illness in the prehospital care setting? What are the accounts of expected practice, or how should it be done? What are the accounts of actual practice, that is how is it actually done.

**Aims of this interview:** The context/s of paramedic clinical judgment and decision-making of mental illness. What are the accounts of expected paramedic clinical judgment and decision-making of mental illness? What are the factors that provide for an expectation of practice; that is how it should be done? Demands, pressures, factors in the Queensland prehospital care setting?

Use of this data from this interview. Approvals, consent form, any preliminary questions.

There are 3 dimensions to the interview I would like to conduct to today: Historical Contexts, Contemporary Issues, and Future Considerations.

**HISTORY**

I’d like to begin with some historical contexts. The QAS as we know it today began in 1991 with the Ambulance Service Act 1991 (ASA). A key component of this was the amalgamation or coming together of 96 separate state-wide services.

- To what extent did managing mental illness constitute the work of ambulance officers?
- What was the role of ambulance officers when it came to managing psychiatric emergencies post 1991?
- What education, training and professional development in mental illness was provided? How useful was it?
- Considering the types of cases ambulance officers would be called upon to manage, how were psychiatric emergencies handled or managed? Was there a “typical kind of case”?
- What education, training and professional development in mental illness was provided?
- How useful was the education, training and professional development in preparing them to judge, assess and manage mental illness?
- What was the interface between ambulance officers and other health care workers with respect to mental illness, such as doctors and nurses in the A&E with respect to psychiatric illness?
- How did ambulance officers account for the judgment of mental illness or psychiatric emergency?
- Where staff held accountable for their actions? How so?
- How or was the Mental Health Act 1974 relate to the practice of ambulance officers?
- What did the formation of the QAS in 1991 mean for clinical practice, particularly as it related to management mental illness in the prehospital care setting?
- In 1995 the CPM was created. What was the impact of the CPM assessing mental illness?
- How did it influence the assessment and management of psychiatric emergencies? What was available? Was it sufficient?
- What were the issues?

**LHMU Lead in (Not history)**

- I am aware that LHMWU and its members had a number of complaints regarding the MHA 2000 and the QAS Mental Health Act Education Package. Could you elaborate on this complaint, the background to it and the issues related.
CONTEMPORARY CONTEXTS

- What is the role of the QAS paramedic in today’s context?
- What role of the paramedic WITH RESPECT TO mental illness today?
- What are the issues or factors that influence the way in which paramedics assess and manage the mentally ill?

In 2000 the Mental Health Act of 1974 was repealed and replaced with the Mental Health Act 2000. (Show them the documents)

- Are you aware of any background about any consultation by Government with QAS during the drafting process of the MHA2000?
- What is your understanding of the MHA 2000?
- Does it intersect with the ASA 1991?
- How do you see the MHA 2000 and the ASA 1991 operating in the context of psychiatric emergencies in paramedic practice?
- What is your interpretation of the construct ‘belief’ in the MHA2000 and how does that relate to judgment?
- What was the impact of the MHA 2000 on the following?
  - Clinical Standards, Policy, Training, Practice, The Role of the paramedic
- What training was provided to staff in relation to this new Act?
  - When was it written?
  - By whom?
  - From what basis?
  - How was it implemented?
  - How was it received?
  - How was it managed?
  - In your opinion was it effective?
  - How so?

- Are you aware of the issues raised by staff through the LHMU and Clinical Forum? (Show them the documents)
- Were there any other issues extending out of this?
- What is the role of the QAS paramedic in today’s context?
- What role of the paramedic with respect to mental illness in the prehospital care setting?
- What are the issues that influence the way you manage the mentally ill?
- How do you see the MHA2000 working within QAS at the moment?
- What are the actual workings of the MHA2000 in QAS?
- What are the judgment processes that lead to “Belief”?
- Is it the same as for Police?
- What is made available by the MHA 2000 and the QAS training package about the standard of JDM of paramedics with respect to mental health assessment?
- Do paramedics need to conducts mental health assessments? To what level?
- How does the QAS define psychiatric illness and mental illness?

THE FUTURE

- What do you see or consider being important considerations of the role of paramedics in the future with respect to mental illness?
- Do paramedics have a future role in managing mental illness? How so what?
- What training should they require?
- How could this be best facilitated?

SUMMARY

- What are the key factors influencing paramedic clinical judgment and decision-making of mental illness, and the demands of expected practice
- How well equipped paramedics for clinical judgment and decision-making judgments of mental illness in the field?
- Do you have any final comments or questions about what we have discussed today, such as areas you think we have not explored that are important?
Appendix 17 – Summary of data gathered in Phase 2

<table>
<thead>
<tr>
<th>Phase</th>
<th>Data</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 2A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Historical</strong></td>
<td>Clinical Job Records Bill</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Clinical Job Records Mary</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Clinical Job Records David</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Clinical Job Interview Bill</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Clinical Job Interview Mary</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Clinical Job Interview David</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Concept Map Bill</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Concept Map Mary</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Concept Map David</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Concept Map Interview Bill</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Concept Map Interview Mary</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Concept Map Interview David</td>
<td>1</td>
</tr>
<tr>
<td><strong>Phase 2B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current</strong></td>
<td>Clinical Job Records Bill</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Clinical Job Records Mary</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Clinical Job Records David</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Clinical Job Interviews Bill</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Clinical Job Interviews Mary</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Clinical Job Interviews David</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Concept Maps Bill</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Concept Maps Mary</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Concept Maps David</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Concept Map Interviews Bill</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Concept Map Interviews Mary</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Concept Map Interviews David</td>
<td>3</td>
</tr>
</tbody>
</table>
### Appendix 18 – Descriptive summary of Bill's jobs

<table>
<thead>
<tr>
<th>JOSEPH FEATURES</th>
<th>PHASE 2A</th>
<th>PHASE 2B</th>
<th>TOTAL FIRST OFFICER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Second Officer</td>
<td>First Officer</td>
<td>First Officer</td>
</tr>
<tr>
<td>N (33)</td>
<td>%</td>
<td>N (35)</td>
<td>%</td>
</tr>
<tr>
<td>Code 1</td>
<td>11</td>
<td>33.3</td>
<td>5</td>
</tr>
<tr>
<td>Code 2</td>
<td>21</td>
<td>63.6</td>
<td>28</td>
</tr>
<tr>
<td>Other Code</td>
<td>1</td>
<td>3.0</td>
<td>2</td>
</tr>
<tr>
<td>Recorded on Ambulance Report Form</td>
<td>29</td>
<td>87.8</td>
<td>33</td>
</tr>
<tr>
<td>Recorded on Case Report Form</td>
<td>4</td>
<td>12.1</td>
<td>2</td>
</tr>
<tr>
<td>Patient refused treatment and transfer of the patient</td>
<td>2</td>
<td>6.1</td>
<td>3</td>
</tr>
<tr>
<td>RN escort to hospital</td>
<td>1</td>
<td>3.0</td>
<td>4</td>
</tr>
<tr>
<td>Patient aggression or agitation</td>
<td>1</td>
<td>3.0</td>
<td>5</td>
</tr>
<tr>
<td>Patient violence</td>
<td>1</td>
<td>3.0</td>
<td>2</td>
</tr>
<tr>
<td>Patient with anxiety or anxious</td>
<td>1</td>
<td>3.0</td>
<td>14</td>
</tr>
<tr>
<td>Patient with depression</td>
<td>3</td>
<td>9.1</td>
<td>4</td>
</tr>
<tr>
<td>Patient requested mental health admission</td>
<td>5</td>
<td>15.2</td>
<td>6</td>
</tr>
<tr>
<td>Electrocardiogram</td>
<td>4</td>
<td>12.1</td>
<td>6</td>
</tr>
<tr>
<td>Blood sugar level</td>
<td>4</td>
<td>12.1</td>
<td>1</td>
</tr>
<tr>
<td>Use of mental status questionnaire</td>
<td>1</td>
<td>3.0</td>
<td>14</td>
</tr>
<tr>
<td>Oxygen</td>
<td>10</td>
<td>30.3</td>
<td>7</td>
</tr>
<tr>
<td>Emergency Examination Order</td>
<td>2</td>
<td>6.1</td>
<td>2</td>
</tr>
<tr>
<td>Use of chemical restraint</td>
<td>2</td>
<td>6.1</td>
<td>1</td>
</tr>
<tr>
<td>Use of physical restraint</td>
<td>1</td>
<td>3.0</td>
<td>2</td>
</tr>
<tr>
<td>Paramedic consulted local medical officer</td>
<td>1</td>
<td>3.0</td>
<td>1</td>
</tr>
<tr>
<td>Patient vitals signs recorded</td>
<td>28</td>
<td>85.0</td>
<td>32</td>
</tr>
<tr>
<td>Psychological support provided</td>
<td>28</td>
<td>85.0</td>
<td>34</td>
</tr>
<tr>
<td>Reassurance provided</td>
<td>21</td>
<td>63.7</td>
<td>32</td>
</tr>
<tr>
<td>Record of Refusal – VIRCA recorded</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
<tr>
<td>RN escort to hospital</td>
<td>1</td>
<td>3.0</td>
<td>2</td>
</tr>
<tr>
<td>Yes treatment – Yes transport provided</td>
<td>26</td>
<td>78.8</td>
<td>29</td>
</tr>
<tr>
<td>Patient refused treatment and transport</td>
<td>3</td>
<td>9.1</td>
<td>3</td>
</tr>
<tr>
<td>Pt refusal – Transport via QAS EEO</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
<tr>
<td>Pt refusal – Police trans to hospital</td>
<td>1</td>
<td>3.0</td>
<td>1</td>
</tr>
<tr>
<td>Yes treatment – Other transport provided</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
<tr>
<td>No treatment – Yes transport</td>
<td>1</td>
<td>3.0</td>
<td>1</td>
</tr>
<tr>
<td>No treatment – No transport</td>
<td>2</td>
<td>6.1</td>
<td>0</td>
</tr>
</tbody>
</table>
Appendix 19 – Descriptive summary of David's jobs

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>SECOND OFFICER</th>
<th>FIRST OFFICER</th>
<th>TOTAL OFFICER</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (35)</td>
<td>%</td>
<td>N (47)</td>
<td>%</td>
</tr>
<tr>
<td>Code 1</td>
<td>4</td>
<td>11.4</td>
<td>6</td>
</tr>
<tr>
<td>Code 2</td>
<td>29</td>
<td>82.8</td>
<td>12</td>
</tr>
<tr>
<td>Other Code</td>
<td>2</td>
<td>5.7</td>
<td>0</td>
</tr>
<tr>
<td>Recorded on Ambulance Report Form</td>
<td>31</td>
<td>88.5</td>
<td>18</td>
</tr>
<tr>
<td>Recorded on Case Report Form</td>
<td>4</td>
<td>11.4</td>
<td>0</td>
</tr>
<tr>
<td>Inter-facility transfer of the patient</td>
<td>2</td>
<td>5.7</td>
<td>0</td>
</tr>
<tr>
<td>Police on-scene prior to arrival</td>
<td>8</td>
<td>22.8</td>
<td>7</td>
</tr>
<tr>
<td>Police request via QAS Communications</td>
<td>4</td>
<td>11.4</td>
<td>6</td>
</tr>
<tr>
<td>Nurse/physician on scene</td>
<td>3</td>
<td>8.5</td>
<td>1</td>
</tr>
<tr>
<td>History of mental illness</td>
<td>16</td>
<td>45.7</td>
<td>9</td>
</tr>
<tr>
<td>Medications for mental illness</td>
<td>21</td>
<td>60</td>
<td>12</td>
</tr>
<tr>
<td>Positive for hallucinations</td>
<td>1</td>
<td>2.8</td>
<td>2</td>
</tr>
<tr>
<td>Positive for delusions</td>
<td>3</td>
<td>8.5</td>
<td>1</td>
</tr>
<tr>
<td>Recent discharge from mental health unit</td>
<td>19</td>
<td>54.3</td>
<td>11</td>
</tr>
<tr>
<td>Suspected drug overdose</td>
<td>9</td>
<td>25.7</td>
<td>4</td>
</tr>
<tr>
<td>Attempt at suicide /self-harm</td>
<td>4</td>
<td>11.4</td>
<td>2</td>
</tr>
<tr>
<td>Self harm ideation</td>
<td>6</td>
<td>17.1</td>
<td>3</td>
</tr>
<tr>
<td>Emotional distress</td>
<td>26</td>
<td>74.3</td>
<td>14</td>
</tr>
<tr>
<td>Patient with anxiety or anxious</td>
<td>11</td>
<td>31.4</td>
<td>9</td>
</tr>
<tr>
<td>Patient with depression</td>
<td>7</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>Patient violence</td>
<td>3</td>
<td>8.5</td>
<td>3</td>
</tr>
<tr>
<td>Patient aggression or agitated</td>
<td>2</td>
<td>5.7</td>
<td>2</td>
</tr>
<tr>
<td>Patient alcohol or drug intoxication</td>
<td>13</td>
<td>37.1</td>
<td>4</td>
</tr>
<tr>
<td>Patient requested mental health admission</td>
<td>19</td>
<td>54.3</td>
<td>15</td>
</tr>
<tr>
<td>Electrocardiogram</td>
<td>2</td>
<td>5.7</td>
<td>1</td>
</tr>
<tr>
<td>Blood sugar level</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oxygen</td>
<td>13</td>
<td>37.1</td>
<td>12</td>
</tr>
<tr>
<td>Emergency Examination Order</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Use of physical restraint</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Paramedic consulted local medical officer</td>
<td>2</td>
<td>5.7</td>
<td>0</td>
</tr>
<tr>
<td>Patient vital signs recorded</td>
<td>33</td>
<td>94.3</td>
<td>18</td>
</tr>
<tr>
<td>Psychological support provided</td>
<td>32</td>
<td>91.4</td>
<td>18</td>
</tr>
<tr>
<td>Reassurance provided</td>
<td>29</td>
<td>82.8</td>
<td>17</td>
</tr>
<tr>
<td>Record of Refusal – VIRCA</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RN escort to hospital</td>
<td>3</td>
<td>8.5</td>
<td>2</td>
</tr>
<tr>
<td>Yes treatment – Yes transport</td>
<td>32</td>
<td>91.6</td>
<td>15</td>
</tr>
<tr>
<td>Pt refused treatment &amp; transport</td>
<td>1</td>
<td>2.8</td>
<td>1</td>
</tr>
<tr>
<td>Pt refusal – Transport via QAS EEO</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pt refusal – Transport via QPS EEO</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Yes treatment – No trans (by QPS EEO)</td>
<td>3</td>
<td>8.5</td>
<td>2</td>
</tr>
<tr>
<td>No treatment – No transport</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
## Appendix 20 – Descriptive summary of Mary's jobs

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>Phase 2A</th>
<th>Phase 2B</th>
<th>TOTAL FIRST OFFICER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Second Officer</td>
<td>First Officer</td>
<td>First Officer</td>
</tr>
<tr>
<td></td>
<td>N (4)</td>
<td>%</td>
<td>N (22)</td>
</tr>
<tr>
<td>Code 1</td>
<td>1</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>Code 2</td>
<td>3</td>
<td>75</td>
<td>2</td>
</tr>
<tr>
<td>Other Code</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Inter-facility transfer of the patient</td>
<td>2</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>Recorded on Ambulance Report Form</td>
<td>0</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>Recorded on Case Report Form</td>
<td>2</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>Police on scene prior to arrival</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Police request by QAS Communications</td>
<td>1</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Nurse/physician on scene</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>History of mental illness</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Medications for mental illness</td>
<td>3</td>
<td>75</td>
<td>13</td>
</tr>
<tr>
<td>Positive for hallucinations</td>
<td>1</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Positive for delusions</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Recent mental health unit discharge</td>
<td>0</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Suspected drug overdose</td>
<td>1</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>Attempt at suicide /self-harm</td>
<td>2</td>
<td>50</td>
<td>18</td>
</tr>
<tr>
<td>Self harm ideation</td>
<td>6</td>
<td>17.1</td>
<td>2</td>
</tr>
<tr>
<td>Emotional distress</td>
<td>3</td>
<td>75</td>
<td>20</td>
</tr>
<tr>
<td>Patient with anxiety or anxious</td>
<td>1</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>Patient with depression</td>
<td>1</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td>Patient violence</td>
<td>2</td>
<td>50</td>
<td>7</td>
</tr>
<tr>
<td>Patient aggression or agitated</td>
<td>1</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Patient alcohol or drug intoxication</td>
<td>2</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>Patient requested mental health admission</td>
<td>1</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>Electrocardiogram</td>
<td>1</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>Blood sugar level</td>
<td>2</td>
<td>50</td>
<td>8</td>
</tr>
<tr>
<td>Oxygen</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Emergency Examination Order</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Use of chemical restraint</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Use of physical restraint</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Paramedic consulted local medical officer</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Patient vital signs recorded</td>
<td>2</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Psychological support provided</td>
<td>3</td>
<td>75</td>
<td>21</td>
</tr>
<tr>
<td>Reassurance provided</td>
<td>3</td>
<td>75</td>
<td>19</td>
</tr>
<tr>
<td>RN escort to hospital</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Yes treatment – Yes transport</td>
<td>3</td>
<td>75</td>
<td>16</td>
</tr>
<tr>
<td>Yes treatment – No transport</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Yes treatment – Refused Transport</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>No treatment – Yes transport</td>
<td>1</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>Patient refused treatment and transport</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OUTCOME</th>
<th>Phase 2A</th>
<th>Phase 2B</th>
<th>TOTAL FIRST OFFICER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transported under QAS EEO</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Transported by Police EEO</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No treatment – No transport</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Appendix 21 – Phase 2A: Historical clinical job interview schedule

PHASE 2 – STAGE 1
PARAMEDICS INTERVIEW SCHEDULE

- Welcome, introducing the study.
- Review information sheets.

Purpose of the study: To examine how paramedic make and account for the clinical judgment and decision-making of mental illness in the prehospital care setting. What are the factors that influence paramedic clinical judgment and decision-making of mental illness in the prehospital care setting? What are the accounts of expected practice, or how should it be done? What are the accounts of actual practice, that is how is it actually done.

Study Protocol Discussion:
  - Entry interview, including concept mapping
  - Historical case review – Jan 2000 to Dec 2004
  - Retrospective case analysis – From Jan 2005
  - Exit interview, including concept mapping

Approvals, consent form, any preliminary questions

ENTRY INTERVIEW

There are 3 dimensions to this our first interview: Historical Contexts, Contemporary Issues, and Future Considerations.

History

I’d like to begin with some historical contexts. The QAS as we know it today began in 1991 with the Ambulance Service Act 1991 (ASA). A key component of this was the amalgamation or coming together of 96 separate state-wide services. From your perspective:

- To what extent did managing mental illness constitute the work of ambulance officers?
- What was the role of ambulance officers when it came to managing psychiatric emergencies post 1991?
- What education, training and professional development in mental illness was provided? How useful was it?
- Considering the types of case ambulance officers would be called upon to manage, how were psychiatric emergencies managed or handled? Was there a “typical kind of case”?
- What education, training and professional development in mental illness was provided?
- How useful was the education, training and professional development in preparing them to judge, assess and manage mental illness?
- What was the interface between ambulance officers and other health care workers WITH RESPECT TO mental illness, such as doctors and nurses in the A&E WITH RESPECT TO psychiatric illness?
- How did ambulance officers account for the judgment of mental illness or psychiatric emergency?
- Where staff held accountable for their actions? How so?
- How or was the Mental Health Act 1974 relate to the practice of ambulance officers?
- What did the formation of the QAS in 1991 mean for clinical practice, particularly as it related to management mental illness in the prehospital care setting?
- In 1995 the CPM was created? What was the impact of the CPM assessing mental illness?
- How did it influence the assessment and management of psychiatric emergencies? What was available? Was it sufficient?
- What were the issues?

Contemporary Issues

I am aware that LHMWWU and its members had a number of complaints regarding the MIHA 2000 and the QAS Mental Health Act Education Package. Are you party to that complaint, or does it reflect your concerns? Could you elaborate on this complaint, the background to it and the issues related.

- What is the role of the QAS paramedic in today’s context?
- What role of the paramedic WITH RESPECT TO mental illness today?
- What are the issues or factors that influence the way in which paramedics assess and manage the mentally ill?
In 2000 the Mental Health Act of 1974 was repealed and replaced with the Mental Health Act 2000. (Show them the documents)

- Are you aware of any background about any consultation by Government with QAS during the drafting process of the MHA2000?
- What is your understanding of the MHA 2000?
- Does it intersect with the ASA 1991?
- How do you see the MHA 2000 and the ASA 1991 operating in the context of psychiatric emergencies in paramedic practice?
- What is your interpretation of the construct ‘belief’ in the MHA2000 and how does that relate to judgment?
- What was the impact of the MHA 2000 on the following?
  - Clinical Standards, Policy, Training, Practice, The Role of the paramedic?
- What training was provided to staff in relation to this new Act?
  - When was it written?
  - By whom?
  - From what basis?
  - How was it implemented?
  - How was it received?
  - How was it managed?
  - In your opinion was it effective?
  - How so?

- Are you aware of the issues raised by staff through the LHMU and Clinical Forum? (Show them the documents)
- Were there any other issues extending out of this?
- What is the role of the QAS paramedic in today’s context?
- What role of the paramedic with respect to mental illness in the prehospital care setting?
- What are the issues that influence the way you manage the mentally ill?
- How do you see the MHA2000 working within QAS at the moment?
- What are the actual workings of the MHA2000 in QAS?
- What are the judgment processes that lead to “Belief”?
- Is it the same as for Police?
- What is made available by the MHA 2000 and the QAS training package about the standard of JDM of paramedics with respect to mental health assessment?
- Do paramedics need to conduct mental health assessments? To what level?
- How does the QAS define psychiatric illness and mental illness?

**Future**

- What do you see or consider being important considerations of the role of paramedics in the future with respect to mental illness?
- Do paramedics have a future role in managing mental illness? How so what?
- What training should they require?
- How could this be best facilitated?
- What are the key factors influencing paramedic clinical judgment and decision-making of mental illness, and the demands of expected practice?
- How well equipped paramedics for clinical judgment and decision-making judgments of mental illness in the field?
- Do you have any final comments or questions about what we have discussed today, such as areas you think we have not explored that are important?
Appendix 22 – Phase 2B: Current clinical job interview schedule

PHASE 2 – STAGE 2
PARAMEDIC JOBS INTERVIEW SCHEDULE
CURRENT JOB ANALYSIS

Purpose:
• To examine how paramedic make and account for the clinical judgment and decision-making of mental illness in the prehospital care setting.
• What are the factors that influence paramedic clinical judgment and decision-making of mental illness in the prehospital care setting?
• How is it actually done?
• How do they account for the clinical judgment and decision-making of mental illness?

Documents:
• Copy of de-identified ARF from current jobs
• In-depth interview
• Describe the job
  o Pre-Job detail
  o Actions
  o Decisions
  o Factors
• The patient, their illness
• Legislative features
• Education
• Outcomes
• Policies, guidelines
• Influence the assessment and management
• What were the issues?
Appendix 23 – Extract of job analysis record and transcript

<table>
<thead>
<tr>
<th>Description: Overdose on prescription medications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participant:</strong> Bill</td>
</tr>
<tr>
<td><strong>Type:</strong> K = 081; L = 477  Code 1</td>
</tr>
<tr>
<td>Police O/S O/A</td>
</tr>
<tr>
<td>Police requested by QAS</td>
</tr>
<tr>
<td>LMO Case Referral</td>
</tr>
<tr>
<td>RN/SCAN Team/EPS</td>
</tr>
<tr>
<td>Medical Assessment</td>
</tr>
<tr>
<td>Recorded PMHx mental illness</td>
</tr>
<tr>
<td>Medications – Mental Illness</td>
</tr>
<tr>
<td>Hallucinations Assessment</td>
</tr>
<tr>
<td>Delusional Assessment</td>
</tr>
<tr>
<td>Hallucination Recorded</td>
</tr>
<tr>
<td>Delusions Recorded</td>
</tr>
<tr>
<td>Recent Acute Discharge?</td>
</tr>
<tr>
<td>Oxygen</td>
</tr>
<tr>
<td>ECG</td>
</tr>
<tr>
<td>BSL</td>
</tr>
<tr>
<td>MSQ / Mini Mental Assessment</td>
</tr>
<tr>
<td>Chemical Restraint</td>
</tr>
<tr>
<td>Physical Restraint</td>
</tr>
<tr>
<td>Consult RMO</td>
</tr>
<tr>
<td>Vitals, Obs</td>
</tr>
<tr>
<td>Psych Support</td>
</tr>
<tr>
<td>Reassurance</td>
</tr>
</tbody>
</table>

**Notes:**

Bill and his colleague attend an overdose at a private residence. Bill responds first officer to a patient who consumes an unknown quantity of tablets of a non-recorded nature in this record with an amount of alcohol. Bill's record suggests the patient has a mental health history of anxiety and depression. Bill records that medications are with the patient but does not list the actual medications. Bill conducts a medical assessment of this patient and finds no abnormalities across any off the exemplar criteria. Bill records in the record at a mental status questionnaire with the result of nine out of 10. Bill's provisional diagnosis is overdose on prescription medications. He provides posture of vital signs, observations, psychological support, oxygen, ECG monitor, and transport to the [anonymised] Hospital. In this instance, the attempted suicide by this patient appears to be the motivating factor for transport to hospital, although it is interesting tonight that suicide does not appear in the record. No where in this record does Bill record the patient attempted to suicide? His record suggests the patient took an overdose.
I: Good morning [XXXX]. How are you?
P: My god, what a night. We got flogged.
I: really, what happened?
P: Just got flogged. A little shagged and bleary eye.
I: OK. Thanks for ringing me and giving me the opportunity to talk to you about this case.
We’ll try keep this as short as is we can.
P: Ok
I: thanks. I’ve had a look at the ARF. It looks like an overdose at a private residence.
P: Yeah. Me and [XXX] were sent to a private residence up in Chermside to a guy who
supposedly was said to have taken a heap of pills and booze.
I: You were sent code 1 I noticed.
P: Yeah.
I: Ok. Tell me about it.
P: Well, we went to this house, got there in a bit of a hurry. We did the usual thing of
arrive on scene, did a quick survey of the scene. We were met by a woman in the
driveway. She greeted us, quite visibly upset and distressed, crying and stuff. She
said her husband had taken a heap of pills and alcohol. I asked her how long ago he
took them and what they were. She said she didn’t wasn’t sure, but probably only
about an hour prior to our arrival.
I: So what were you thinking at this stage? Did you have any ideas about the patient’s
condition?
P: Well, it was obvious a psych case. OD and all. So I was heading down that track.
I: Because of the case call code, or because of what they woman said.
P: What she said. She looked genuinely concerned.
I: OK.
P: So we entered the house. I introduced myself to the patient. Ask him what was
happening here, and for what reason we had been called. I usually re-verify what I was
told by bystanders and others with the patient. Just to make sure.
I: Because?
P: well you never know when you’re being jipped by someone. Someone could be
trying to knock a relative off for money or whatever. It has been known to happen.
I: OK. So, taking this measure provides you with what?
P: Well, more security I guess that I’m doing the right thing by the patient. Lots of
cracked eggs around ya know.
I: Yes, I see. OK.
P: So I go on with my usual assessment.
I: In this case, you have said that you have focused on the patient as a psych case.
P: Yes
Appendix 24 – Example of reflective notes made during Bill current job analysis

A39
In case number 13 on bill is called to a house where the patient feels he's going to have a fit or heart attack. The patient reported that he had chest pains since that morning, which was made worse on inspiration and movement patient requested he walked to the ambulance by himself and wanted all the curtains closed in the vehicle upon entry to the ambulance. Bill records patient is that in the past medical history of admission to the Prince Charles Hospital with a bipolar condition. On arrival patient greets QAS at the door. Bill records, no entry for the patient's medications allergies or treatment prior to arrival. Bill performs a comprehensive medical assessment, including ECG, breath sounds and physical examination. Bill performs a mental status questionnaire which the patient receives a score of 10 out of 10. The mental status questionnaire is used to assess a state of psychosis. Bill records signs that the patient is not a shortness of breath and is not switching. And as such peace to come to the conclusion that the patient does not have a cardiac event will record to provisional diagnosis off query chest pain query psychiatric episode. Bill provides posture, vital signs, observations, psychological support monitor oxygen and transport. Bill records a decision to not give aspirin and GTN because the patient refused these medications. In this case, the patient's medical history of bipolar and previous admission to the Prince Charles Hospital and request took the Prince Charles Hospital appears to have informed Bill's decision to transfer the patient to hospital to spot conducting a medical assessment of this patient. Bill's record suggests there is no cardiac chest pain present, and therefore decides the patient has experienced query psychotic episode. The patient refuses the medication for chest pain, which Bill would have been authorised to provide had the need arise. What is not clear is why this is so.

A48
In this case number 48 bill response to a 62-year-old penal patient complaining of being assaulted by carer and partner, who she alleges hit her over the head with the ashtray. The patient is recorded as having a past medical history of chronic schizophrenia. They're in a medications allergies or treatment prior to arrival.