Scope and Span of Stakeholder Control for Health Care Quality and Risk – Development of a Healthcare Integrated Quality and Risk Strategy

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Abstract

This research has sought to identify important factors relating to quality patient care and the management of risk in the acute healthcare sector. Key stakeholders including consumers, healthcare workers, health delivery organisations and those involved in the governance of health-service organisations are part of a critically important continuum of service users and providers, who require and seek to deliver high-quality patient care. The concepts of quality, risk and safety domains are defined within the context of operating complex health organisations that deliver care in a high-risk environment. The aim of this research was to ascertain important elements and actions of key stakeholder groups and organisations in relation to quality and risk and to propose ways of engaging on identified interaction points to enhance the impact of management of quality and risk for healthcare outcomes. The purpose of this research was to identify where changes in practice and operations could enhance the understanding of quality and risk factors and improve their management. Moreover, this research aimed to identify areas of interdependence across the stakeholder continuum that might be positively exploited to improve and enhance patient care outcomes.

Four specific research projects have been completed. Original data and information were collected through a national telephone survey of consumers and semi-structured interviews involving current directors of governing health boards. Also analysed were secondary data related to healthcare worker job satisfaction in a complex health organisation, and accreditation survey reports for hospitals and health facilities. In all studies, key themes were identified and interpretations of results were formed into journal article manuscripts submitted to peer-reviewed journals.

Consumers, as current, past or potential patients, identified that an assessment of healthcare providers' reputation and capacity for strong, effective interpersonal engagement were important attributes when considering where to seek care and services. Communication was paramount, both in terms of individual connection and in obtaining and synthesising information about prospective service provision. Some 20% of consumer respondents indicated that they did not know of or use definitions of quality in their review of healthcare services. Healthcare workers identified key job connection and occupational and personal support requirements as contributors to quality patient care and service and system quality activities in their organisations. Team and inter-teamwork were identified as areas that, in addition to their own engagement, needed strong, authentic and transparent leadership to facilitate high-quality care outcomes. Health organisations that establish clear strategic direction, including quality, risk and safety continuum with demonstrable outcome

requirements, realised objectives in relation to quality and risk management. Proportionate data-management systems were also key to enabling stronger evidence-based practice for quality and risk management in health organisations. At the governance level, goals and objectives promoting a deep cultural understanding and widespread dissemination of quality and risk management factors at all levels of the organisation were identified as important responsibilities for health boards. Similarly, governance responsibility around development and implementation of proportionate, effective quality and risk management structures and systems was identified as a key objective for the governance level and functions in health organisations.

Specific support and improvement opportunities have been identified, such as provision of curated information on quality and risk to consumers; development of deep learning in healthcare organisations regarding impact and improvement opportunities resulting from enhanced approaches to quality and risk management; enabling of deep learning around quality and risk management; and strong, authentic and transparent leadership for developing strategies to enable high-quality patient care. In addition, a theory and model about the Healthcare Integrated Quality and Risk Strategy has been developed aimed at engaging critical enablers and capitalising on the interdependence of stakeholder groups in the attainment of high-quality patient care outcomes.

Statement of Originality

This work has not previously been submitted 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.

(Signed) 

Mark Avery

Table of Contents

List of Figures

List of Tables

Acknowledgements

Professor Allan Cripps is my Supervisor for this research work. Allan has fantastic experience as: a researcher; academic and health service leader and manager; and as a board member. Allan has given great amounts of time and wisdom to me and I have learnt a lot with him but more importantly, from him.

Professor Gary Rogers is my Co-Supervisor for this project. Gary has provided me with great experience relating to qualitative research and has gifted immeasurable time and impact on this project around presenting and articulating research findings and their meaning, potentially for a range of people across the health system.

I appreciate the great support and advice from Dr Patricia Lee at Griffith University who assisted with information and advice on quantitative analysis and manuscript review of one of the important research projects in this study.

Ms Linda O'Connor, staff members and member organisations of the Australian Council on Healthcare Standards (ACHS) who supported my research and enabled access to accreditation survey reports to enable part of this research to proceed successfully.

This research involved gathering information from directors of the health boards and community members across Australia who participated in the interviews and national telephone survey as part of this research project and I am grateful for their interest, time and assistance.

My thanks also go to Ms Karen Mehrotra in the Griffith Graduate Research School for her support and guidance from the beginning of my higher degree research enrolment at Griffith University.

Part 1: Setting the Boundaries

Publications Included in this Thesis

This research project and thesis has been completed with the development and submission of four publications submitted to peer-reviewed journals. These publications represent the main original research work undertaken as part of this research project.

This research structure and thesis preparation was undertaken on the basis of "a thesis with publications" to: (i) identify and research four specific groups of individuals and organisations regarding quality and risk in health care; (ii) share and disseminate findings to the research and practitioner community; and (iii) manage information from study findings, putting discrete datasets and information towards the proposed Healthcare Integrated Quality and Risk Strategy Model.

Papers included in the thesis comprise Chapters 3, 4, 5 and 6, co-authored with Higher Degree Research Supervisors and another researcher. My contribution to each co-authored paper is outlined at the front of the relevant chapter. The details for these submitted papers, including all authors, are:

As Chapter 3:
Avery, M., Cripps, A.W., & Rogers, G. (2020). Healthcare consumers: information requirements and engaging in quality and safety. Published *by Asia Pacific Journal of Health Management*.

As Chapter 4:
Avery, M., Cripps, A.W., Rogers, G., & Lee, P. (2020). Leadership enablers for quality patient outcomes in healthcare organisations. *Submitted to Leadership in Health Services Journal*.

As Chapter 5:
Avery, M., Cripps, A.W., & Rogers, G. (2021). Leading and managing for impact in quality and risk outcomes: demonstrated success through strategy, performance review, knowledge management and supported teams. *Submitted to Australian Health Review*.

As Chapter 6:
Avery, M., Cripps, A.W., & Rogers, G. (2021). Health boards' governance of quality and risk: quality improvement agenda for the board. Accepted for publication in the *International Journal of Health Governance*.

At the time of submission of this thesis for assessment, the papers are in production process or are not yet accepted for publication but are being considered by journal editors and are under peer review. Thus, statements regarding the copyright status of the papers will need to be considered and included in this thesis document at a later date.

Appropriate acknowledgements of those who contributed to the research but did not qualify as authors are included in each paper.

(Signed) _____ (Date) 03/03/2021

Mark Avery

(Countersigned) _____ (Date) 03/03/2021

Supervisor: Professor Allan Cripps AO FAHM

Preamble

This research thesis is based on four discrete but linked projects relating to the governance, leadership and management of quality patient care and risk in the acute healthcare sector.

The candidate, Mark Avery, has a career involving over 35 years' experience in leadership, management and corporate roles in both the public and private health care sectors in Australia and the United Kingdom. His career and experience have been at senior executive, chief executive, consultant, board director levels in hospitals, community health, regulation and academia.

Mark has a particular interest in addressing and translating research in practice to impact direct and indirect quality and safe care to consumers, patients and clients in health care. For this thesis, Mark has undertaken the research activities and writing of the manuscripts.

In each of the four projects submitted as prospective papers for publication , and included in this thesis as Chapters 3, 4, 5 and 6, the candidate's role and responsibility has fundamentally been: development of research concepts or ideas; collection or provision of the data; initial analysis and categorisation of the data into usable formats; analysis of results; writing of the papers; and the submitting and corresponding author with the journals to which manuscripts have been submitted.

Figures 1 to 7 in this thesis have been developed by the candidate and annotated to reflect that ownership. All tables within the manuscripts (Chapters 3, 4, 5 and 6) have been prepared from the findings of the four discrete research projects.

Chapter 1. Introduction and Background

Quality and risk are critical issues and constructs for hospitals and health services. The impact of quality and risk on the delivery of patient care and care outcomes involve both direct and indirect care and service delivery. Two key features of this impact are the issues integral to the actual delivery of service and care, and the quality assurance and improvement activities designed to impact on all healthcare delivery processes. Quality and risk, operating at these micro and meso levels, form a critically important enabler and carry responsibility in the provision of patient care.

The aim of the research projects incorporated into this thesis was to ascertain important elements and actions of key stakeholder groups and organisations in relation to quality and risk and to propose ways of engaging on those specific interaction points to enhance the impact of management of quality and risk for healthcare outcomes. This research is aimed at key attributes and activities of the main stakeholders involved in the delivery of hospital and health care, as related to stakeholder requirements and expectations. The objectives of the studies within this project were to understand enablers and barriers regarding the stakeholders' desire and ability to engage in the quality and risk continuum, as it is associated with expectations for quality patient care.

This research focuses on the delivery of acute-care health services. This involved surveying community members about how they view quality and healthcare providers in terms of services related to their immediate care needs. Similarly, this project sought to understand key activities, systems and governance of personnel and organisations who deliver primary, secondary and tertiary acute care.

Key actors in this sector with needs and contributions are consumers, patients, and healthcare professionals, as well as those that lead, manage and govern organisations . This research sought to explore the most important enablers and barriers as defined by representatives of these groups.

Irrespective of the size by operations by health facilities, health organisations operate as complex entities and deliver services within a high-risk landscape (Vincent & Amalberti, 2016). Proportional to the role, function and environment of health services delivery worldwide, overall patient care and clinical/nonclinical services are delivered to acceptable standards. However, there remain a significant proportion of healthcare service events that fall below acceptable levels. These adverse events are preventable. No single person or organisation should be expected to manage and

eliminate each of them. Systematic strategies, pooling of resources and inter-agency cooperation provide opportunity, resources and energy to address and minimise these adverse events.

Governance of health organisations combined with strong and effective leadership and management offer critical metrics of responsibility, accountability and resources, which can provide focused assurance and improvement activities both within organisations and facilities and between them.

The four research projects explored issues of importance to consumers, healthcare professionals and those involved in health-organisation governance. They gathered data on experiences and expectations about how individuals and groups of healthcare stakeholders approach and experience quality and risk management.

1.1 Understanding quality, risk and safety

Over the last 30 years, there has been research, practice and strategic engagement around quality and risk associated with planning, delivering and evaluating effectiveness of healthcare services. Quality, risk and safety as a continuum of activities is knowledge aimed at identifying, sharing and improving services and episodes of care. The whole system operates more effectively if it is placed in a social business structure of strategy, planning and service delivery. This operating structure must be sensitive to the role and function of healthcare.

1.1.2 Quality assurance and quality improvement

Quality is a broad term that needs to be defined within the context of interactions between people. Quality health care represents engagement with people providing and receiving health care that is safe, effective, efficient and equitable (Harteloh, 2003; Institute of Medicine America, 2001; Standards Australia, 2016; World Health Organization, 2006).

Quality assurance is a reactive process involving performance evaluation, both positive and negative, in relation to agreed or accepted levels of expected attainment (Ellis & Hogard, 2018; Pruitt, Smith, Pérez-Ruberté, Kovner, & Pruitt, 2020; Standards Australia, 2016). Quality improvement is a proactive process representing responses to assessment data and information in order to improve care, systems and processes for patients, clients and consumers (Fondahn, Lane, & Vannucci, 2016; Jabbal, 2017). It represents an ongoing system-focussed process compared to quality assurance, which is more individual or episodically focused. Quality improvement provides an opportunity to

improve outcomes and requires widespread commitment, resourcing and strategy within a practice or healthcare organisation.

Key features of quality activities include data collection, measurement of performance, action and activities planning, with review and follow-up.

1.1.3 Risk and risk management

Risk represents situations of exposure to danger, harm or negative consequences that can be both positive and negative. In the context of health care, clinical, environmental, economic and organisational aspects may be involved and impacted. In managing risk and its situations, risk is seen in terms of consequences of events and estimates of the occurrence of those events (Standards Australia, 2018). The deployment of mitigation activities that may directly minimise impact presents as a risk management opportunity. Risk management provides for the minimisation and control of actions, practice and the environment relating to any exposure to identified risk potential (Standards Australia, 2018).

Most health organisations will deploy a proportional framework approach to support risk management strategy and initiatives. These frameworks enable them to target general and particular risks through design, resourcing, mitigation activities, monitoring and evaluation of risk-minimisation impacts.

1.1.4 Safety activities

A safety state or concept involves individuals and organisations taking appropriate measures to deal with identified and unidentified risk situations, to prevent harm and maintain life and health status. Over the last 20 years, a strong international agenda focussed on patient safety, which is recognition of the need to address issues of patient adverse events and unsafe care and treatment environments. Patient safety focuses on negating and minimising errors and adverse events for patients throughout their health care (Waterson, 2014). There is increased complexity in health care delivery in organisations, owing to adoption of technology research outcomes, workforce education, knowledge management and community expectations. This complexity has created changes in risk profiles and increased needs around the management of organisations, particularly for risk activities.

Within health care, it has become important to engage patients and consumers in specific and global safety activities for insight, experience and involvement . Consumer knowledge and vigilance in relation to health risk and safety for their own personal welfare and support, as well as to maximise safety practices in organisations, appear to be key components of current and future strategies (Australian Commission on Safety and Quaity in Health Care, 2010; World Health Organization, 2013).

1.1.5 Overlap of quality, risk and safety

Optimally, quality, risk and safety need to be accepted and managed as a strategic continuum (Figure 1). The objective of establishing an integrated framework is to avoid fragmenting the component of this continuum, to engage with and understand interrelated parts of problems or harm events, and to form a comprehensive set of problem-solving responses.

There is considerable overlap between the functions and processes of quality, risk and safety (Runciman et al., 2006). Quality focuses on achieving successful, positive outcomes in patient care. This is achieved, in part, by identifying, understanding and managing risk. Patient safety represents the key overlap between quality and risk management (Figure 1).

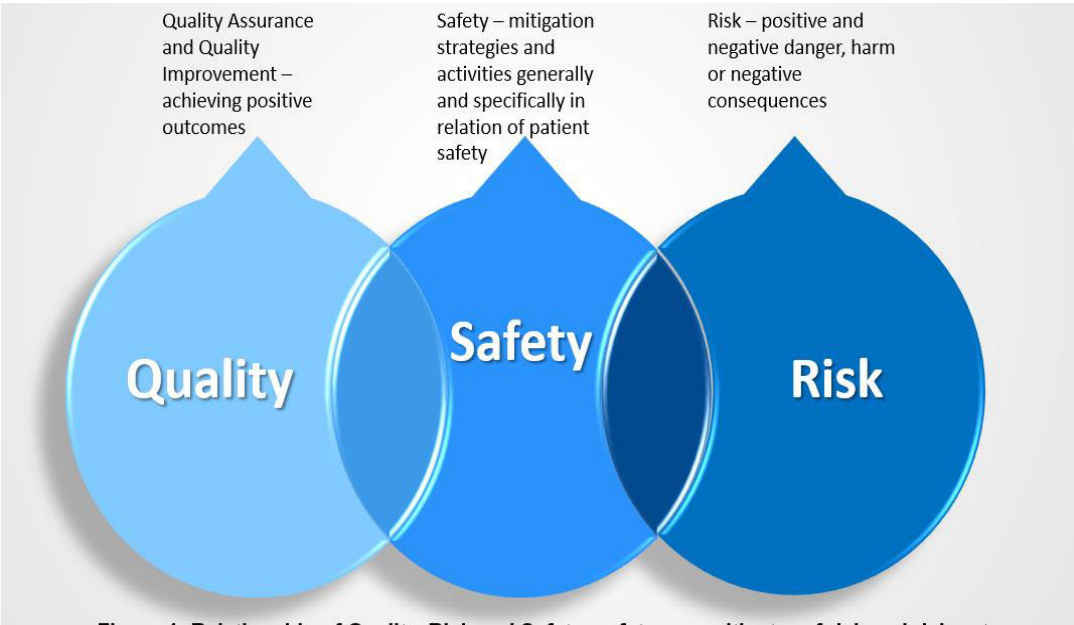

Figure 1: Relationship of Quality, Risk and Safety: safety as a mitigator of risk and risk outcomes

(Source: Author ~ Avery, M.J.)

The quality–safety–risk continuum needs to be supported by an appropriate management process construct. This construct must provide policies and procedures; leadership and management; and program/project monitoring, analysis and evaluation.

Different countries have different approaches for the promulgation and support of this quality–safety–risk continuum. In Australia, the National Safety and Quality Health Service Standards provide for the identification and action of each continuum elements, and also the integration of the continuum through component parts found in different sections of the published Standards (Australian Commission on Safety and Quaity in Health Care, 2017a).

1.2 Development of the quality movement and agenda

To achieve consistent, high levels of performance around quality and risk, systematic quality management practices and performance are required. Leaders and managers are responsible for knowledge management resulting in appropriate, proportionate application of strategies and systems to achieve positive, effective outcomes within this domain. Those involved in the governance of health organisations take on the responsibility of ensuring contemporary, effective quality and risk management (Longest & Darr, 2014).

Quality and risk management has been developing over decades within healthcare systems throughout the world. This continuing development is a work in progress with multiple drivers, including identification of key issues within health care delivery in healthcare systems, research, and stronger reliance on evidence-based decision making (Australian Commission on Safety and Quality in Health Care, 2019). Quality activities and impact have evolved from particular clinical and technology developments such as Louis Pasteur's development of pasteurisation and Wilhelm Rontgen's discovery of x-rays. Both of these advances provided significant healthcare and social gains, and as such changed the quality, risk and safety associated with use of these developments. Specific statistical and quality control foci testing which questions the inputs, processes, outputs and outcomes of health-related service delivery is an example of direct contribution impact on the emergence of quality assurance and improvement activities.

1.2.1 Emergence of quality assurance and quality improvement in health care

Systematic and structured quality, risk and safety activities and engagement programs have emerged over the last 100 years (Figure 2). The application of structured, scientific approaches and methods relating to quality in health care have emerged from clinical, business, health education and health economics. The work of Avedis Donabedian (2005) in the 1960s provided the emerging quality management agenda of the conceptual framework that examined processes and outcomes relating to health care (Ayanian & Markel, 2016).

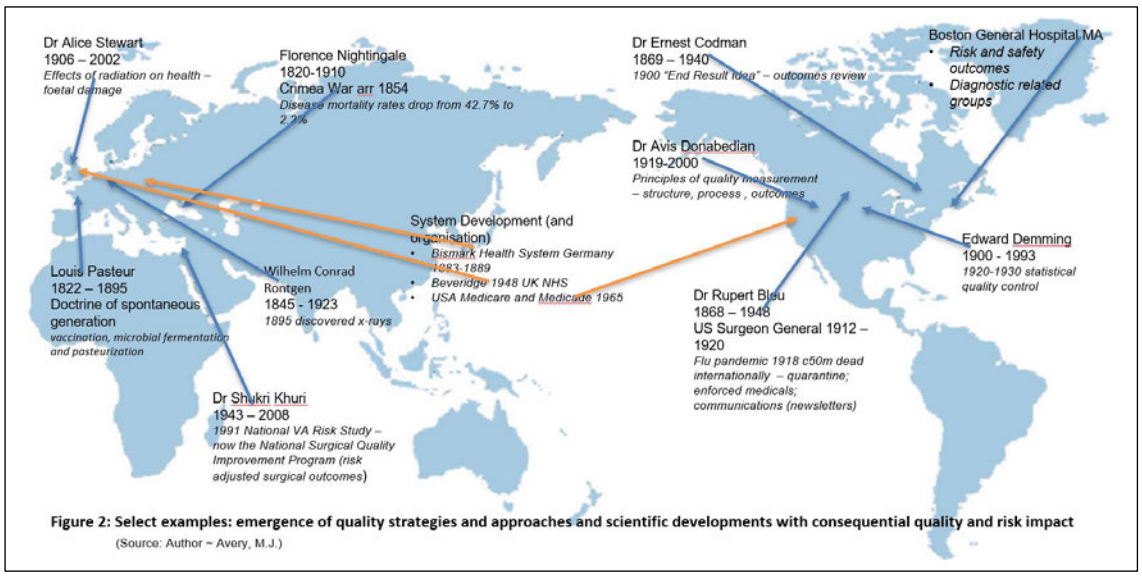

Figure 2: Select examples: emergence of quality strategies and approaches and scientific developments with consequential quality and risk impact

(Source: Author ~ Avery, M.J.)

Those quality management systems emerging from and being applied in the industrial or manufacturing sector influenced the development and emergence of quality management in healthcare services. The research, work and application models of Walter Shewhart (Plan-Do-Study-Act (PDSA) cycle), W. Edwards Deming (statistical process control) and Joseph Juran (planning, control and improvement) were translated into application for clinical and nonclinical healthcare operations (Deming, 1986; Juran & Gryna, 1988; Shewhart & Deming, 1940).

Healthcare organisations and practitioners have adopted a range of purpose-designed quality management tools and activities. Moreover, these stakeholders have modified or adopted approaches to enable quality and risk review and management in specialist settings.

1.2.2 Patient-safety movement

In the early part of the 21st century, a series of critical health delivery systems' failures and the publication of seminal reports on patient-centred quality care,, motivated the patient-safety movement. This collective agenda, with major objectives around improving patient safety and which combines and builds on the collective knowledge, experience and partnership of individuals, healthcare providers and other agencies involved direct or indirect patient, client or consumer health care.

Internationally, throughout the 1990s a body of evidence emerged on the identification and response strategy development for adverse events and iatrogenic healthcare delivery injury. Building on this knowledge and responding to the size and complexity of the issues on ensuring patient safety, an international agenda was established at a series of interventional and learning activities . Three key publications are generally attributed to the World Health Organization and other partners, establishing what has become known as the patient-safety movement: *To err is human: building a safer health system* (Institute of Medicine America, 2000); *An organisation with memory* (Donaldson, 2002); and *Crossing the quality chasm: a new health system for the 21st century* (Institute of Medicine America, 2001). These became critical review and benchmark reports which: highlighted the size and complexity of the number of adverse events in healthcare organisations; placed quality risk and safety as critical health policy national and international issues; and established a needs-based agenda for many patient care processes and procedures, in order to improve healthcare outcomes. An international agenda on patient safety ensued and under the aegis of the *World Health Organization* a *World Alliance for Patient Safet*y was launched in 2004 (World Health Organization, 2004). Internationally, countries have developed and engaged in aspects of safety that impact on patients. Infection control, medication safety, blood and blood-product safety are examples of this ongoing agenda.

Over the past 20 years, the patient-safety movement has provided a strong and uniform international dialogue that demonstrates systemic change and improvement of outcomes related to patient care (Illingworth, 2015). However, adverse events continue, with recent publications highlighting international incidence rates at 10–14% for patient hospitalisations (Haukland, Mevik, von Plessen, Nieder, & Vonen, 2019; Makary & Daniel, 2016; Rafter et al., 2015).

1.2.3 Error and adverse events

The reporting of accident, injury, iatrogenic injury, incidents and near misses in any health system is important. Such reporting contributes to identification of problems and concerns, and also, through gathering and reporting of this information, to a strong understanding of the quality and risk landscape (Liukka et al., 2020; Vincent, 2003).

Adverse events are incidents that, if they did occur, could result in harm to a patient or consumer. This includes a 'near-miss' situation (Australian Commission on Safety and Quaity in Health Care, 2017b). Medical errors involve situations in medical practice whereby either omission or commission errors occur that impact on patients. Not all medical errors are adverse events and not all adverse events are medical errors (Garrouste-Orgeas et al., 2012; Runciman, 2006). An important subset of adverse events are those described as sentinel events, which are incidents that were wholly preventable and have caused serious harm to a patient (Australian Commission on Safety and Quaity in Health Care, 2020). The key issue here is identification of circumstances where remediation and safety actions can improve practice and operations and mitigate recurrence of identified risks.

During the 1990s, several important studies of adverse events were completed. These provided learning in their own right, and also added to the understanding of important initiatives such as the urgency to engage them and the patient-safety movement . A seminal research project was 'The Quality in Australian Health Care Study' (Wilson et al., 1995). Earlier adverse event research focusing on the review and audit of patient medical records utilised preselected criteria to determine adverse events. These audit methods were further augmented with the establishment of the 'IHI Global Trigger Tool Measuring Adverse Events' (Classen, Lloyd, Provost, Griffin, & Resar, 2008).

Despite significant, sustained quality and safety actions in the delivery of patient care and services, adverse events in patient care continue to represent 10–14% of hospital inpatient episodes of care (Deilkås et al., 2017; Mayor S, 2017; Schwendimann, Blatter, Dhaini, Simon, & Ausserhofer, 2018)

1.2.4 Regulatory continuum and accreditation programs

Regulation is a set of rules and requirements endorsed by government where there is an expectation of compliance (Australian Government, 2014). Regulatory framework programs can incorporate different systems and protocols related to differing compliance attainment requirements. In most health systems throughout the world, it is usual to find: licensing and registration of healthcare

professionals; licensing of health facilities and technology; control and reporting on health systems and high-risk situations; and compliance to promulgated standards. The regulatory continuum can also enable or support self-regulation by individuals , organisations or entities.

Within the regulatory continuum, benefits and opportunities at a macro level can have a limited effect on local initiatives and adjustments for the provision of a comprehensive regulatory program (Leistikow & Bal, 2020; Øyri & Wiig, 2019).

A key part of healthcare regulation internationally is the use of accreditation. This involves a program of review of performance and compliance against a set of agreed standards, demonstrated through independent external peer assessment. The value of accreditation processes varies between different service types and delivery settings; however, there is reported research and experience stipulating that this structure-program approach to quality care is of value (Braithwaite et al., 2010; Griffith, 2018; Mansour, Boyd, & Walshe, 2020; Shaw et al., 2014).

1.3 Integration of quality, risk and safety

Health facilities across the world develop, adapt and adopt appropriate, proportional strategic frameworks and plans commensurate with their operations, levels of risk and complexity of services. A key approach in such planning and implementation is the integration of quality, risk and safety, and its incorporation into the wider strategic and operational planning for the organisation.

Figure 3: Quality, Risk and Safety: as an integrated response to organisation's goals and objectives and delivered in the context of organisation-wide strategic and operational planning

(Source: Author ~ Avery, M.J.)

1.3.1 Service level quality and risk strategy

Patient care service delivery organisations, irrespective of their size, role or function, require an integrated policy, risk and safety strategy (Figure 3). Within an overall quality plan or strategy, health facilities can structure assurance and improvement activities that provide for assessment, monitoring and review of the quality of care (Figure 4).

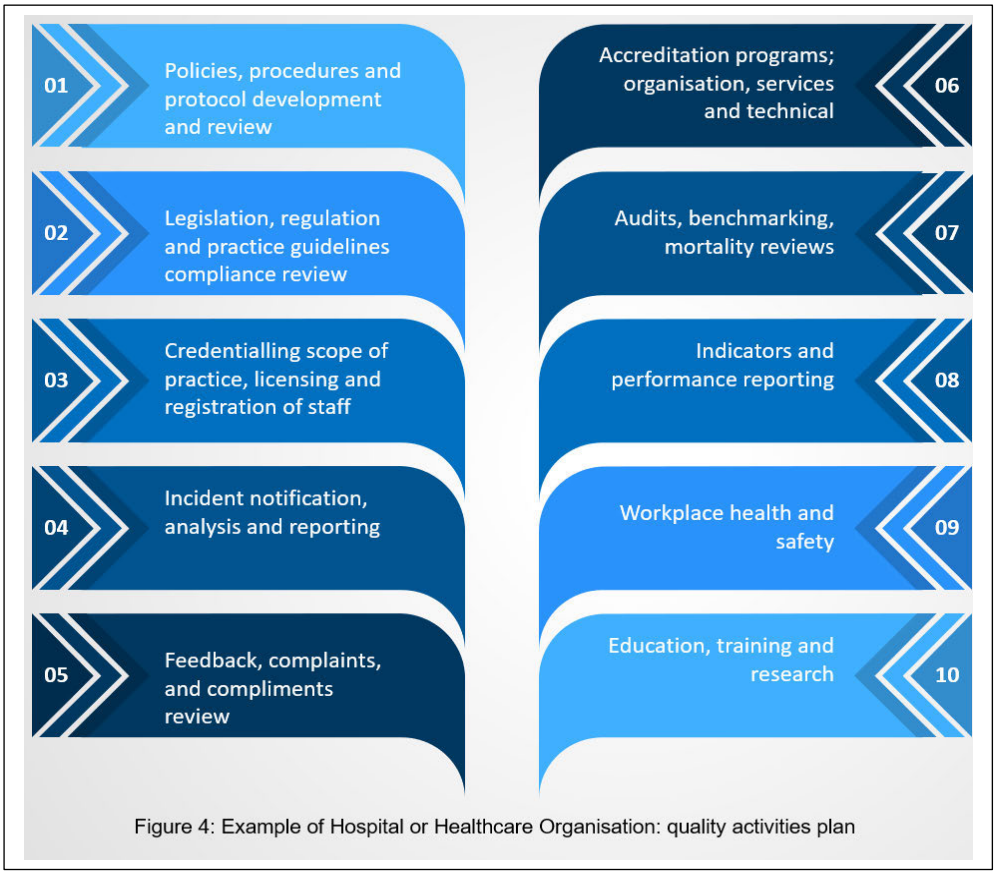

Figure 4: Example of Hospital or Healthcare Organisation: quality activities plan

1.3.2 System-level strategy and co-ordination

The development of a systemic approach to analysis and understanding of health service delivery policies and the quality of service and care outcomes is a critical part of any healthcare system, irrespective of their ownership and control. The determination of goals and objectives for quality relate to the types of service delivery and how issues of access and equity will be enabled (World Health Organization, 2006).

1.4 Stakeholders in quality and risk for patient care and service delivery

In this research, the experiences, views and suggestions of critical stakeholders in acute-care health delivery have been a critically important source of contemporary information. Consumers and patients are fundamental to the purpose and responsibility of health care, with consumers seen as potential patients and patients as first-hand consumers. Clinical and nonclinical healthcare workers have direct and indirect impacts on the quality and effectiveness of services and care. Those involved in governance, leadership and management have particular responsibilities in enabling high-quality service delivery.

1.4.1 Consumers and patients

There was a focus in this research on consumer engagement with quality and risk issues in their selection and use of health services. The term consumer includes those who are currently using or have used healthcare services, and potential patients or those who make choices about the use of healthcare services. Consumers play critical roles , either as recipients or as those who individually or collectively have—or should have—a strong voice in the planning, delivery and standards of care and services.

Concerning the delivery of patient-focused health care that also accommodates consumers' expectations of services, consumers demand more in respect to safe, relevant, personalised and affordable health care.

The concept of partnering between health-service providers and consumers is an important one. Available evidence demonstrates that where this partnership and engagement exists, healthcare outcomes can be achieved with high quality and safe results (Australian Commission on Safety and Quality in Health Care, 2011; Crawford et al., 2002).

1.4.2 Healthcare workers

Critical to the success of healthcare services delivery, and quality of care in particular, are the issues of skill, competency and commitment of healthcare staff. This applies to staff working in clinical roles as well as those in nonclinical positions. The relationship between healthcare staff and their facilities and organisations is important. Positive and supportive settings create strong engagement and collaboration, which will lead to the delivery of better health care (The King's Fund, 2015).

Researchers have noted that outcomes such as low mortality rates and valued patient experiences relate to an engaged and valued health workforce (The King's Fund, 2014). Health organisations, as complex care-delivery constructs, require committed, experienced leaders and managers to create the optimal working environment, thus supporting individuals and groups within them. In line with the necessity for strong engagement with personnel, involvement of staff in the development, change and review of how care is delivered provides an opportunity to improve these processes.

In this research, information about the barriers and enablers for staff to actively contribute to the management and development of quality and risk processes is important in understanding the delivery of safe, effective care.

1.4.3 Governance: leadership and management

There are several different models of healthcare-organisation governance across the world. This governance requires a holistic approach to key fiduciary and corporate functions in the context of health care. In this research, the focus was on how healthcare governing boards approach quality, risk and safety in the context of balancing competing internal and external influences and demands.

Effective governance is central to optimising health sector performance and stronger international experience in research undertakings related to the specialist role of healthcare-organisation governance (Fryatt, Bennett, & Soucat, 2017). Effectiveness by boards regarding a focus on quality and risk and strong communication of developed strategy and compliance expectations have been identified as important, facilitating reflexivity or review at the governance level (Brown, 2020). A health organisation's governing body has responsibility for delivery of safe quality care and boards need to engage authentically and fully with key stakeholder including consumers, clinicians and managers, internal and external to their organisations for strong corporate and clinical governance systems. In Australia, a comprehensive framework is promulgated nationally to facilitate effective governance, leadership, clinical performance and effectiveness (Australian Commission on Safety and Quality in Health Care (ACSQHC), 2017b).

Healthcare boards can differ in how they deal with quality and risk; however, integral to governance impact and success: are the engagement and utilisation enablers related to education and experience of board directors; focused attempts to establish and monitor strategic quality and safety plans; and strong connections and bonds between clinicians and non-clinicians in their organisations (Baker, Denis, Pomey, & MacIntosh-Murray, 2010).

1.5 Enhancing and integrating impact of quality management: conceptual model of study

In this research project, the quality, risk and safety domain has been identified as a critical contributor to high-quality patient care. Integrated approaches to quality assurance and improvement alongside risk identification and management, and implementation of effective safety responses to mitigate risk are required as an important continuum within the strategic and operational goal setting and planning of health organisations. The quality and risk domain has a number of attributes that can be tailored to the specific role and complexity of health facilities.

Engagement with consumers provides both a patient-centred approach to care delivery and, also, in health planning, review and decision making, the opportunity to achieve high-quality care outcomes from teams and organisations.

A fundamental enabler of high-quality care delivery is the health workforce. Supporting and engaging with clinical and nonclinical staff members to facilitate their professional and personal growth and support mechanisms is a primary responsibility of strong, effective leadership.

Governance, leadership and management are critical enabling factors in health organisations. There is limited research on governance and leadership for organisations in the healthcare domain.

This research sought to examine experiences and contributions across the critical acute-care stakeholder groups of consumers, health workforce, and healthcare organisations and governance. Figure 5 sets out these actors within a construct for specific research projects aimed at discovering contemporary barriers and enablers in providing high-quality care in the context of risk mitigation through appropriate and proportionate safety initiatives and responses.

Figure 5: Key Stakeholders: in the delivery, receipt and influence of health care
(Source: Author ~ Avery, M.J.)

1.6 Research questions and research projects

This research has been developed to examine quality and risk in acute health care delivery from the perspective of key stakeholders. To achieve this, an overarching research question has been developed:

Q: What are the important experiences and requirements that stakeholders in acute health care articulate in respect to the delivery of high-quality care and management of risk?

Four specific research projects were undertaken and these were framed around four sub-questions:

- *Q1: How do health consumers understand and interpret quality in health care and, as ascertained by surveying consumers, what information do they require in making decisions regarding choices in health services and care delivery?*
- *Q2: What aspects of work in the workplace do health workforce staff members believe are important in ensuring quality patient care and service delivery?*
- *Q3: How do successful organisations and facilities approach the development and use of systems and processes to deliver high-quality care?*
- *Q4: What are the appropriate governance activities that health boards utilise to ensure effective quality and risk activities in their organisations?*

1.7 Presentation and Layout of this Exegesis

In this research, four individual studies were undertaken and articles summarising findings and outcomes were submitted to peer-reviewed journals for prospective publication. This exegesis is

structured on the presentation of findings from those four projects, placing them in the context of the wider research initiative and describing the correlation of findings and potential impact on practice. The exegesis is presented as follows:

Part 1: Setting the Boundaries
- Chapter 1. Introduction and Background
- Chapter 2. Research Methods Used in This Study

Part 2: Operationalising the Conceptual Model
- Chapter 3. Healthcare consumers: information requirements and engaging in quality and safety
- Chapter 4. Leadership enablers for quality patient outcomes in healthcare organisations
- Chapter 5. Leading and managing for impact in quality and risk outcomes: demonstrated success through strategy, performance review, each management and supported teams
- Chapter 6. Health boards' governance of quality and risk: quality improvement agenda for the board

Part 3: Synthesis of the Conceptual Model from Theory
- Chapter 7. Integration of quality and risk management the 'Healthcare Integrated Quality and Risk Model'
- Chapter 8. Conclusion and contributions from this research

1.8 Conclusion

This chapter presented an outline of the quality, risk and safety domain including some of the historical development of its key parts and components. This research is focused on issues related to quality and risk management in acute health care.

The main actors in the acute care sector are consumers and patients; members of the healthcare workforce; organisations and facilities that provide the delivery vehicle for patient care; and those involved in the governance of health facilities. This research project has examined findings from issues and experience relating to quality and risk as reported by representatives of these groups.

Research questions have been developed to frame the kind of research undertaken and its setting or context.

A clear outline of the format and presentation of research findings in this exegesis has been provided.

Chapter 2. Research Methods Used in this Study

By 2025…..Risk of unintended harm will be rare, quickly identified, and successfully mitigated. But this transformation can only be achieved when healthcare delivery is recognized as being composed of complex systems, the characteristics of complex systems are understood, and systems thinking guides change. Paul Schyve (Henriksen et al., 2008 p.13)

In connection with the understanding of previous and contemporary application of quality and risk management strategies and activities in hospital and health services, and the multilayered overview of successful attributes and responsibilities in the quality domain by key stakeholders, a grounding in research theory and appropriate research methods has been used to gather data for this project.

Four discrete research projects are incorporated into this thesis where the aim was to ascertain important elements and actions of key stakeholder groups and organisations in relation to quality and risk and to propose ways of engaging on those specific interaction points to enhance the impact of management of quality and risk for healthcare outcomes. These four studies identified important interaction points where consumers, health workers, health organisations and those that govern them identify critical impact at improving quality and risk management. This research then provides a strategy for an integration of action by these key stakeholder activities to enable efficient and concentrated influence on delivery of high quality care and services and mitigation of risk.

This research project involves examining the approaches and successes of consumers, healthcare personnel, health organisations and those in governance with respect to facilitating high-quality patient care outcomes. To achieve the relevant information gathering and understanding, this project has been grounded in critical realism. This theoretical perspective sees reality as a layered ontology and strives to explore and understand the causative mechanisms of what has been experienced and observed. Given the complexity of health care and its organisations, knowledge and understanding from the healthcare paradigms are filtered through a constructionist epistemology interpretive lens (Walsh & Evans, 2014).

2.1 Critical realism

Critical realism, as an identified philosophy of science, provides a consistent research approach that goes beyond cultural and moral relativism to generate new insights into problems and situations (O'Mahoney & Vincent, 2018). The origin of critical realism is attributed to Roy Bhaskar (1978, 1979) in response to a number of long-held dilemmas within the philosophy of science. Its philosophy has

been refined and focused within health services and for research in organisations and management through realist evaluation (Greenhalgh et al., 2009; McEvoy & Richards, 2006; Pawson & Tilley, 1997). Its approach criticises positivism, or any approach that confines itself to data, as this can limit concepts of reality to what can be known, empirically creating problems as the interpretivist commits materiality that is being constructed by human knowledge and discourse (Archer, Bhaskar, Collier, Lawson, & Norrie, 2013). Critical realism sets out that a real social world exists, and that this world is able to be studied, accessed and understood. The philosophy identifies that some knowledge can reflect reality more accurately than other aspects or constructs of knowledge (Ackroyd, 2004; Fletcher, 2017).

2.1.1 Critical realism ontology - concepts and categories

The basis of critical realism ontology is seen as comprising four main concepts (Wynn & Williams, 2012):

Firstly, independent reality describes that the world exists independently of an ability to perceive or gather knowledge about it. Two dimensions of reality are seen to exist, an intransitive dimension involving reality itself; and a transitive dimension where our knowledge of reality is under continual revision and interpretation (Bhaskar, 1978; Hartwig, 2015; Wynn & Williams, 2012). Here, theories, ideas and beliefs of transitive reality are considered ontologically real but are distinct from the entities to which those thoughts and objects relate. For example, a 'patient' is a real entity but there is also our perceptual and conceptual understanding of a 'patient'. The two versions of reality can be distinct and are capable of operating independently of one another.

Secondly, stratified ontology provides structures to the concept of independent reality involving three levels of the real world: real, actual and empirical. The real world is encompassing and inherent causal powers can exist independently. The actual world comprises events that happen when these entities and structures are motivated by causal powers; actual events may or may not be perceived by the observer. The empirical level of the real world is experienced and observed, and is found as a subset of reality within the actual, which in turn resides as a subset within the real world (Bhaskar, 1978; Fleetwood, 2014).

Thirdly, emergence sets out that structures and entities possess novel properties, characteristics and tendencies, which are unique or distinct and cannot be summarised or explained only in reference to their component parts. Emergence is a key premise of the critical realism ontology (Bhaskar, 1978).

Lastly, reality is seen as an open system where it is concerned with contextual considerations outside of direct control, and events and actions are influenced by causal powers and mechanisms inherent to structural entities, which are changing and evolving irrespective of any study. Open systems are in contrast to closed systems, which are fabricated by natural sciences in controlled laboratory experiments (Bhaskar, 1978).

2.1.2 Critical realism epistemology - knowledge theory

Critical realism epistemology contains key principles of mediated knowledge: explanation rather than prediction; explanation via mechanism; observability of mechanisms; and multiple possible explanations (Wynn & Williams, 2012).

Mediated knowledge uses the ontological concept of intransitive and transitive reality to establish itself as the real or intransitive. This has been formed by us in an experienced or transitive dimension, will be mediated to some extent by social structures and research disciplines, with knowledge influenced by our own social interactions, beliefs, sensors conceptualisation and value interpretations (Wynn & Williams, 2012).

Explanation has many components within critical realism, that involve goals and objectives to bring about a particular event within a context that demonstrates causes of particular phenomena. This is in contrast to the positivist view that seeks to predict outcomes of future events. Moreover, this is distinctive from the interpretivist view that seeks to understand social and cultural meanings associated with an event (Bhaskar, 1979; Fleetwood, 2014).

Critical realism enables explanation through the identification of mechanisms that emerge from aspects of physical and social structures in the context of enabling, stimulus or releasing conditions. Therefore, events are explained and understood by examining the combination and impact of action, structure and context. This means that researchers may need to identify causal criteria rather than to directly observe perceptual criteria (Bhaskar, 1978; Wynn & Williams, 2012)

The explanation of critical realism proffers that multiple possible explanations for an event exist, given that results can be attributed to a number of structural mechanisms, requiring researchers to utilise judgement in discerning potential competing theories. This is achieved through comparison,

utilising exclamatory power, in various theories as they are contained within the transitive dimension of reality (Bhaskar, 1979).

2.1.3 Critical realism axiology: value and valuation

Axiological concepts of critical realism underpin the realist view.

Firstly, critical realism utilises a pragmatic approach to the understanding and concept of knowledge. It enables understanding and value to be passed as a conceptual idea, so as to be able to solve problems and have demonstrability (Hartwig, 2015).

Secondly, a fundamental basis of critical realism has been the provision of opportunity or process to avoid community constraint by social structures. It articulates discernment of knowledge with a degree of freedom beyond social control through facilitating critical review of underpinning structures and mechanisms in events and situations (Hartwig, 2015).

Critical realism approaches provide an important theoretical dimension to this research, enabling any obstruction to objectivist, subjectivist and mixed-method dichotomies. In fact, they provide a bridge for research approaches. Critical realism enables the use of a critical lens to study and generate knowledge (Walsh & Evans, 2014) in relation to quality, risk and safety.

2.2 Research study methods

Four specific research projects were undertaken to address the research questions relating to quality and risk in hospital and health services. These projects are reported in the journal papers submitted, as set out in Chapters 3, 4, 5 and 6 of this thesis. Different methods of data collection (quantitative and qualitative) were utilised for the four projects. This methodological architecture was promulgated in line with the overall critical realism research theory.

2.2.1 Healthcare consumers study (Chapter 3)

The health consumers study was undertaken by inviting participants to complete a survey on the sources of information they use for particular healthcare services and issues. The 15 question survey used in this study was developed by using the majority of a similar instrument previously developed and tested by this study's author (Avery, 2003). Five questions were newly developed about

consumer understanding of quality care and services and integrated into the final survey used. Dependability of the revised survey instrument was evaluated by a panel of health professionals prior to use in the national telephone survey.

The respondents were also asked for their perceptions of quality of health services and how they perceive and evaluate quality in health. The survey (Appendix 1) design utilised open-ended questions that enabled participants to express responses. Questions covered two key aspects of information gathering. The first related to information sources utilised by respondents in respect to particular healthcare goods and services. The second related to how respondents perceived quality in the delivery of healthcare services and what information they required currently and, in the future, to help assess quality care. For this study, only the details on consumer evaluation of quality and requirements for information about quality and risk were utilised. Data received from respondents was subsequently coded to support conventional content analysis.

Computerised Assisted Telephone Interviewing (CATI) was used to administer the 15-question survey instrument.

The CATI (Kelly, 2008) method provides an efficient and accurate surveying and is capable of gathering and cataloguing edge numbers of responses on simple and complex questions. An independent telephone marketing company with experience in gathering research data was employed to deliver the questionnaire across Australia. Inclusion criteria aimed to obtain a sound cross-section of respondents from across the country, with demographic features as close as possible to the current national age, sex and postcode distribution.

Telephone interviewing is an established, viable, methodological data-collection technique in qualitative research (Boland, Sweeney, Scallan, Harrington, & Staines, 2006; Sweet, 2014). Recommendations (Farooq & De Villiers, 2017) for techniques to enhance the use of CATI in order to gain strong results were incorporated into the questionnaire design and study implementation. These included: development and testing of an interview script; validation of questions through previous use and pilot testing; and the engagement of trained and experienced interviewers in research and marketing call centre work.

Invitations to participate in the national telephone survey were made by random calling of residents across Australia who were listed in the public access telephone directories. The final 200 completed telephone surveys came from a cross section of participants in terms of aged groups and state or territory residential addresses that are consistent with the demographic population distribution with the exemption that participants in the age groups 45 to 84 who participated w ere over representative of the population age groups in the population.. Table 2 (Chapter 3) sets out comparison of age and state/territory location of respondents compared to the data from the Australian Bureau of Statistics.

A total of 200 fully completed telephone questionnaires were received from respondents across all states and territories in Australia. Data were coded and grouped, and subsequent conventional content analysis was undertaken on the processed dataset. Conventional content analysis is an approach for systematically and objectively identify messaging characteristics. The conventional approach allows for the labelling of information to flow from the data rather than searching for categories of information (Hsieh & Shannon, 2005; K. A. Neuendorf, 2017).

2.2.2 Leadership enablers from healthcare personnel Survey (Chapter 4)

The healthcare personnel survey used secondary data from a previously completed survey research project undertaken in a complex public (government) health service in Australia. The earlier research involved the delivery of two questionnaires—each two years apart—regarding culture, change and work-life experiences. In the second, staff survey questions regarding quality management and patient safety were included. The second questionnaire instrument and associated dataset was used in this research project. This project's purpose was to understand any identified significant correlations between 17 key areas concerning links with quality of patient care and quality assurance procedures and systems in the healthcare organisation. The survey is located at Appendix 2. The opportunity to participate in the original survey was advertised to over 3,000 employees covering all work groups and role types across the multi facility health service through the organisation's intranet, electronic newsletters and staff forum announcements.

In addition to the previously validated questions used in the original study that provided data for this study, questions on quality management and patient care quality were included in the survey. The survey instrument is found at Appendix 2. The questions on quality were tested for dependability with a panel of health professionals so as to validate their use before inclusion in the survey instrument.

Correlational analysis was utilised in this study including calculation of the Pearson correlation metric. In this thesis correlation analysis means the relationship between two variables identified in the secondary data so as to discover the positive association between those variables. Pearson calculates a product moment correlation for two continuous random variables (Coussement, Demoulin & Charry, 2011).

Secondary data from a processed dataset relating to 161 staff from different professional groups was analysed using SPSS (IBM Corporation, 2019) software to identify correlations between quality patient care, quality management and 13 work and professional engagement constructs. Questions utilised for the 13 work-related groups were sourced from previously validated and published research survey reports (Beehr, 1976; Beugre & Baron, 2001; Kenaszchuk, Reeves, Nicholas, & Zwarenstein, 2010; Vogus & Sutcliffe, 2007).

Rating data were analysed to identify significant correlations between employment and workplace satisfaction issues compared to staff member perceptions relating to quality of patient care and quality assurance.

2.2.3 Leading and managing quality in healthcare organisations (Chapter 5)

For this study, qualitative thematic analysis on accreditation survey reports was provided by member organisations of The Australian Council on Healthcare Standards (ACHS). For hospital and healthcare organisations that had attained the highest ('Outstanding Achievement' - OA) rating against criteria performance standards, reports relating to 31 accreditation surveys undertaken in 2004–2010 were meticulously analysed to ascertain the key leadership, management and systems approaches behind these high-performing health organisations.

The 31 accreditation survey reports that were used to extract data for this study were provided by member organisations of ACHS. ACHS approached its member health organisations, on behalf of the researcher, for organisations that had achieved a OA rating in surveys reports in the period under study. In addition, healthcare organisation performance reviews for the health organisations included in the survey report analysis were analysed to measure sustained quality assurance and improvement during the 10+ years following the 2004–2010 accreditation survey reports. This assessment was undertaken through a review of the Agreed Performance Statements (APS) published by ACHS. APS provide a high-level overview of organisation performance, including

reference to strengths and weaknesses identified during the most recent accreditation survey. Only APS prepared by ACHS assessors were used in this study.

Data sources are 10 -15 years old but the preparation of these types of accreditation reports, with quality improvement recognition rating assessments, ended soon after this time. The use of these secondary data was particularly appropriate as only the components of the completed reports that were prepared by third-party accreditations assessors (as opposed to the health organisation themselves) were utilised.

This dataset was a credible information source about high-performing hospitals and health organisations. It described the attributes and ways of working that were deployed to achieve success in clinical, organisational and support activities within the facilities.

The researcher for this study undertook all data extraction and analysis of the 31 survey reports and the subsequent APS reports collect for this project. The data extracted from these reports demonstrated the aspirational and achievable levels of service organisation and delivery that were contained in ACHS's Evaluation and Quality Improvement Program (EQuIP) (Australian Council on Health Care Standards, 2006).

Thematic analysis was completed on the data contained in the independent assessor sections of the reports. In this thesis thematic analysis refers to the methods used to identify, analyse and report patterns of significance in the data extracted from survey reports (Braun & Clarke, 2012).

2.2.4 Board governance quality and risk (Chapter 6)

This study used a qualitative descriptive phenomenological method. Current hospital and healthcare organisation board directors in both the public (government) and private sectors were invited to complete a short questionnaire (Appendix 3) and also to participate in an interview. These ascertained contemporary views, approaches and actions related to stewardship, governance and leadership in health organisations for quality, risk and safety (preliminary interview questions are found at Appendix 4).

A spectrum coverage of governance across the ownership and coverage of health services across the country was important and so a participant recruitment plan was developed to ensure representation through invitation of public and private hospitals, primary and community health;

diagnostic services; and health professional's registration or licencing. Invitations were extended directly to some directors or through the board chairperson. Invitations were extended to 16 directors and interviews were completed with 12 directors and, over the course of these interviews, data saturation was achieved.

Open and closed questions were developed for this study (attached as Appendices 3 and 4 for this thesis). Board members interviewed completed both sets of questions either by completion of the closed question survey or in face to face or online interviews. Interviews were completed, on average, over a one hour period. Survey and interview questions were validated by asking a panel of healthcare board members and executives to review the dependability of the questions in accordance with the aims of this research. In addition, survey questions were assessed for effectiveness against published research literature in the same study domains (Bismark & Studdert, 2014; Bismark, Walter, & Studdert, 2013; Mannion, Freeman, Millar, & Davies, 2016). Board members were able to elect to receive copies of their for validation purposes and this was taken up by a small number of directors (n=2 of 12).

The ethnographic approach to this study enabled a comprehensive, in-depth look at the 12 board directors' behaviours, and specifically activities and actions taken by them individually and collectively as a governing board. For the purpose of this thesis, ethnographic approach means using a systematic approach to learning about the social and cultural life of an organisation or institution (LeCompte & Schensul, 2010). These behaviours, activities and actions relate to fiduciary, operational governance and leadership responsibilities necessary to deliver high-quality patient and client care and services. The ethnographic method enabled an immersion into cultural, operational, regulatory and other challenges faced by hospital health and service boards. The method is a valued, important approach to undertake studies in health and social care settings (Arnout, Abdel Rahman, Elprince, Abada, & Jasim, 2020). The qualitative research approach used in this study refers to the lived experience of current health-board directors (van Manen & Adams, 2010). These quantitative data from the activities and responsibilities survey completed by each director were summarised for analysis. Interviews were tape-recorded and professionally transcribed, providing verbatim data that was subsequently fanatically analysed.

2.3 Analysis of data

Thematic analysis has been an important methodological approach in this research project. In line with the theoretical grounding of this research in critical realism, the ability to identify and explore

at several levels in each study has been an important approach. In particular, this has assisted in understanding and discerning knowledge relating to the complex area of quality, risk and safety management in complex healthcare organisations.

Thematic analysis is a research method that enables identification, analysis and interpretation of meaning (themes) within qualitative data (Braun & Clarke, 2006). It can be applied across several research frameworks or theories. In this regard, it aligns with the critical realism philosophy of the research in this project.

In each of the sub study projects completed, content analysis (reported in Chapter 3) and thematic analysis (Chapters 4, 5 and 6) has been used to produce thorough and useful analyses . Conventional content analysis (Hsieh & Shannon, 2005; Kimberly A. Neuendorf, 2002) and Braun and Clarke's 'Six-phase approach to Thematic Analysis' (2012) has been used.

As part of the thematic analysis undertaken on the large report and transcription datasets relating to high-performing hospital and health organisations (reported in Chapter 5), and the study on governance and leadership in health organisations (reported in Chapter 6), a further analytical review was considered. For this, the previous manual coding and analysis was checked through the use of Leximancer (Leximancer, 2020) text-mining software. Leximancer enables the automatic coding of large qualitative datasets. This application has been validated in various research enquiries (Haynes et al., 2019). All accreditation reports and interview transcripts were processed via Leximancer, which provided useful validation of the manual thematic analysis. Therefore, Leximancer-generated data promoted the minimisation of researchers' bias in the manual generation of codes and themes. Previous research found that Leximancer is not a complete replacement for manual coding and thematic development, but it provides an efficient and relatively impartial correlation and check for completeness and data saturation to that of separate manual coding (Harwood, Gapp, & Stewart, 2015).

2.4 Research ethics clearances

Ethics clearance was obtained from Griffith University Human Research Ethics Committee for the four research projects that comprise this research. Data collections involved primary and secondary data use. Each journal publication included detail of the specific ethics clearance for each project reported that was set out in each publication.

The research project application name and HREC approval number at Griffith University are as follows:

- *Consumer's Information Sources and Quality Assessment on Health Care* GU HREC 2019/554
- *Culture, Transformation and Performance* GU HREC 2012/719
- *How and why healthcare communities produce service excellence* GU HREC 2011/144
- *Governance, Quality, Risk and Safety: approaches by Board Directors* GU HREC 2017/976

2.5 Conclusion

This research has identified a philosophical approach involving critical realism to set context and method in which to explore critical aspects related to quality, risk and safety in hospitals and healthcare organisations. This approach enabled gathering of information and understanding about different layers, issues and drivers of expectations, performance and promotion of high-quality patient care. Four projects were successfully completed that utilised different methods of primary and secondary data collection (questionnaires, surveys, interviews). Content and thematic analysis has been undertaken to derive an understanding of critical information to answer the research questions in this project.

Part 2: Operationalising the Conceptual Model

Chapter 3. Healthcare consumers: information requirements and engaging in quality and safety

STATEMENT OF CONTRIBUTION TO CO-AUTHORED PUBLISHED PAPER

This chapter includes a co-authored paper. The details of this manuscript which has been submitted for publication of the co-authored paper, including all authors, are:

Avery, M., Cripps, A.W., & Rogers, G. (2020). Assessing quality of healthcare delivery when making choices: national survey on health consumers' decision making practices. Published *by the Asia Pacific Journal of Health Management*.

My contribution to the paper involved:
the development of the concept or research idea; collection or provision of the data; initial analysis and categorisation of the data into a usable format; analysis of results; the writing of the paper; and as the submitting and corresponding author with the journal.

(Signed) [redacted] _____ (Date)__01/02/2021_____
Mark Avery

(Countersigned) [redacted] _____ (Date) __01/02/2021_____
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[redacted]

(Countersigned) _____ (Date) __01/02/2021_____
Supervisor: Professor Allan W Cripps AO FAHMS

Assessing quality of healthcare delivery when making choices: national survey on health consumers' decision making practices

Abstract

Objective: Choices and quality decisions made by consumers in relation to their healthcare have been associated with personal experience of those services, interpersonal engagement and reliance on third-party information, as well as the subsequent satisfaction with the service. The purpose of this research was to understand current information sources, determinants of quality discernment and decision-making factors by consumers in the Australian community in relation to healthcare.

Method: Conventional content analysis research was undertaken in the form of a national telephone survey of 200 consumers. Open-ended questions were used to elicit information from the general community.

Results: Reputation and other key interpersonal and structural elements are utilised in determining quality of healthcare services as well as in deployment as key factors in decision-making regarding use of healthcare services. While most respondents valued and used key information about provider relationships, outcomes performance and performance rankings, up to 20% of respondents did not know or could not identify ways in which they would assess and evaluate the quality of healthcare services.

Conclusion: This research identifies that consumers use a range of information and advice relating to experience, interpersonal engagement and information from third-party sources. If healthcare providers develop clearer communications around their technical, procedural and conduct principles, consumers will be in a better position to evaluate reputation and make decisions about their healthcare needs and the health system.

Key words: consumers; consumer engagement; quality; safety; reputation; information needs; sense making

Introduction

Australia is recognised for, and prides itself on, delivering high quality care, however, when asked, the Australian community has little guidance on how to assess quality when making healthcare choices. This research provides insight to the way Australian consumers gather and use information about health service quality and safety and what they want in the future.

Delivering effective quality care is a fundamental goal in providing healthcare services. Quality is a relatively abstract term and can be difficult to define (1-3). Key considerations of the concept of quality must include how customers or consumers see value and how they express their attitude towards individuals and organisations offering goods and services.

Consumer sovereignty in the health sector is a particularly complex construct (4) in reviewing how consumers will make decisions about care and services for themselves and for the family unit. These decisions involve how to deal with consuming limited resources and how selection or purchasing decisions are made (5).

Information asymmetry (an imbalance in information) is a particularly important aspect of information gathering, selection and decision-making regarding the engagement and use of healthcare services and facilities (6). Healthcare systems in most countries are major undertakings and the complexity of those systems creates information asymmetry for consumers.

Health consumers (patients, clients, residents and the general community) have a landscape of options and issues available to support decision-making in relation to acquiring healthcare and health system support (7, 8). Key issues of experience, satisfaction and general expectations facilitate personal understanding and the building of a repertoire of individual and wider experiences (9). Health, aged care and social care are specifically focused on individual and interpersonal relationships (10). Engagement between consumers and clinicians forms an important relationship and therefore platform, on which to base assessment of choice for subsequent and prospective engagement with clinicians and

practitioners. Consumers are aware of several third-party agents and agencies in the health sector (government, insurers, regulators and manufacturers) and take cues and have reliance on that group to inform and safeguard healthcare economics (11). Health consumers operate on important assumptions that there are adequate safeguards, regulations and controls in place that will manage and ensure standards of care and performance in the health sector.

Access to public health system performance reporting is a critical aspect of the trust and understanding of health systems for consumers. Over time, changes in technology (communications), health literacy, rights and entitlements, as well as changes in the complexity of health service systems and delivery, means that the consumer's information sources, decision-making processes and knowledge expectations also change (12).

In 2010, the Australian Government established the *MyHospitals* website (13) to provide comprehensive and consistent performance data on Australian public and private hospitals. The goal of the *MyHospitals* facility has been to provide an authoritative source of information delivered in a transparent way (a similar Australian Government platform – *myagedcare* – exists in relation to the aged care sector). A key objective aligns to the issues of accountability by the Australian health sector (hospitals) to the consumer and community generally. This facility is but one public performance reporting outlet available to Australian consumers. Others include state/territory government reported quality and safety information (7).

A key aspect of consumers' understanding, interpreting and valuing information refers to experience of the use of health services and health systems by individuals, families and friends. Information gained through experience is a critical part of sense making (14, 15) and contributes to knowledge and understanding by consumers subsequently informing their choices and decisions. Positive experiences represent an understanding and evaluation of good care and services (16).

A critical construct in understanding needs and development opportunities for consumers' choice and decision-making objectives and success is to have a contemporary understanding

of consumers' perceptions, needs and approaches to an understanding of quality health services. Similarly, current knowledge on where health consumers gather and gain information on the importance and priorities they place on variables in decision-making becomes critically important. It is crucial to improvement of the quality and safety of healthcare service outcomes that we deepen and broaden the voice and involvement of health consumers. Consumer knowledge, experience and expectations concerning the quality and safety of services require deeper skills on how to assess and articulate their requirements.

The purpose of this research was to understand current information sources, determinants of quality discernment and decision-making factors by consumers in the Australian community in relation to healthcare. This provides a benchmark on current understanding to inform an improvement and development agenda.

Methods

A content analysis of transcripts from a national telephone interview survey was undertaken. A structured survey was developed to elicit information from the general community on sources of information, factors affecting quality assurance determination, indicators deployed in decision-making about obtaining services, as well as a general perception of the overall safety of the healthcare system (Table 1). Open ended questions were used to seek information from survey participants about the information sources they use for health related matters and in how they assess quality of care and services.

Computer Assisted Telephone Interviewing (CATI) provided the opportunity to administer a 15-question survey instrument in the Australian community to 200 participants aged 18 years and older. CATI (17) provides an efficient and accurate qualitative surveying method enabling wide coverage for responses from across the country by collecting responses, views and experiences from interviewees when the interviewer follows a survey script of open ended questions (Table 1). Telephone interviewing has been established as a methodologically viable and valuable data collection technique in qualitative research (18).

A series of strategies to enhance the use of CATI were developed and deployed including development of an interview script, validated questions that were previously piloted and engagement of experienced interviewers in a research and marketing call centre (19).

For the purpose of this study, questions relating to quality assessment and information seeking were analysed. In the delivery of this survey, community members were invited to provide several responses to questions about current and suggested information and information sources relating to the healthcare system. Survey questions used are found in Table 1. First and second responses were obtained by asking all respondents to provide their main response and then the question was repeated to obtain any subsequent or second responses. Responses to these open-ended questions were grouped and summarised to provide themes and issues regarding use, experience and access to information on the healthcare system, health practitioners and health organisation providers. The survey respondent sample was similar to the population distribution by state/territory in Australia and age distribution was similar for the Australian population except the 25-34 age groups was under represented and the 65-74 and 75-84 age groups overrepresented to the Australian population (Table 2).

How do you measure the quality of healthcare services (such as provided by doctors; hospital; community clinics et cetera)?
What things are important to you when you choose a doctor, hospital or community health service to receive care and treatment from?
What would you want to do to have a say or voice in quality assurance or improvement in healthcare services provided?
What information about the quality and safety of the health care system do you want to receive and how do you want that provided to you?
Do you think the healthcare system (doctors, hospitals, clinics) are safe and how do you decide that?
Do you know about the "MyHospitals" website provided by the Australian government? (www.myhospitals.gov.au) and if you have used the website then - What information did you look up on the 'MyHospitals' website When was the last time you looked up information on the 'MyHospitals' website?

Table 1: Telephone Surevy Interview Questions - Quality and Information

Conventional content analysis of the data was undertaken (20, 21) to determine any themes or patterns across the data set obtained from the telephone interviews. A series of codes were generated by the researcher to classify and categorise respondents' responses to questions. Themes have been presented with frequency tables to provide information on the evidence provided from respondents in this national survey.

Ethics approval, in line with National Health and Medical Research Council standards, was received from an appropriate Australian university Human Research Ethics Committee (HREC 2019/554).

Results

This national survey returned 200 completed telephone surveys that were analysed by the CATI survey system, SPSS software (22) and the researcher. Table 2 sets out the distribution for respondents which demonstrates representation from across all age groups, by sex and residence across all states and territories in the country. Respondents were female (58.0%) and male (42.0%); representative of Australian age cohorts aged 18 years and older; and located in all states and territories in the country. Respondents highest completed education achievements were Year 10 (24%); Year 12 (14.5%); degree (32.5%); postgraduate degree (11.5%); and 4.5% had incomplete vocational and university studies.

Percentage of Respondents Surveyed and Australian Population					
	Survey Respondents (n=200)			Survey Group	Australian Population†
Year Group	Male	Female	Total	%	%
18-24	3	8	11	5.5	9.4
25 – 34	9	7	16	8.0	15.0
35 – 44	14	18	32	16.0	13.3
45 – 54	14	24	38	19.0	12.7
55 – 64	16	19	35	17.5	11.6
65 – 74	16	24	40	20.0	9.0
75 – 84	12	10	22	11.0	4.9
85 and over	0	6	6	3.0	2.0
	84	116	200	100.0	100.0

† ABS Estimated Australian resident population at 30 June 2019 (31010do002_201912)

Percentage of Respondents Surveyed and Australian Populations		
State	Survey Group	Australian Population†
	%	%
ACT	1.5	1.7
NT	1.0	1.0
NSW	33.0	31.9
Qld	24.5	20.1
SA	5.0	6.9
Tas	2.0	2.1
Vic	23.5	26.0
WA	9.5	10.3
	100.0	100.0

Table 2: Survey Respondents: age, sex and national distribution

Relationship and Relationship Building with Care Provider

Respondents identified several key measures to do with the importance of relationship building when they assess quality of healthcare services (Table 3). For example, one respondent highlighted the need for *"Interest and relationship with you".* Another reported on expectations as *"If it feels like they're asking the right questions and they're being thorough".* This was supported by another respondent who commented*: "Rapport, believing you're being heard, knowing there's concern about your position"*.

Clearly, relationship building, good rapport and thoroughness are important characteristics when making healthcare delivery decisions.

For the first responses to the question on use of quality measures, 9.0% of respondents did not know or were unable to identify a quality measure. Almost one third of respondents (30.0%; n=60) reported the reputation of a service provider as the most significant measure of quality of healthcare services. This was followed by respondents identifying and assessing respect and interest shown by service providers and a referring doctor's recommendation and advice (19.0%; n=38 and 13.5%; n=27, respectively) as the next most important measures of quality.

Respondent's Measures of Quality of Healthcare Services					Factors Important to Respondents in Choosing Doctors, Hospital and Community Health Services for Care and Treatment				
	First Response		Second Response			First Response		Second Response	
	n	%	*n*	%		*n*	%	*n*	%
Reputation	60	30.0	29	14.5	Reputation	48	24.0	28	14.0
Respect and Interest in Me	38	19.0	20	10.0	Qualifications/Accreditation	27	13.5	32	16.0
Doctor's Referral/Advice	27	13.5	27	13.5	Location	26	13.0	29	14.5
Waiting Times	14	7.0	21	10.5	Waiting Times	22	11.0	10	5.0
Experience and Approach	12	6.0	8	4.0	Communication/Explanation Abilities	14	7.0	5	2.5
Treatment Outcomes	6	3.0	4	2.0	Approachability/Attitude	14	7.0	16	8.0
Safety Reports	4	2.0	3	1.5	Listening/Understanding Capabilities	10	5.0	6	3.0
					Knowledge/Treatment Capability	10	5.0	4	2.0
					Service Outcomes/Experiences	4	2.0	1	0.5
Other NEC[#]	21	10.5	14	7.0	Other NEC[#]	17	8.5	12	6.0
Don't Know/None Identified	18	9.0	74	37.0	Don't Know/None Identified	8	4.0	57	28.5
	200	100.0	200	100.0		200	100.0	200	100.0

[#] NEC - not elsewhere classified

Table 3: Measures of System and Service Quality and Important Attributes When Choosing Doctors, Hospitals and Community Health Services for Care and Treatment

Reputation, Communications and Interpersonal Relationships

Reputation was also identified as the most important factor when choosing a health service provider. The next most significant criteria utilised for selecting a care provider varied from the overall measures used in quality assessment; individuals highlighted qualifications and service provider accreditation (13.5%; n=27), proximity or location (13.0%; n=26) and access waiting times (11.0%; n=22) as reasons for choosing service providers. Only a small percentage of respondents (4.0%; n=8) were unable to identify a possible reason for selecting service providers. Communications was highlighted as an important factor is choosing and accessing care as well as in considering previous service experiences. One respondent set out the importance of advanced communication skills: *"How thorough they are in answering my questions".* One respondent spoke of engagement as *"Interest and relationship with you"* and another reiterated this citing: *"Interest in me, the relationship they build".*

Beliefs, understanding or opinions (reputation) appear important for most survey respondents in assessing quality and effectiveness of healthcare practitioners and providers, as well as being key determining factors in choosing particular health services for individual care. Respondents formed these opinions and established reputation thoughts by gathering

different information. One survey respondent stated: *"A lot of the times the references from other people that have used the same service".* Another respondent stated they looked at published materials and combined that with further follow up: *"Look for reviews online and see if there is anyone I knew and ask for their input".*

Respondents noted previous personal experiences, as well as the experiences of others, influenced their choice of healthcare practitioner. Choosing service providers also involves pragmatic decision-making factors such as waiting times and location (travel distance). Lower frequency assessment criteria (Table 3 as Other Not Elsewhere Classified (NEC)) included issues of identified efficiency, costs, reported complaints and practitioner gender. Respondent actions in combining information and advice was exhibited by one survey respondent reporting on their information gathering as: *"From their knowledge and qualifications".*

Consultation and Involvement in Healthcare Delivery Development

Survey respondents were questioned about their desire and requirements to be consulted on quality assurance and improvement aspects of the delivery of healthcare services. Table 4 highlights that for almost half of those interviewed (40.0%; n=80), the opportunity to respond to surveys, and evaluation tools and instruments was considered an important way to communicate their views and opinions. Almost 20% of respondents (n=39) articulated their interest and capacity to communicate directly by email or correspondence to individuals and organisations concerning their views on quality issues in healthcare. A relatively high proportion of respondents (18.5%; n=37) did not know or identify a view or position about how they would want to have a voice on quality agenda matters. In relation to the identification of the types and methods of information delivery to respondents (Table 4), the key measures requested were the availability of ratings or rankings on practitioners' and providers' relationships with patients as well as performance data such as infection, injury and complaint rates. Information about performance and outcomes by way of measures of access and service performance were seen as very important by respondents. For availability and provision of information on quality and safety, a relatively high proportion of respondents (22.5%; n=45) did not know or were unable to identify quality performance information sources. A spectrum of specific information topics including

hygiene and cleanliness, financial accountability, administrative procedures and additional information on existing third-party websites were also identified within Table 4 (as Other Not Elsewhere Classified (NEC)).

Respondent's Wants on Say or Voice About Quality Assurance or Improvement in Healthcare Services Provided	First		Second	
	n	%	*n*	%
Respond to survey/evaluation	80	40.0	14	7.0
Communicate via email/letter	39	19.5	8	4.0
Verbal contact to Service Provider	12	6.0	0	
Write Internet Review	8	4.0	14	7.0
Other NEC	24	12.0	10	5.0
Don't Know/None Identified	37	18.5	154	77.0
	200	100.0	200	100.0

Respondents Requests for Information on Quality and Safety on the Health Care System	First		Second	
	n	%	*n*	%
Ratings on doctor/care provider patient relationships	31	15.5	18	9.0
Performance (e.g. infection, injury, complaints rates)	28	14.0	14	7.0
Effectiveness care/treatment organisation/co-ordination	19	9.5	17	8.5
Rankings of health personnel and facilities	18	9.0	12	6.0
Safety Ratings on Service Providers	11	5.5	13	6.5
Waiting Times	11	5.5	10	5.0
Other NEC	37	18.5	6	3.0
Don't Know/None Identified	45	22.5	110	55.0
	200	100.0	200	100.0

Table 4: Opportunities Identified for Say or Voice on Quality Assurance and Improvement and Recommended Information Provision Types and Format

Sources of Information on Health Services

A series of open-ended questions incorporated into the telephone survey gathered information regarding respondents' primary source of information about health issues. In addition to the specific questions on quality and information seeking, 9 questions were asked about where respondents might seek information on obtaining specific services and health information or advice. Open-ended questions sought details of the main person or source of information used by consumers to find a doctor for care and treatment; information about prescription and non-prescription drugs; access to counselling services; information about health issues including smoking cessation and weight loss or gain; as well as care and treatment alternatives. An aggregation of responses to these questions showed information and access was obtained from doctors (31.3%), the internet (29.8%) and pharmacists (retail and hospital) (10.1%). A second level of information sources included friends and colleagues (3.3%), telephone helplines (1.9%) and family members (1.6%). Other identified sources, at lower levels of utilisation, included health professionals (doctors), hospital and healthcare agencies, professional health bodies, government and department agencies.

Survey respondents were asked about their utilisation of the *MyHospitals* website (13). Only a relatively small percentage of those surveyed (14.5%; n=29) reported awareness of this information source where 3.0% of respondents were unsure if they had heard of the website. For those respondents who reported use of the website (n=9) this was reported as mostly occurring within the previous month or more than one year ago. Respondents who used the website stated their main reason was to find local healthcare provider details for themselves or their family, or to obtain general information about hospital services and facilities. Respondents who indicated they had used the site for general information did not report use in relation to accessing performance information on quality, safety or care outcomes.

Health System Safety and Trust in Healthcare Delivery

Survey respondents were asked for their overall perception of the general safety of the Australian healthcare system relating to doctors, hospitals and clinics. The majority of responses were positive towards this question with one respondent highlighting both expectations and opportunity for choice: *"Thoroughness - if I go with something and I'm not completely happy I want further treatment* (elsewhere)" and another respondent setting out international comparative evaluation was their basis for determining that the Australian system was of quality: *"In comparing to other countries".*

Table 5 highlights that the majority of respondents (86.0%; n=172) believe the system is a safe one, justified through their own experiences with different services, elements and parts of the Australian healthcare system. Respondents assessed safety across input, environment, service type and again, international comparison: *"It is safe because of the amount of money put into it. Also, we don't have much else";* "*Depends on where you live – access to medical care"*; and a respondent said they would make international system comparisons *"Other countries compared to Australia".* One respondent reported overall in their survey responses but also included comment on their perception of quality in a particular sector or part of the care continuum with staffing levels and staff qualifications needing improvement in aged care: "*No – nursing homes and aged care facilities – in general, staffing levels and qualifications of staff".*

(a) Do you think the Healthcare System (doctors, hospitals, clinics) is safe?			
		n	%
	Yes	172	86.0
	No	14	7.0
	Unsure	14	7.0
		200	100.0
(b) What was the primary reason or experience that makes you think that?		***n***	**%**
Own Experience with Health Care System		157	78.5
Family Members Assessment		10	5.0
Friends and Colleagues Assessment		6	3.0
Media Reports		7	3.5
Government Reports/Publications		5	2.5
Compared to Overseas Healthcare Systems		3	1.5
Other Not Elsewhere Classified (NEC)		9	4.5
Don't Know/None Identified		3	1.5
		200	100.0

Table 5: Assessment of Overall Safety of the Australian Healthcare System and Principle Deciding Factor

Discussion

This research project was intended to provide an understanding on current information sources, quality discernment and decision-making factors by consumers in the Australian community in relation to healthcare services; to establish a benchmark on current understanding; and to contribute to improvement and development around consumers and quality and safety.

Results from this research highlighted similar responses to findings detailed in the literature(23-25). Respondents in this study highlighted the importance of clinician and patient (consumer) relationships, as well as the critical nature of communications to support decision-making when using health services and understanding quality and value issues (23). Information providers and gatekeepers of performance information are important to consumers and the impact of rapid access to information through the internet provides a vital source of communication and information sharing now and for the future (24). An important development area is in understanding and acknowledgement that the public, or healthcare consumers, is a significant and major audience for information. Public information provision (regarding items such as current quality, performance and rankings

information) is an avenue that requires particular strengthening and expansion for public consumption.(25).

Survey respondents demonstrated value and capacity in using different types and sources of information when making decisions about quality of services and access to care. Respondents reported that their experience, interpersonal engagement with care givers and third-party advice figure as important sources of information. These types of information and sources are important ways through which consumers discern both quality and performance related to service provision as well as in making direct or indirect choices about purchasing healthcare services. Consumers have capacity and appetite for information and will use it. The findings in this research provide important development areas concerning information supply including about ratings, rankings, reviews and the experience of others.

This research shows that respondents rely on the interpretations of individuals (health professionals, families and friends), the internet and a range of other information sources to build a picture and understanding of specific services and the health system generally. Respondents use discrete selection criteria (waiting times, location and interpersonal skills of practitioners) in their decision-making.

Determining quality

Several important themes were identified by respondents in relation to measuring the quality of healthcare services. Fundamentally, reputation is developed by providers demonstrating technical abilities, appropriateness and capacity for undertaking service delivery activities against the wider principles of proper behaviour and conduct.

It is unclear from these survey results how respondents assess reputation (Table 3). However, when considering the other explicit reported measures used in quality of service determination (interpersonal, access, care outcomes and safety assessments), the literature suggests that technical, procedural and moral elements are used (8, 23). Respondents reported on key elements and issues regarding their use of services and perception of the health system, with one respondent saying they *"Monitor the effects of their*

recommendations…testing what they tell you with other sources" and another survey response reporting on care provider experience *"Good people skills and knowledgeable enough to say when they don't know something".*

A broader set of determinants was identified by respondents when choosing doctors, hospitals and community healthcare. These included a breakdown of interprofessional engagement actions (communications and explanation capacity, approachability and attitude, listening and comprehension capabilities, as well as technical capability assessment). These findings are consistent with research reported in the literature (16).

Voice on quality and information

Respondents identified key mechanisms through which they would prefer to have opportunities for assessment and a voice regarding quality issues in relation to healthcare. Fundamentally, preferences were for responding to surveys and other evaluation or assessment instruments. This indicates that structured formats and approaches are preferred. Respondents identified their preferred mechanisms to provide feedback and assessment of healthcare quality issues. Approximately 20% of respondents indicated that they were prepared to communicate via email or written correspondence regarding their experiences and expectations.

In relation to the information required by consumers, 30% of respondents said that performance information, such as ratings of practitioner and provider performance regarding patient relationships and measurable outcomes would be valuable in their decision-making. The range of information requested covers interpersonal connections between healthcare providers and consumers, details of processes and outcomes of care and treatment, as well as access to care and waiting times. The strong preference for ratings and rankings may be indicative of consumers' desire for both information and comparison with expected performance standards. Previous research has identified need for descriptive performance information and interpretation of its meaning and value (7).

Listening and engaging

A key finding from this research has been the respondents' desire for communication and interpersonal connections between care providers and consumers. These are key measures used for assessing performance and value of care, as well as being instrumental to decisions to seek out health service provision. Respondents articulated the importance of communication skills and the professional provider/consumer relationship. Issues of interpersonal connectivity by consumers with their care providers is reported in other research but what was important from this study was the high prioritisation of communications and interpersonal connectivity in evaluating and choosing health services.

Limitation for this study

The sample size for this research was moderate but it was large enough (the study included respondents across all age groups and representation from each state and territory) to detect and identify key issues and themes regarding the behaviours, needs and wants of consumers in relation to healthcare quality and information.

Qualitative research is both context and time bound and these findings are not generalisable, but they may be transferable to different contexts in health service delivery.

Responder bias was mitigated in this study by using plain and simple language in the development of survey questions. Researcher bias has been mitigated through the use of independent telephone survey interviewers; a survey script that was validated by a panel; and the invitation to interviewees from a random national call list.

Further research

Reputation of service providers and organisations were identified as key evaluation and assessment factors for quality determination by respondents. Further research around key elements of processes associated with reputation and meaningfulness to consumers would be appropriate. This would assist to define and deepen understanding around the particular bridging factors in consumers' understanding and determination of quality of health service delivery. Comparative international studies would be useful in understanding different

community and cultural perspectives of health consumers. A longitudinal study on consumer expectations in relation to healthcare quality and safety would be valuable in relation to changes in consumer engagement with required and provided information.

Conclusion

Reputation of individual providers and organisations figured as being of high importance to consumers in this study. This provides significant opportunities for individuals and organisations to promote appropriate technical, procedural and moral reputations to health consumers. The purpose of this research was to understand current information sources, determinants of quality discernment and decision-making factors by consumers in the Australian community in relation to healthcare.

This research advances our understanding of how Australian consumers understand and view quality and the quality assessment of health services. Personal patient relationships, communications and other interpersonal connections are not only key measures by which quality is assessed but are also preferred sources when making decisions about healthcare providers.

Consumers value third-party interpretation and commentary. Performance indicators and rankings (and associated interpretation) continue to be used by consumers when decision-making in relation to healthcare.

Reputation of individual providers and organisations figured as being of high importance to consumers in this study. This provides significant opportunities for individuals and organisations to promote appropriate technical, procedural and moral reputations to health consumers. The purpose of this research was to understand current information sources, determinants of quality discernment and decision-making factors by consumers in the Australian community in relation to healthcare.

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Chapter 4. Leadership enablers for quality patient outcomes in healthcare organisations

STATEMENT OF CONTRIBUTION TO CO-AUTHORED PUBLISHED PAPER

This chapter includes a co-authored paper. The details of this manuscript which has been submitted for publication of the co-authored paper, including all authors, are:

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My contribution to the paper involved:
the development of the concept or research idea; collection or provision of the data; initial analysis and categorisation of the data into a usable format; analysis of results; the writing of the paper; and as the submitting and corresponding author with the journal.

(Signed) [redacted] (Date) 01/02/2021

Mark Avery

(Countersigned) [redacted] (Date) 01/02/2021

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Leadership enablers for quality patient outcomes in healthcare organisations

Abstract

Purpose – This paper investigates the relationships between staff members' commitments to the quality of patient care and quality assurance for high performance, on the one hand, and the value of ways of working and the work environment in a large acute care health organisation, on the other. The objective is for understanding of these correlations in healthcare organisations.

Methodology – 148 staff from different professional groups answered a questionnaire on organisational culture and performance at a time of organisational change. Correlation analysis was undertaken across 17 key question areas concerning work-identified links with quality of patient care and quality assurance procedures and systems.

Findings – Correlations were identified between work and workplace variables, and patient care and quality assurance. Results demonstrated relationships ($r = 0.416$ to $r=0.622$) between variables related to ways of working, management and teamwork and quality assurance and service improvement variables ($P < 0.001$).

Research limitations – The study relates to a relatively small sample of staff members and was conducted in a public healthcare organisation, but results augment other studies on the effectiveness of leadership in healthcare services.

Practical implication – This paper demonstrates how conduct and motivation in a healthcare organisation link with the processes to determine quality of patient care and quality assurance systems. It enables leaders and managers to reflect to support action to increase staff engagement and improve quality outcomes.

Originality – Findings show what staff members believe to be important support and how leaders and managers in healthcare enable engagement, action and contribution towards enhanced quality improvement activity.

Key words: leadership; healthcare; patient outcomes; quality assurance; quality improvement; work; staff satisfaction; reflexivity

Introduction

Quality, risk and safety are critical processes and outcomes in relation to healthcare delivery. Complex organisations and complexity of care are associated with elevated levels of operational and service delivery risk that are unique to the health sector (Vincent and Amalberti, 2016). This research provides important insight to inform leadership practices that enable ways of working in health organisations to maximise patient care and quality assurance.

The application of structured, scientific approaches and methods relating to quality in health care have emerged from clinical, business, health education and health economics. The work of Avedis Donabedian (Ayanian and Markel, 2016) in the 1960s provided the emerging quality management agenda of the conceptual framework that examined processes and outcomes relating to health care (Ayanian and Markel, 2016). Those quality management systems emerging from and being applied in the industrial or manufacturing sector influenced the development and emergence of quality management in healthcare services. Walter Shewhart (Plan-Do-Study-Act (PDSA) cycle), W. Edwards Deming (statistical process control) and Joseph Juran's (planning, control and improvement) research, work and application models were translated into application and use for both clinical and nonclinical healthcare operations (Deming, 1986, Juran and Gryna, 1988, Shewhart and Deming, 1940). Deming (Deming et al., 2013), in the latter part of his career, promulgated his 14 Points for Management as a call for effective leadership to enable new ways of working to put organisations at an advantage in terms of quality methods. An important point from this is that leaders need to create environments that encourage staff freedom and innovation thereby supporting continual improvement.

Prevention and mitigation of adverse events or harm are key areas of responsibility for leaders and managers across the full range of health delivery systems and services. In facets of health care delivery such as education, training and experience building; acquired injury or adverse events; errors; and technology and information, failures can occur through issues associated with complex biomedical and sociotechnical systems that inhere in health organisations (Rosen, 2018). Leadership by influential individuals, through agreement of common goals, is critical to developing and implementing quality assurance and improvement actions (Northouse, 2015).

Previous studies (Schmutz et al., 2019, Stanley, 2017, Rosen, 2018, Squires et al., 2010) have identified that leadership approaches, styles and engagement, through their impact on teams and organisational performance, affect quality attainment and improvement in healthcare organisations.

The enabling effects of leadership related to valuing and ensuring healthcare personnel are engaged through good staff management to achieve quality of care outcomes has been previously described (Berwick, 2013, Dixon-Woods et al., 2014). Staff need opportunities for reflective processes to deal with tensions in the organisation between quality and safety requirements, on the one hand, and financial and other operational priorities, on the other (Farr and Cressey, 2015). A critical facilitator in these engagements and processes around quality assurance priorities is authentic and effective communication involving all staff members (O'Donovan et al., 2019, Henker et al., 2018). Successful decentralised leadership enables these activities and processes and builds on or works with the cultural substrate or where key determination and decisions are made , of the organisations and teams to achieve continuous quality improvement (Mannion and Davies, 2018).

The role, function, complexities and inherent risks of any healthcare system make both the impact of quality and risk management and the application of effective leadership critical. This impact is about effectively managing health system quality and risk processes but with clear objectives for high performance in terms of healthcare delivery outcomes. Leadership responsibility in healthcare is unique and evidence demonstrates that the styles and approaches of leaders can have both positive and negative impact on individuals and teams in this environment. Clinicians and managers in health services are critical to quality assurance and improvement activities. Therefore, understanding the relationships between how clinicians and non-clinicians identify with key aspects of patient care, quality and risk management is a critical understanding for health care leaders so that they may develop, apply and modify leadership practice to maximise engagement in assurance and improvement aspects of quality, risk and safety.

Leadership for Health Organisations

Prior research has identified associations between the leadership process and improvement in quality and risk systems, as well as for outcomes in health services (Sarto and Veronesi, 2016, Shipton et al., 2008). Leadership in ambiguous situations and circumstances within complex organisations is a critical responsibility for health managers. Leaders operating from positions of power and with distributed leadership or an understanding about how leadership takes place in their organisation, within organisations make significant contributions to system engagement and outcomes of care.

The impact of leaders focusing on quality, risk and safety issues is important. Enhanced clinical performance and outcomes have been found to be associated with effective clinical process management (Castle and Decker, 2011, Squires et al., 2010). Staff engagement and support have been shown to improve care and patient safety (Keroack et al., 2007).

Different leadership styles have been found to be associated with quality care outcomes and shared leadership has the potential to affect identification of quality, risk and safety goals and agendas within organisations. Effective listening by leaders empowers health professionals in formal and informal settings, which enables the development and promulgation of a learning organisation and improves quality care performance outcomes.

Investment in social capital within health organisations has been shown (Stromgren et al., 2017) to develop trust, network coordination and collaboration mechanisms. The sustained development of social capital and human relations activities are critically important in the development of outcomes related to job satisfaction, staff engagement and teamwork performance (King, 2004). These, in turn, enable safe care and foster responsibility for the quality agenda on the part of healthcare staff (Rosen, 2018).

Management systems within health organisations contribute to the success of the important quality of care agenda. The development and value of these systems and processes are enabled by healthcare leaders and managers through facilitation, coordination and control. Aij et al. (2015) identified characteristics used in the management process associated with quality of care delivered in the hospital setting. Successful performance outcomes are achieved when managers support the development of learning environments for staff through self-discovery initiatives; engagement on corrective action or interventions when there are deviations from plans and strategies; staff development through strategic problem-solving and mentoring; and the use of information associated with decision-making.

The literature reports (Baker, 2011b, Robbins and Davidhizar, 2020, Keroack et al., 2007, Sarto and Veronesi, 2016) on several approaches to identification of, and capitalisation on, leadership and management process within health organisations. These consider leadership style, leadership traits and characteristics, the construct of key management and delivery system architecture, as well as facilitation of staff and other stakeholders towards the quality outcomes agenda. Leadership

engagement in health organisations enhances staff member understanding of the importance and significance of quality, risk and safety in relation to patient and client well-being and outcomes.

There is limited evidence on followership (Leung et al., 2018) in healthcare, including from the perspective of healthcare personnel concerning the optimal ways to lead, support and facilitate in the key areas relating to work and engagement that will enable enhanced impact and outcome for quality patient care.

Research on leadership in healthcare is fundamentally focused on leaders and characteristics, style and how they engage in organisations. Considering the critical nature of how followers engage with their leaders in the attainment of vision and objectives, then an enhanced and significant understanding of elements of engagement and support identified as important by staff are essential to the approach by leaders.

In terms of impact on sustained quality of patient care and mitigation of risk in the healthcare delivery environment, what is needed is a stronger connection between leaders who are able to maximise the enablement of clinicians and non-clinicians around systems, processes and the work environment to focus on outputs and the outcomes of patient care.

This paper investigates relationships between staff and organisational commitment to quality outcomes and impact for patient care and quality assurance, as identified by healthcare staff members in a large acute health organisation. It also examines the factors associated with leadership and staff member engagement in health services as identified by healthcare personnel. This work and findings provide important leadership action agenda items to enhance impact in health organisations for enhanced patient care.

Methods

This study is based on data collected from 161 completed surveys in an Australian public acute healthcare organisation that manages medium-sized public hospitals, subacute and non-acute health facilities, and multiple community and mental health facilities. Staff members employed to provide health services to a population across the associated urban geographical area volunteered to participate in the study.

The study was part of a larger project focused on aspects of culture and transformation in this organisation, which was at the time undergoing service and facility change.

The survey questionnaire contained work-life questions constructed and formatted using previously developed and validated survey questions (Kenaszchuk et al., 2010, Vogus and Sutcliffe, 2007, Beugre and Baron, 2001, Beehr, 1976). It included 161 satisfaction and opinion questions (measured using a 5-point Likert scale) covering 17 employment and work areas including job satisfaction, commitment and roles support, recognition, and individual and organisational values. Responses were also sought from staff members relating to perceptions of quality of patient care and quality assurance procedures and systems within the organisation. Demographic data were collected including role description, age, sex, length of service, employment contract type and highest educational level. The survey questionnaire was presented in both online and hard-copy formats. Irrespective of the format chosen, staff members were able to complete the survey questionnaire anonymously.

The opportunity to participate in the survey was advertised to over 3,000 employees covering all work groups and role types across the health service through the organisation's intranet, electronic newsletters and staff forum announcements.

Ethics approval was received from the healthcare organisation and the appropriate university Human Research Ethics Committee (HREC 2012/719) before data were collected and for subsequent secondary use of data from the initial survey.

De-identified survey data were aggregated, missing data cells and labelling errors adjusted. Statistical analysis was undertaken using SPSS (IBM Corporation, 2019) to identify associations between groups of work-life descriptors and staff member responses about quality of patient care and quality assurance procedures and systems within the organisation. Responses to survey questions were aggregated (on average there were 10 questions for each question group and average score were calculated for each question scale) into key quality and behavioural topic areas as follows:

- Standards of care goals; organisation engagement and reputation on patient care (value of care provided)
- Organisation culture on problem identification; learning organisation (learning and support to staff for creativity, innovation and risk taking)

- Reflexivity (cause and effect in belief structures)
- Innovation and flexibility; job satisfaction and support (indication and measures of staff contentedness with roles and work)
- Treatment of staff; rewards and recognition (improving staff member engagement)
- Workgroup interprofessional engagement and learning cultures (cultivate and expand intra and inter team working)

Respondent responses to the 161 satisfaction and opinion questions in the survey instrument were extracted into a spreadsheet summary document. Each topic group consisted of between 5 and 29 questions. Respondent ratings for each question were added together to create aggregated individual responses for each question group. These aggregated group ratings were analysed to discover significant correlations between the employment and workplace satisfaction issues, on the one hand and responses relating to perceptions of quality of patient care and quality assurance, on the other. For the key variables identified, several measures from research literature, relating to aspects of how people work, were utilised and these included measures about reflexivity or cause and effect review, innovation and flexibility (National Research Council (Italy), 2015); job satisfaction (Beehr, 1976); support and decision-making (Spreitzer, 1995); being treated fairly (Baker et al., 2006); rewards and recognition (Parker et al., 1997); and workgroups and patient care (Vogus and Sutcliffe, 2007). This approach to this study has meant that validated data collection questions on specific aspects of factors that impact how people work have been used in understanding what is important to healthcare workers.

Data from the questionnaires relating to the key variables were correlated against survey questions relating to staff members perception of achievement of high standards of patient care and their understanding, commitment and the culture of quality assurance in the organisation. The objective was to identify aspects of engagement on work in a health setting with quality outcomes. Analysis was undertaken in the SPSS (IBM Corporation, 2019) software for all completed survey responses.

Pearson's correlation analysis was completed to identify associations between groups of work-life descriptors contained within the overall survey and staff members' responses about quality of patient care and quality assurance procedures, and systems within the health service organisation.

Pearson coefficient was used to determine the levels of correlation between relationship variables concerning patient care and quality assurance engagement and high employment levels and

collaborative work arrangements. Statistical significance was determined to be achieved when the p value for a correlation was <0.05.

Due to the small sample size of the data, multivariate analysis (regression modelling) could not be used due to insufficient results. Bonferroni correction was completed to reduce the impact of multiple comparisons on the level of statistical significance. After these corrections, all the test results showed very strong correlations at p<0.001.

Results and leadership engagement

Completed surveys were received from 161 respondents. Respondent's employment classifications were clinical (doctors, nurses, allied health) 60.0%; professional and technical 3.7%; administrative 27.5%; and support staff (operational, trades and other) 8.8%. 78.2% were female and 21.8% were male. Full-time staff made up 63% of respondents and the remaining 17% were permanent part-time staff members. These demographic results were representative of the organisation.

Significant associations were identified between assessment of quality patient care and quality assurance, and eight key variables: the connection with reflexivity, innovation, job satisfaction, support and decision-making, being treated fairly, reward and recognition, and working in and between groups or teams (Table I). According to Cohen's guidelines (Cohen, 1988, pp. 79-81) for levels of correlation, small (r=0.10-0.29); medium (0.30-0.49); and large (0.50-1.0) correlations were established (with all correlations significant). The significant areas having high level correlation with achieving high patient standards in the organisation were reflexivity, innovation, job satisfaction (r=0.546-0.572, p values <0.001) and the remaining five areas are significantly correlated with the same quality scales at medium levels (r=0.427 – 0. 483, p<0.001). Similarly, areas having high levels of correlation with quality assurance for care and services reported by staff were reflexivity, innovation, job satisfaction (r=0.494-0.622, p values <0.001) and the remaining five areas were significantly correlated with the same quality scales at medium levels (r=0.416 – 0. 433, p<0.001).

Relationship between variables: patient care and quality assurance in hospital organisations compared to other significant variables reported by staff		Achieving high patient standards; quality of care is taken seriously; reputation and engagement on patient care important	Quality assurance increasing/entrenched around care and services; problem identification; culture and organisation learning identified
Reflexivity - organisation's ways of working, effective working and work modification	r = N =	0.572*** 148	0.622*** 147
Innovation and flexibility - new ways of working and identification of need for change	r = N =	0.555*** 147	0.578*** 146
Job satisfaction - supervisors, co-workers, advancement and achievement	r = N =	0.546*** 146	0.494*** 144
Support and decision-making - sensitivity to need, consultation and decision justification on work	r = N =	0.483*** 147	0.433*** 146
Treated fairly - recognition, reward and consistency	r = N =	0.465*** 146	0.450*** 144
Rewards and recognition - involved, engaged and evidence-based decisions	r = N =	0.444*** 143	0.484*** 142
My workgroup and others - professional, co-operative and disagreement management	r = N =	0.427*** 137	0.471*** 133
My workgroup and patient care - inter-dependence on skill and ability, culture of learning	r = N =	0.431*** 142	0.416*** 139
	r Pearson Correlation	***$P<0.001$ after Bonferroni adjustment was made to $\alpha=0.00625$	

Table 1 Associations between quality of patient care and quality assurance with higher reflexitivity, innovation at work, job statisfation, decision-making, recognition and team work

The results for the eight employment and work variables identified were classified into three subgroups determined by their strength of association with the quality and patient care questions. The strongest correlations identified related to responses about reflexivity and innovation. Here, respondents evaluated the capacity of the organisation's staff members to work together and how responsive the organisational objectives were to changes in care delivery or operational circumstances. Moderately strong correlations were found with respondent's satisfaction with their job, workgroup and supervisors; consultation concerning task allocation and decision-making (including being aware of the landscape and justification for decision-making); and issues of fairness, recognition and acknowledgement, and reward. Results for the work environment itself and the staff

member's workgroup correlated directly with satisfaction with work-life balance, problem-solving ability and contributions made to the learning organisation.

Lower level correlations with quality patient care and quality assurance activities in the organisation were identified as they relate to employment and a staff member's role and responsibilities; the challenge of working in the organisation; and elements of commitment to peers, team members and the organisation. Low correlations were also identified in relation to issues of workplace well-being involving employee health and roles and tasks undertaken, as well as aspects of the value of roles. There were no correlations identified on how the value of roles in the organisation related to terms and conditions of employment and work hygiene factors.

For health service staff members who reported on the importance and value of quality, risk and safety issues to themselves, results showed they identified with observations about the way their organisation worked. Patient care, as well as the organisation's reputation regarding care; the organisation's approach, planning and learning around the quality agenda; issues of organisational management systems; recognition of work and contributions; and working in their own team and working in their own (and cross-departmental) teams were reported as significant issues for staff.

Discussion

This project has identified correlations between what staff members find to be important and where leadership engagement would further enhance high-performance impact on patient care and quality assurance. Its purpose was to provide healthcare leaders with information regarding the alignment of successful leadership practices leading for quality.

Organisational culture and aspects of the work environment, such as staff engagement and workload arrangements, facilitate the key agendas of patient care and quality assurance and improvement activities. This research has identified how healthcare organisations are structured and how work is undertaken and how that operating environment affects staff members wanting to achieve high levels of quality patient care. Equally important has been the identification of how healthcare organisations are able to change and respond in terms of work practices and the uptake of new ideas and approaches, as these too directly affect the work environment and quality care outcomes. These findings provide specific and focused information for healthcare leaders to positively support and enhance both the workplace to facilitate establishing and growing constructive workplace climate.

Enabling new ways of working

The quality agenda related to organisational reflexivity is closely aligned with the staff member's understanding of their own social context and the positive and negative experiences that shaped that understanding. Capacity in this regard is critically important at is informs clinical decision-making, quality improvement and contributes towards patient outcomes (Landy et al., 2016). Leaders and managers in a health organisation can engender different thinking and present different ways of addressing diverse perspectives on questioning the social and organisational reality of the health facility; ways that are focused on the primary task of regular patient discussions; and engaging the organisation and individual work teams for impact and achievement. Current research and practice highlights the need for leaders to be skilled and effective in change and reform management (Figueroa et al., 2019).

This study highlights the important requirement that healthcare staff have an expectation of their organisation facilitating new and effective ways of working. Healthcare personnel require the organisation to keep abreast of contemporary approaches that work in relation to how quality of care is achieved. The results from the study show that staff expect work modification toward approaches that are current to the changing demands of quality and safety activities. This highlights staff member's need for the organisation to be responsive in providing modified and new ways of working compared to the established view that leaders need to take responsibility for initiating and managing change and reform processes.

Staff members identified a strong relationship between the quality agenda and being part of an organisation that facilitates and enables new ideas and ways of working. Similarly, they saw the opportunity to work in a flexible environment, where there is facilitation of and support for the development of an organisational culture that supports responsiveness and opportunities, as being important. This study found that the promotion of a flexible and responsive organisation culture, where it relates to adopting and adapting to new situations and circumstances, as well as the development of innovations strategies, were important to staff as they related to patient care and quality performance. These findings are consistent with the current knowledge (Mannion and Davies, 2018) where substrate culture is seen as key to service quality and high levels of performance. Leaders need to support and facilitate cognitive activities and discourse on why and how quality and safety activities are critical to patient care outcomes. Therefore, leaders who can support the work environment to facilitate engagement and flexibility in promulgating work and

activities around quality and patient care will support the formation of work culture that is positive, useful and enables sustain results.

Enabling staff satisfaction

The opportunity for staff members to experience deep satisfaction within their role is important at several levels. These include personal; with their supervisors and managers; and in relation to the overall healthcare organisation and its performance. Staff value involvement and engagement in decision-making processes and need to see the reasoning behind and justification for decisions (Ham, 2014). Staff work better and have better patient care outcomes when they understand how and why decisions are made (Baker, 2011a). The findings of this study, where staff members expressed that they feel that they are valued, supported and involved are consistent with findings from prior research and discourse around job satisfaction and recognition in health care organisations (Dixon-Woods et al., 2014). The identification and articulation of quality assurance and improvement activities, as they relate to outcomes of care for patients, is a critical part of the health organisations' decision-making processes. Authentic engagement with staff members working towards improvements in quality patient care, to achieve shared decision-making, is a critical driver in not only the quality and risk management agenda but also in the enhancement of job satisfaction.

In this study, the opportunity for engagement in decision-making processes was identified as important in relation to patients and their outcomes of care. A contemporary awareness of career motivation in health provides a dynamic understanding of the importance of goals and goal pursuit, as well as seeing motivation as an active process. Motivation and influence are critical to engagement and outcomes (Kanfer et al., 2017). Extending the process for motivation in the health workplace as an active process is important as this enables staff to take charge of their own motivation to achieve fulfilment and critical outcomes relevant to the quality, risk and safety agenda. In this study, there was strong association between motivation processes for staff and the outcomes of patient care quality. Recognition and being involved were key issues identified by staff in this study and they are consistent with research in other sectors (Spreitzer, 1995). This is a two-way engagement and support process. Feedback and the articulation of needs and wants from followers about which behaviours and approaches are helpful to them and which are not (Mannion and Davies, 2018) are integral to leadership style use, as well as style development for leaders. Therefore, sustained recognition and involvement as part of the workplace culture and environment

is associated with quality patient care. In this regard, leaders need to engender valued participation and subsequent recognition of individuals and teams through meaningful ways and approaches.

Enabling the work group

Teams and workgroups are critical part of sustained improvement around the patient care journey. Respondents in this survey identified the importance of workgroups in relation to direct and indirect patient care and the need to use the unique skills of peers and colleagues to identify and solve problems. Similarly, the fit, acceptance and worth of teams and workgroups as part of the overall fabric of the organisation was identified as being important in terms of cooperation, extended skills, information sharing and advanced communication processes. These attributes offer important activities and responses to complex quality care issues. The ability to lead and facilitate work undertaken within and between teams has previously been identified as critical (O'Sullivan et al., 2015) as multidisciplinary teams contribute to quality and improvement of health and care outcomes. A contemporary enablement and facilitation of power, authority and control to support teamwork and into team engagement are critical to the quality agenda (Rosen, 2018, Sangaleti et al., 2017). Team objectives, elevated participation levels for staff and demonstrable commitment to innovation in the healthcare organisation are areas where leadership and management should focus support (West et al., 2003).

Leadership enabling quality and safety performance

Enabling engagement and performance for personnel within a complex health organisation provides for the critical connection to the quality, risk and safety agenda. In this study, staff have identified key pressure points around leadership approach; leadership and followership learning capacity; care and nurturing of individuals; as well as the need to enable strong teamwork. This study has highlighted the critical importance of groups working within, as well as the interdependence between groups working to attain common goals and organisation vision.

Leadership in the healthcare organisation provides a critical vehicle for the alignment of health professionals to the goals and agenda of the organisation around quality, risk and safety (Taylor et al., 2015). The development and enhancement of individuals across leader and follower roles is dynamic and requires continuous and progressive development. The requirements of healthcare staff identified in this study are consistent with what is reported in the literature (Figueroa et al.,

2019) that examines leadership engagement requirements at the meso level, relating to effective facilitation requirements around human resource challenges, organisational structures and staff members' roles and expectations.

The complexity of the role of the health organisation and its associated quality agenda highlight the need for understanding and encouragement of distributed, or an understanding about how leadership takes place in their organisation, leadership. Established and traditional leadership positions and positions of power require cooperative engagement on the leadership front to ensure depth and application of understanding, skills, motivation and commitment for outcomes of care and high-quality service. A key finding of this research, consistent with previous studies, is the success that results from genuine involvement of those who are willing to take on leadership role and responsibilities. This embedded or distributed leadership enactment provides for greater breadth and depth of impact across attainment of goals and objectives related to quality patient care.

Study limitations

There are two limitations in this study: firstly, there was a relatively small number of respondents; and secondly, the survey was conducted in a single multi-facility healthcare organisation. However, the study was undertaken in a large multi-hospital and health centre organisation, with data gathered from a representative sample of clinical and non-clinical personnel working in various parts of the service, which enables comprehensive evaluation that may be transferrable to other settings. The results based on bivariate correlation analysis is limited in determining independent association between each dependent variable (patient care and quality assurance in hospitals) and important characteristics of the hospital organisations reported by staff. Despite these limitations, this study has provided a detailed analysis of the associations between key work life attributes with staff members' interest in quality enhancement, which aligns with other leadership and social capital development studies and further contributes to the development agenda for healthcare organisations.

Further research

Research aimed at deeper understanding of the attributes and the work environment characteristics that the healthcare personnel related to high performing organisations and their quality of care

outcomes is indicated. Further, it would be valuable to investigate their applicability across other healthcare organisations so as to increase knowledge and confidence for leaders to capitalise on the insights provided by this study. Greater understanding of mechanisms to involve and value all healthcare personnel and the impact of inter- and intra-team working enabled through decentralised leadership is also important.

Conclusion

The complex nature of healthcare organisations means leaders need to operate and engage in environment where risk, workforce and stakeholder expectations are different to other industries or sectors. This study provides key findings linking reflexivity, innovation, the individual and their work environment in healthcare organisation settings. They support strong and effective engagement around an organisation's quality assurance and improvement agenda and the impact and outcomes of direct and indirect patient care. Providing strategies and work processes that enable individuals, teams and groups in the health organisation to operate effectively and efficiently requires strong and consistent leadership. Healthcare leaders supply a strong and transparent innovative agenda around patient care and quality improvement and support individuals and groups in enabling that vision to achieve superior (or high-quality) patient care outcomes. This conclusion is supported by the reported expectations, requirements and value that clinicians and non-clinicians see as critical in quality patient care outcomes to come from leaders and their leadership.

Listening to and supporting staff about changing ways of working to meet emerging challenges on quality and safety is critical. How health organisations work and change the way they work with respect to quality assurance and improvement has been identified as a critical engagement positive to build an organisation's culture.

Innovation involves novel ideas to have positive impact on quality of care through changing or creating new processes and ideas. Leaders need to support staff in these processes in order to enhance performance for quality and safety improvement. This study has demonstrated the importance of innovation and flexibility to staff members as they relate to achieving high standards of patient care.

There are opportunities to enable direct and indirect improvements, and positive outcomes in patient care and healthcare organisational delivery, by focusing on several of the leadership and

management activities that are part of any healthcare organisation. The positioning of the leadership process in the context of the mutual relationship with followership and the development of reflexivity understanding is an important direction. Those in senior leadership roles and those who practice distributed leadership act together to motivate and engage healthcare staff, ultimately facilitating team or group work that results in outcome improvement and enhancement in quality service delivery within these health organisations.

The biomedical and sociotechnical aspect of health service delivery can instigate a degree of ambiguity in the direction and agenda of any health organisation. This study has demonstrated that continuous creation of priorities and of agendas around the quality, risk and safety work requires ongoing renewal and development. Leadership in health organisations needs to be aimed at utilising the skill, capacity and interest of staff members in the context of learning organisations aimed at addressing working in complex work environments in organisations where there are high levels of risk.

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Chapter 5. Leading and managing for impact in quality and risk outcomes: demonstrated success through strategy, performance review, knowledge management and supported teams

STATEMENT OF CONTRIBUTION TO CO-AUTHORED PUBLISHED PAPER

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My contribution to the paper involved:
the development of the concept or research idea; collection or provision of the data; initial analysis and categorisation of the data into a usable format; analysis of results; the writing of the paper; and as the submitting and corresponding author with the journal.

(Signed) [redacted] (Date) 01/02/2021

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Leading and managing for impact in quality and risk outcomes: demonstrated success through strategy, performance review, knowledge management and supported teams.

Abstract

Objective To analyse features of high-performing hospital and health services that promote improved quality and reduced risk regarding patient care outcomes.

Method An inductive study was undertaken utilising qualitative thematic analysis of 2004–2010 accreditation survey reports for Australian hospitals and health services. In these reports, independent assessors identified instances of outstanding performance related to standards impacting quality and risk**.**

Results Data analysis demonstrated that high-performing organisations employed key approaches. Impactful methods were integrated strategic action; data-management platforms that enable continuous review of operations and positive patient care outcomes; enabling of evidence-based actions and learning through knowledge management; and credible, organisation-wide governance and leadership.

Conclusion This study provides insight into approaches that may enable high-level performance around healthcare quality and risk.

What is known about this topic? Hospitals and health services are complex organisations in which quality, risk and safety are critical areas. These areas require active engagement through governance and leadership.

What does this paper add? The operational success of high-performing healthcare organisations is promoted by four key approaches. These enable high-quality patient care outcomes.

What are the implications for practitioners? Demonstrated approaches for quality and risk improvement may be integrated into the operations of healthcare organisations to ensure delivery of high-quality patient care.

Keywords: governance; leadership; quality and risk; hospital and health services; strategy; performance review; teams.

Introduction

Hospitals and health services are complex organisations that operate in a high-risk service delivery context (1). Healthcare organisation governance is responsible for developing systems and processes that improve patient care outcomes.

Over several decades, hospitals and health services have developed, implemented and evaluated approaches designed to improve healthcare delivery. Despite these positive actions, some systems and processes remain at risk of adverse iatrogenic events. Internationally, adverse events, attributed to both preventable and non-preventable circumstances, comprise an estimated 10% of total hospital care instances (2-5). The prevalence of these adverse events may vary due to case-mix, resources and facility processes, and their impact on healthcare outcomes vary in severity (6, 7). During the last two decades, comprehensive activity metrics have been established in healthcare organisations in an attempt to mitigate situations of risk and harm. These activity metrics are overseen by government and non-government agencies and in regulatory programs. Australia, like many other countries, has established higher universal levels of patient care outcomes via comprehensive safety mechanisms that mitigate risk (8).

A critically important response to adverse hospital events is how systems for effective healthcare delivery are developed, implemented and supported. The operation and maintenance of high-performing healthcare organisations (HPHOs) is crucial. Clear definition of the approaches used by HPHOs is important to promote optimal patient care. HPHOs vary in the attributes that define them; however, facilities that commit to long-term incremental change and enhanced performance provide a powerful organisational vehicle in care delivery (9). HPHOs exhibit a culture of quality of care, strong leadership and management capacity, comprehensive information systems that enable detailed performance monitoring, and workforces committed to patient-centred care (10). These attributes are supported by a learning and knowledge framework, as well as teamwork and successful external collaboration.

Accreditation programs involve external measurement of performance regarding promulgated healthcare standards. Accreditation is an increasingly used tool to identify strengths and weaknesses in health service delivery (11). The value of accreditation varies between different service types or delivery settings (12-15). The use of accreditation by health services differs depending on the need to understand performance attributes, organisation growth and development, and quality assurance

and improvement programs. Accreditation programs provide a common approach for setting priorities and enable cross-sector, inter-organisation performance review and benchmarking. For healthcare organisation governance, accreditation provides a vehicle for vision and goal setting, and also enables review and performance improvement (16).

Healthcare organisation governance must continually ensure there are relevant, optimised systems and processes to manage risk and improve quality. This study was designed to identify key healthcare systems and processes adopted by facility management that deliver high-quality patient care.

Methods

This study used an inductive approach to interpret information contained in accreditation survey reports for Australian hospitals and health services (17). Thematic analysis was performed on information contained in these performance reports, which were prepared by independent healthcare assessors (previously known as surveyors). The reports referred to surveys carried out in Australia involving public and private sector (ownership) healthcare organisations.

The Australian Council on Healthcare Standards (ACHS) (18) was established in 1974 and provides a comprehensive national healthcare accreditation program. ACHS is internationally recognised as a not-for-profit organisation that assesses performance and promotes improvement in healthcare quality and safety. The accreditation survey reports used in this study relate to facilities that achieved an 'outstanding achievement' level of performance between 2004 and 2010 in one or more of the healthcare standard criteria. ACHS member organisations approved the use of their survey reports for the study. 2004–2010 reports represent a review of facilities for achievement ratings in system and service improvement at high levels of performance. In the subsequent decade, accreditation assessment instead focused on the reporting of facilities that met or attained the necessary levels of achievement set out in subsequent National Safety and Quality Health Service Standards (NSQHS) (19) documents. During the 2004–2010 period, the aspirational and achievable levels of service organisation and delivery were contained in ACHS's Evaluation and Quality Improvement Program (EQuIP) (20).

A five-level achievement or compliance rating format was used in these reports. The highest achievement rating is 'outstanding achievement' (OA). An OA rating denotes a healthcare organisation as a peer leader in systems and outcomes for the corresponding criterion. This study

focused on a sample of accreditation survey reports representing facilities that have achieved one or more OA rating. The main objective was to analyse the assessor's independent reflection and report on the approaches taken by the facility to achieve that high level of performance. Table 1 describes the EQuIP accreditation process architecture and the rating system.

EQuIP Framework Setting Out Requirements and Actions for Compliance Attainment	Criteria Rating Format		
	Rating	Abbreviation	Rating Level Achievement
Functions - present a group of standards	Little Achievement	LA	Basic requirements awareness and responsibilities
Standard - desired level of performance goal against which actual performance is measured	Some Achievement	SA	Systems developed and implemented
Criteria - goal component descriptors	Moderate Achievement	MA	Data collected, monitored and evaluation for assurance of improvement methods
Element - elements needed to be in place to achieve criterion	Extensive Achievement	EA	Benchmarking, research or strategies for excellent outcomes
Guidelines - principles that direct action/activity	**Outstanding Achievement**	**OA**	Organisation peer leader in systems and outcomes

Table 1: ACHS Evaluation and Quality Improvement Program (EQuIP) - Program Framework Structure and Criteria Attainment Rating Descriptions

ACHS assessors rate compliance and achievement attained against the criterion levels of the ACHS Standards (Table 1). Organisations that meet requirements related to benchmarking, research, or alternate approaches that promote outcome excellence achieve an 'Extensive Achievement' (EA) rating. To achieve the highest OA rating, organisations must exhibit performance that is representative of leadership in systems and outcomes and also in the attainment of requirements relating to benchmarking, research, or the use of other strategies and activities that promulgate excellent outcomes described as the 'Extensive Achievement' (EA) criterion rating.

ACHS surveys, in addition to rating and describing criteria related to standards, summarise the EQuIP standards architecture at the functional level. Functions represent a group of standards, such as clinical, support and corporate. With functional groups, assessors bring together compliance and performance based on the wider review of groups of standards. Different rating levels are reflected for the criteria of the relevant functional group of standards. These sections of the report identify the organisation's strengths and opportunities for further improvement.

In addition, healthcare organisation performance reviews were analysed to measure sustained quality assurance and improvement during the 10+ years following the 2004–2010 accreditation survey reports. This assessment was undertaken through a review of the Agreed Performance Statements (APS) published by ACHS. APS provide a high-level overview of organisation performance, including reference to strengths and weaknesses identified during the most recent accreditation survey. Again, only APS prepared by ACHS assessors were used in this study.

To assess high-level compliance and performance, current APS were also analysed. APS are brief overviews relating to the organisation's most recent accreditation survey. APS mostly refer to an accreditation program result from ACHS related to a set of standards (19) different to the earlier evaluation of facility reports. An analysis of APS provides for a contemporary understanding of long-term organisation performance relating to accreditation and quality standards. Not all healthcare facilities identified in the survey report analysis could be found in the current set of APS (accessed June 2020) due to reorganisation, the emergence of health facility entities and the ending of ACHS membership for some facilities. Only those health facilities identified in this study that continued in the ACHS accreditation program were included in the APS analysis.

ACHS surveys, in addition to rating and describing criteria related to standards, summarise the EQuIP standards architecture at the functional level. Functions represent a group of standards, such as clinical, support and corporate. With functional groups, assessors bring together compliance and performance based on the wider review of groups of standards. Different rating levels are reflected for the criteria of the relevant functional group of standards. These sections of the report identify the organisation's strengths and opportunities for further improvement.

Thematic analysis was undertaken on the survey reports and APS (21). Report data were used to understand organisation activities and ascertain trends related to improvements in direct and indirect quality patient care. Principally, data were manually coded and themes were subsequently obtained. The themes and knowledge derived from this process were then reviewed and verified using Leximancer text-mining software (22). Leximancer enables the automatic coding of large qualitative data sets; this application has been validated in various studies (23). All interview transcripts were processed via Leximancer, which provided useful validation of the manual analysis and assisted in minimising researcher bias in generating data themes. Previous research has found that Leximancer is not a complete replacement for manual coding and thematic development; however, it provides an efficient and relatively impartial means of verifying completeness and data interpretation (24).

Ethics approval for this research, in line with National Health and Medical Research Council standards, was obtained from an Australian university Human Research Ethics Committee (HREC 2011/144).

Results

Analysis was performed on ACHS accreditation survey reports (N=34) for both whole-organisation visits (Organisation Wide Survey [OWS]) and criteria-specific survey visits performed midway through the accreditation program's cycle (Periodic Review [PR]).

In general, OA ratings are rare across the 45 criteria evaluated in OWS surveys (fewer criteria are evaluated in a PR survey). For the reports analysed, OA ratings were mainly achieved in standards concerning high-quality care in delivery processes for patients; workforce management organisation competencies and working environments; consumer engagement and access; performance improvement governance; and maintenance of safe environments.

Key characteristics associated with OA performance ratings focusing on quality and risk management

Analysis of OA-rated criteria revealed key themes within HPHOs related to quality and risk management, as follows:

Evaluation and achievement: goals and strategies were communicated to stakeholders. There was strong emphasis on evaluation of implementation progress and outcome assessment for quality, risk and safety dimensions.
Performance comparison and benchmarking: comparisons and a balanced approach in the use of measurement and information were demonstrated alongside targeted benchmarking to achieve high levels of performance.
Data translated to management information: evidence of data acquisition and its transformation into an appropriate, useful information resource that enabled performance understanding and strategic decision making around quality and risk. Organisations resourced and evaluated their data management and the value of information to ongoing improvement.
Research, enquiry and evidence: research programs proportionate to the role, function and size of the organisation were designed to generate knowledge, understanding and evaluation of performance. Strong use of evidence-based decision making for direct and indirect care.
Learning and development: value was placed on ongoing research, education and professional development for clinical and nonclinical decision making.

Key characteristics related to functional performance and directions for quality and risk management

Key themes relating to organisation management of quality and risk were identified in the assessors' narratives, as follows:

Integration of strategies and plans: strong use of facility-wide integrated strategic determination and planning, including for quality, risk and safety. Responsibilities for quality and risk were an integral part of the whole organisation rather than a particular or specialised function.
Proactive approach to quality: demonstrable proactive approach to quality was evident. There was wide engagement of staff, consumers and other stakeholders in the creation and maintenance of a safe, reflective workplace for healthcare delivery.
Outcomes focused: focus was on achievement and impact within the organisation. A cohesive, responsive professional workplace, with staff and stakeholders aligned to the agenda of quality patient care.
Teams and leadership competencies: health organisations, and the work they undertake, were identified by strong communication, engagement and value innovation, and an engaging 'excellence attainment' agenda. Strong intra- and inter-team collaboration was evident.

Sustained agendas, performance and directions

In the APS, three key performance attributes were identified in the assessor statements. Firstly, these organisations continued to provide high-level service and care through systems and processes consistent with safe practice, teamwork and evidence-based knowledge. Organisations demonstrated strong community and stakeholder engagement. Secondly, there was ongoing commitment to the quality and risk continuum and improvement agenda. Facilities showed commitment to, and ultimately attainment of, demonstrable safe working and operating environments and systems. Thirdly, organisations identified the importance and effectiveness of governance, leadership and management systems. Positive organisational culture and strong communication processes were enabled. Table 2 highlights the APS key attributes consistent in these organisations.

Service and Care Commitment: demonstrated practice and consistency Safe practice; team work; evidence based; research applied Community and stakeholder engagement	*"...high level of staff professionalism from presentation through to all levels of relationship management. This was remarkable throughout..."*
Quality and Risk Approach Quality assurance and improvement Consumer, patient, client focused care and engagement Demonstrable safe working and operating environments and systems	*"....governance and quality improvement systems in place have continued to be strengthened and in particular a highlight was the involvement in consumers at all levels of the organisation"*
Governance and Management Systems and operating functional services Strategic approach to sustained development Culture and values demonstrable throughput organisation Strong communication systems	*"...is an outstanding service with consistency amongst all staff in terms of knowledge and familiarity with the finer details of the NSQHS Standards...."*

Table 2: Consistent Performance Themes from Current Agreed Performance Statements (APS)

Discussion

This study investigated key themes and approaches used by those healthcare organisations that attained outstanding achievement recognition from third-party assessors in their ACHS accreditation programs. The value of this research is to identify transferable governance, leadership and management approaches to elicit quality improvement in patient care. The novel value here is in understanding what approaches are used and their effectiveness.

The key findings of the thematic analysis, as reported above, have been mapped together to identify the main enablers described in assessors' functional summaries and the standards criterion for which the OA rating was achieved. Table 3 maps study results and demonstrates the approaches that lead to successful results, service delivery and patient care as related to quality and risk management. Enablers around the broader context of framing, organising and leading for successful service and care delivery are also evident.

Evident in Functional Summary Reports	Identified with Outstanding Achievement Performance Areas
• *Integrated Quality, Risk and Safety Plans* - integrated systemic continuum approach for all service functions facilitating shared responsibility	• *Integrated Plans Evaluated* - program and project plans relate to organisation's strategic plans; strong use of evaluation and outcome assessment
• *Quality Improvement* - operating beyond quality assurance into strategies that are proactive and preventative in nature and design	• *Performance Review and Benchmarking* - systems of operation and outcomes review with local, national and international benchmarking
• *Driving Outcomes* - continuums and cycles that identify improvement/change potential; drive performance and implementation; and use (proportional) evaluation to determine impact	• *Information Systems and Information Management* - strong use of data/information strategically and operationally managed
• *Teams and Effective Leadership* - team culture; support and facilitation supported by strong and effective leadership (role and distributed)	• *Research and Evidence* - integration of proportional research and evidence activities and use in service delivery
	• *Education and Learning* - culture of learning and development internally and externally

Table 3: Key Themes from Results of this Study Related to Quality and Risk Management and Performance - mapped to demonstrate impact performance enablers

Integrated Approach for Strategic Improvement

This study has shown that healthcare organisations that manage intent and direction with an organisation-wide strategic, operational and business-planning approach achieve enhanced results. Incorporated into this strategic approach is a critically important quality, risk and safety agenda. This integrated, continuous approach allows for a sophisticated, inclusive mechanism that is a foundation for internal and external communication. The value and need for integrated approaches and systems, particularly in relation to risk and safety in healthcare organisations, is long recognised (25). What this study demonstrates is the value and impact of a coherent approach using an integrated system. Moreover, this study highlights the value of organising work in relation to quality, risk and safety around a proactive improvement agenda.

Sources of Information, Continuous Review and Driven Outcomes

Healthcare organisations are marked by the availability, both potential and actual, of a large amount of process and performance data on their operating environment. The translation of data into interpretable information for clinical and non-clinical decision making requires a strategic agenda, capital development and staff learning. Health organisations that utilise planned and effective information systems and data management enhance the quality of their healthcare operations. The results of this study clearly indicate that performance measurement and benchmarking against other organisations are critical parts of the quality and risk agenda for healthcare facilities. The value of

healthcare information systems has been previously established; however, reliable and comparable data and information sharing across healthcare systems and facilities remains a significant objective (26). Healthcare facilities that are more focused and explicit in this data-management agenda, who perform continuous review and remain outcomes focused, display further quality improvement.

Knowledge Management and Evidence-Based Actions

This study indicates that, combined with proportional research and evidence-based activities, a strong organisational culture centred on ongoing education delivers the best outcomes for quality health care. These effects are seen irrespective of the size of the organisation. Previous research has demonstrated the value of managing and promoting knowledge in healthcare organisations to both improve productivity and the use of resources (27). This study draws attention to the value of proportionality in relation to organisation size, resources available and engagement of knowledge management for quality healthcare delivery outcomes.

Leadership and Support Teamwork

A correlation between consistent, effective governance and goal attainment in health services has been previously established (28). Healthcare organisations and facilities require authentic, insightful leadership to support recruitment, staff and volunteer retention, and consumer participation. For healthcare organisations utilising distributed leadership, enabling the impact of authentic, effective leaders supports sustained achievement and performance over time. This study identified examples of effective leadership and teamwork in the work and performance of these organisations.

Study Limitations and Further Research

Identifying outstanding achievement in accreditation survey reports placed a reliance on a relatively small number of performance areas in the sample of healthcare organisations. Nevertheless, these ratings identified key performance competencies across a significant number of Australian hospitals and health services. The timing of surveys allowed the study to provide important, useful insights into impact on performance in relation to quality and standards of healthcare delivery. Regarding quality, risk and safety performance in healthcare facilities, further research on reactive quality assurance and proactive quality improvement would be a valuable contribution to the management of healthcare outcomes.

Conclusion

Irrespective of the size or specific function of hospitals and health services, these complex facilities operate in similarly complex environments, and involve significant degrees of risk. Currently, about 10% of patient admissions involve an adverse event or harm episode. Several hospitals and health services have had demonstrable success in organisation management in this environment. For healthcare facilities to successfully continue to improve quality of care and reduce risk, organisation governance must deploy specific integrated strategic approaches. These include using information systems to manage and review operations driving positive patient outcomes; enabling knowledge management to encourage evidence-based actions and activities; and focusing on authentic, powerful direction that leads to improved teamwork and ownership of organisation achievements.

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Chapter 6. Health boards' governance of quality and risk: quality improvement agenda for the board

STATEMENT OF CONTRIBUTION TO CO-AUTHORED PUBLISHED PAPER

This chapter includes a co-authored paper. The details of this manuscript which has been submitted for publication of the co-authored paper, including all authors, are:

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the development of the concept or research idea; collection or provision of the data; initial analysis and categorisation of the data into a usable format; analysis of results; the writing of the paper; and as the submitting and corresponding author with the journal.

(Signed) _ [redacted] _____ (Date) __01/02/2021____
Mark Avery

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Health boards' governance of quality and risk: quality improvement agenda for the board

Abstract

Purpose This study explores key governance, leadership and management activities that have impact on quality, risk and safety within Australian healthcare organisations.

Design/methodology/approach Current directors (n=12) of public and private health boards were interviewed about contemporary approaches to fiduciary and corporate responsibilities for quality assurance and improvement outcomes in the context of risk and safety management for patient care. Verbatim transcripts were subjected to thematic analysis triangulated with Leximancer-based text mining.

Findings Boards operate in a strong legislative, healthcare standards and normative environment of quality and risk management. Support and influence that create a positive quality and risk management culture within the organisation; actions that disseminate quality and risk broadly and at depth for all levels; and implementation and sustained development of quality and risk systems that report on and contain risk were critical tasks for boards and their directors.

Originality This study has identified key governance activities and responsibilities where boards demonstrate that they add value in terms of potential improvement to hospital and health service quality care outcomes. The demonstrable influence identified makes an important contribution to our understanding of healthcare governance.

Practical implications Findings from this study may provide health directors with key quality and risk management agenda points to expand or deepen the impact of governance around health facilities' quality and risk management.

Key Words: healthcare; board of directors; governance; quality; risk; safety

Introduction

The quality, risk and safety continuum in healthcare organisations is critical to the achievement of high standards of patient care outcomes. Healthcare delivery is a complex and high-risk endeavour (Vincent and Amalberti, 2016). Leadership and governance for quality assurance and improvement in healthcare organisations is crucial to ensuring quality of care in relation to performance and outcomes (Mannion et al., 2018). A board of directors provides for creative, strategic and deliberative opportunities and contributions to small, medium and large healthcare organisations in both the public and private sectors. Several studies have demonstrated the impact of effective governance on the performance of healthcare organisations (Büchner et al., 2014, Erwin et al., 2018). Healthcare organisations' effective and powerful governance incorporating strong leadership and management practices have been able to provide high-quality direct and indirect patient care (Tsai et al., 2015, De Regge and Eeckloo, 2020, Chambers, 2012).

As with any quality improvement process, health boards grow and develop over time in respect to their role, functions and performance. As a body or corporate person, boards take on key roles to nurture and develop organisational culture, strategies and systems (Mannion et al., 2018) and, with changes in composition, training, planning and experience over time, they themselves grow and develop. Shared learning from these experiences and developments provides for growth in their effectiveness with respect to health service governance.

Governance by the board entity allows board directors to grow within their roles and functions to respond to particular fiduciary and strategic responsibilities as they arise. Corporate governance in healthcare provides the opportunity to steer communities and stakeholders towards successful outcomes and impact through policies, processes, administration and control (Kickbusch and Gleicher, 2012). Clinical governance, as an integrated part of corporate governance, focuses on the necessary internal and external relationships particularly aimed at the goal of good clinical outcomes (Australian Commission on Safety and Quaity in Health Care, 2017b). Over the last two decades, risk governance has emerged as an important responsibility in relation to the context of risk and risk-related decision-making. Risk governance focuses attention and action on an organisation's stakeholders to deal with risk and safety in the context of uncertainty, complexity and ambiguity (van Asselt and Renn, 2011). Health boards operate across a number of service development and delivery frameworks including the provision of high-risk services, local and broad political environments, and within constraints of financial sustainability (Chambers et al., 2017). Consistent with the complex nature of the health organisation, board directors are required to operate and

engage through a series of governance constructs commensurate with the nature of their organisations.

Previous studies have established the link between the performance of a board and the quality performance of the healthcare organisation (Jha and Epstein, 2010, Tsai et al., 2015). There are established associations between the focus and actions of hospital boards and how this influences the hospital or health service organisation's ability to react to and deal with quality of care and patient safety issues. Particular links have been established between self-assessed board competencies and the degree of confidence that hospital health service staff have in being able to report patient safety incidents and matters (Mannion et al., 2016). Boards' activities and engagement contribute to their performance and impact in relation to quality and patient safety. These include: internal factors such as director competencies and corporate and patient care learning; the amount of time spent by the board focusing on quality and patient safety matters; the types of information reporting approaches utilised; as well as external factors such as financial, regulatory and influence in relation to patient safety. The operating mandate of a hospital board, which relates to issues of ownership and control, is also an important structural and operational issue. Healthcare organisations in the public sector seem less independent and may experience more instances of government control and accountability than organisations in the private and not-for-profit sectors (Cornforth and Chambers, 2010).

A growing body of literature reports on research related to successful initiatives that health boards can undertake in relation to quality and risk management. These include: identification and implementation of specific competencies for board members; accountability and performance assessments for board members and their chief executives; the promulgation of culture and engagement focused towards quality; and the development of strategies, policies and system delivery structures focused on quality, risk and safety that are measurable and subject to audit (Leggat and Balding, 2019, Szekendi et al., 2015, van Gelderen et al., 2017). Operational, cultural and environmental conditions and changes to quality and risk management can mean compromise and failure in service and care delivery. Compromise in relation to managerial, behavioural, physical and financial circumstances can result in human and structural resources having adverse effects on patient care and the health organisation (Ravaghi et al., 2015, Francis, 2013, Independant Review of Maternity Services at the Shrewsbury and Telford Hospital NHS Trust, 2020, Review of Hospital Safety and Quality Assurance in Victoria, 2016).

For health organisations to maintain appropriate quality of care standards that reflect their continued growth and development, ongoing review and reflection on contemporary corporate and fiduciary actions and responses by health boards is required. Irrespective of the ownership of health organisations, the board of directors needs to include in their stewardship an agenda of renewal supporting processes that drive performance for safe care. Board membership changes; individual and collective learning and development continues; and roles, functions and complexities alter in response to service demands and changes in technology associated with care. These factors impact on the nature of the organisations for which health boards have responsibility.

The purpose of this research was to examine learning from hospital and health service boards on the journey of governance for quality, risk and safety. Health boards have fiduciary, stakeholder, clinical and service program delivery working in an environment of efficiency and economic operations. A critical part of the roles and responsibility of boards in this context is for the establishment of effective clinical and corporate governance frameworks and, through them, ensuring high levels of patient care and service delivery. Integral to these responsibilities other stewardship and governance actions and impact relating to quality and risk of care and services. In this study we examine issues and impact as reported by current health board directors.

Method

To understand contemporary and effective governance processes in relation to the management of quality and risk in healthcare organisations, we interviewed current health board directors in Australian hospitals and health services.

The qualitative research approach used in this study focused on the experience of participants in order to investigate their understanding of stewardship, leading and governing in relation to quality and risk regarding care outcomes for patients/clients/consumers.

Current directors serving on health boards were invited to participate in a semi-structured interview that focused on general corporate governance and governance specifically related to quality, risk and safety by the board for their organisation. Interviews were completed with 12 directors and, over the course of these interviews, data saturation was achieved. Previous research sets out that the actual number of interviews necessary to achieve data saturation and enable thematic coding using this type of research method is relatively small (10 to 20 interviews) (Guest et al., 2006). Therefore, this sample of board directors provides a viable set of data to enable development of useful themes and understanding. Directors involved in interviews were appointed to both public

(government) and private (for-profit and not-for-profit) boards of directors in Australia. The health services governed by these boards included hospitals; health services/systems (providing primary, secondary and tertiary level care in several separate delivery organisations); regulation; and primary health networks. These services were engaged in delivery in urban and non-urban areas.

With the consent of director participants, interviews were recorded and then transcribed verbatim. Two approaches to thematic analysis were undertaken to enable identification, analysis and reporting of patterns or concepts within the primary data (Braun and Clarke, 2006). An initial coding process was undertaken manually, and this was subsequently supported by further manual rounds of data sorting to develop an understanding of key constructs, policy and activities undertaken individually by directors, and collectively by their boards. The themes derived from this process were then checked through the use of Leximancer (Leximancer, 2020) text mining software. Leximancer enables the automatic coding of large qualitative data sets and this application has been validated in various research enquiries (Haynes et al., 2019). All interview transcripts were processed via Leximancer and this provided useful validation of the manual thematic analysis, therefore acting as an approach to support minimisation of researchers' own bias in the manual generation of codes and themes in the data. Previous research has found Leximancer is not a complete replacement for manual coding and thematic development, but it provides an efficient and relatively impartial correlation and check for completeness and data saturation to separate manual coding (Harwood et al., 2015).

The themes identified in the transcripts were consistent across the directors, boards and health organisations represented. The use of the two approaches to thematic analysis, which involved a manual review and articulation of themes with the triangulation of using text mining software, supports a useful reliance (Sundler et al., 2019) on the key information and understanding that has been obtained from the data collection process.

Ethics approval, in line with National Health and Medical Research Council standards, was obtained for the study from an Australian university Human Research Ethics Committee (HREC 2017/976).

Findings

Irrespective of the ultimate board ownership and accountability (such as for public board directors through government, ministerial or legislative requirements; not-for-profit organisation owners or third sector entities; and commercial for-profit organisations) directors reported having been

appointed against skill and competency requirements to meet the role, function and current performance requirements of each respective board:

[Relating to prospective board members existing experience in quality, risk and safety and in relation to onboarding] *How do we make sure patient care and quality is maintained. And it's really just as critical through the* [board director] *onboarding process, and then critical in developing that attitudinal, cultural feeling for each of those boards.*

All respondents reported regular ongoing education programs were in place for boards and the majority said that periodic self-assessment of board member competency incorporated assessment in relation to quality and risk management.

We have another director who says well, from an education perspective from the board, what are we missing? What do we think we should do some more education and get some more training in?

Directors reported that the majority of boards had developed comprehensive integrated strategies related to quality and risk management for their facilities. Within routine board meetings in a year, respondents reported that about a fifth of total time was committed to discussion, development and review of quality risk issues. Most boards had established, either through legislative or executive determination, a board subcommittee that managed an agenda of quality and risk management review and decision-making. Board members included in this study reported receiving the majority of quality, risk and safety information and advice from their chief executive and senior executive leadership team, with quality and risk management specialists and clinicians providing about a third of this advice and input directly to the board. Table I sets out time commitments or key board meeting activities, distribution of corporate time allocated on quality and risk to board or subcommittee meetings, and the routine source of information on quality and risk matters reported and presented at board meetings.

Board Meeting Activities - Proportion of Board Meeting Time During Routine Board Meetings in a Year	Average Time %	Range Time %
Quality and Risk Strategy and Management	19	10-40
Financial Strategy and Management	20	10-40
Strategic Planning and Organisation Direction	18	15-30
Core Clinical/Operation Services	14	10-30
Workforce Strategy and Management	12	5-20
Capital Planning and Management	6	5-10
Engagement - Stakeholders	5	5-15
Board Member Education and Development	6	5-20
	100	
Quality and Risk Matters Review and Decision† Making Handled at Board Sub-Committee Level		**Range Time %**
in Sub-Committees	70%	40-90
at Full Board	30%	10-60
†Some statutory and By-Law requirements do not enable delegation of decision making to sub-committees - affected health boards removed from response.		
Risk and Safety to Board Meetings in Routine Board Meetings in a Year	**Average Time %**	**Range Time %**
Chief Executive	30	10-60
Executive/Senior Leaders	25	20-50
Quality/Risk Manager/Specialist	21	3-60
Clinicians (doctors, nurses, allied health)	11	10-25
External Consultants/Specialists	7	3-15
Patient, Client, Consumers	4	3-10
Members Clinical Risk and Safety Committees	2	3-15
	100	

Table I: Board Meeting Time Allocation, Sub-Committee Engagement and Main Sources Advice on Quality and Risk Matters

Many participants noted that a key goal or objective for their boards was to influence positively and engender a strong and authentic culture around quality, risk and safety in their facilities. They identified the board's accountability for and roles in directing quality of care, services and systems toward organisational excellence; however, for maximum influence and effectiveness, there was a clear understanding that staff and other stakeholders needed to own and reflect the values, attitudes and behaviours related to quality of care risk minimisation. Several participants discussed the need for the board itself to reflect and establish its own quality vision before facilitating and advocating for an organisation-wide strategy.

… unless you've got a board culture, and all directors sign up for this, unless you've got the sort of culture which just embeds that whole issue about, what are the risks associated for staff, and patients, and consumers, and stakeholders, and how do we ensure quality.

… it's probably inclusivity, I think, from our board perspective that we try to ensure that we do keep that underpinning quality, and quality in every area. Quality in your performance as a director. Quality in

*understanding your responsibilities. Quality in the clinical [*care*], you know what I mean. So rather than just sort of piecemeal.*

Key aspects relating to effectiveness of the board regarding quality and risk leadership and accountability centred around issues of subsidiarity and ownership, as well as trust. Most participants were clear that the quality and risk agenda needed to be pervasive in the organisation and to be effectively and authentically owned by all staff members, groups and departments that have responsibility for direct and indirect patient/client/consumer care. The relationship between the board and the organisation's chief executive and senior leadership management team is critical in terms of ensuring capacity in the understanding of clinical and nonclinical processes and the application of quality assurance and improvement.

… always a challenge for all boards, is you do, in some ways, have to have that role of trust. You have to make sure that the staff, especially your executive, are comfortable with actually telling you, transparently and openly, what is going on. But the other part is that it is asking the right questions, so asking the delving questions, asking for the information. We do a lot of this with the quality board.

The majority of participants in this study reported on the mutual interdependencies that need to be built and developed around this critical dynamic. Some directors reported that working senior leader and manager relationships with the board had significant impact in relation to the organisation achieving high levels of patient care. As part of this partnering relationship, the majority of participants reported that their boards had formulated and promulgated a formal risk appetite statement for organisations. Similarly, all facilities that generate patient/client health records undertook retrospective audit and review. Most boards also sought external advice and involvement through reports and recommendations directly from insurers' underwriters. Table II details the internal and external information and advice used by boards to review quality and risk.

Does the Board/Organisation -	Yes %	No %	Unsure %
Have a publicly available integrated strategic directions, quality and risk plan	92	8	-
Have a formal risk appetite statement	92	8	-
Undertake retrospective medical/health records to determine incident/harm rates for patients/clients[†]	100	-	-
Receive reports or commentary directly from insurer or underwriter	75	25	-
Undertake Board member periodic self-assessment of competencies in relation to quality and risk management	84	8	8
[†]Adjusted for health organisation without medical records			

Table II: Governance Structures and Functions in Relation to Quality and Risk

To assist board directors in listening to and understanding advice from internal and external stakeholders, participants talked about what they saw as key responsibilities for boards. This enabled high levels of intelligence, discernment and judgement around issues of quality and risk in their organisations. By virtue of their appointment to a board, it is common for directors to be approached by consumers, staff members and other stakeholders about aspects relating to patient care and situations. Boards build on this formally using consumer advisory committees or appointment of consumer representatives to committees and other quality, health and safety groups within their organisations. Many participants reported on formal and informal consultative activities including meeting with professional groups; attending internal and external planning, development and reporting meetings; community consultations; inter-agency engagement and work; as well as committee work where directors have the opportunity to partner with staff and community members on an ongoing basis.

… our boards are different in that … the day before we go around. We meet the staff. We have afternoon tea with them or a quick bite to eat … and then that evening we meet with all the key stakeholders. We meet with the doctors; we meet with the dentists. Anyone in the community, we say come and meet the board. We spend at least an hour and half doing that with all the community. And people drive for miles, sometimes just to talk to us and meet us. And then the next day we have our board meeting. And then quite often at lunch we'll catch up with a large contingent of people, schools, school captains, principals, teachers, police. They all get a chance to come and meet with us as well. And so, our board meetings are long. We spend pretty much two days every month at a board meeting.

Participants reported that, in addition to data being available in most health organisations, key responsibilities and activities for the board or subcommittees, included converting these data into useful information for decision-making around quality, risk and safety. Judgement and strategic decision-making by boards were enhanced when they could accurately measure and interpret information related to quality assurance and improvement. Understanding and associated containment of quality and risk situations were significant responsibilities identified by the majority of participants in this study. The issues identified included board member skills and reliance on senior managers and experts to gather, interpret, report on and manage this wealth of information. A small number of participants reported on the future necessity of including board members with specific skills relating to complex matters of data mining and information generation.

There's a data overload to the max. One of my views is that we need to be looking at more data skilled, data scientists to be on boards. Because the sheer volume of data is just incredible.

Foreseeability (being reasonably able to foresee issues and general consequences from them in relation to risk and operations) was identified as an important issue in relation to processes and delivery of complex care and services. Participants highlighted the interplay of information gathering, interpretation and reporting by staff and stakeholders within and external to the organisation, as well as utilising an effective set of structures and systems to identify complex care and service matters to mitigate against adverse events or harm. Respondents reported on the need for intelligence gathering, discernment and judgement by directors and boards collectively to recognise and address care and service delivery issues and the management in the context of foreseeability.

We have, obviously, our risk profile and trying to identify what are the risks and how we can manage, minimise - you can't remove them from a health service, but you can certainly manage and minimise as you go. So that's where it would come up through … penetrating questions.
So, in the private sector there's at least one, two or three lawyers, so there's a focus on potential liability and what you're doing to stop it, or at least manage it, on the way through.

Directors interviewed for this study were on boards headquartered or working in three Australian states. The key issues and findings identified during interviews and data collection are clearly influenced and impacted by operating in the health environment. Here there is a current heightened awareness of the importance and implications relating to quality and risk governance, leadership and management. The desire for and necessity for quality care; consumer engagement and

involvement; and operation of health facilities in the context of national health standards and accreditation programs requires positive impact in corporate, clinical, consumer and risk governance outcomes.

Discussion

This paper delivers findings on how health boards approach and have impact on quality, risk and safety strategies to achieve high-quality patient and client care.

Our analysis shows that board responsibility and ongoing governance in relation to quality and risk management is positioned in the wider context of overall organisational and procedural strategies related to fiduciary and strategic governance. Critical governance in this context is the ability to balance impact and depth around quality and risk management and also to use the power and structure of the wider organisation management and delivery landscape of health services. Table III is a synthesis of the analysis of the findings in this study and sets out the overall strategic platform and its support for an enabling of specific innovative quality and risk practices that require impact to achieve high-quality patient care.

	Organisation and Process Strategies	**Quality and Risk Practises**	
governance framework, policies, procedures and protocols	*Effective Structures and Systems*	*Board's Culture Quality and Risk*	criticality of own shared values and norms on quality and risk
responsibilities in context of jurisdiction, legislation, regulation and professional practice	*Prerogative Environment*	*Subsidiarity and Ownership*	corporate and facility responsibility owned, supported and driven at service and care levels
board member technical and behavioural competencies and their development	*Board Membership and Development*	*Culture Consensus and Norming*	authentic; deep understanding; and ownership of the agenda
management, stakeholder and consumer relations	*Relationship and Connections*	*Listening and Sense Making*	cognitive and behavioural approaches supporting making meaning of quality and risk
data integration and analytics enabling capacity, quality and outcomes management	*Information Management*	*Identification and Containment*	strategic health care delivery realising impact and effectiveness with considered mitigation
		Foreseeability	knowledge, inference and establishing precautionary management

Table III: Board Member Identification Organisation, Processes and Practices for Quality and Risk Governance

Governance Strategy, Systems and Operations

All health boards related to this study were reported to have established quality and risk governance frameworks and systems for their organisations. Quality and risk actions and activities were set out in integrated plans that focused on the quality, risk and safety continuum but embedded work and expectations in the wider strategic and business case development and implementation monitoring. These actions, associated with established implementation effectiveness and agreed performance indicators for monitoring, were consistent with the research literature (Prybil et al., 2014, Mannion et al., 2015). An important finding that emerged from this study was the situation where health

boards had deliberately considered and set out their own sets of values, views, expectations and requirements regarding quality and risk. These values and norms were used to set examples, communicate expectations and to enable the deliberate development of clinical and nonclinical quality and risk activities in their organisations. In this study boards were reported to spend about a fifth of regular meeting time on quality and risk strategy and management issues. These findings contrast with previous studies (Vaughn et al., 2006, Mannion et al., 2016) where between about a quarter and a third of time, was spent on the quality and risk agenda. An important issue here relates to the relevance and impact of boards in dealing with and promulgating effective quality and risk action and processes for both clinical and nonclinical activities in their organisations. Several board members articulated that quality and risk activities were not necessarily the focus of board meetings exclusively. Quality management subcommittees, engagement and consultation with staff, information and fact-finding missions, as well as wider stakeholder engagement processes are all effective mechanisms and avenues for board directors to engage with the quality and risk agenda. Previous research (Millar et al., 2013) has identified the association between well-informed and skilled board members and effective oversight relating to quality and patient safety.

Service Context, Ownership and Subsidiarity

The majority of respondents in this study discussed goals and objectives designed to engender and facilitate the need for understanding and ownership of quality and risk behaviours and management deep into their organisations. Boards operate within strict health and commercial legislative frameworks that include national standards and expectations relating to communication of, and engagement about, quality, risk and the organisation. Most respondents set out that the requirements and expectations of this operating environment, as well as innovative and evidence-based activities, needed to be inculcated into, and authentically experienced at, all levels of direct and indirect patient and client care in their facilities. These objectives were reported for the different ownership responsibilities for health organisations (public [government], for-profit and not-for-profit) and irrespective of their service profile. Previous research on the issue of employee engagement within healthcare organisations and its impact on their quality and care performance is limited (Spurgeon et al., 2018), but an association has been identified between employee engagement and service delivery quality ratings (Wake and Green, 2019). An important finding in this part of this study is the accentuation by boards of instilling understanding of, and responsibility for, quality and risk management to all staff levels in all parts of the organisation. This is a critically important aspect of the influence and impact of organisational governance.

Board Members: Culture of Quality and Ownership

Participants reported recruitment, orientation and ongoing education processes existed for individual board members, and the board together, in their organisations. They expressed divergent views regarding board members' required background, skills and experience, as not all members agreed that clinicians (medical, nursing and allied health) or corporate and commercial professionals (law, finance and marketing) should be retained as members of boards. Rather the view articulated was that prospective board members' skill, competency and background needed to align to the medium- and longer-term needs of the organisation through its governance requirements and responsibilities. Participants articulated that the unique and high-risk operating environment required most new board members, irrespective of experience and past exposure in health, to undertake a period of orientation around the critical agenda of quality and risk management. They set out the need for a sustained and balanced governance approach for health boards so that short- and medium-term issues (budget parity, workforce or operational issues) did not detract from the broader and long-term service and care delivery objectives, quality assurance and quality improvement requirements of the organisations. The importance of planned growth and development of boards, and the governance activities and facilitation of this focused quality and risk agenda in governance performance by clinician board members, have previously been reported in the literature (Jones et al., 2017).

Relationships, Connectivity and Understanding

Important themes arising from the interviews with directors were plans and activities to enhance relationships and general connectivity between boards, directors, staff and stakeholders internally and externally. Most participants reported ongoing formal and informal activities of this kind, irrespective of the size and complexity of the health facilities for which they had responsibility. These communication and engagement initiatives were designed to enrich existing authentic relationships, to assist in identifying problems and to review the effectiveness of the organisation's quality and risk activities. Consumer engagement is a critical requirement of contemporary effective health organisations and this engagement is an important requirement in national health standards (Australian Commission on Safety and Quaity in Health Care, 2017a). Such engagement is facilitated by health boards through formal and informal activities such as consumer advisory boards; consumer representatives involved in quality and risk management activities; planning and review consultative mechanisms; and community listening, complaint and appreciation reviews. Although limited, there is literature describing behavioural engagement strategies, as well as the associations between staff engagement and quality performance (Parand et al., 2014).

Information, Reporting, Foreseeability and Containment

The translation of transaction and other operational data into useful information in order to plan, implement and review quality, risk and safety activities was reported as a critical role and responsibility for health boards. This function related to the full range of information systems required to support contemporary health service and care organisations, irrespective of their size. In this study, critical issues relating to planning, financing and delivering demonstrable health information systems; setting requirements for key information and activity reports to address routine and specific quality and risk questions by boards; skill and competency engagement of personnel with data and information management capabilities; and the use of information to be able to report sensitively on the impact of care and services were reported to be important. Directors described working relationship and trust dimensions as critical for specialists and clinicians who provide exception reports to boards on quality, risk and safety matters. The growth and development of capacity and systems to report on quality and risk matters over the last decade in health delivery organisations has been previously reported (Keen et al., 2018). Knowledge brokering in relation to quality assurance and quality improvement activities has been identified in this study and also in the literature (Quartz-Topp, 2019). However, our participants reported that considerable planning, time and effort are required to articulate and generate information indicators unique to various service and patient care components within their organisation. Oerlemans et al (2018) report on this situation but also the established the opportunity for boards in the development of quality patient care indicators, as well as the critically important opportunity for them to develop a deeper understanding of the clinical service issues behind indicators by working with care delivery staff. Participants reported that after having identified or assessed risk and implemented safety mitigation actions, there was ongoing responsibility in governance related to containment and risk minimisation. Foreseeability is a legal term but is important in an operational sense related to governance and organisational duty of care. Participants detailed several key mechanisms that support fulfilment of a board's responsibility around this containment, such as the working relationship and trust with their chief executive and senior leaders and managers; skills of board members to interpret and understand information and pose key accountability questions to senior staff; and the ongoing business case and reporting arrangements that incorporate identification, measurement and review of current and new quality and risk initiatives.

Limitations and Future Research

This study spanned 12 health boards in three states in Australia. While this is a moderate sized sample with respect to potential translation of knowledge, the inclusion of boards with different ownership models (public, for-profit and not-for-profit) covering a range of direct and indirect patient/consumer care and services, provides for a broad understanding of the current growth and development of the impact of health board governance related to quality and risk management. To improve the understanding around governance for impact and effectiveness in healthcare delivery, further research is recommended into the associations between governance and management strategies, and the effects that quality assurance and improvement activities have in mitigating risk in a health setting. The number of board directors interviewed from boards of organisations with differing ownership meant that there was not the opportunity to compare or contrast findings as they related to public, private or not-for-profit boards. Comparing governance for quality between different public and private sector organisations would be useful future research.

Conclusion

Hospitals and healthcare facilities operate as complex organisations in settings of changing capacity, technology, service and care demands. In these contexts, the function of controlling and operating these organisations safely and effectively is fundamental and critical. In relation to quality, risk and safety, health boards have responsibility for stewardship to be relevant and to create corresponding impact.

This study has demonstrated the relationship between organisation and process strategies and the critical importance of quality and risk management practices. Health boards need to manage change and development in this context. The findings of this study demonstrate that identifying board members' values as they relate to quality and risk is critical for understanding the quality and risk strategies and systems in place for the organisation as a whole. Boards have the most significant impact in quality and risk leadership through dissemination and depth of engagement by staff and other key stakeholders in their organisations. Quality and risk processes and programs that are both effective and measurable within a healthcare setting contribute to the identification and containment of risk.

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Part 3: Synthesis of the Conceptual Model from New Theory

Chapter 7. Integration of Quality and Risk Management: the 'Healthcare Integrated Quality and Risk Strategy Model'

There are three paths to quality health care standards: the regulatory route, the "learning science" route, and the futuristic "management science" route. The regulatory path leads to punishment and blame. The learning science path splits, with one road leading back to harsh regulations and the other to the halls of academic medicine. And the management science path, while short, will be the road to success as ….health care struggles to improve quality.

Martin Merry and Michael Crago (2001 p.30)

In connection with the four research projects involving consumers, healthcare workers, healthcare organisations and those int governance (Chapters 3, 4, 5 and 6), several key findings have been made. These concern the enabling attributes, enhanced activities and actions relating to quality and risk, and identification of areas where leadership and management impact would strengthen understanding, processes and systems so as to enable improved outcomes and impact.

The individual research projects that comprise this body of research into quality and risk management in health care realised a number of interesting and important findings. A key feature identified across all four project areas, as related to individuals and organisations, was the evidence of change and development or maturity in the understanding of quality and risk and the use of different attributes, approaches and impact to quality and risk management.

The findings from the individual research projects have provided information and opportunity to develop an integrated strategy. This strategy aims at facilitation and enabling consumers, health workers, health organisations and health organisation governors to align key activities to focus on quality and risk management. The objective is for an integrated and concerted efforts to enhance impact on quality and risk management. This strategy is a proposed plan of action designed to achieve the objectives of enhancing quality of care and services as well as improved mitigation of risk. The theory extended is a contribution to the principles of practice and practice organisation that the engagement on quality and risk by consumers, health workers, organisations and those that lead and govern them best engage and perform in the areas of quality and risk management.

7.1 Findings and opportunities from research projects

Detailed results and findings from the individual research projects are in Chapters 3, 4, 5 and 6. Figure 6 provides an overview of the key findings from each project related to consumers (C); staff members (S) in a large multi-facility, acute-care health organisation; healthcare organisations (O); and current health board directors responsible for health governance (G).

Figure 6: Research Findings: quality and risk for key stakeholder groups

(Source: Author ~ Avery, M.J.)

As described in Chapter 3, consumers, as prospective, past or current patients in healthcare systems, identified three key attributes that they use in determining quality of services provided by healthcare professionals or organisations. These were the reputation of care and services as related to the technical ability of service providers; the appropriateness of care as determined by the recipient ; and the actions, skills and capacity of the service provider, related to past outcomes, experience and observations. Similarly, interpersonal capacity and engagement with healthcare providers was an important decider for consumers in their choice of commencing, continuing or returning for services.

Consumers identified elements of interpersonal relationship and two-way communications as being important for forming trust relationships and confidence in services provided. Moreover, consumers

set out that they value the opportunity to provide feedback and commentary on care, outcomes and service provision. They also identified that they understood and were confident in using communications and feedback with service providers via Internet-based reviews, forums or direct contact.

The research project comprising Chapter 4, related to the interrogation of secondary data from a comprehensive staff survey, was highly informative. It revealed correlations between clinical and nonclinical staff members' engagement in the workplace and how that related to their involvement with quality patient care and quality assurance in the organisation generally. Staff members identified that the capacity of the organisation to see and understand the need for different ways of working was important to engage in processes and activities that evaluated the quality of care and services, and to better make changes to work . Teamwork on both an intra- and inter-team basis was seen as critically important to positive impact in the organisation's quality agenda and the provision of high-quality patient care. Survey respondents highlighted important and highly rated aspects of working in their healthcare organisation. These included: key engagement and environment issues that enabled a high level of job satisfaction; being treated fairly as individuals; and reward and recognition commensurate to the nature of their role. This study highlighted the need for health organisations to deploy authentic, contemporary and effective leadership, which engages in the attributes identified by staff as important to their contribution to quality outcomes. Such engagement creates consistent and ongoing dynamics that enable staff to engage and succeed in the areas that they find important.

The Chapter 5 study identified successful systems and approaches in organisations with independent accreditation performance ratings that indicate outstanding achievement in at least one criteria area . This research demonstrated some key and consistent approaches utilised by high-performing organisations. Three key themes emerged from the identified attributes. Firstly, facilities focused on establishing strategic directions and objectives with definitive articulation of outcomes. These objectives were routinely assessed to ensure sound implementation towards high-quality care. Secondly, those that deploy proportional knowledge-management systems achieved in-depth understanding of performance and were aware of any positive or negative variations in care, operation activities and levels of quality care. Finally, the understanding and deploying of authentic, powerful, organisation-wide governance and leadership was evident for these high-performing organisations.

In the final research project described in Chapter 6, health board directors identified key governance issues in the development and delivery of successful approaches to control and review. Directors also recognised areas where, through an evaluation cycle, they acted to enhance the governance impact for their organisations. Governance approaches to quality indicate that boards need to work to develop and deepen an organisational culture that sees quality and risk management as important and that strives towards improved related to patient care. Health boards have the responsibility for effective quality and risk systems that enable performance measurement, enhancing performance outcomes with mitigation of risk through effective safety programs and activities.

The research projects identified both enablers and barriers to quality and risk management in health care. For example, some 20% of consumers reported that they were unsure of how to approach the measurement of quality of healthcare delivery. They were uncertain of what to look for to determine quality and effectiveness of services that they might use directly or indirectly through agents (other clinicians, family and friends). Development and redevelopment of systems and structures were identified as important aspects of leading and managing health organisations, which are impacted by issues such as staff turnover and changes in their operating environments, economic and otherwise. Clearly, for each stakeholders, there is an ongoing need for change and improvement activities regarding the ways of thinking, delivery of quality assurance, and improved knowledge and systems.

7.2 Discussion - Interaction and impact from alignment of quality activities

A review of all four projects' findings in this research provides an understanding and articulation of key aspects of engagement and action, related to the quality and risk agenda in health care.

7.2.1 Quality domain

Regardless of stakeholders' priorities on issues of quality and risk, there is a consistent acceptance that quality is a critical domain in the delivery of optimal patient care (Abbasi-Moghaddam, Zarei, Bagherzadeh, Dargahi, & Farrokhi, 2019; Grace, Bradbury, Avila, & Du Chesne, 2018; Siriwardena & Gillam, 2014). Similarly, the identified dynamic of ongoing change through expectations around access and equity indicates that a balanced approach to both quality assurance and improvement is a key feature for individuals and organisations in health. Not surprisingly, the language, discussion and articulation of the concept of quality for staff members and those in organisations and

governing health facilities demonstrated strong similarities. Earlier in this exegesis (Section 1.1.2), quality was identified as a relatively broad term and needing to be understood within the context of interactions of people. The research projects involving the health workforce, organisation or facility activities, and health-organisation governance, identified a range of understanding related to safe, effective, efficient and equitable delivery of health care. In this study, consumer understanding and engagement on quality was a focused, narrower view, particularly around effectiveness and efficiency elements and issues relating to services available or services acquired. It is understandable for a project undertaken in the context of the Australian healthcare system that issues of equity were not as pronounced in the findings. Consumers most certainly identified with issues of access (waiting times) and features of safety (skill and capacity of practitioners). However, in this study, quality was more understood around connection and connectivity (interpersonal skills and engagement) and the reputation of health service practitioners and providers. The issue of expanding the quality continuum for a greater reach among stakeholders is an important one, especially to enhance and include the consumers in the discussion and sharing of information. Key issues associated with the quality domain that include achieving the right balance between quality assurance and quality improvement activities. Systems and individuals advance their practice and capacity for high-level patient care outcomes by not only achieving minimum standards but also by the pursuit of contemporary, improved practices and the use of systems that enhance care delivery and care outcomes (Jabbal, 2017).

7.2.2 Risk domain

Risk represents exposure to danger, harm or negative consequences, which can be both positive and negative (Suprin et al., 2019). In governance of healthcare organisations, there was consensus on the need for an integrated approach to planning and activity delivery for quality, risk and safety. In the governance study, directors generally identified that the attributes of risk identification and management, such as an articulation of risk appetite, and risk identification and amelioration activities, were critical and generally in place for the complex nature of health services.

The four projects' results and their analyses indicated that members of the health workforce, their leaders and those in organisational governance understand that they work in a high-risk sector. The study relating to healthcare workers and their engagement around high-quality patient care and quality activities indicated general issues of significant importance. These included their work engagement in the workplace relating to their position; how they are recognised, valued and

rewarded; and how flexible their workplace is in being able to identify and meet challenges and changes evolving within the quality activities.

The consumer survey study (Chapter 3) highlighted that consumers felt they could assess risk through information on performance such as infection rates, injury and complaint rates. They also relied on ratings and rankings of health personnel and facilities as indicators of risk and safety in potential services.

A common theme in this area is the provision of appropriate, timely and dependable information through activities such as third-party review, analysis and provision.

7.2.3 Engagement

The individual research projects indicated a strong understanding of engagement, with features of trust, integrity, commitment and communications expressed in study findings.

Results from the consumer study indicated that to make decisions about current and prospective care there was a relatively high degree of capacity and confidence in searching for information and deriving a sense of data. There was evidence of reaction and interaction related to experiences of self and others in the healthcare sector.

The health organisation staff survey (Chapter 4) indicated some important, challenging goals and objectives. Staff members articulated common attributes they felt enabled them to positively and effectively contribute to the provision of high-quality patient care and services in their organisations.

Identified attributes related to the health workforce, successful health organisations and the governance responsibility for health boards, which consistently articulated the need for contemporary leadership. Such leadership is designed and delivered authentically to support individuals and teams in the health sector to achieve goals related to quality and risk management. Irrespective of the styles or approaches to leadership, the themes of enabling, motivating and supporting individuals and organisations are critical for successful, high-quality care.

7.2.4 The Need for Sustained Improvement and Change in Quality and Risk Management Governance and Management

Throughout this research, a recurrent theme was the requirement for change, improvement and involvement in the approaches and systems used for quality and risk management. Examples included systems and structures requiring change, and necessary development in the way that work is undertaken (Chapter 4).

A key theme in the findings was the need for those involved in governance, leadership and healthcare delivery to constantly deepen understanding and knowledge around the quality and risk domains. Stakeholders appear to demonstrate need, and appetite, for stronger comprehension of the ramifications of reduced performance or heightened risk. The determination and sharing of knowledge is critically important to high-quality patient care. Health organisations and systems are data rich, and the ability of organisations to devise proportional data-management systems to enhance comprehensive understanding is critically important. To experience deep learning, consumers and members of the health workforce need opportunities to understand the relationships between cause and effect for quality assurance and improvement activities. This is necessary to determine how care and services should be provided and how variation of practice against agreed standards and norms can be mitigated (Smith & Colby, 2007).

This research has identified many common streams of understanding related to quality and risk management across the four stakeholder groups. Opportunities exist to make that understanding more specific and focused in nature. This would enable a greater depth of understanding and engagement for stakeholders, both people and organisations, and would provide depth to the continuum of quality and risk management in the healthcare sector.

This strategy that has been developed as part of this research project aims at facilitating the objective of integrated and concerted efforts to enhance impact on quality and risk management. This strategy developed gives a plan of action designed to achieve the objectives of enhancing quality of care and services and opportunities for improved mitigation of risk.

7.3 Healthcare Integrated Quality and Risk Theory and Model

This research provides the opportunity to articulate a theory related to strengthening, deepening and coordinating the impact on quality and risk management in the health sector (with the implementation strategy represented by the Healthcare Integrated Quality and Risk Strategy (HIQRS)

model shown as Figure 7). Firstly, it has identified key enablers of governing boards' actions that impact on quality of care (Chapter 6). These enablers are common among stakeholder groups involved in this research. Secondly, an identified aspect of stakeholder involvement in quality and risk in health care is the need and opportunity to deepen the capacity to work with the quality and risk agenda. In addition to evolving systems and approaches related to quality and risk is the opportunity for deep learning in relation to quality and risk management.

The development of this *Healthcare Integrated Quality and Risk Strategy* (HIQRS) theory is to provide a resource to focus enablers identified in this research and also to deepen the understanding and delivery of enabling agents to support stronger, more effective quality and risk activities in health organisations and facilities. A model explaining this theory is presented in Figure 7.

This theory is that it does not replace current activities and established theories in the health workplace or in programs and activities related to health quality and risk. Rather, this theory establishes a link and continuum strength through consumers, health workers, organisations and facilities, and the governance functions for health. The concept is that this continuum theory relies on current, emerging and growing activities in relation to quality and risk activities and functioning. Moreover, this theory depends on effective leadership and leadership processes in healthcare teams and organisations.

The model developed from this research (Figure 7) demonstrates a proposed strategy of action designed so that with the collective engagement of the consumer, health worker, health organisation and health facility governors stakeholders could enable enhance quality and risk management. An important aspect of the proposed approach set out in the model is the inclusion and integrated working of consumers, healthcare workers, health organisations and those involved in governance. The coordination or integration of this collective working might be facilitated through a series of activities undertaken in partnership such as stakeholder groups working together maybe orchestrated by those involved in governance creating opportunity or influence that has the effect of these stakeholders undertaking activities that have consequential outputs related to quality and risk management.

The proposed strategy involves a plan of action where deep and authentic influencing of a culture of performance around quality occurs within all stakeholder groups. Information Systems that provide

for evidence-based decision-making and knowledge management about quality and risk needs to support continuous review related to quality and risk management outcomes. Leaders need to be outcomes focused on the leadership process and how it supports staff responsible for quality of patient care and services in their teams, groups and organisations. Consumers need to be facilitated in their decision-making based on high quality and curated information to support decision-making through an enhanced understanding of what use quality of care and services. This in turn, impact directly on decisions taken by consumers and indirectly on health organisations in their information and accountability to consumers.

The HIQRS model highlights the need for leadership approaches and styles that facilitate high-quality outcomes in relation to quality and risk management. The model also articulates an ongoing use of contemporary quality and risk management activities that deliver on high impact outcomes.

This theory integrates key actions and activities across the stakeholder continuum to provide an agenda for growth and improvement in the quality and risk-management domain.

7.3.1 Data for this theory

Data for the theory's development has come from the findings in the four studies conducted as part of this research. Key learning has been that quality and risk activities and their impact in health care are enhanced when:

- the culture of health organisations and facilities (culture is owned by the workforce members) is supported, enabled, accentuated and influenced by those in governance and leadership
- culture related to quality assurance and improvement is experienced and valued deep into the organisation, meaning that staff at all levels in the organisation, irrespective of their role and experience, understand and have a deep, learned knowledge of quality, risk and safety
- data-management systems, relevant and proportional to the size and complexity of the organisation, are available and reliable in terms of being trustworthy, accurate, timely and with transparent data provision
- there is a continuous review of data and information, enabling benchmarking, comparison and review of outcomes
- there is an expanded and enhanced understanding of dimensions of quality and risk by consumers

- information on clinical and non-clinical aspects of service delivery are routinely available to consumers

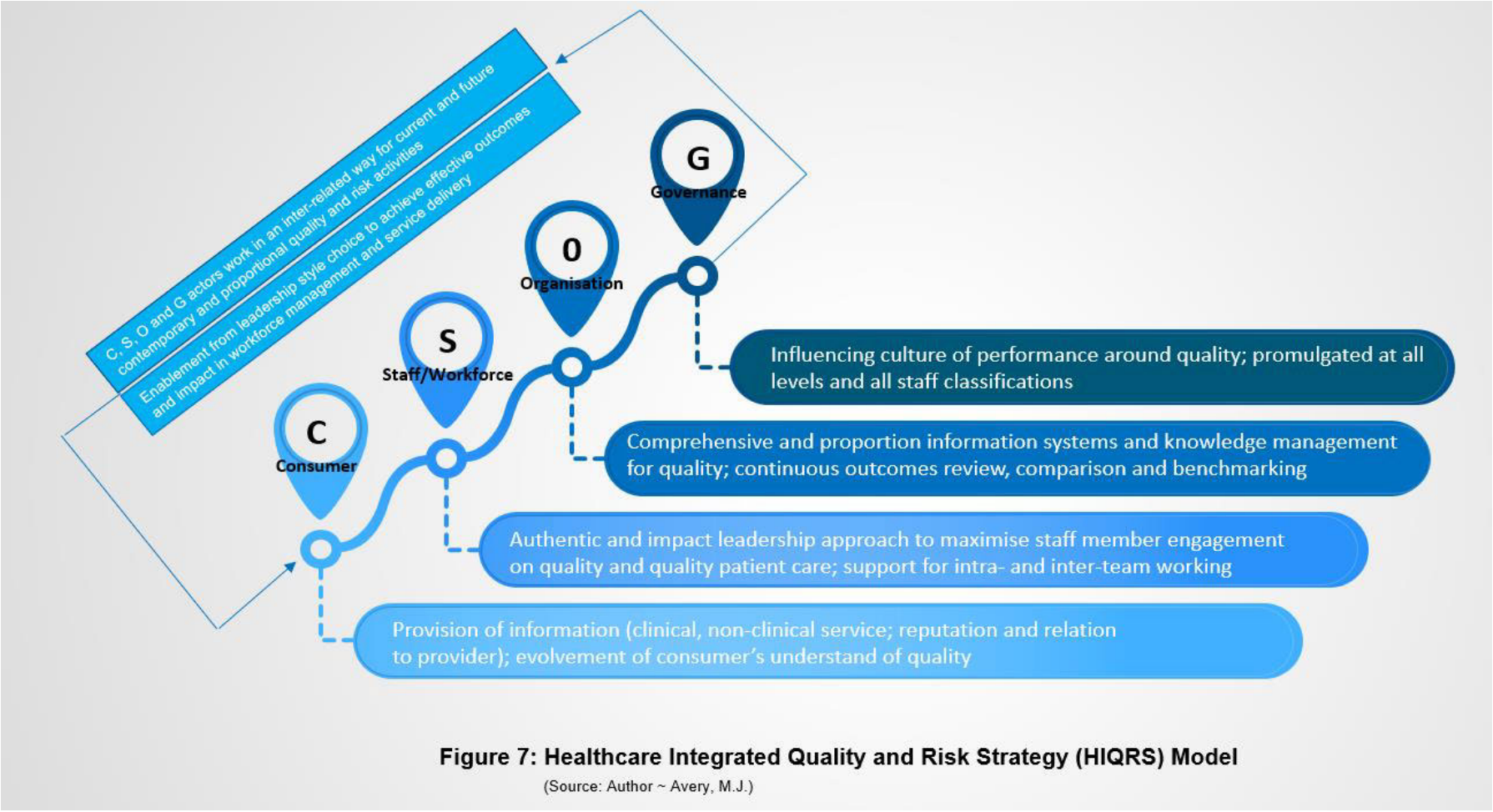

Figure 7: Healthcare Integrated Quality and Risk Strategy (HIQRS) Model

(Source: Author ~ Avery, M.J.)

7.3.2 Established theories and their relationship to HIQRS

Several theories relate to aspects of how people work and engage with healthcare systems and organisations in areas of this research. An overview of how HIQRS relates and works with them is important.

Patient Satisfaction Theory: a significant amount of research literature is available regarding the understanding and potential utilisation of patient satisfaction; however, there is limited work on the development and testing of theories related to patient satisfaction in health care. Several attributes regarding consumer positive assessment and evaluation of healthcare dimensions, including value, entitlement, perceived expectations and care outcomes, embody their satisfaction (Hudak, Hogg-Johnson, Bombardier, McKeever, & Wright, 2004; Linder-Pelz, 1982).

In this research and the development of an integrated quality and risk model, key attributes such as reputation and interpersonal relationships with healthcare providers indicate a consumer's engagement and satisfaction with healthcare services.

Employee Engagement Theory: Kahn's theory of employee engagement identified three psychological conditions that act as key enablers for individuals to fully express themselves at work (Kahn, 1990, 1992). To fully connect with their roles and functions, employees need work that is meaningful to their organisation and to society in general. They need to operate in a safe environment where their contributions and actions, irrespective of circumstances, are not impacted by risk or negative personal consequences. Employees need to have the practical and cognitive availability to engage fully in the unique, particular function of their work role.

In this research, a component of the proposed integrated quality and risk model capitalises on this employee engagement theory. The model proposes and encourages strong, authentic and effective leadership to support and facilitate these engagement elements.

Systems Theory and Improvement: this involves a holistic healthcare systems relationship model that provides for a series of adaptive control studies related to controller communication relationships. These relationships are between healthcare accreditation systems, quality and measurement reporting, and healthcare organisations. Control relationships represent; health-provider standards;

communication relating to outcomes from quality management systems; the relationship between outputs of health accreditation and quality management systems; and communication and feedback from accreditation processes and quality-management systems are considered as component parts for the application systems theory and improvement. The objective is the relationship between these system factors and improvement of healthcare systems and outcomes (Chuang & Inder, 2009; Howley & Chuang, 2011).

In this research, importance is placed on the need for development, implementation and subsequent use of proportionate, encompassing and timely quality and risk systems as part of the strategic direction and planning of healthcare organisations.

Evolutionary Governance Theory: several theories or models have been promulgated for understanding and managing governance, which is fundamentally concerned with establishing conditions around ordered rule and collective action. Evolutionary Governance Theory (EGT) describes the way societies, its markets and governing bodies evolve and internally integrate a number of theoretical sources into a new framework involving communication, thus establishing binding decisions through the use of various approaches and instruments to achieve those aims. EGT establishes governance as evolutionary through connected changes in elements and structures, leading to the emergence of new constructs, elements and ways of working (Van Assche, Beunen, & Duineveld, 2014).

In this research, the concept of evolutionary change within governance function is identified and used as an important factor in continuous determination and evaluation of quality and risk systems in health organisations. The concept is that those involved in governance and governing entities have an obligation to development, renewal and extension around enabling high-performing organisations and high standards of patient care.

7.3.3 How would HIQRS work and impact quality and risk management?

The HIQRS theory sets out that four stakeholder groups need to work, or be managed to work, in concert. Consumers, health workers, organisations and those in health governance need to operate in concert on the key aspects of engagement.

Each stakeholder group has a dedicated attribute or system that they engage in to develop and deploy contemporary action and practice to maximise the attribute objective. The four groups need to engage and work in a flow of knowledge, experience and inter-related objectives of enhancing actions and outcomes related to quality and risk management.

The key attributes relate and impact on each other for all groups, promoting growth, development and support between and within each stakeholder level. The objective is mutual benefit to each stakeholder level for system performance and achievement.

The attributes are:

- strong influencing and facilitating occurs through promoting deep, authentic understanding of quality;
- the culture of quality is promulgated at all levels of the organisation and to all staff members;
- a comprehensive data-management system supports availability of accurate, timely and useful information enabling comparison, benchmarking and a focus on outcome achievement;
- leaders and managers of teams, groups and organisations use varying leadership styles to facilitate and support strong engagement of the health worker in delivering quality patient care and services;
- continuous support for teamwork is critical to successfully deliver quality care; consumers (as prospective, current or past patients) have access to a range of clinical and nonclinical information to enable sound choices about their health care.

7.4 Utilisation strategies for this model

The HIQRS theory can be applied in any sized or structured healthcare environment. The theory supports a use or implementation continuum strategy. Therefore, directly or indirectly, the consumer, health worker, organisation and governance need to be in a position to continuously engage and act to disseminate knowledge and support a two-way interaction. This means that medium-to-large health organisations with medium-to-large population bases and defined geographical areas can utilise the theory. Similarly, larger parts of the healthcare system can take advantage of the HIQRS theory concepts.

7.4.1 Application approach for HIQRS

The effective application of HIQRS that can be undertaken within either a single organisation and its community or across several organisations and ownership structures. The HIQRS development provides an engagement structure that focuses on the connection of existing concepts and activities related to quality of healthcare services. It explains and predicts how focused leadership and management, in relation to quality improvement and risk mitigation, can benefit consumer care and services.

An application strategy will support the use of this new knowledge to attain those quality care outcomes. Several issues affect translation into practice (Thomas, 2017), with a focus on key stakeholders, internal and external to health organisations who are involved in leading, processing and the outcomes of quality, risk and safety to deploy complex interventions for producing complex outcomes (Kessler & Glasgow, 2011).

Rather than adopting a knowledge-push approach to the implementation of HIQRS, facilitation of a knowledge-pull approach should achieve stronger sustained utilisation of the strategy (Rushmer, Ward, Nguyen, & Kuchenmüller, 2019). HIQRS might be implemented across organisational boundaries requiring collaborative activities in its application. Knowledge-pull applications enable gathering of quality and risk information; local and collaborative monitoring of data and information; and the satisfaction of multiple stakeholders. This is important when stakeholders are operating from different domains such as in consumer markets, complex organisations and governance functions.

An application strategy that considers the needs and benefits to different stakeholders in terms of processes involving identification of the types of information to be shared is critical. Some information is easier to exchange than others and collaborative engagement on this aspect of HIQRS application is important. Areas such as health organisations sharing quality and risk performance information with consumers requires trust, sensitivity and contemporary interpretation formation. The HIQRS provides for: a suitable medium applying the activities of sharing and engagement required to influence performance culture; application of information and knowledge management systems; support of strong leadership; and subsequent provision of information to consumers.

7.4.2 Preparation and tools for HIQRS utilisation

To implement HIQRS, a number of support tools need to be assembled or developed. A range of engagement activities, governance and information already exists internally and externally to health organisations that will benefit the implementation. In addition, several activities and support tools need to be gathered or developed for implementation.

Strong engagement by healthcare staff on quality and risk responsibilities has been demonstrated as key to effective patient and client care outcomes. To support the focus in the HIQRS relating to individual and team efforts appropriate data gathering tools and monitoring to measure the climate surrounding staff members working towards high-quality care need to be in place. In this research (Chapter 4), important correlations were between the work undertaken by staff and quality of care for patient outcomes related to measuring satisfaction (Beehr, 1976); line manager support and decision-making (Beugre & Baron, 2001); innovation and flexibility (Patterson et al., 2005); and reflexivity (Remneland-Wikhamn & Wikhamn, 2011). These correlations in turn provided focus where health leaders could concentrate enabling actions to achieve high-quality care outcomes through their workforces. Additional drivers that support such outcomes may need to be identified and implemented within any HIQRS local application.

Focusing on indicators that are able to demonstrate high levels of performance outcomes is a significant part of the HIQRS requirements. Identification, development and utilisation of outcome measurement demonstrates the impact on effectiveness with respect to the value of HIQRS. The impact of leadership and quality care and services has been demonstrated (Shipton, Armstrong, West, & Dawson, 2008). Health leaders that are focused on enabling and requiring commensurate high levels of performance in outcome measurement have a great opportunity to meet and exceed stakeholder expectations in healthcare delivery. Health professionals do not act in isolation in terms of delivery of quality patient and client care. A connected approach in reporting and understanding outcomes of care across those involved in governance, leadership, care delivery and as consumers is a critical part of health systems and organisations performance (Hanefield, Powell-Jackson, & Balabanova, 2017). HIQRS enables this partnership in terms of contribution, understanding and benefit of agreed expectations and outcomes reporting. Development and utilisation of outcome reporting from health organisation databases and clinical registries are key in identification and demonstration of improvement and attainment of high levels of patient care outcomes (Kampstra et al., 2018).

In addition to clinical and support service outcome measurement, HIQRS implementation would also be effective with in gaining agreement on the types and number of patient reported outcome measures (PROMS). The utilisation of PROMS in HIQRS provides for the provision of relevant and outcomes information about organisations by and to their consumer stakeholders. There is a wide variety of PROMS that have been developed to date, which enable quality to be observed and understood as defined by patients or consumers (Williams, Sansoni, Morris, Grootemaat, & Thompson, 2016).

7.4.3 HIQRS implementation approach

For the HIQRS to be successful, determination of implementation and evaluation approaches is needed. Evidence-based interventions are central to implementation science and relate to improvement in health behaviours, outcomes and the delivery environment (Leeman, Birken, Powell, Rohweder, & Shea, 2017).

Several approaches to implementation strategies have been identified (Leeman et al., 2017) but given the complex nature of health and the environment where HIQRS is to be utilised, engagement on motivation, capability and opportunity indicates the use of a scale-up strategy (Michie, Stralen, & West, 2011). Scale-up approaches to implementation accommodate multiple agents and settings to achieve evidence-based interventions that are focused on leadership engagement. This is being undertaken with HIQRS where the focus is on enabling a quality improvement collaboration.

Deciding on the use of appropriate type of evaluation is integral to application and use of HIQRS. Process evaluation is an important consideration for its undertaking and reporting about evaluation (Moore et al., 2015). The Medical Research Council United Kingdom (MRC) has developed a framework, with implementation guidance, that is useful for complex translational applications (MRC Population Health Science Research Network, 2015). This framework provides an adaptable approach for planning, designing and conducting an evaluation for complex activities, which could involve more than one ownership or governance centre responsibilities. It addresses issues of scalability that relate to the application of HIQRS and considers assessment of the environment and planning actions taken for implementation. It enables consideration of both vertical and horizontal scaling that support an analysis of the impact of HIQRS application in terms of expansion and replication of the use of the strategy in the context of health quality and risk management. The MRC evaluation framework focuses on interventions and their causal assumptions; implementation of

processes; the mechanisms of impact; and outcomes achieved in the context of the relevant environment.

The purpose of effective evaluation of the HIQRS strategy is to fully understand its intervention functioning, which is complex in that it comprises multiple interactive components.

7.5 Conclusion

This chapter has outlined a management pathway approach to develop, expand and enhance quality and risk management in health care. The key findings from the four research studies (Chapters 3, 4, 5 and 6) have been summarised and discussed. Using the findings from these studies, a dataset has been established that represent key areas of successful and developing experiences for quality and risk management. From this dataset and from examining research theory related to relevant aspects of healthcare stakeholder and organisation dynamics, a theory has been delivered (with a demonstrated model) that appears to support stronger integration of development and promulgation of activities to enhance quality and risk management in health services.

In this chapter a model (Figure 7) has been prepared and serves as a construct for example of how the proposed strategy of incorporating key stakeholders and their related high value and impact activities relating to quality and risk management can be harnessed and facilitated to improve safe care outcomes. Quality and risk management theory has been extended through the research detailed in this thesis where principles of inclusion and coordinated activity for these stakeholders relating to culture, information, knowledge, leadership and governance are proposed to be harnessed and focused on improving quality outcomes and mitigating inherent risk in health care services. In practice this strategy can be implemented fundamentally into or both ways. Individual stakeholder groups, across defined service, geographic or system levels, could collectively engage on the identified activities and performance relating to quality and risk management or outputs in these areas for the stakeholder groups could be facilitated or influenced at the health organisation governance level. The application of key activities that enhance deep cultural engagement relating to quality and risk; delivery comprehensive information systems that support enhanced knowledge management; the provision of information that enhances consumers understanding and engagement around quality of healthcare; with authentic and impact leadership aimed at outcomes are critical to improved and enhanced quality and risk management in healthcare.

Chapter 8. Conclusion and Contributions from this Research

Based on findings from the four research projects (Chapters 3, 4, 5 and 6 and with key findings summarised in the previous chapter), common attributes were identified that allow research implications to be discussed. With the new knowledge attained , a theory on healthcare integrated quality and risk (HIQR) was developed and presented.

The aim of this research was to ascertain important elements and actions of key stakeholder groups and organisations in relation to quality and risk and to propose ways of engaging on identified interaction points to enhance the impact of management of quality and risk for healthcare outcomes. The individual research projects incorporated into this thesis discovered critical engagement working and action by consumers, health care workers, in the organisation and management of health organisations and the optimal way that health facilities are governed and provides for a strategy on improvement in the management of quality and risk for health care outcomes. An integration of these critical action activities should further enhance the impact on quality and risk patient care and health organisation performance outcomes. Four key research projects form the basis of this overall research study. Previous research has focused on individual stakeholder groups or components of quality, risk and safety domains in health care. This research has sought to identify enablers and barriers across a continuum of key stakeholders in the acute-care health sector. Important information has been obtained about interrelationships of understanding of quality and risk. Also found was what particular stakeholder groups find important and focus on in these domains. Moreover, areas of interdependence were identified where action could be focused to improve engagement on quality and risk so as to enhance systems and performance, and consequently standards of patient care.

8.1 Summary of research project achievements

An important outcome from this research is the review and examination of engagement of quality and risk from the perspectives of key healthcare stakeholders: namely consumers, healthcare workers, health organisations and facilities, and those within the governance of health facilities. There are important interrelationships and interdependencies for stakeholders across this service and care delivery continuum. Figure 6 outlines key findings in relation to the stakeholder groups and presents the continuum strategy that will support engagement relating to quality and risk.

In respect to health consumers, an interesting and important finding was that 20% of study respondents indicated they did not have a particular understanding of or measure of quality for health facilities or services. Consumers identified the reputation of health professionals and facilities as a key issue, expressed in terms of technical ability, appropriate care and actions received, and skill and capacity. They identified listening and interpersonal communication skills as critically important in selecting health care and services for themselves or their families. A strong finding from the consumer study was the willingness and expectation to be involved in review, feedback and communication. Communication was highlighted at both an individual relationship level and at a higher, general understanding level. There was an expectation that more information will be provided to consumers to help them understand and make choices for their health care. Consumers particularly value ratings or indicators provided by independent third parties, which they can use to assist in their decision making (set out in Chapter 3).

In terms of organisational systems and services, healthcare workers identified important aspects of their connection and engagement in work as related to ensuring high standards of patient care and general quality attainment (set out in Chapter 4). They identified four key elements regarding their work engagement. Staff value a nimble, responsive organisation that enables participation in identifying changing and emerging situations regarding quality and risk, and in the development and placement of contemporary ways of working in that context. Given the critical nature of quality and risk for direct and indirect patient care, healthcare workers want job satisfaction, to be treated fairly in their organisations and teams, and to receive appropriate, proportionate recognition for their efforts and contributions. Teamwork and inter-team working was identified as a significantly powerful construct in addressing the complex nature of health organisations and the complexity of the quality and risk-management agenda. Finally, healthcare workers want authentic, capable and supportive leadership that facilitates the workplace environment and acts in an enabling way to attain critical goals associated with quality and risk management.

Research into ways that high-performing organisations operate identified that an integrated strategic agenda for quality, risk and safety, with predetermined outcomes or goals, is critical to attain high-level performance objectives. A focus on evidence-based practice is supported by the development and use of data-management systems proportionate to the size and scope of the organisation. Health facilities and organisations that are outcomes driven implement their strategic intent purposefully and achieve high levels of quality services and care. Again, this study (set out in Chapter 5) demonstrated that organisations that focus on and enable strong leadership and

management processes support the full range of input, process and output management for the organisation.

For those governing healthcare organisations, study of the approaches used for quality and risk for service and care delivery highlighted the development and implementation of appropriate quality and risk management systems across organisational levels. Governing bodies saw the facilitation and influence of deep, authentic culture related to quality amongst all organisational staff and external stakeholders as a critical action (set out in Chapter 6).

Key themes of evolving, maturing organisations and their systems and structures were evident from these studies. Similarly, the need for authentic, transparent and strong leadership and management, irrespective of leadership styles utilised, are critical enabling factors in relation to quality and risk management.

8.2 Revisiting research aims and objectives

The key research aim for this study was to ascertain knowledge on important experiences and requirements of the healthcare stakeholder cohort related to prospective delivery of high-quality care and risk management. Findings of the individual research projects within the overall content and thematic analysis provided important answers and information for this question. Specific strengths and development areas were identified for each stakeholder group's approach to quality and risk management. Common themes and interdependencies between each stakeholder group's approach to the quality and risk domains were also identified. This provides for an integrated, strong development and engagement agenda to enhance performance in this area.

- *Q1: How do health consumers understand and interpret quality in health care and, as ascertained by surveying consumers, what information do they require in making decisions regarding choices in health services and care delivery?*

Not all stakeholder groups or organisations are fully satisfied with performance in regard to quality and risk. Evidence was found that, for adverse events as an example, a recurrent issue is that patients and healthcare facilities still experience adverse events in 10–14% of all hospitalisations. A significant proportion of these adverse events are preventable. Regarding consumers with a vested interest assessing where they may attain high quality care, it was identified that this is an area in need of greater consumer-accessible information. Such information should be validated by appropriate agencies with knowledge, expertise and standing.

Important findings have been made about how consumers understand and interpret information available to them so they can make decisions about accessing care and services. This study identified that consumers have the capacity to assimilate and interpret information. Consumers value the reputation of individuals and organisations as well as the capacity for healthcare providers to engage at an interpersonal level and make strong communication connections.

- *Q2: What aspects of work in the workplace do health workforce staff members believe are important in ensuring quality patient care and service delivery?*

Healthcare workers identified a strong commitment to high-quality patient care and overall quality of the delivery of systems and services in their organisations. They highlighted key enablers that are important in current and future engagement on work in the critical area of quality and risk management.

- *Q3: How do successful organisations and facilities approach the development and use of systems and processes to deliver high-quality care?*

The analysis of successful health organisations that deploy systems and procedures for quality and risk demonstrated outcome-focused strategic and operational planning. This planning is supported by data-management systems that feed constantly to decision making about outcome attainment.

- *Q4: What are the appropriate governance activities that health boards utilise to ensure effective quality and risk activities in their organisations?*

Finally, enabling and promoting a culture of quality assurance and improvement at the deep strata level of organisational culture was identified as an achievement for those involved in health-facility governance. The study of governance activities revealed promulgation of proportionate, strong and effective systems and structures that identify and enable effective quality and risk management systems, which are critically important for successful patient care and service delivery.

8.3 Research contribution and implications on practice

The research in this project related to impact and enhancement of the effectiveness of quality and risk management in health care. It revealed several key areas for change and improvement regarding ways of working in the acute healthcare sector. An important focus has been the articulation of the interrelated, interdependent aspects of quality and risk management activities as well as the need for leadership across the various parts of the healthcare stakeholder continuum.

Research enabled the collection of key data and information that has supported the development of a *Healthcare Integrated Quality and Risk Strategy* (HIQRS) (Figure 7) and its presentation in model form. This theory provides an agenda to look collectively at the key stakeholder groups studied and to manage a series of work domains and activities that collectively build capacity and strength in each part of the healthcare stakeholder continuum, thus improving and expanding successful outcomes for quality consumer and patient care.

8.4 Research limitations

This research and its component projects focused on four particular stakeholder groups operating in the acute-care sector: consumers; healthcare workers; health organisations; and those governing health organisations. Other stakeholders, such as for inter-agency working, government, funders, external contractors and consultants, were not specifically included in this research. This means that not all stakeholders that contribute to quality and risk management in the acute healthcare sector have been incorporated here into potential findings regarding enablers and barriers for effective quality and risk management. The expansion of these research projects to include other key healthcare stakeholders would be an appropriate future research activity.

A contribution from this research to change of practice from this research has been the development of a *Healthcare Integrated Quality and Risk Strategy* (HIQRS) . This came from the findings from the research projects undertaken and also the overall learning from this research. This theory has not been validated, therefore providing a further opportunity for ongoing research as an extension from this project.

8.5 Directions for future research

In addition to future possible research related to inclusion of additional stakeholders and validation of the HIQRS theory set out in Section 8.4, this research identified two other important areas that impact on effectiveness and performance in terms of quality and risk management.

A key issue identified across all stakeholder groups included in this research is the necessity to engender a strong, deep understanding and culture of the concept of quality in teams, groups and organisations. This relates to involving and engaging all levels of people delivering and receiving planned high quality patient care and safe services. Also important are issues around moving knowledge and ramifications of good-quality systems, processes and approaches from surface-level learning to one of deep learning for individuals and their organisations. Future research around

methodology to move enhanced knowledge and activities to higher levels through deep learning is an important issue.

This research also demonstrates that a continuous growth and development cycle related to quality and risk management exists at all stakeholder group levels. Some stakeholder groups reported significant successes and strength in some of these aspects, whereas others identified areas where change and improvement are needed. Future research around planning and development of the quality and risk management agenda and strategy milieu is warranted.

8.6 Concluding remarks

The delivery of quality patient care and mitigation of risk in complex health organisations continues to be an important aspect of the operations and outcomes of healthcare delivery. In this research, a number of key improvement and development areas and activities have been identified. This provides for an ongoing enhanced agenda to address quality and risk management in acute healthcare. This is an ongoing agenda and activity. This research identifies areas where action can be taken and has also promulgated a continuum strategy that enables engagement that can both unite key stakeholder groups for quality and risk management and potentially provide additional power and motivation for development in these areas.

Appendices

Appendix 1

Telephone survey – health information sources and health care quality requirements

Interview Information, Questions and Script

Introduction

'Good afternoon/evening. My name is XXX. I'm calling on behalf of Professor Allan Cripps from Griffith University (Queensland) who is the Chief Investigator in this research project and Mark Avery who is the Student Researcher (who is undertaking this project as part of his academic program in his PhD).'

'We are currently undertaking research about where Australians go for information about various issues relating to their health and also views on how quality and risk might be managed in our healthcare system.'

'This study will help improve the way information are health services made available to the community as well as structuring and managing for quality assurance and quality improvement in health.'

Participate?

'I was wondering whether you had XXX minutes to spare to accept my invitation to answer some questions for this project?'

'Your input will be very valuable.'

'And all information provided will be treated as strictly confidential and no individual responses will be identifiable and you're free to discontinue the interview at any time without having to give explanation. I will record your answers manually and I will not be recording our call. Research information will be shared through publications and presentations.'

Yes, participate.
No, won't participate.

Anyone else?

'Is there anyone else in your household who would be able to assist?'

No, no one else.
Yes, can assist.

Not qualified

'You must be 18 years of age or older to complete this survey.'

'Is there anyone else in your household in a different age category to yourself I could speak to?'

No – survey end

'Thanks for your help. Have a good afternoon/evening.'

Qualified over 18 years

'Firstly, can I please confirm that you are over 18 and that you agree to participate in this survey?'

Yes
No

Age group

'And just for our statistical purposes, can you please tell me what age range you are in?'

Record - 18-24 years
25-34 years
35-44 years
45-54 years
55-64 years
65-74 years
75-84 years
85 years and over

Sex

Operator: select the sex of the respondent.

'And may have your first name please – this is not for recording but just for our conversation now _____, Thanks _____'

Male
Female

This research project is approved by the Griffith University Ethics Committee (approval 2019/554). I can give you the contact details for the University's Manager of Griffith University Human Research Ethics Committee and I can give you the contact details now or at the end of our survey (telephone number if needed (07) 373 54375.

Quota full

'Thanks for that. With actually surveyed our required quota for your age group/gender. To ensure we get a totally balanced survey I need to concentrate on other groups, so I can't continue with this survey.'

'Is there anyone else in your household in a different age/sex category to yourself who I could speak to?'

Back for other ages listing

or

End call

Question 1

'Firstly, if you are trying to find a **general practitioner** (a doctor) to treat you, where would you first go for this information?'

Record

'And where would you go to next for information on finding a general practitioner?'

Record

'And is there anywhere else you may go for information on finding a general practitioner?'

Record

Question 2

'If you are trying to find information about **pain relief medication** that you could buy without a doctor's prescription, where would you go first for this information?'

Record

'And where would you go next for information on finding information on over-the-counter pain relief medications?'

Record

'And is there anywhere else you may go for information about pain relief medication?'

Record

Question 3

'And what about if you are trying to find information about **drugs that a doctor prescribed** for you, we would you go first for information?'

Record

'And where would you go next for information?'

Record

'And is there anywhere else that you may go for information on drugs that a doctor prescribed?'

Record

Question 4

'Now, if you are trying to find information about **gaining or losing weight**, would you go first for information?'

Record

'And we would you go next for information on weight loss or gain?'

Record

'And is there anywhere else you may go find information on weight loss or gain?'

Record

Question 5

'And what about if you are trying to find information on the ways to **stop smoking**, where would you go first for this information?'

Record

'And where would you go next for information on ways to stop smoking?'

Record

'And is there anywhere else you may go for information ways to stop smoking?'

Record

Question 6

'Now if you are trying to find information about **heart disease** where might you first go for this information?'

Record

'And where would you go next for information on heart disease wish to market'

Record

'And is there anywhere else you may go for information on heart disease?'

Record

Question 7

'Now, if you are trying to find information on **asthma**, where would you first go?'

Record

'And where would you go next for information on asthma?'

Record

'And is there anywhere or she may go for information on asthma?'

Record

Question 8

'And, what about if you are trying to find information on **alternative treatments** to traditional medicine, would you first go for this information? '

Record

'And we would you go next for information on alternative treatments to traditional medicine?'

Record

'And is there anywhere else you may go for information on alternative treatments to traditional medicine?'

Record

Question 9

'What that if you are trying to find information about **counselling support services in the community**, we would you first go to find this information?'

Record

'And where would you go next for information on counselling support services in the community?'

Record

'And is there anywhere else you may go for information on counselling support services in the community?'

Record

Question 10

'How do you **measure the quality of healthcare services** (such as provided by doctors; hospital; community clinics et cetera)?'

Record

'What other methods do to you use to measure the quality of healthcare services?'

Record

'And other any other ways or measures that you use to determine the quality of healthcare services you receive?'

Record

Question 11

'What **things are important to you when you choose** a doctor, hospital or community health service to receive care and treatment from?'

Record

'And what are the other things are important to you when you decide which doctor, hospital or community health service can provide care and treatment?'

Record

'And are there any other things that are important to you when you make a decision to choose a hot doctor, hospital community health service to receive care and treatment? And '

Record

Question 12

'What would you **want to do to have a say or voice in quality assurance or improvement** in healthcare services provided?'

Record

'And what else would you want to do to have a say or a voice in ensuring quality assurance or improvement in healthcare? In single quote

Record

'And is there anything else that you might want to do to have a say or voice in determining quality assurance or improvement in healthcare?'

Record

Question 13

'What **information about the quality and safety** of the healthcare system do you want to receive and how do you want that provided to you?'

Record

'And what and what other information about the quality and safety of the healthcare system do you want to know and how do you want that provided to you?'

Record

'And is there any other information about the quality and safety of the healthcare system that you want and how do you want that provided to you?'

Record

Question 14

'Do you think the healthcare system (doctors, hospitals, clinics) are **safe and how do you decide that**?'

Record

'

Question 15

'Do you **know about the "MyHospitals"** website provided by the Australian government?' (www.myhospitals.gov.au)

If No, record and end

If Yes, then ask:

'What **information** did you look up on the "MyHospitals" website?'

Record

'Was there any other information that you looked up on the "MyHospitals" website?'

Record

'When was the **last time that you looked up information** on the "MyHospitals" website?'

Record

Educational Achievement

'And finally, for statistical purposes only, can you tell me which of the following best describes your highest educational achievement?'

- Completed grade 10
- Completed grade 12
- Incomplete university degree
- Completed university degree
- Incomplete vocational takes course
- Completed vocational taste course
- Completed postgraduate degree

'And if you could also give me your postcode

'that concludes the survey… Can I just confirm your postcode there _____?'

Record

Survey end -

'Once again my name is XXX. If you have any queries regarding this research are welcome to call the Manager of Griffith University Human Research Ethics Committee and I can give you the telephone number if needed (07) 373 54375.' 'I could also email you information about this research project if you would like that or I can give you the telephone number for Mark Avery from the research team if needed (07) 373 53287'.

'Please be assured your responses will remain confidential and that no individual responses are reported on from this research.'

'Thank you and have a great afternoon/evening.'

End

Griffith UNIVERSITY

Queensland Government

The Culture, Transformation and Performance Project: 2013-2015

The primary aim of this project is to understand the impact of the relocation of the Gold Coast Hospital to the Gold Coast University Hospital on the culture and performance of this organisation and the district as a whole. This study provides a one-off opportunity to make comparisons between Gold Coast Hospital and Health Service cultures and performance before the move, and again, after relocation. A pre move survey was conducted in 2013 with reassessment scheduled for now. The outcomes of these initial comparisons will be used diagnostically to identify areas of strength and those areas in need of improvement. A secondary aim of the project is to use these comparisons to appraise the overall impact of relocation on the GCHHS.

This study conforms to the National Statement on Ethical Conduct in Human Research (2007). For further information on this survey, please refer to the Participation Information Sheet included with this survey.

Consent

We appreciate you taking the time to complete this survey which should take 30 minutes. The risks associated with participation in this study are negligible. You do not have to answer all questions. Any question likely to cause distress such as those relating to incivility can be left unanswered.

1. You will not be able to be identified in any report or publication relating to the study.
2. Only general demographic information is being be sought.
3. The research team will only report aggregated data based on themes derived from participant responses.
4. Some *verbatim* comments will be used but any idiosyncratic comments attributable to any particular person will not.
5. Confidential data or information about the participant or participants work is not being sought.
6. Coding that could link particular responses to a specific individual will not be used.
7. Only pseudonyms will be used during reporting.
8. The collection and analysis of data will take place on a computer system that is completely separate from that of the Gold Coast Health Hospital Services (GCHS).

The project has been approved by Ethics Committees at Queensland Health and Griffith University (PBH23/12/HREC). If you have any concerns about the ethical conduct of the research study, please contact the Chair of GCHHS's Ethics Committee on (07) 5568 73879 or by email (gchethics@health.qld.gov.au) or the Manager, Research Ethics, Griffith University, on (07) 3735 4375 or by email (research-ethics@griffith.edu.au). This study conforms to the National Statement on Ethical Conduct in Human Research (2007).

Results will be communicated directly to hospital managers through existing partnerships between Griffith University and the GCHHS. They will be communicated to participants via existing communication channels employed by the hospital such as the in-house newsletter or bulletin. Results will also be communicated via a final report to industry partners, presentation at an appropriate forum within the GCHHS, conference presentations and publications. By filling in this survey you are consenting to participate in this study.

Background information

The information you provide in this section will be used to assist in drawing more meaningful conclusions from the survey results. Your responses will remain **STRICTLY CONFIDENTIAL and you cannot be identified**. Your survey will be sent directly to Griffith University for processing. Areas containing less than 10 respondents will not be reported separately, however all responses will be included in the overall Gold Coast Health results.

Please note that if there are less than 10 people responding to your section, your occupational discipline will be merged with another group for reporting so that your individual results cannot be identified in any way.

1. Please indicate your sex:
Please choose **only one** of the following:

☐ Female

☐ Male

2. Please indicate your age in years:
Please choose ***one*** of the following answers

☐ Under 21

☐ 21 - 30

☐ 31 - 40

☐ 41 - 50

☐ 51 - 60

☐ Over 60

3. What type of position are you currently in?
Please choose ***one*** of the following answers

☐ Permanent full-time

☐ Casual/flexible

☐ Temporary part-time

☐ Permanent part-time

☐ Temporary full-time

☐ Volunteer

☐ Other

4. Do you identify yourself as an Indigenous Australian or Torres Strait Islander?
Please choose ***one*** of the following answers

☐ Yes

☐ No

5. Do you identify yourself as coming from a non-English speaking background?
Please choose ***one*** of the following answers

☐ Yes

☐ No

6. What is the primary location of where you work?
Please choose ***one*** of the following answers

☐ Robina Hospital

☐ Gold Coast University Hospital

☐ Community Health Centres

☐ Other

7a. Please indicate your current entitlement

Please choose ***one*** of the following answers

☐ *Aboriginal and Torres Strait Islander Health Worker* (if you choose this option, please move to **question 7b**)

☐ *Administration* (if you choose this option, please move to **question 7c**)

☐ *Dental* (if you choose this option, please move to **question 7d**)

☐ *Health Practitioner* (if you choose this option, please move to **question 7e**)

☐ *Medical* (if you choose this option, please move to **question 7f**)

☐ *Nursing* (if you choose this option, please move to **question 7g**)

☐ *Operational* (if you choose this option, please move to **question 7h**)

☐ *Professional* (if you choose this option, please move to **question 7i**)

☐ *Technical* (if you choose this option, please move to **question 7j**)

☐ *Trades* (if you choose this option, please move to **question 7k**)

☐ *Other* [ ] (if you choose this option, please move to **question 8**)

7b: Please indicate your entitlement within the *Aboriginal and Torres Strait Islander Health Worker* group?
Please choose ***one*** of the following answers

☐ Trainee Health Worker ☐ Generalist Health Worker

☐ Advanced Health Worker ☐ Senior Health Worker and above

☐ Other [ ]

If you have answered this question, please move to **question 8**

7c: Please indicate your entitlement within the *Administration* group?
Please choose **only one** of the following:

☐ Administration Officer - AO1-AO2 ☐ Administration Officer - AO3-AO4

☐ Administration Officer - AO5-AO6 ☐ Administration Officer - AO7-AO8

☐ DSO/SO/SES/DES

☐ Other [ ]

If you have answered this question, please move to **question 8**

7d: Please indicate your entitlement within the *Dental* group?

Please choose **only one** of the following:

☐ Dental Administration
☐ Dental Assistant
☐ Dental Therapist/ Oral Health Therapist
☐ Dental Technician
☐ Dental Prosthetist
☐ Dentist
☐ Principal Dentist
☐ Dental Specialist
☐ Senior Dental Specialist

7e: Please indicate your entitlement within the *Health Practitioner* group?
Please choose **only one** of the following:

☐ Health Practitioner – Biomedical Engineering
☐ Health Practitioner – Clinical Measurement
☐ Health Practitioner – Dietetics/Nutrition
☐ Health Practitioner – Medical Education
☐ Health Practitioner – Occupational Therapy
☐ Health Practitioner – Pharmacy
☐ Health Practitioner – Physiotherapy
☐ Health Practitioner – Podiatry
☐ Health Practitioner – Psychology
☐ Health Practitioner – Radiography/Medical Imaging
☐ Health Practitioner – Social Work/Welfare
☐ Health Practitioner – Speech Pathology
☐ Other

If you have answered this question, please move to **question 8**

7f: Please indicate your entitlement within the *Medical* group?
Please choose **only one** of the following:

☐ Junior Medical Officer
☐ Senior Medical Officer
☐ Visiting Medical Officer
☐ Other

If you have answered this question, please move to **question 8**

7g. Please indicate your entitlement within the *Nursing* group?
Please choose **only one** of the following:

☐ Nursing - Grade 1
☐ Nursing - Grade 2
☐ Nursing - Grade 3
☐ Nursing - Grade 4
☐ Nursing - Grade 5
☐ Nursing - Grade 6
☐ Nursing - Grade 7
☐ Nursing - Grade 8 and above
☐ Other

If you have answered this question, please move to **question 8**

7h. Please indicate your entitlement within the *Operational* group?
Please choose **only one** of the following:

☐ Operational Officer – Catering
☐ Operational Officer - Gardening
☐ Operational Officer – Housekeeping
☐ Operational Officer - Materials Management
☐ Operational Officer – Security
☐ Operational Officer - Ward
☐ Operational Officer - Other
☐ Other

If you have answered this question, please move to **question 8**

7i: Please indicate your entitlement within the *Professional* group?

☐ Professional Officer PO1 - PO3
☐ Professional Officer PO4 - PO6

7j. Please indicate your entitlement within the *Technical* group?
Please choose **only one** of the following:

☐ Technical Officer
☐ Other

If you have answered this question, please move to **question 8**

7k. Please indicate your entitlement within the *Trades* group?
Only answer this question if the following conditions are met:
Please choose **only one** of the following:

☐ Technical Officer
☐ Other

If you have answered this question, please move to **question 8**

---

8. What is your current role? Please pick the most appropriate.
Please choose **one** of the following:

☐ Executive team member
☐ Manager
☐ Supervisor
☐ Operational staff (front line, direct public or patient care)
☐ Other

9. What is your current department?
Please write your answer here:

10. How long have you worked in your current occupational discipline?
Please choose **one** of the following:

☐ Less than 1 year
☐ 1 - 2 years
☐ 3 - 5 years
☐ 6 - 10 years
☐ 11 - 15 years
☐ 16 - 20 years
☐ More than 20 years

11. How long have you worked in your current role / function?
Please choose **only one** of the following:

☐ Less than 1 year
☐ 1 - 2 years
☐ 3 - 5 years
☐ 6 - 10 years
☐ 11 - 15 years
☐ 16 - 20 years
☐ More than 20 years

12. How long have you worked for Gold Coast Hospital and Health Service?
Please choose **only one** of the following:

☐ Less than 1 year
☐ 1 - 2 years
☐ 3 - 5 years
☐ 6 - 10 years
☐ 11 - 15 years
☐ 16 - 20 years
☐ More than 20 years

13. What is your highest educational level?
Please choose **only one** of the following:

☐ Year 10 or below
☐ High School Certificate
☐ Professional Diploma e.g. Nursing
☐ VET Certificate (includes Certificate III, IV and Diploma)
☐ Degree - Undergraduate
☐ Postgraduate Degree

14. Please indicate if you are any of the following:
Please choose **only one** of the following:

☐ On higher duties
☐ On secondment
☐ Job sharing
☐ Other

15. Did you participate in the last round of the Better Workplaces Staff Opinion Survey for Gold Coast Health in 2010?
Please choose **only one** of the following:

☐ Yes
☐ No

16. Did you participate in the last round of the Culture, Transformation and Performance (CTP) survey for Gold Coast Hospital Health Services in 2013?

Please choose **only one** of the following:

☐ Yes
☐ No

1. About My Satisfaction

Please indicate the extent to which you agree with the following statements
Please choose the appropriate response for each item:

	Completely satisfied	Satisfied	Neutral	Unsatisfied	Completely unsatisfied
1. All in all, how satisfied are you with the people in your work group?	☐	☐	☐	☐	☐
2. All in all, how satisfied are you with your supervisor?	☐	☐	☐	☐	☐
3. All in all, how satisfied are you with your job?	☐	☐	☐	☐	☐
4. All in all, how satisfied are you with Gold Coast Hospital and Health Service, compared to other health services?	☐	☐	☐	☐	☐
5. Considering your skills and the effort you put into your work, how satisfied are you with your pay?	☐	☐	☐	☐	☐
6. How satisfied do you feel with the progress you have made in Gold Coast Hospital and Health Service up to now?	☐	☐	☐	☐	☐
7. How satisfied do you feel with your chance of getting ahead in Gold Coast Hospital and Health Service in the future?	☐	☐	☐	☐	☐

2. About My Role

Please indicate the extent to which you agree with the following statements
Please choose the appropriate response for each item:

	Very often	Often	Neutral	Sometimes	Not at all
1. I have significant freedom in determining how I do my job.	☐	☐	☐	☐	☐
2. I can decide on my own how to go about doing my work.	☐	☐	☐	☐	☐
3. I have considerable opportunity for independence and freedom in how I do my job.	☐	☐	☐	☐	☐
4. I find that I have extra work beyond what should normally be expected of me.	☐	☐	☐	☐	☐
5. I feel under continual pressure from others to improve the quality of my work.	☐	☐	☐	☐	☐
6. The performance standards on my job are too high.	☐	☐	☐	☐	☐
7. I have too many responsibilities in my job.	☐	☐	☐	☐	☐
8. I am kept informed of important things that are happening in the workplace.	☐	☐	☐	☐	☐
9. I feel that it is useless to make suggestions about my work because decisions are made regardless of my attempts to influence them.	☐	☐	☐	☐	☐
10. I find myself uninterested in the many changes taking place at work.	☐	☐	☐	☐	☐
11. I have influence over what goes on in my unit or department.	☐	☐	☐	☐	☐

3. About My Challenges

Please indicate the extent to which you agree with the following statements
Please choose the appropriate response for each item:

	Very often	Often	Neutral	Sometimes	Not at all
1. I tend to bounce back quickly after hard times at work.	☐	☐	☐	☐	☐
2. It is hard for me to snap back when something bad happens in the workplace.	☐	☐	☐	☐	☐
3. I have a hard time making it through stressful events at work.	☐	☐	☐	☐	☐
4. It does not take me long to recover from a stressful event at work.	☐	☐	☐	☐	☐
5. I usually come through difficult times in my career with little trouble.	☐	☐	☐	☐	☐
6. I tend to take a long time to get over unexpected set-backs in my work.	☐	☐	☐	☐	☐
7. Dealing with difficult patients enables me to grow as a professional.	☐	☐	☐	☐	☐
8. I see challenges at work as an opportunity to learn.	☐	☐	☐	☐	☐
9. I am confident I can do my job well in any situation.	☐	☐	☐	☐	☐
10. I am resilient at work (note: being resilient is defined as being able to recover quickly from difficult situations).	☐	☐	☐	☐	☐

4. About My Commitment

Listed below is a series of statements that represent possible feelings that individuals might have about Gold Coast Health. With respect to your own feelings about Gold Coast Health for which you are now working, please indicate the degree of your agreement or disagreement

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I would be very happy to spend the rest of my career in this organisation.	☐	☐	☐	☐	☐
2. I enjoy discussing my organisation with people outside it.	☐	☐	☐	☐	☐
3. I really feel as if this organisation's problems are my own.	☐	☐	☐	☐	☐
4. I think I could easily become as attached to another organisation as I am to this one.	☐	☐	☐	☐	☐
5. I do not feel like "part of the family" at my organisation.	☐	☐	☐	☐	☐
6. I do not feel "emotionally attached" to this organisation.	☐	☐	☐	☐	☐
7. This organisation has a great deal of personal meaning to me.	☐	☐	☐	☐	☐
8. I do not feel a strong sense of belonging to my organisation.	☐	☐	☐	☐	☐
9. I am not afraid of what might happen if I quit my job without having another one lined up.	☐	☐	☐	☐	☐
10. It would be very hard for me to leave my organisation right now, even if I wanted to.	☐	☐	☐	☐	☐
11. Too much of my life would be disrupted if I decided I wanted to leave my organisation right now.	☐	☐	☐	☐	☐
12. It wouldn't be too costly for me to leave my organisation in the near future.	☐	☐	☐	☐	☐
13. Right now, staying with my organisation is a matter of necessity.	☐	☐	☐	☐	☐
14. I believe that I have too few options to consider leaving this organisation.	☐	☐	☐	☐	☐
15. One of the few negative consequences of leaving this organisation would be the scarcity of available alternatives.	☐	☐	☐	☐	☐
16. One of the major reasons I continue to work for this organisation is that leaving would require considerable personal sacrifice; another organisation may not match the overall benefits I have here.	☐	☐	☐	☐	☐
17. If I had not already put so much of myself into this organisation, I might consider working elsewhere.	☐	☐	☐	☐	☐
18. I do not feel any obligation to remain with my current employer.	☐	☐	☐	☐	☐
19. Even if it were to my advantage, I do not feel it would be right to leave my organisation now.	☐	☐	☐	☐	☐
20. I would feel guilty if I left my organisation now.	☐	☐	☐	☐	☐
21. This organisation deserves my loyalty.	☐	☐	☐	☐	☐
22. I would not leave my organisation right now because I have a sense of obligation to the people in it.	☐	☐	☐	☐	☐
23. I owe a great deal to my organisation.	☐	☐	☐	☐	☐
24. I willingly give of my time to help to help others who have work-related problems.	☐	☐	☐	☐	☐

4. About My Commitment (continued)

Listed below is a series of statements that represent possible feelings that individuals might have about Gold Coast Health. With respect to your own feelings about Gold Coast Health for which you are now working, please indicate the degree of your agreement or disagreement

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
25. I am willing to take time out of my own busy schedule to help with recruiting or training new people.	☐	☐	☐	☐	☐
26. I "touch base" with others before initiating actions that might affect them.	☐	☐	☐	☐	☐
27. I take steps to try to prevent problems with other people in the workplace.	☐	☐	☐	☐	☐
28. I encourage other people at work when they are down.	☐	☐	☐	☐	☐
29. I act as peacemaker when other workers have Disagreements.	☐	☐	☐	☐	☐

5. About My Supervisor Support and Decision Making

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. When decisions are made about my job, my supervisor treats me with kindness and consideration.	☐	☐	☐	☐	☐
2. When decisions are made about my job, my supervisor treats me with respect and dignity.	☐	☐	☐	☐	☐
3. When decisions are made about my job, my supervisor is sensitive to my personal needs.	☐	☐	☐	☐	☐
4. When decisions are made about my job, my supervisor deals with me in a truthful manner.	☐	☐	☐	☐	☐
5. When decisions are made about my job, my supervisor shows concern for my rights as an employee.	☐	☐	☐	☐	☐
6. Concerning decisions about my job, my supervisor discusses the implications of the decisions with me.	☐	☐	☐	☐	☐
7. My supervisor offers adequate justification for decisions made about my job.	☐	☐	☐	☐	☐
8. When making decisions about my job, my supervisor offers explanations that make sense to me.	☐	☐	☐	☐	☐
9. My general manager explains very clearly any decision made about my job.	☐	☐	☐	☐	☐

6. About Being Treated Fairly

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. My work schedule is fair.	☐	☐	☐	☐	☐
2. I think that my level of pay is fair.	☐	☐	☐	☐	☐
3. I consider my workload to be quite fair.	☐	☐	☐	☐	☐
4. Overall, the rewards I receive here are quite fair.	☐	☐	☐	☐	☐
5. I feel that my job responsibilities are fair.	☐	☐	☐	☐	☐
6. Job decisions are made by my supervisor in an unbiased manner.	☐	☐	☐	☐	☐
7. My supervisor makes sure that all employee concerns are heard before job decisions are made.	☐	☐	☐	☐	☐
8. To make formal job decisions, my supervisor collects accurate and complete information.	☐	☐	☐	☐	☐
9. My supervisor clarifies decisions and provides additional information when requested by employees.	☐	☐	☐	☐	☐
10. All job decisions are applied consistently across all affected employees.	☐	☐	☐	☐	☐
11. Employees are allowed to challenge or appeal job decisions made by my supervisor.	☐	☐	☐	☐	☐

7. About Rewards and Recognition

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. People involved in implementing decisions have a say in making the decisions.	☐	☐	☐	☐	☐
2. Members of my work unit are involved in making decisions that directly affect their work.	☐	☐	☐	☐	☐
3. Decisions are made on the basis of research, data, and technical criteria, as opposed to political concerns.	☐	☐	☐	☐	☐
4. People with the most knowledge are involved in the resolution of problems.	☐	☐	☐	☐	☐
5. If a work unit performs well, there is appropriate recognition and rewards for all.	☐	☐	☐	☐	☐
6. If one performs well, there is appropriate recognition and reward.	☐	☐	☐	☐	☐
7. If one performs well, there is sufficient recognition and rewards.	☐	☐	☐	☐	☐

8. About My Workplace Wellbeing

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. My job tends to directly affect my health.	☐	☐	☐	☐	☐
2. I work under a great deal of tension.	☐	☐	☐	☐	☐
3. I have felt fidgety or nervous as a result of my job.	☐	☐	☐	☐	☐
4. If I had a different job, my health would probably improve.	☐	☐	☐	☐	☐
5. Problems associated with my job have kept me awake at night.	☐	☐	☐	☐	☐
6. I have felt nervous before attending meetings at work.	☐	☐	☐	☐	☐
7. I often 'take my job home with me' in the sense that I think about it when doing other things.	☐	☐	☐	☐	☐

9. About My Workgroup and Patient Care

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. We have a good 'map' of each other's talents and skills.	☐	☐	☐	☐	☐
2. We talk about mistakes and ways to learn from them.	☐	☐	☐	☐	☐
3. We discuss our unique skills with each other so we know who on the unit has relevant specialised skills and knowledge.	☐	☐	☐	☐	☐
4. We discuss alternatives as to how to go about our normal work activities.	☐	☐	☐	☐	☐
5. When giving patient report to a colleague, we usually discuss what to look out for.	☐	☐	☐	☐	☐
6. When attempting to resolve a problem we take advantage of the unique skills of our colleagues.	☐	☐	☐	☐	☐
7. We spend time identifying activities we do not want to go wrong.	☐	☐	☐	☐	☐
8. When errors happen we discuss how we could have prevented them.	☐	☐	☐	☐	☐
9. When a patient crisis occurs, we rapidly pool our collective expertise to attempt to resolve it.	☐	☐	☐	☐	☐

10. About My Group and Others

In the following questions the statements mention 'professional/occupational group'. This is how you identify your role within Gold Coast Health - such as physicians, nurses, allied health staff, administration, environmental services, gardener, food services etc. Please rate the level of collaboration between your professional occupational group and other professional/occupational groups.

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. My professional/occupational group has a good understanding with other professional/occupational groups about our respective responsibilities within Gold Coast Health.	☐	☐	☐	☐	☐
2. Other professional/occupational groups are usually willing to take into account the inter-dependency with my professional/occupational group when planning their work within Gold Coast Hospital.	☐	☐	☐	☐	☐
3. I feel that patient treatment and care are not adequately discussed between my professional/occupational group and other professional/occupational groups within Gold Coast Health.	☐	☐	☐	☐	☐
4. My professional/occupational group and other professional/ occupational groups share similar ideas about how to treat patients within Gold Coast Health.	☐	☐	☐	☐	☐
5. Other professional/occupational groups are willing to discuss my professional/occupational group's issues within Gold Coast Health.	☐	☐	☐	☐	☐
6. Other professional/occupational groups cooperate with the way we organize my professional/occupational group's care within Gold Coast Health.	☐	☐	☐	☐	☐
7. Other professional/occupational groups would be willing to cooperate with my professional/occupational group's new practices within Gold Coast Health.	☐	☐	☐	☐	☐
8. The other professional/occupational groups do not usually ask for my professional/occupational group's opinions within Gold Coast Health.	☐	☐	☐	☐	☐
9. The other professional/occupational groups anticipate when my professional/occupational group will need their help within Gold Coast Health.	☐	☐	☐	☐	☐
10. Important information is always passed on between my professional/occupational group and other professional/ occupational groups within Gold Coast Health.	☐	☐	☐	☐	☐
11. Disagreements with other professional/occupational groups often remain unresolved within Gold Coast Health.	☐	☐	☐	☐	☐
12. Other professional/occupational groups think their work is more important than the work of my professional/ occupational group within Gold Coast Health.	☐	☐	☐	☐	☐
13. Other professional/occupational groups would not be willing to discuss their new practices with my professional/ occupational group within Gold Coast Health.	☐	☐	☐	☐	☐

11. About my values

The following are some aspects of a job that people say are important. Please look at them and indicate to what extent you personally think the listed aspects are important in a job.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. Good pay	☐	☐	☐	☐	☐
2. Not too much pressure	☐	☐	☐	☐	☐
3. Good job security	☐	☐	☐	☐	☐
4. A respectful job	☐	☐	☐	☐	☐
5. Good hours	☐	☐	☐	☐	☐
6. An opportunity to use initiative	☐	☐	☐	☐	☐
7. Generous holidays	☐	☐	☐	☐	☐
8. That you can achieve something	☐	☐	☐	☐	☐
9. A responsible job	☐	☐	☐	☐	☐
10. A job that is interesting	☐	☐	☐	☐	☐
11. A job that meets one's abilities	☐	☐	☐	☐	☐
12. Pleasant people to work with	☐	☐	☐	☐	☐
13. Good chances for promotion	☐	☐	☐	☐	☐
14. A useful job in society	☐	☐	☐	☐	☐
15. Meeting people	☐	☐	☐	☐	☐
16. Good physical working conditions	☐	☐	☐	☐	☐
17. To have time off on the weekends	☐	☐	☐	☐	☐

12. About Innovation & Flexibility

Please look at the following items and indicate to what extent you personally agree or disagree with each statement

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. New ideas are readily accepted here	☐	☐	☐	☐	☐
2. This organisation is quick to respond when changes need to be made	☐	☐	☐	☐	☐
3. Management here are quick to spot the need to do things differently	☐	☐	☐	☐	☐
4. This organization is very flexible; it can quickly change procedures to meet new conditions.	☐	☐	☐	☐	☐
5. Assistance in developing new ideas is readily available	☐	☐	☐	☐	☐
6. People in this organization are always searching for new ways of looking at problems	☐	☐	☐	☐	☐

13. About Reflexivity

Please look at the following items and indicate to what extent you personally agree or disagree with each statement

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. In this organization, the way people work together is readily changed in order to improve performance	☐	☐	☐	☐	☐
2. The methods used by this organization to get the job done are often discussed	☐	☐	☐	☐	☐
3. There are regular discussions as to whether people in the organization are working effectively together	☐	☐	☐	☐	☐
4. In this organization, objectives are modified in light of changing circumstances	☐	☐	☐	☐	☐
5. In this organization, time is taken to review organizational objectives	☐	☐	☐	☐	☐

14. About Quality of Patient Care

Please look at the following items and indicate to what extent you personally agree or disagree with each statement
Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. This organisation is always looking to achieve the highest standards of quality patient care	☐	☐	☐	☐	☐
2. Quality patient care is taken very seriously here	☐	☐	☐	☐	☐
3. People believe the organisation's success depends on high-quality work by employees	☐	☐	☐	☐	☐
4. This organisation does not have much of a reputation for top-quality patient care.	☐	☐	☐	☐	☐
5. Please give your work area/unit in this hospital and health service an overall grade on patient safety.	***Excellent***	***Very good***	***Acceptable***	***Poor***	***Failing***

How would you improve the quality of care in this Hospital and Health Service?

15. Quality

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. The health service views quality assurance as a continuing search for ways to improve	☐	☐	☐	☐	☐
2. The health service has effective policies and procedures to improve the quality of care and services	☐	☐	☐	☐	☐
3. Over the past few years, the health service has shown steady, measurable improvements in the quality of care and services provided to patients and clients	☐	☐	☐	☐	☐
4. The quality assurance program in the health service is able to monitor and detect for problems and difficulties in respect to quality and safety related to care and services	☐	☐	☐	☐	☐
5. Learning and education for staff about new and effective ways of monitoring and managing for quality are available and accessible	☐	☐	☐	☐	☐

16. Your Career Intentions

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I will likely look for another job in the next twelve months	☐	☐	☐	☐	☐
2. I will likely look for another job in the next five years	☐	☐	☐	☐	☐

	Yes	No
1. Are you considering leaving your job		
2. If I left my current job, I would want to stay in Gold Coast Hospital Health Services		
3. I am currently actively looking for another job		

17. Comments and Feedback

1. When you think about Gold Coast Hospital and Health Service over recent years, what are the most important achievements or ways of working that need to be held onto or continued? Please be specific as possible - list no more than three (3).
Please write your answer(s) here:

a)
b)
c)

2. When you think about where Gold Coast Health Service is going over the coming years, what new achievements or new ways of working do we need for our future? Please be specific as possible - list no more than three (3).
Please write your answer(s) here:

a)
b)
c)

3. What impact has the relocation of the Gold Coast hospital had on your workplace?
Please write your answer here:

4. What are your hopes, dreams, aspirations for the future of the GCHHS?
Please write your answer here:

5. Are you willing to be contacted to participate in an interview with a member of the research team?

☐ Yes ☐ No

6. If you are willing to be interviewed, please provide a way in which we can contact you to arrange a suitable time

THANK YOU FOR PARTICIPATING IN THIS SURVEY

Please return the completed survey via mail in the return paid envelope provided OR via internal mail to the Research Directorate, Level 2 Pathology and Education Building (PED), GCUH.

Appendix 3

Research Interview Questions for Research Project on Governance Quality, Risk and Safety: approaches by Board Directors

During the planned interview I would like to have your information and examples on how you handle and respond to the following issues and situations in relation to your Board's responsibilities for quality, risk and safety.

These questions are provided ahead of the planned interview and will be covered in the interview itself. There are some specific background questions (to provide context to your operations) we would like to have information about and this information will be collected at the interview.

Background Questions—it would be appreciated if I could collect these answers when we meet for our interview

1. When you consider the usual time spent during routine board meetings during a year, what proportion of the board meeting time is generally spent on the following responsibility areas:
   ___% Finance and financial strategy
   ___% Quality and risk
   ___%Workforce/Human Resources
   ___% Strategic planning and organisation direction
   ___% Capital development
   ___% Core clinical services
   ___% Board education
   ___% (Other—please state_____)
   ___% (Other—please state _____)

2. In respect to quality and risk matters, what proportion of review and decision making is handled by a board sub-committee compared to the full board:
   ___% sub-committee(s)
   ___% full board

3. When you consider the usual time spent during routine board meetings during a year, what proportion of the overall information and advice on quality, risk and safety is provided to the board by:
   ___% CEO
   ___% Executives/Senior Leadership
   ___% Clinicians (doctors, nurses, allied health professionals)
   ___% Quality/Risk Managers/Specialists
   ____% Patient/client/consumer representatives
   ___%external consultants/specialists
   ____%Other—please state _____

4. Does your board have a publicly available integrated strategic directions/quality/risk plan?
   ☐ Yes
   ☐ No
   ☐ Unsure/don't know

5. Does your board have a formal risk appetite statement?
   ☐ Yes
   ☐ No
   ☐ Unsure/don't know

6. Does your organisation undertake a retrospective medical records study to determine incident/harm rates for patients/clients?
   ☐ Yes
   ☐ No
   ☐ Unsure/don't know

7. Does your board receive a report or comments directly from your insurance provider or underwriter?
   ☐ Yes
   ☐ No
   ☐ Unsure/don't know

8. Do board members undertake periodic self-assessment of competencies in relation to quality, risk and management?
   ☐ Yes
   ☐ No
   ☐ Unsure/don't know

Appendix 4

Some Guidance Questions for our Interview Meeting
Interview Questions

1. Describe how your board creates and embeds coherent strategy on quality and risk matters in your organisation?

2. Describe how you ensure your board is getting appropriate information on –
    - clinical and care operations?
    - staff behaviour and culture?

3. Describe how your board establishes and promulgates staff behaviour and a moral compass for the organisation?

4. Describe how your board ensures foreseeability in your organisation?

5. Give an example of how your board has achieved dependability of information provided to the board?

6. Describe how your board holds senior management to account for quality and safety of care?

7. Give an example of the key difficult questions that the board asks in respect to quality, risk and safety?

8. Describe how your board engenders effective and positive leadership and staff morale? Does the board periodically formally review performance in these areas?

9. Describe how your board establishes an agenda to pursue information about the care of patients and welfare of staff?

10. Describe the critical aspects of external relationships that you require for the organisation in respect to quality, risk and safety?

11. Give examples of how your board ensures that patients and clients actually receive respect?

Appendix 5

Presentation and Side Publication Related to this Research

Avery, M. J., Cripps, A. W., Lee, P. C., & Rogers, G. D. (1st-4th October, 2017). Things Important to Healthcare Staff –nurturing them in the leadership of health organisations to support quality and safety. Poster Presentation accepted for 34th International Conference - International Society for Quality in Healthcare (ISQua), London.

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