Australian Practice Nurses' Perceptions of their Role and Competency to Provide Nutrition Care to Patients Living with Chronic Disease

Abstract

Nutrition is important in the management of chronic disease, and practice nurses in the Australian primary care setting are increasingly providing nutrition care to patients living with chronic disease. The aim of this study was to investigate practice nurses' perceptions of their role and competency to provide nutrition care to patients living with chronic disease in Australia. Twenty practice nurses currently employed in general practice participated in an individual semi-structured telephone interview. Interviews were transcribed verbatim and thematically analysed. Practice nurses perceived themselves to be in a prime position to provide opportunistic nutrition care to patients. Participants perceived that the ideal role of a practice nurse is to advocate for nutrition and provide a basic level of nutrition care to patients, however the interpretation of the term 'basic' varied between participants. Participants perceived that practice nurses are highly trusted and approachable, which they valued as important characteristics for the provision of nutrition care. Barriers to providing nutrition care included time constraints, lack of nutrition knowledge, and lack of confidence. Participants were concerned about the availability and accessibility of nutrition education opportunities for practice nurses. This study has demonstrated that practice nurses perceive themselves as having a significant role in the provision of nutrition care to patients with chronic disease in the Australian primary care setting. Further investigation of strategies to enhance the effectiveness of nutrition care provision by practice nurses is warranted.

Introduction

Health care within developed countries currently focuses on non-communicable chronic health conditions (World Health Organization (WHO), 2006). Within Australia, the prevalence of chronic health conditions is considerable (Australian Institute of Health and Welfare, 2007). Chronic disease is currently responsible for approximately 70% of the burden of illness experienced by the Australian population, and this figure is predicted to increase by a further 10% by 2020 (Australian Institute of Health and Welfare, 2011). The National Public Health Partnership has identified twelve chronic conditions as creating a significant burden on the morbidity, mortality and health care costs within Australia (National Public Health Partnership, 2001). These chronic conditions include cardiovascular disease, type 2 diabetes, stroke, renal disease, mental health and certain cancers. Many of these chronic conditions are influenced by lifestyle factors, including nutrition (World Health Organization (WHO), 2003).

Primary care is the initial contact point for individuals requiring health care in Australia (Australian Medical Association, 2010). The main interface between individuals and the primary care system is through General Practitioners (GPs) (Royal Australian College of General Practitioners (RACGP), 2012, Accessed October 2012). General Practitioners are increasingly involved in the health care of individuals with chronic health conditions (Britt et al., 2012), and perceive nutrition to be important for the management of these conditions (Ball et al., 2010). Nutrition care refers to the provision of nutrition-related advice and counselling by a health professional, and is conducted in an attempt to improve the nutrition behaviour of patients (Ball et al., 2012a). However, GPs experience many barriers to providing nutrition care to patients, including a lack of time and low self-efficacy (Ball et al., 2010). As a result, patients do not receive nutrition care from GPs as often as they perceive to be beneficial (Ball et al., 2012a).

Practice Nurses (PNs) are internationally recognised as integral providers of primary care services, particularly in the United Kingdom and New Zealand (Halcomb et al., 2006). In Australia, PNs are an emerging workforce, the aim of which is to support GPs in many areas including chronic disease management (Australian Practice

Nurse Association, 2011). For example, in July 2005 a Medicare item number (10997) was introduced to allow PNs to assist GPs in developing chronic disease management plans for individuals living with chronic disease (Australian Government Department of Health and Ageing, 2012). In addition, PNs can provide consultations to individuals living with chronic disease in order to promote healthy lifestyle behaviours (Australian Practice Nurse Association, 2011). Approximately 9000 PNs are currently working within general practice and it is estimated 60% of general practices employ at least one PN (Australian Practice Nurse Association, 2011). Specific lifestyle interventions delivered by PNs have been shown to improve the nutrition behaviour and reduce the risk of developing chronic disease in individuals with an increased risk of chronic disease in UK and Europe (Gibbs et al., 2004a; Steptoe et al., 1999).

Practice nurses believe they have an important role in providing nutrition care to individuals with chronic disease and strongly perceive that diet can improve patients' health outcomes (Mitchell et al., 2011). However, this study by Mitchell et al., obtained information from only 12 PNs responding to a quantitative questionnaire with relatively few questions about the role and specific competencies required by PNs for the provision of effective care. Competency can be defined as a multidimensional construct constituting the knowledge, skills and attitudes required to perform a given task (Gonczi, 1994). There is a clear need to expand on this study using a more exploratory approach to capture in-depth information about the perceptions of PNs. Understanding the role and capacity for provision of nutrition care by PNs will contribute to greater insight into optimal delivery of primary health care services for the management of chronic disease. Therefore, the aim of this study was to investigate the perceptions of PNs regarding their role and competency to provide nutrition care to patients living with chronic disease.

Methods

Study Design

This qualitative study utilised a semi-structured interview design with open-ended questions. The questions were strategically developed to investigate the perceptions of PNs regarding their role and competency (knowledge, skills and attitudes) to provide nutrition care to patients living with chronic disease. The study protocol was approved by the Griffith University Human Research Ethics Committee (PBH/03/12/HREC).

Participant Recruitment

Purposive sampling was utilised to recruit PNs currently employed by a general practice within Australia. Australian Practice Nurses Association (APNA), Australian General Practice Network (AGPN) and General Practice Queensland (GPQLD) were identified as potential recruitment bodies because each organisation has contact with a considerable portion of PNs in Australia. An introduction email was sent to the organisations, which then distributed the information to PNs via email and newsletter advertisements. Participant recruitment was conducted over approximately two months and continued until data saturation was achieved, whereby additional interviews did not result in new themes (Fade and Swift, 2011). To determine when data saturation was reached, data review and analysis was undertaken in conjunction with data collection.

Data Collection

An individual semi-structured telephone interview was conducted with each participating PN. The open-ended questions were developed through an enquiry logic process (Table 1) (Creswell, 2006). The enquiry logic process refers to the development of interview questions that directly align with the investigative aims of the study. Interview data was recorded and written notes were also taken by the researcher. The duration of the telephone interviews ranged from 11 minutes to 39 minutes, with an average of 21 minutes.

INSERT TABLE 1 ABOUT HERE

Data Analysis

Immediately following each telephone interview, audiotapes were transcribed verbatim by one investigator (SC) into an electronic format identified by the numeric code for each participant. Audio tapes were transcribed using indexing and partial transcription (Fade and Swift, 2011). The index process formulated main topics discussed during the interviews and the estimated occurrence time in the recording. The transcripts were then examined by one investigator (SC) for thematic trends and coded, allowing for comparison between interviews (Fade and Swift, 2011). This process was completed prior to carrying out any further interviews in order to identify data saturation.

The transcripts were analysed using a thematic analysis approach involving the inductive identification of codes that represented themes and emerging patterns (Fade and Swift, 2011). Manual qualitative data analysis was conducted by one investigator (SC) and the themes were confirmed through discussions with the other research team members (LB, ML). Original transcripts were edited grammatically to provide examples of key and/or contradicting themes.

Results

Sample Characteristics

A total of twenty Australian PNs participated in the study throughout March and April 2012. The demographic characteristics of participants are listed in Table 2. All participants in this sample were female. Prior to their current role as a PN, all participants had at least one-year experience as a nurse in another setting. On average, participants had nine years experience in primary care. A summary of themes identified from participant interviews are displayed in Table 3.

In summary, the PNs perceived nutrition care to be an important part of their role in chronic disease management. The role includes general advocacy as well as more specific nutrition-related assessment and advice. The PNs were very aware of professional boundaries around nutrition care and were conscious not to overstate their role in relation to other health professionals. The PNs felt that they possessed supportive attitudes and had sufficient general knowledge to provide nutrition care to patients.

INSERT TABLE 2 ABOUT HERE

INSERT TABLE 3 ABOUT HERE

The PNs perceived themselves to be in a prime position to advocate for the importance of diet for optimal health.

“The ideal role is that if you’re not taking the opportunity to talk to patients about their diet and exercise, you are just missing every opportunity to save the nation’s health in every way possible.” (Participant 17, NSW, 25 years experience)

In addition, most participants perceived that the role of a PN included provision of basic, evidence based, nutrition advice to patients. However, the interpretation of the term ‘basic’ varied between participants.

166 *"I think the ideal practice nurse should have a basic understanding for good*
167 *nutrition...a bit about portion sizing, what are the healthier vegetables and*
168 *fruits." (Participant 1, NSW, 24 years experience)*

169 *"For a newly diagnosed diabetic... explain to them that it's not just sugar you*
170 *have to watch, you also have to watch your carbohydrate... probably explain to*
171 *them how it [carbohydrates] gets broken down... how that when they eat*
172 *carbohydrates your body still uses it and stores it as fat and energy... It's quite*
173 *basic, not like a dietitian." (Participant 20, WA, 5 years experience)*

174 *"What I've found handy is knowing about the guidelines, so evidence-based."*
175 *(Participant 8, NSW, 2 years experience)*

176
177 Many participants felt that a non-judgmental, empathetic attitude towards patients
178 was required for effective nutrition care provision. Participants perceived that PNs
179 possessed these attitudes and were therefore in a position to provide nutrition care.

180 *"And they [patients] tell us all sorts of things that they, that really the doctor*
181 *should be aware of and that the doctor doesn't even know...so I think nurses*
182 *are really well situated to do it [nutrition care]." (Participant 7, NSW, 10 years*
183 *experience)*

184 *'Patients often listen to the nurse, even if they don't take everything on board,*
185 *they do listen. They don't feel threatened by the nurse usually; they're much*
186 *more at ease." (Participant 16, VIC, 4 years experience)*

187 *"I think we [PNs] are much more approachable because we are more relaxed in*
188 *the way we deliver our health care...I think that approachability is the most*
189 *important, non-judgemental too." (Participant 12, NSW, 3 years experience)*

190
191
192 While the participants felt that the provision of nutrition care was part of the role of a
193 PN, a number of barriers were identified that impaired the provision of effective
194 nutrition care. These barriers included time constraints, a lack of nutrition knowledge
195 and confidence and unenthusiastic attitudes of patients towards nutrition.

196 *"There are always time limits and knowledge limits. Also, probably my*
197 *confidence in that, I am not a dietitian." (Participant 3, NSW, 3 years*
198 *experience)*

199 *“Sometimes I’m really not the best person when I’m not really sure of what they*
200 *should and shouldn’t be eating...but we’ve got a few dietitians who are*
201 *specialised and will be quite happy to do this [provide nutrition care].”*
202 *(Participant 20, WA, 5 years experience)*

203 *“We [PNs] are just so busy and just so overworked that we don’t get time to do*
204 *that sort of thing [nutrition care].” (Participant 15, WA, 23 years experience)*

205 *“People are not willing to listen or change, so I get a lot of dishonest people,*
206 *and that does make it [nutrition care] difficult at times” (Participant 14, QLD, 3*
207 *years experience)*

208
209 Most participants were very aware of the existence of professional boundaries around
210 the provision of nutrition care. However, the exact nature of these boundaries was not
211 always clear and the need for referral was based on an individual’s perception of their
212 own competence.

213
214 *“I do stipulate to people that I am not a dietitian and in my role I am not an*
215 *expert...my knowledge is general and it is also a lot of common sense as well.”*
216 *(Participant 14, QLD, 3 years experience)*

217 *“If I could recognise that it [patient’s nutrition care need] was beyond my scope*
218 *of practice, then I would refer definitely.” (Participant 7, NSW, 10 years*
219 *experience)*

220
221
222 The skills deemed as necessary in providing effective nutrition care were nutrition-
223 related assessment and nutrition-related communication. The importance of the skill
224 to communicate simply yet effectively to patients was commonly highlighted amongst
225 participants for effective nutrition care.

226 *“We get the BMI of the patient, weigh them, measure them, talk about their*
227 *food, all of that” (Participant 9, TAS, 3 years experience)*

228 *“You’re looking for information while you’re looking at them, while you’re talking*
229 *to them and you continually are assessing them and documenting what they*
230 *say and put it together with the physical observations that you’ve made”*
231 *(Participant 4, QLD, 6 years experience)*

232 *“Engagement and communication are probably the most important [skills].”*
 233 *(Participant 13, NSW, 3 years experience)*

234 *“Communication skills... to be able to talk to the patients and gather information*
 235 *you need... much the same as what we’re doing now.” (Participant 4, QLD, 6*
 236 *years experience)*

237

238 Numerous participants expressed a desire for undertaking continuing professional
 239 development in nutrition. However, concern and uncertainty of the availability of
 240 professional development opportunities was expressed. Lack of time and funding
 241 were identified as potential barriers preventing PNs from accessing professional
 242 development opportunities.

243

244 *“We [practice nurses] could probably be studying and continually updating but it*
 245 *is just a matter of trying to find places to do those or courses to do it and also*
 246 *courses that are not too expensive or lengthy.” (Participant 14, QLD, 3 years*
 247 *experience)*

248 *“I don’t think there is anything out there... there are plenty of updates all the*
 249 *time, but not so much nutrition focused... I just want to learn more that’s all, just*
 250 *to be up on it [nutrition].” (Participant 2, NSW, 1 years experience)*

251 *“I think we [practice nurses] should all do a nutritional course, solely on*
 252 *nutrition. Yes, definitely because it is in every aspect of what we do. We could*
 253 *use it in any particular area... it [nutrition education] should be compulsory...*
 254 *and it should be an ongoing thing as it changes all the time.” (Participant 6*
 255 *NSW, 15 years experience)*

256 *“They [practice nurses] definitely need to attend nutritional courses, funded.*
 257 *Funded nutritional courses...I mean I am trying to do, well I am wanting to do a*
 258 *degree in nutritional medicine but it’s just too expensive and I can’t get funding.”*
 259 *(Participant 10, QLD, 10 years experience)*

Discussion

The aim of this study was to investigate the perceptions of PNs regarding their role and competency to provide nutrition care to individuals living with chronic disease. The PNs in this study perceived nutrition as important for chronic disease management. Other health professionals, including GPs, have been shown to have similar views (Ball et al., 2010; Dennis et al., 2008). This recognition of the importance of nutrition was viewed by participants as an enabler for PNs to provide nutrition care to individuals living with a chronic disease. These perceptions support best practice guidelines for the management of patients with chronic disease in general practice (Australian Government Department of Health and Ageing, 2003; Diabetes Australia and Royal Australian College of General Practitioners (RACGP), 2008) and may contribute to the positive perception of PNs towards providing nutrition care.

Practice nurses perceived themselves as having a role in providing nutrition care because they are accessible to a significant proportion of the Australian population. This finding is in line with existing literature indicating that PNs are ideally positioned to provide nutrition care and are often the first contact point regarding nutrition (Nolan et al., 2012; Parker et al., 2011). In addition, PNs perceived themselves to be more approachable than GPs and that this may provide a counselling environment that may be better suited to facilitation lifestyle behaviour change. This finding is similar to that of Nolan et al (2012) who reported that PNs feel confident in their ability to build rapport with patients in order to negotiate goals for lifestyle change. Collectively these studies suggest that despite concern over their competence to provide nutrition care, PNs are well positioned to influence health behaviours of individuals with chronic disease.

The PNs in the present study felt competent at providing basic nutrition care to patients. Similarly, eight out of twelve PNs involved in delivering lifestyle change programs in NSW report confidence in their ability to provide nutrition counselling (Mitchell et al., 2011). However, the present study found variations in perceptions of 'basic' nutrition care and a reluctance of PNs to cross professional boundaries in relation to nutrition care. Decisions to refer patients for more specialised nutrition

care may be related to the perceived competence of the individual PN and may therefore be quite variable. Further research is required to clarify what constitutes basic nutrition care, and the subsequent pathway of care if a patient requires more specialised nutrition care.

The PNs were reluctant to cross professional boundaries in the extent of nutrition care provided to patients. The PNs would often refer to 'not being a dietitian' when explaining the scope of their own practice. Interestingly a recent study of different health professionals' views of nutrition care provision suggests that professional boundaries are largely seen as ways of protecting the identity of individual health professions rather than a way of progressing a patient through a coordinated nutrition care process (Ball et al., 2012b).

Participants suggested a broad range of competencies are required for effective nutrition care provision, including the need for basic nutrition knowledge, expertise in nutrition assessment, counselling and communication skills, as well as a positive attitude towards nutrition for the delivery of effective nutrition care. A detailed model of the nutrition care process as it relates to dietetic practice has been proposed by Lacey and Pritchett (2003). This model has been shown to improve the consistency of dietetic practice, but it is still unclear if this approach is the optimal way to facilitate changes in nutrition behaviour and subsequent health outcomes in patients with chronic disease. The model proposed includes substantial detail and is not likely to be appropriate for PNs given the time available for consultations (Atkins, 2010). Interestingly, brief lifestyle interventions delivered by PNs have been shown to improve the nutrition behaviour and reduce the risk of chronic disease of individuals in UK and Europe (Gibbs et al., 2004b; Steptoe et al., 1999). Therefore, there may be many different approaches to nutrition care, delivered by a variety of health professionals, which can be effective in the management of chronic disease.

Inadequate knowledge was perceived by PNs to be a barrier to providing effective nutrition care to patients. This finding is in line with research investigating the emerging role of PNs, whereby a lack of adequate knowledge in new areas may affect the care provided by PNs (Pascoe et al., 2006). Other health professionals,

including GPs, have reported similar perceptions that a lack of sufficient nutrition knowledge results in an inability to provide effective nutrition care to patients (Ball et al., 2012b; Ball et al., 2010; Pomeroy and Cant, 2010). Interestingly, literature on GPs indicates this perceived lack of knowledge results in an aversion to provide nutrition care (Ball et al., 2010). This however does not seem to be the case with PNs as the PNs in this study were willing to opportunistically provide nutrition care to patients regardless of a perceived low level of nutrition knowledge.

Participants perceived nutrition education to be the highest priority for competency development in nutrition care. Participants expressed a desire for such education to be mandatory in nurse education programs. Opportunities for continuing professional development for PNs in Australia is limited (Pascoe et al., 2006). Nutrition specific continuing professional education for doctors has been shown to improve nutrition knowledge and self efficacy in addition to enhancing attitudes about the importance of nutrition (Carson et al., 2002; Katz et al., 2005). However, it is unclear whether these approaches result in practice changes, and ultimately improved patients' health outcomes (Crowley et al., 2012). Clearly more research is necessary to evaluate the effectiveness of nutrition specific continuing professional development programs for PNs.

Conclusion

PNs perceive nutrition care to be an important part of their role in chronic disease management. This role includes general advocacy as well as more specific nutrition assessment and advice. The PNs were very aware of professional boundaries around nutrition care and were conscious not to overstate their role in relation to other health professionals. The PNs felt that they possessed supportive attitudes and had sufficient general knowledge to provide nutrition care to patients. However, they expressed a desire to participate in further professional development opportunities in nutrition.

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454 Table 1: Enquiry Logic and Interview Questions, including the area of prompting provided by the
 455 interviewer.

Interview Questions	Enquiry Logic
Tell me about your experience and current involvement in general practice?	Identify experiences important to the development of perceptions regarding the roles and responsibilities of practice nurses
Describe a situation in which you provide nutrition advice? - <i>Confidence</i>	Explore the confidence levels of practice nurses in providing nutrition care to patients surrounding chronic disease
How would you describe the ideal role of practice nurses with regard to nutrition care for patients? - <i>Barriers and enablers</i>	Determine what practice nurses perceive their role to be surrounding nutrition care provision in relation to chronic disease
What is the capacity of practice nurses to promote nutrition in general practice? - <i>Barriers and enablers</i>	Estimate what practice nurses are able to do in their own scope of practice to promote nutrition, influencing nutrition care provision
What determines whether/when you refer a patient to other health professionals for nutrition care? - <i>Referral network,</i> - <i>Logic process for referral</i>	Explore practice nurse perceptions surrounding their professional boundaries based on beliefs and experiences
What competencies would you identify as necessary for practice nurses to provide nutrition care? - <i>Knowledge</i> - <i>Skills</i> - <i>Attitudes</i>	Compose a list of practice nurse competencies perceived as essential to the successful assessment and treatment of nutrition-related conditions
Is there any additional education or training that practice nurses require in order to provide effective nutrition care to patients? - <i>Continuing Professional Development</i> - <i>Availability and awareness</i>	Explore whether practice is aligning with education and training competencies of these health professionals

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457 Table 2: Demographic Characteristics of the Interview Sample (n=20), including gender, years of
 458 experience, state of residence and highest level of education.

Demographic Characteristic	Number of Participants
Gender	
Female	20 (100%)
Male	0 (0%)
Years of Experience	
<10 years	11 (55%)
10-20 years	6 (30%)
>20 years	3 (15%)
State of Residence	
NSW	12 (60%)
QLD	3 (15%)
WA	3 (15%)
VIC	1 (5%)
TAS	1 (5%)
Highest Level of Education	
Hospital Training	5 (25%)
Undergraduate Degree	7 (35%)
Postgraduate Degree	8 (40%)

459
 460 *NSW – New South Wales*
 461 *QLD – Queensland*
 462 *TAS – Tasmania*
 463 *WA – Western Australia*

464 Table 3: Summary of the themes identified during participants' interviews, in accordance with
 465 each area of inquiry.

Area of Inquiry	Summary of Themes
Role of Practice Nurses and Nutrition Care	<ul style="list-style-type: none"> • PNs are in a prime position to advocate for the importance of nutrition • The ideal role of a PN is to provide a basic level of nutrition advice to patients, and participate in team-based care regarding nutrition • PNs are highly trusted and approachable
Professional Boundaries of Practice Nurses for Nutrition Care Provision	<ul style="list-style-type: none"> • Acute awareness of professional boundaries exists but the nature of boundaries is not clear • PNs' decisions to refer a patient on for nutrition related care are based on perceptions of their own confidence • PNs are aware of the importance of nutrition, but are often lack confidence to provide nutrition care
Competencies required for Effective Nutrition Care	<ul style="list-style-type: none"> • Evidence-based nutrition care was seen as very important • PNs require a foundation level of nutrition knowledge in order to provide effective nutrition care • The essential skills for PNs to provide effective nutrition care are nutrition assessment and nutrition communication • PNs require a non-judgmental, empathetic attitude towards patients for effective nutrition care provision
Nutrition Education of Practice Nurses	<ul style="list-style-type: none"> • There is a lack of specific nutrition education opportunities available to PNs • PNs want nutrition education and training to be specific, mandatory and continual • Common barriers preventing PNs from partaking in nutrition education are a lack of time, funding and available courses

466