

RESIDENTIAL AGED CARE HEALTH WORKERS' KNOWLEDGE, ATTITUDES AND CONFIDENCE IN PROVIDING CARE TO A PERSON WITH A STOMA: A NEEDS ANALYSIS FOR EDUCATION

Patricia A Sinasac

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Supervisors

Professor Helen Edwards, OAM, PhD, FACN, FAAN
Assistant Dean (International and Engagement), Faculty of Health,
Institute of Health and Biomedical Innovation,
Wound Management Innovation Cooperative Research Centre,
Queensland University of Technology

Kathleen Finlayson, RN, PhD
Research Fellow, School of Nursing,
Institute of Health and Biomedical Innovation
Queensland University of Technology

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Aged care, aged care workers, attitudes, confidence, knowledge, ostomy, promoting action on research in health services, residential aged care facilities, stoma care.

Abstract

BACKGROUND AND SIGNIFICANCE

More than 41,000 people with stomas are registered under the Australian government funded Stoma Appliance Scheme. There are no definitive national statistics regarding how many of these 41,000 are over 65, or whether they reside in a residential aged care facility. Despite the unknown incidence of persons with a stoma living in residential aged care, their quality of life and care needs deserve equitable consideration by the health care system and providers. The diversity of preparation, education, and training and non-regulation of the majority of residential aged care health workers may impact on implementation of evidence based stoma care.

AIM

The aim of this study was to examine the perceived knowledge, attitudes, and confidence of residential aged care health workers in relation to caring for an older person with a stoma. A secondary aim was to identify what organisational factors influence knowledge, attitudes and confidence of RAC health workers regarding stoma care.

METHODS

Two studies were undertaken using a mixed methods design: a survey of residential aged care health workers (N=78) followed by focus group discussions (n=47). The survey was adapted to the aged care context and collected data of knowledge, attitudes and confidence in stoma care; educational preferences and demographic characteristics. Focus groups explored organisational factors that influence residential aged care health workers' knowledge, attitudes and confidence in providing stoma care.

RESULTS

A total of 78 surveys were completed by residential aged care health workers. After mutual adjustment for all variables in multivariable regression models, years of experience and frequency of providing stoma care in high care areas remained significantly associated with higher levels of residential aged care health workers' knowledge ($p < 0.05$) and confidence ($p < 0.05$) which contributed to positive attitudes toward stoma care. Areas of need were found to be knowledge of management of stoma complications, resident behaviour management, stoma product knowledge, and access to experts in stoma care.

Focus groups included 47 staff participants. The major theme identified highlighted the residential aged care health workers' expressions of care and compassion for the residents and desire to provide good care. The organisational factors influencing staff varied - whereas some reported positive relationships with senior nurses and managers, others were hesitant and reluctant to engage for support. The presence of an immigrant workforce presented barriers for some residential aged care health workers due to language other than English and low confidence in communication with colleagues.

CONCLUSIONS

The overall results indicate residential aged care health workers' knowledge, attitudes and confidence in stoma care is influenced by years of practice experience and the frequency of providing stoma care. Contextual factors influencing knowledge, attitudes and confidence were identified as approachable leadership, support of the unregulated staff and barriers associated with language other than English. Overall results from this current research found RAC health workers with positive attitudes toward providing stoma care were also confident and scored higher levels of knowledge. More specifically survey results indicated moderate to high

knowledge scores and corresponding positive attitudes and confidence were significantly related to experience providing stoma care and working in high care areas of aged care.

The residential aged care health workers expressed a desire to provide best practice when caring for an older person with a stoma to meet the resident's needs; supporting the need for development of a residential aged care education program relating to care for older persons with a stoma. Findings indicated that basic stoma care knowledge and managing complications were an area of focus for education. This research identifies knowledge, attitudes and confidence of RAC health workers in stoma care, in addition to the educational needs and characteristics of residential aged care health workers influencing development interventions to improve stoma care practice and care of older persons with stomas residing in residential aged care facilities.

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List of Abbreviations

APP	Application
ANOVA	Analysis of Variance
PCW	Personal Care Worker
BPG	Best Practice Guideline
CSI	Champions of Skin Integrity
DON	Director of Nursing
DVD	Digital Video Disc
EN	Enrolled Nurse
EBP	Evidence Based Practice
EB	Evidence Based
FG	Focus Groups
LOTE	Language Other Than English
LPN	Licensed Practical Nurse
NGO	Non-government Organisation
NA	Nursing Assistant
PARIHS	Promoting Action on Research in Health Services
QUT	Queensland University of Technology

RN	Registered Nurse
RNAO	Registered Nurses Association of Ontario
RAC	Residential Aged Care
RACF	Residential Aged Care Facility
SOKON	Survey of Ostomy Knowledge for Oncology Nurses
STN	Stomal Therapy Nurse
TAFE	Technical and Further Education
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UHREC	University Human Research Ethics Committee
U.K.	United Kingdom
U.S.A.	United States of America

Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. 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.

Signature: PA Anasac

Date: 28/02/2017

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Chapter 1: Introduction

1.1 BACKGROUND

The quality of stoma care available to residents of residential aged care facilities (RACF) has been a recurring topic of discussion at Australian Association of Stomal Therapy Nurses meetings, state and national conferences, and across health care services by Stomal Therapy Nurses and health care professionals. The level of knowledge and skills residential aged care (RAC) health workers need to provide necessary stoma care is considered lacking, demonstrated by requests from RACFs for help from ostomy associations, general practitioners, acute hospital staff, and for hospital presentations on stoma management complications. A review of the literature found limited information or research in Australia in the area of stoma care in RAC and the ability of RAC health workers to provide evidence based stoma care.

As the population ages, the care needs of older persons requires considerable contemplation and planning. In 2054-55, life expectancy at birth is projected to be 95.1 years for men and 96.6 years for women, compared with 91.5 and 93.6 years today (Proebstl, 2015), signalling important implications for providing effective health care services for the ageing population in Australia (Commonwealth of Australia, 2010). Planning for health care delivery, public policy, resource utilisation, and the needs of the health care workforce is an important aspect to be deliberated.

Information from the 2014-15 Report on the Operation of the Aged Care Act 1997 (Australian Government, Department of Health, 2012) stated for that period, 231,000 people had accessed permanent residential aged care placement, and as of June 2015, 2,681 facilities were actively providing residential aged care services. In

view of the ageing population trends Commonwealth funding was approved for a further 11,196 residential aged care places (Health, 2012). It is projected that over the next ten years, more than 250,000 people will live in residential aged care, with a greater number being over 95 years of age (Willet, 2015).

These figures indicate that it is crucial for health care workers in aged care to be prepared with the knowledge essential for providing competent care to ageing individuals, as highlighted in the Report on Nurses in Residential Aged Care in 2009 (Access Economics Pty Ltd, 2009). Skill mix, workforce diversity and availability, remuneration, and professional opportunities, together with education and training have been identified as challenges to adequately providing for the future older population (Blake, 2013).

As of June 2015, 41,866 people with stomas were registered under the government funded Stoma Appliance Scheme (K. McGorry, personal communication October 15, 2015). Due to the extra demands a stoma may place on self-care it is likely that this group are at higher risk for admission to a RACF, although the number of persons with a stoma in RACFs is unknown. The lack of data has been highlighted (Australian Government, 2015) by organisations, including the Australian Council of Stoma Associations and the Stomal Therapy Nurses Association of Australia.

The challenges presented for the care of an older person with a stoma can be complicated. As the population ages, frailty has become an accepted factor influencing health care dependency and morbidity. Frailty is described as a syndrome typified by a clinically observed weakness, deterioration of reserves and function of various physiological systems, and reduced resilience to stressors (Lang, Michel, & Zekry, 2009; Xue, 2011).

Physical alterations related to ageing and disease processes are further influenced by psychosocial and economic factors. Individuals entering RAC are influenced by one or a combination of factors: deterioration of health, multiple co-morbidities, declining functional or cognitive ability, and self-care deficits or socioeconomic circumstances (Australian Government, 2015).

Ageing can impact vision, dexterity and mobility, cognition, skin integrity, nutrition, and hydration altering the functional and self-care ability for a person with a stoma (Black, 2009a; Burch, 2015a; Pearson, 2010a). The Australian government Intergenerational report from 2015 indicated that 1 in 5 Australians are affected by multiple chronic diseases including renal, respiratory, musculo-skeletal and cardiac (Australian Government 2015). The prevalence of older Australians from 65 years to over 85 years range from 49 -71% with five or more long term conditions (Australian Health 2010) Disease characteristics can contribute to functional deterioration. Arthritis alters dexterity and mobility (Frost, Harmeyer, & Bondoc, 2012). Parkinson's disease presents in a staged progression of functional decline affecting mobility and dexterity (Cavanaugh et al., 2015; Frost et al., 2012; Vanbellingen et al., 2011; Wallén, Franzén, Nero, & Hagströmer, 2015). Dementia, including Alzheimer's disease, contributes to a decline in self-care activities of daily living (Gure, Kabeto, Plassman, Piette, & Langa, 2010). Pain can intrude and disrupt cognitive and physical function (Podlasek, 2010), and the side effects of medications can influence a variety of functions (Elsawy & Higgins, 2011).

The consequences of one or all of these impairments can lead to an inability to attend self care needs and can precipitate admission to residential aged care facility living (Sheppard, 2013). International studies from Germany and the U.S.A. identified advanced age, dementia, decreased mobility, impaired vision, agitated

behaviours and care giver burden as indicators for RACF admissions (Braunseis, 2012, Cohen-Mansfield, 2011). The impact of ageing, multiple co-morbidities, and effects of functional decline, as described, result in self-care deficits, of which stoma care can be a compounding issue. In comparison, Rushton, Satchithananda, and Kadam (2011) investigated clinical management and altered self-care contributing to poor individual outcomes of morbidity and mortality in relation to heart failure. The study identified factors negatively affecting individuals, such as functional decline, quality of life, and a sense of frustration and powerlessness, factors readily associated with experiences of older persons with a stoma. These researchers proposed a concept of managing multi-morbidity to comprehensively deliver holistic care, as opposed to the model of individual disease or body systems. In a literature review, Pelzang (2010) found that patient centred care involves the practice of caring for the unique individual with respect, communication, engagement, and empowerment, resulting in holistic care. Providing a high standard of care for an older person with a stoma is a vital responsibility of health care providers and health care workers (Access Economics Pty Ltd, 2009, 2011), achievable when a holistic and patient centred approach is used.

Ageing may affect a person with a stoma leading to a progression from independent self-managed care to becoming dependent for partial or total care needs (Black, 2010; Pearson, 2010a). Loss of independence brought on by ageing is confronting, and combined with the care of a stoma, can increase anxiety for individuals and RAC health workers. Marquis, Marrel, and Jambon (2003) identified the negative psychological and physical impact of having a stoma on an individual. They surveyed persons with a stoma to determine perceptions of quality of life. Quality of life can be defined as a persons' satisfaction with everyday life, degree of

enjoyment, and successfully meeting goals and expectations in function and social interactions (Marquis et al., 2003). The experience of ageing and loss of independence, combined with having a stoma, can further influence an older persons' quality of life.

A review of the literature demonstrates an acute lack of information, specifically in relation to studies into providing stoma care in the RAC setting of older persons in Australia. Older persons with a stoma have been identified as at risk of poor management of stoma complications (Pearson, 2010a). Strategies have been suggested, developed, and implemented in the United Kingdom for aged care settings by Black (2011a) to improve the care of an older person with a stoma by providing workbooks, education, and information to RAC health workers. Demand for aged care and the increased dependence on an unskilled workforce were identified as risks to adequate care for an older person with a stoma; thus, confirming the current investigation into the need to provide relevant education to RAC health workers (Black, 2011a).

Attention to education on assessment and interventions for stoma care may sometimes be viewed as a low priority due to the unknown frequency of residents requiring stoma care. This view may be reflected in knowledge, attitudes, and confidence. Despite the unknown incidence of persons living with a stoma in RAC, their quality of life and care needs deserve equitable consideration by the health care system and providers (Burch, 2015a). The 2009 Australian Nurses Federation report: *Nurses in Residential Care* (Access Economics Pty Ltd, 2009) recommended that RAC high care services should be provided by an appropriate health care professional, and specifically identified a stoma care program for registered nurses as one of the areas of care and practice to be focused on in RAC.

The diversity of preparation, education, training, and regulation of aged care workers requires understanding before development of education resources to improve the knowledge, attitudes, and confidence of aged care workers to evidence based stoma care. As previously indicated, two reports endorsed by the Australian Nurses Federation Nurses in Residential Aged Care 2009 and the Australian Government Intergenerational Report 2010, identified and supported recommended strategies for the aged care work force, including the provision of education and training, which would ultimately improve quality of care and health outcomes (Access Economics Pty Ltd, 2009; Australia & Swan, 2010; Treasury Commonwealth, 2015)

1.2 PURPOSE AND SCOPE

In recognition of the specialist knowledge required to manage stoma care and the potential complications involved, it is important to investigate the level of perceived knowledge, attitudes, and confidence of RAC health workers. There is an apparent lack of literature related to health care workers' perceptions of knowledge, attitude, and confidence of stoma care. Observations by the author indicate a frequent dislike by nurses and RAC health workers who often provide direct personal care regarding the task of stoma care. Most notable are the challenges inherent in changing the appliance, and aversion to the timely emptying of output from the pouch, often resulting in leakage requiring cleaning, and the inescapable odour. In Australia, the Personal Care Workers (PCW) role is predominantly found in RAC settings of public, private, or non-government organisations. The level of education and training of PCWs is non-regulated and lacks professional accountability, whereas the role and responsibilities of registered nurses or enrolled nurses are guided by standards and registration (Eley et al., 2007b).

Although there is limited literature available on evidence based stoma care in the aged care setting, recent studies have been undertaken with aged care health care workers of various levels, including registered nurses (RN), enrolled nurses (EN), and PCWs , who were surveyed to understand commitment and compassion in RAC related to palliative care (Ford & McInerney, 2011; McVey, McKenzie, & White, 2014; Phillips, Davidson, Ollerton, Jackson, & Kristjanson, 2007). The staff studied explored their own attitudes, values, and perceptions of a range of issues contributing to developing competency and confidence in providing palliative care. The results indicated staff were positive and more confident in providing palliative care when they perceived they had the knowledge and experience to do so confidently Phillips et al. (2007). The study results noting the importance of knowledge and experience and how they influence confidence can be extrapolated to inform the proposed research into stoma care. Promoting quality of life for an older person with a stoma requires nurses to be confident in providing care, competent with appliance changes, and to demonstrate the ability to provide information, education, and counselling support to the person, their families, and caregivers (Burch, 2014a; Marquis et al., 2003; Pearson, 2010a). Through identification of aged care health workers' needs for education, a resource can be developed to improve the knowledge, attitudes, and confidence of RAC health care workers and to facilitate the provision of competent care; these may then promote quality of life for older persons with a stoma.

Studies regarding the quality of life for a person with a stoma found considerable benefits from care provided by nurses who are confident, competent, and supportive (Marquis et al., 2003; Pearson, 2010a). Residential aged care facility registered nurses likewise acknowledge their professional responsibility to provide personal and psychosocial support to individuals and families, acknowledging

training, education, and resources as valuable to the health care worker (Phillips et al., 2007).

Investing in the health system to provide the right care in the right place at the right time was recognised in the Australian Intergenerational Reports (Commonwealth of Australia, 2010; Health, 2012). Response to the ageing demographics of the population indicates that knowledge and skills should be developed to meet the current complex or increased care needs. The report also states that reform in vocational education and training is necessary to improve availability and recommends funding investment in education and training. These issues understandably remain in the spotlight for government, aged care service providers, and age care workers, as the needs for aged care intensify (Fedele, 2015).

A study of the perceived knowledge, attitudes, and confidence of RAC health workers related to stoma care of the older person in Australia is of value to provide background evidence to strengthen evidence based care, staff competency, quality of life, and client centred care.

1.2.1 Aim

The aim of this study was to identify RAC health workers' knowledge, attitudes, and confidence in providing evidence based stoma care to an older person and explore the influence of organisational context, culture, and leadership.

1.2.2 Objectives

The primary research objective was to undertake a survey and focus group discussions to explore the knowledge, attitudes, and confidence of RAC health workers in providing care to an older person with a stoma. The second objective was to examine the influence of organisational factors, including context, culture, and leadership on RAC health workers' knowledge, attitudes and confidence towards

evidence based stoma care. These results were obtained to provide evidence for future use in education activities supporting evidence based stoma care for RAC health workers.

1.2.3 Research Questions

The following research questions were developed for the study.

1. What are the knowledge, attitudes, and confidence of residential aged care health workers in caring for an older person with a stoma?
2. What demographic factors influence the knowledge, attitudes, and confidence of residential aged care health workers and stoma care?
3. What is the relationship between total knowledge, attitude, and confidence scores?
4. What is the relationship between years of work experience and experience taking care of an older person with a stoma, and the knowledge, attitudes, and confidence in providing stoma care of the residential aged care health worker?
5. What are the preferred educational methods of residential aged care health workers?
6. What workplace context, culture, and leadership factors influence the knowledge, attitudes, and confidence of residential aged care health workers?

1.3 THESIS OUTLINE

This mixed methods research was conducted in two stages. Stage One involved a pilot survey followed by the main cross-sectional survey. The survey gathered information from RAC health workers about their knowledge, attitudes, and

confidence in providing stoma care. The second stage involved conducting focus group discussions to further explore RAC health workers' knowledge, attitudes, and confidence of caring for an older person with a stoma, as influenced by organisational context, culture, and leadership.

In Chapter 2, a literature review explores the inherent problems of ageing and characteristics of the RAC workforce, issues affecting an older person with a stoma, and indications for education in RAC. This is followed by the conceptual framework upon which the research was grounded. Chapters 3 and 4 define the research design and methods with two studies: Stage One, a survey; and Stage Two, focus group discussions. Chapter 5 describes the results from Stage One regarding knowledge, attitudes, and confidence of RAC health workers providing stoma care. The relationship between RAC characteristics and their influence on knowledge, attitudes, and confidence is examined. Chapter 6 describes the results and analyses of Stage Two, the focus group discussions. The discussion in Chapter 7 offers an overview of the combined results from both stages. Significant characteristics of the RAC workforce and influential organisational factors are described. The two stages' findings reveal helpful indicators to inform the development of a stoma care education activity aimed at the RAC workforce considering knowledge, attitudes, confidence, and organisational factors that influence stoma care of an older person. Chapter 8 presents a discussion of results and conclusions of the study, and includes the study limitations and recommendations for research, education, and clinical practice in stoma care of RAC health workers

Chapter 2: Literature Review

2.1 INTRODUCTION

As society and health care services prepare for the predicted global ‘silver tsunami’ (Gantz et al., 2012) and the increased demand of an ageing population, effective management will involve dealing with workforce characteristics and management, leadership knowledge and skills, and multicultural issues, such as language influencing a workforce and future care of older persons (Fine, 2014; Gantz et al., 2012; Goel & Penman, 2015). As noted in the introduction, the number of Australians aged over 65 years is projected to more than double by 2054-55 (Treasury Commonwealth, 2015). The indicators are clear for anticipated demands by this cohort for aged care and health care services. Preparing the RAC environment and workforce to appropriately meet the needs of the ageing population is an essential goal to be obtained (Access Economics Pty Ltd, 2009). Skill mix, workforce diversity and availability, retention and remuneration, and professional opportunities, together with education and training have been identified as challenges to adequately providing for the future older population (Brooke, Goodall, Handrus, & Mawren, 2013; Howe et al., 2012; King, Wei, & Howe, 2013; Willet, 2015).

Older persons with a stoma are a recognised group residing in residential aged care facilities at risk of receiving inadequate or inappropriate stoma care (Black, 2009a). Older persons with a stoma have also been identified as being at risk of poor management of stoma complications (Black, 2011b; Burch, 2015a; Pearson, 2010a). Strategies have been suggested, developed, and implemented in the United Kingdom by Black (2011a) to provide knowledge to health care professionals due to rising demand for aged care and an increased dependence on an unskilled workforce. Black

(2011c) further expressed concern that aged care health workers did not possess the information, skills, or knowledge to adequately care for an older person with a stoma. An educational workbook for stoma care was developed for health care workers, and Black (2011d) reported on the development and implementation of this educational tool. Evaluation of outcomes was not discussed, except to state that feedback from students and mentors was excellent. While the lack of published studies in this area indicates a need for evidence to inform practice, Burch (2015a) progressed this work to improve care of older persons with a stoma in the UK through community practice initiatives and research into individuals providing and receiving stoma care. Burch's (2015a) study highlighted the challenges facing an older person with a stoma, such as multiple co-morbidities, altered dexterity, or fragile skin, and importantly, maintaining independence. The nurse providing stoma care should demonstrate an understanding of stoma types and appliances and adaptations needed in caring for an ageing person (Burch, 2015b). Patients expressed their desire to have registered nurses who are confident, with comprehensive knowledge, and have a respectful and positive attitude to assist with psychosocial and emotional needs related to stoma care (Persson, Gustavsson, Hellström, Lappas, & Hultén, 2005).

The following review provides background information on stomas, persons living with stomas, and considerations for RAC, and describes the current research literature on knowledge, attitudes, and confidence re evidence based stoma care. Organisational factors influencing evidence based care in RACFs are then explored and examined in relation to RAC workforce characteristics, context, and culture. This is followed by a review of the literature on education and evidence based

practice implementation in the aged care setting. Finally, the supporting theory and conceptual framework underpinning the research study are defined.

2.2 STOMAS AND OLDER PERSONS WITH STOMAS

Stoma is a Greek word meaning ‘opening’ or ‘mouth’ and is usually described as a surgically created opening from an internal organ to the exterior of the body (Burch, 2013a). The stoma is identified by the organ from which it originates, such as the colon, with the term ‘ostomy’ noting the stoma, opening, or mouth (Burch, 2008, 2013a). For example, a colostomy is a surgical opening from the colon or large bowel to the exterior of the body, specifically opening onto the abdomen. Stomas outside the scope of this study were percutaneous endoscopic gastrostomy tubes that require formation of a stoma as an occasional alternative to oral nutrition (Cullen, 2011), and a tracheostomy, which is a surgical formation of a stoma from the trachea (Dougherty & Lister, 2011).

Persons living with a stoma (also known as ostomates) experience a complex variety of challenges and concerns (Burch, 2014a). The often overwhelming effects of having a stoma for an older person is that it impacts on their physical and psychosocial health, and thus, quality of life (Slater, 2010). Psychosocial issues may include low self-esteem, grief and loss, altered body image, disruption of relationships and sexuality, depression and anxiety, or feelings of being ostracised, together with shame and embarrassment (Black, 2011a; Burch, 2013a; Pearson, 2010b). Physical complications can be severe or minor and significantly impact on the psychosocial wellbeing of an individual. Complications can involve altered skin integrity; appliance application; care and wear time; nutrition and hydration; stoma prolapse, retraction, or hernia; and limitations due to co-morbidities or aspects of natural ageing (Bartle et al., 2013; Burch, 2013b; Pearson, 2010b).

As discussed, the ageing trend in Australia predicts an increased reliance on residential aged care facilities and demand for occupancy is anticipated (Australian Institute of Health, 2012; Health, 2012). The impact of the number of individuals with a stoma is difficult to determine, as information is frequently unavailable or unreliable. Email correspondence with the national Stomal Therapy Nurse organisations and Stoma or Ostomy Associations in Australia, New Zealand, United Kingdom, Canada, and the United States consistently indicate that incidence data for people with stomas is not reliable and available (Turnbull 2008,). The lack of Australian data has been highlighted by organisations including the Australian Council of Stoma Associations and the Stomal Therapy Nurses Association of Australia.

Suggested barriers to data collection of stoma (ostomy) incidence include factors related to the diversity of providers across state or private health sectors, cultural influences, individual choice, and funding systems. For example, in relation to the Australian health cost coding system of diagnosis related groups, a bowel resection is reported as bowel surgery, but not necessarily stoma formation. In a literature review of stomas, Tilley (2012) concluded that epidemiological studies relevant to the type and prevalence of stoma complications related to the lived experience and end of life care would assist the clinician to provide evidence based practice. This highlights a gap in the research literature on the true extent of incidence of persons with a stoma and the importance of exploring the needs of this special group in our society to ensure that necessary care is provided.

Membership of the Stoma Appliance scheme is used as an indicator in Australia. The scheme is a federally funded program providing stoma products to persons with a stoma, and as of June 2015, 41,866 people were registered, and a

further 4,496 new registrations were received between June to December 2015 (K. McGorry, personal communication April 6, 2016). The frequency of older persons with a stoma in RAC can only be grossly estimated.

An estimate from the United States in 2007 indicated approximately 1.6% of Americans were living with a stoma (Cooke, 2009; Cross, Roe, & Dongliang, 2014). In Canada, while the number of persons with a stoma is unknown, it was identified that approximately 13,000 ostomy (stoma) surgeries are performed each year (Recalla et al., 2013a). The United Kingdom estimates 0.5% of persons are living with a stoma (Slater, 2012), and an Iranian study reports approximately 0.02% of persons living with stomas, as identified through the Ostomy Association of Iran (Anaraki et al., 2012). In mainland China, as reported by Yu (2005), it is estimated that one million persons have colostomies, and 100,000 new colostomies are formed each year (Zheng, Zhang, Qin, Fang, & Wu, 2013).

The older person with a stoma residing in a RACF presents multiple care needs that must be managed competently and comprehensively (Black, 2009a; Burch, 2015a). Stoma care provision in RACFs and for older persons in their own home or community environments has also been highlighted as an area of focus for stoma care service delivery (Black, 2009a; Black, 2011a; Burch, 2014b; O'Flynn, 2015)

Guiding principles of the Australian Charter of Health Care Rights (2012) and the Charter of Residents Rights and Responsibilities (1997) specify that people be provided access to health care of the highest possible standard to meet health care needs, together with respect for individual differences. An International Charter for Human Values in Health Care offers corroboration of five core values: compassion, respect for persons, commitment to integrity and ethical practice, commitment to excellence, and justice in health care (Rider et al., 2014). In addition, the unique

needs of this group have been recognised by the International Ostomy Association's Charter of Ostomates' Rights (2007), which recommends that individuals are entitled to information, self-determination, independence, and participation in decisions. Providing evidence based stoma care is a responsibility of health care workers in RACFs to meet the identified rights of residents. Guidelines have been developed to support practice in evidence based stoma care. The Ostomy Care Guidelines by the Registered Nurse Association of Ontario (RNAO) (Grinspun, 2009) and the Royal College of Nursing (Royal College of, 2006) are two examples.

2.3 HEALTH CARE PROVIDERS' KNOWLEDGE, ATTITUDES AND CONFIDENCE IN EVIDENCE BASED STOMA CARE FOR OLDER PERSONS.

2.3.1 Search strategy

A comprehensive literature search was undertaken of PubMed databases to identify relevant studies to explore the research questions (See Chapter 1) and was conducted with the following search phrases: (stoma or ostomy care) AND (nurs* or carer or assistant* or personal carer*) AND (attitudes or knowledge or confidence), AND (older person or age* or aged care* or nursing home). The search retrieved 66 results, covering case studies, descriptive studies, information on stoma related procedures, assessment and management of stoma complications, product knowledge, implications for fiscal policy, and communication and counselling of persons with stomas. As few studies related to stoma care were found a second search was conducted with search phrases: (nurs* AND (attitudes or knowledge or confidence) AND (stoma or ostomy care), which retrieved 27 results. A total of five studies were found in the group of 27, in which staff nurses' knowledge, attitudes, and confidence relative to stoma care were researched (Andrews & Sharma, 2013;

Cross et al., 2014; Gemmill et al., 2011; Jackson, Pokorny, & Vincent, 1993; Moore, Grant, & Katz, 1998).

Several findings were not relative to the research questions (see Chapter 1) and reported on attitudes and confidence related to the stoma nurse role and practice (Adams, Dufton, Lamb, & Taylor, 2003; Colwell & Beitz, 2007; Karadag & Addis, 2005; O'Flynn, 2015), product applications (Hoeflok, Guy, Allen, & St-Cyr, 2009), education methods (Bossom & Beard, 2009), or the patient's perspective (Persson & Larsson, 2005; Zheng et al., 2013), while three were only available in languages other than English (Duru & Uçar, 2013; Gemelli & Zago, 2002; Monge & Avelar, 2009).

Due to the small number of studies on this topic, a broader search of studies looking at knowledge, attitudes, and confidence of staff towards evidence based care in the aged care setting was undertaken. A comprehensive search of the CINAHL and Medline databases using the following terms: (knowledge or attitudes or confidence) AND (aged care) OR (nursing home) NOT (hospital or acute or inpatient or ward) AND (evidence based practice), returned 125 studies. A total of six articles were found to discuss aged care staff attitudes or beliefs and implementation of evidence based practice in the aged care setting (Ayalon, Arian, Bornfeld, & Beard, 2009; Chang, Russell, & Jones, 2010; Hsu, Creedy, Moyle, & Venturato, 2004; Mody, Saint, Galecki, Chen, & Krein, 2010; Resnick et al., 2006; Savvas, Toye, Beattie, & Gibson, 2014a).

A concluding literature search was conducted to determine the availability of studies relative to stoma care education and evidence based practice. A comprehensive search of the CINAHL and Medline databases using the terms: (stoma OR ostomy) AND (education) AND (nurs*) retrieved 23 results, of which

three were found to be relative to either stoma education in aged care or evidence based stoma care guideline support or educational materials (Black & Chalmers, 2011a; Goldberg, 2011; Stelton & Homsted, 2010). The remainder of results crossed a variety of topics on wound or pressure injury management, procedures, practice issues for stoma complications, and stoma products.

Findings are reported under the headings relevant to the research questions of knowledge, attitudes, and confidence towards stoma care from aged care and other health care settings; and the influence of organisational factors on facilitating evidence based practice (EBP). These results are followed by a review of the conceptual framework.

2.3.1.1 Knowledge

This section presents an overview of the findings of six studies, the first three examine knowledge of stoma care in the acute care setting (no studies were found in the aged care setting) (Andrews & Sharma, 2013; Cross et al., 2014; Gemmill et al., 2011), the second group discuss knowledge and EBP in aged care (Mody et al., 2010; Resnick et al., 2006; Savvas, Toye, Beattie, & Gibson, 2014b). Recognition of the difference in knowledge expectations of regulated and unregulated RAC health workers is to be considered. Registered nurses are responsible for developing and maintaining knowledge to provide supervision of PCWs and ensure appropriate care is provided to residents. Many PCWs learn ‘on the job’ and obtain knowledge from experience, observation and replicating tasks (Smith, Kerse & Parsons 2005).

The three studies on stoma care in the acute setting used descriptive surveys (Andrews & Sharma, 2013; Cross et al., 2014; Gemmill et al., 2011). All of the studies surveyed acute care regulated staff, with the majority being registered nurses. Respondents were predominantly female (>80%) and had 9-16-years of nursing

experience. All three studies reported high knowledge scores of between 75-80% related to stoma care. The consistent finding across the studies noted the importance of having access to a nurse skilled in stoma care, ongoing in-service education for staff to maintain knowledge, and experience in stoma care to maintain competency and confidence in skills. A conclusion derived from the three studies was to provide nurses who possess the composite knowledge and skills to meet patients' needs and influence positive patient satisfaction (Andrews & Sharma, 2013; Cross et al., 2014; Gemmill et al., 2011).

A mixed method descriptive pilot study conducted in the United States, titled Survey of Ostomy Knowledge for Oncology Nurses (SOKON) (Gemmill et al., 2011), explored the knowledge of staff registered nurses toward ostomy care. The survey consisted of demographic data collection and stoma care knowledge questions. A response rate of 27% was achieved, with participants reporting an average of 16 years (range 1-35) nursing experience and an average of 15 years in oncology nursing (range 1-28). Fifty-seven percent were baccalaureate educated. All reported having cared for a stoma in the preceding six months. The knowledge scores average was 77%, with a range of 59-95%. The considerable range of scores supports the need to evaluate knowledge prior to providing education to ensure the focus is on the required information and targets the appropriate staff. Gemmill et al. (2011) commented on the importance of nurses' positive perceptions of the level of knowledge and skills and the impact on patient's impressions of the care experience.

Andrews and Sharma (2013) used a purposive sampling technique of 50 registered nurses working in a surgical oncology ward in India. Similar characteristics were identified, with the nurses being predominantly female and having an average of nine years work experience, no age range or qualifications were

reported. Findings reported were found to be in alignment with the other two studies, showing that knowledge was related to experience, with 80% of registered nurses surveyed agreeing they had adequate knowledge to assess patients, identify different types of stomas, and direct stoma product selections. However, only 30% agreed that adequate patient information was available for education and support of a person with a stoma.

The third study by Cross et al. (2014) was an electronic survey with responses from 526 regulated nursing staff across three acute care hospitals. Demographics were in alignment with previous studies, finding nurses to be predominantly female, with greater than 10 years' experience, and just under half working in surgical and critical care areas. The mean knowledge score for the group was slightly above average, reported as 30.96 ± 6.64 from a potential score of 42. The highest mean score for knowledge was for emptying of an appliance and the lowest for knowledge of nutritional needs. Licenced practical nurses (LPNs) reported higher knowledge and confidence scores than registered nurses, which was attributed to LPN's greater practical experience as contributing to the higher score results. Indications from this study are that knowledge is dependent on the level of training, years of experience, frequency of attending stoma care, and knowing how to access stoma supplies, which should be considered when developing strategies for EBP education and implementation.

Overall, the three studies of stoma care in the acute care setting found similar results regarding the importance of having access to a registered nurse skilled in stoma care and ongoing in-service training and education for staff to maintain knowledge and experience in stoma care, and therefore maintain competency and confidence in skills (Andrews & Sharma, 2013; Cross et al., 2014; Gemmill et al.,

2011). A conclusion derived from the three studies was to provide registered nurses who possess the composite knowledge and skills to meet patients' needs and ensure positive satisfaction. Retention of staff with the requisite stoma care skills, knowledge, and confidence should be encouraged by organisations, along with access to registered nurses with specialist knowledge. Experience was highlighted as being a concern due to infrequent exposure of staff to stoma care. Recommendations could be made for organisational strategies to support EBP in view of limited or infrequent stoma care experience, which requires further study, including the impact of the levels of staff skill mix for providing care.

The facilitation of EBP stoma care in RACF practice was not present in the studies described; however, elements of context and workforce characteristics were examined. In anticipation of developing facilitation strategies for EBP of stoma care in RAC, a review of implementing EBP in RAC was undertaken in relation to knowledge. Three studies were found relative to implementation of EBP (Mody et al., 2010; Resnick et al., 2006; Savvas et al., 2014b). The value and contribution of the three study's findings are examined and discussed below.

Three separate studies were conducted with health care workers in aged care or nursing homes that explored knowledge of evidence based practice (Mody et al., 2010; Resnick et al., 2006; Savvas et al., 2014b). Each study used an alternate approach to data collection; a survey, focus groups, and interviews with RAC health workers during pre- and post-implementation testing. Participants were predominantly female, although one study did not indicate gender. One study in conducted focus groups with Nursing Assistants (NAs) and Directors of Nursing (DONs) (Resnick et al., 2006), and both groups demonstrated similar results of themes related to staff knowledge and resident or family behaviours as influencing

practice. The remaining two, studied RAC health workers via survey or interviews, but did not report the level of training or organisational positions (Mody et al., 2010; Resnick et al., 2006; Savvas et al., 2014b). Mody et al. (2010) reported that staff knowledge of EB catheter care varied from high to average dependent on the practice intervention and established habits. Pain management knowledge and compliance with EBP as found by Savvas et al. (2014b) to improve with education, increasing organisational compliance in meeting the required standards.

The first a United States of America , qualitative study, conducted focus groups using a purposive sample (Resnick et al., 2006). The participants included DONs in one group and NAs in the other two groups. Reported findings from the DON group included lack of knowledge about evidence based management of urinary incontinence, urinary infections, and general negative attitudes about treatment and perceived lack of caring by nursing staff. Recommendations to improve EBP implementation suggested by the study participants included increased staffing levels and teamwork, using members other than only NAs to help with toileting, and providing equipment. There was a disparity of evidence based practice and organisational support, as would be proposed to benefit both staff and resident. The NAs voiced frustration with lack of physical assistance or the expectations to have residents up, washed, and dressed ready for breakfast and time demands, a task orientated culture. The DONs identified the need to encourage positive NA role models and proposed implementing a buddy system for toileting to enhance evidence based practice.

Mody et al. (2010) undertook a survey of the knowledge and evidence based practice of urinary catheter care of a total of 356 registered nurses, licenced practical nurses and nurses' aides in Michigan, USA. working in private and non-profit aged

care facilities. Knowledge items were derived from the Centre for Disease Control guidelines. Findings indicated that the staff knowledge of EBP guidelines fluctuated, as demonstrated by reported varied catheter care practices and inconsistent compliance with hand hygiene. Facilities with available alcohol based hand gel reported better compliance with hand hygiene. Inconsistent evidence base practice was attributed to habits and lack of knowledge.

Implementation of sustainable EBP pain management was investigated by Savvas et al. (2014b). An implementation audit was completed, with 171 RAC health workers interviewed pre and 143 post, 250 RAC health workers attended the education. The outcome demonstrated that education of EBP can improve knowledge and compliance with EBP guidelines; achieving an increased compliance with 23 of the 27 Australian Pain Societies' recommendations from a pre-education compliance of only 12 standards before education. The authors recommended that organisations must undertake responsibility to ensure resources and education are available to sustain implemented EBP (Savvas et al., 2014b).

Although the approaches to each study differed, they found similar indications for facilitating EBP. Individual and staff engagement, as well as organisational factors such as supportive leadership, available resources, and equipment and education are essential. The importance of communication and teamwork was highlighted across all levels of staff to implement and sustain EBP.

Similarities can be found in managing stoma care knowledge, attitudes, and confidence.

2.3.1.2 Attitudes

This section presents an overview of the six studies examining attitudes toward stoma care, three with registered nurses in the acute setting (Andrews & Sharma,

2013; Gemmill et al., 2011; Moore et al., 1998) and the remaining three studies of attitudes related to EBP in RAC (Ayalon et al., 2009; Chang et al., 2010; Resnick et al., 2006).

Two acute care studies were descriptive, including registered nurses who were predominantly female, over 30 years of age with more than nine years of practice experience (Andrews & Sharma, 2013; Gemmill et al., 2011; Moore et al., 1998). The third study by Moore et al. (1998) was a non-experimental design of registered nurses from acute and home care environments. Participants were mostly female, over 30 years of age, with five years of experience. The three studies' findings were consistent in identifying similar issues and recommendations, as discussed below.

Attitudes described from the survey by Gemmill et al. (2011) were positive toward providing stoma care and less positive when experience in providing stoma care and access to in-service stoma care education was unavailable or very limited. A subsequent survey adapted from the Gemmill et al. (2011) study was undertaken in a surgical oncology unit in New Delhi, India by Andrews and Sharma (2013). Derived from a survey of 50 registered nurses, the data revealed that 64% of RNs held a positive attitude toward attending ostomy (stoma) care, while 36% disclosed negative attitudes. Attitudes were very positive toward accessing a resource person or specialist, and the belief that by the time of discharge patients were prepared to manage their stoma care. An electronic survey of attitudes of registered nurses related to stoma care conducted by Cross et al. (2014) acknowledged the failure to satisfactorily answer the beliefs and attitudes research question due to poor interrater reliability of the tool, and therefore did not provide results, instead recommending the development of a valid and reliable tool. In summary, attitudes can be discussed in combination with knowledge and confidence. As identified in the studies

presented, attitudes can have a direct influence on knowledge and confidence (Andrews & Sharma, 2013; Gemmill et al., 2011; Moore et al., 1998) and can be a determining factor in individuals and organisations adapting EBP.

Attitudes toward EBP in RAC are reviewed in the next group of studies. There were two descriptive and one focus group study undertaken with aged care workers (Ayalon et al., 2009; Chang et al., 2010; Resnick et al., 2006). Participants ranged from registered nurses to mostly unregulated RAC health workers. Levels of education were found to be lower, with unregulated staff and few RNs achieving degree qualifications. A survey of RAC health workers established perceptions of EBP related to management of dementia and agitation (Ayalon et al., 2009). The staff surveyed were predominantly female, unregulated, some with college or trade education, and just under half had a language other than English. The beliefs of the unregulated group for agitation management in dementia was for use of restraints, medications, and intense supervision. These beliefs are outdated and not reflective of current EBP. The study highlights that education of the lower levels of unregulated staff would be necessary to change the beliefs and habits to improve care and compliance with EBP.

Attitudes, barriers, and facilitators for implementing EBP in aged care were also explored in Taiwan (Chang et al., 2010). The descriptive quantitative study of 86 registered nurses found positive attitudes to EBP. Noted barriers were the lack of authority to change practice, not understanding statistical analyses, and feeling of isolation from knowledgeable colleagues. Chang et al. (2010) recommended that improved access to computers in the workplace, training in research utilisation, and collaboration with academic nurses would facilitate EBP. Most importantly, Chang et al. (2010) remarked that EBP is to be adapted as an organisational and not only an

individual response to improve practice; staff experience, access to assistance, and in-service education are factors in developing and sustaining EBP.

The study previously described by Resnick et al. (2006) remarked on how lack of experience and knowledge can negatively impact on attitudes of DONs and NAs toward EBP and adapting to clinical practice. As described, attitudes influence knowledge and confidence, and can be a determining factor in adapting EBP. Positive attitudes of health care professionals were found to be the most important factor from the patients' perspective in supporting and providing stoma care education (Andrews & Sharma, 2013; Gemmill et al., 2011; Moore et al., 1998). The area of attitudes of RAC health workers toward providing EB stoma care remains to be clearly investigated and understood.

2.3.1.3 Confidence

A diversity of education and training was found amongst RAC health workers in a study of knowledge and confidence toward diabetes (Vincent, 2016). Significantly described was the role of the PCW in providing front line care and the need to ensure education of regulated and unregulated RAC health workers. PCWs reported lower levels of knowledge and confidence in comparison to RNs who responded as moderate to very confident. The results of which can provide background for the current study when assessing stoma care by RAC health workers.

From the previous studies discussed in this chapter on stoma care, five studies looked at registered nurses' confidence as a factor influencing the relationship between RNs delivering stoma care and perceptions of confidence of RNs from a person with a stoma receiving care (Andrews & Sharma, 2013; Cross et al., 2014; Gemmill et al., 2011; Jackson et al., 1993; Moore et al., 1998). They were descriptive studies, investigating confidence in conjunction with either knowledge or attitudes.

The majority of participants were from acute care and registered nurses. A study by Jackson et al. (1993) examined registered nurses' perceptions of stoma care and patients' satisfaction with the stoma care provided. The studies found varying levels of confidence, with lower levels attributed to lack of knowledge and clinical experience in attending stoma care. Access to an expert or nurse experienced in stoma care was viewed as advantageous to support practice (Cross et al., 2014). Greater confidence in stoma care was expressed by RNs and LPNs who had regular access to stoma care in-service education and frequent opportunities to provide stoma care (Cross et al., 2014; Moore et al., 1998).

Gemmill et al. (2011) found surgical unit registered nurses' confidence in assessment and caring for a person with a stoma was high, at 80%; however, confidence declined to $\leq 35\%$ in relation to types of products, teaching patients, and frequency of practice to retain confidence. Gemmill et al. (2011) commented on the importance of registered nurses' knowledge and confidence to impact on patients' perspectives of competent stoma care. This finding was further supported in the studies by Jackson et al. (1993) and Moore et al. (1998), in noting that patients felt supported and well cared for when registered nurses appeared to be confident when providing care.

A study of satisfaction with nursing care by persons with ostomies was conducted by Jackson et al. (1993). A non-experimental descriptive correlational study of 12 registered nurse-patient pairs from two hospitals were measured for RN confidence in providing stoma care and patients satisfaction with nursing care. Significant relationships were found between patient groups with stomas and registered nurses that appeared skilful in stoma management, as this made them feel secure, they felt that their care was top priority, they were treated with respect, and

experienced effective communication. The registered nurses who scored themselves as having more confidence in stoma care were perceived by patients as having more skill to care for them. Jackson et al. (1993) pointed out that knowledge and education can raise nurses' confidence in stoma care. The study was restricted by participant numbers and one to one relationships, which may have biased the results.

Moore et al. (1998) used a non-experimental comparative study of 70 acute care and home care registered nurses, surveyed for perceptions of their skills to care for ostomy patients. The home care nurses were more positive in their attitudes related to the frequency of which they provided stoma care, and attendance at stoma care in-service education. Acute care RNs indicated less positive attitudes due to limited experience with stoma care and attendance at in-service education. Registered Nurses identified that education and access to specialist nurses, such as an Enterostomal Therapist or Stomal Therapy Nurse contributed to their confidence and positive attitudes in providing stoma care (Moore et al., 1998). Satisfaction of patients was reported to be higher when nurses were confident in providing stoma care (Moore et al., 1998).

Andrews and Sharma (2013) surveyed 50 acute care hospital registered nurses and reported high levels of confidence in knowledge and experience in providing stoma care. Confidence in stoma care was high as reported by RNs in assessing the stoma and managing stoma care. However, knowledge and confidence with stoma products and the impact of a low frequency of occasions to provide stoma care contributed to somewhat lower confidence scores.

Finally, a further study from the U.S.A. of RNs and LPNs confidence in caring for a person with a stoma was undertaken by Cross et al., (2014) Self-perceived confidence related to knowledge, skills, and stoma products were

surveyed. As reported in other studies, knowledge was greater in emptying an appliance and lower for nutritional needs. These findings were reflected in similar levels of confidence of the same areas. The study also found that confidence was higher in ostomy (stoma) care where staff had training, greater years of experience in health care, greater frequency of providing stoma care, and understanding of ostomy products. Confidence was reported higher in the LPN (EN) group, who identified training and frequency of attending to stoma care as contributing to increased levels of confidence. All participants indicated that understanding the procurement and use of stoma supplies improved their confidence in providing stoma care (Cross et al., 2014).

The five studies reviewed above examined attitudes of nurses toward stoma care, and also considered the impact on confidence of a person with a stoma in the care they received. The studies were all set in acute care, with small numbers of 70 or less participants and reliant on self-reported surveys. Similar findings relevant to the confidence of nurses providing stoma care were consistent across the studies. The recurrent themes described how registered nurses with frequent experience providing stoma care and knowledge of stoma care greatly influenced both registered nurses' confidence and patients' perceptions of the care they received when the registered nurse delivering stoma care was confident. Taking into account that no studies were found to report on RAC health workers' confidence in delivering stoma care presents an opportunity to explore this aspect of both the RAC health workers and EB stoma care practice.

2.4 ORGANISATIONAL AND CULTURAL FACTORS

The challenges of implementing change and evidence based practice in aged care environments can be attributed to insufficient understanding of the context of

organisational and cultural variables that are liable to have an impact on the successful uptake of evidence (Gibb, 2013). Five studies examining organisational and cultural influences on EBP implementation in RAC were completed using qualitative methods of interviews, focus groups, and observation supplemented by document audits and literature review in some studies (Cammer et al., 2014; Colón - Emeric et al., 2007; Gibb, 2013; Masso & McCarthy, 2009; Perry et al., 2011). Quantitative surveys and pre and post studies were used for base line and evaluation measures in Australian studies by Masso & McCarthy (2014) and Edwards et al (2010). A staff skill mix of RAC health workers participated in the studies, including doctors, allied health operational support staff, and regulated nursing and unregulated care staff across aged care facilities of small to medium services. Findings from the studies were similar in overarching themes and included the importance of teamwork, strong and consistent leadership, workload concerns and staff skill mix, lack of time, change and ambiguity, and cultural diversity of residents and staff. Organisational frameworks and meeting accreditation criteria and standards in an environment of a residents' home, a workplace, and a business can lead to conflicting responses and priorities (Perry et al., 2011). Staff highlighted experience and confidence as a challenge to making decisions and providing the best care amid the uncertainty of role clarity and insufficient knowledge and professional development.

Perry et al. (2011) in Australia conducted interviews with 29 RAC health workers including managers, RNs, PCWs, recreation officers and hospitality and kitchen staff across three facilities to explore the factors influencing practice change from the RAC health workers' perspective. Findings from the interviews identified that research evidence was not viewed highly by RAC registered nurses. For staff to

change practice they had to believe the change was worth making, as there was a reliance on experience and intuition, as influenced by daily on the job experience. Furthermore, Perry et al. (2011) recognised the purpose of organisations as both for caring and a business. Factors of budgets, efficiency, meeting regulatory requirements, and the commitment to person centred care were the focus of managers and leaders. Staff indicated a culture of working together and supporting one another. They also expressed appreciation for being valued and acknowledgment of contributions to the organisation (Perry et al., 2011).

Gibb (2013) undertook a comprehensive environmental scan of a RACF in Australia through surveys, interviews, and observations of RNs, ENs and PCWs. Major organisational and cultural findings identified a division between levels of staff, where communication was inhibited by power differentials and teamwork and leadership were inconsistent in providing feedback and support. Issues arising in the RAC environment ranged from time pressures, poor attitudes, lack of staff, obstructive personal behaviours, non-constructive feedback, and no clear decision making or provision of protocols for care. Positive features were thought to be positive role modelling of leaders, mentoring for performing tasks, and sharing common goals.

Colón-Emeric et al. (2007) reported in-depth interviews in eight nursing homes from the U.S.A. with doctors, nursing managers, RNs and PCWs and found that organisational culture and leadership factors featured as influencing engagement and staff attitudes toward use of EBP guidelines. Organisations empowering ‘hands on’ models of care with developed policies and procedures were well positioned to adapt best practice (Colón - Emeric et al., 2007). For change to be undertaken, effective leadership and management is vital; however, it was noted that limited training and

education of management in some RACFs created difficulty in implementing change management processes (Masso & McCarthy, 2009). Identified barriers were workforce characteristics, such as level of literacy and English as a second language, fluctuation of skill mix, and staffing levels. A challenge was found in meeting the demands of the RAC health workers to cover the breadth of the topic, encouraging evidence based practice, and resolved using multiple strategies to develop education and resources in consideration of the characteristics noted (Masso, McCarthy, & Kitson, 2014).

Leadership plays a key role in RACFs, impacting on the workplace atmosphere, ability to positively role model, mentoring, and seizing the opportunity to use mistakes for learning and improvements (Cammer et al., 2014). Other attributes of organisational leadership were reported in the Canadian study by Cammer et al. (2014) from an in depth qualitative study of a RACF. Resources that were identified as being in short supply, or not accessible were physical (e.g. equipment), human (e.g. staff), and intangible (e.g. time, education) necessities. Influencing the workplace function was constant change leading to unsettled staff and uncertainty of practice and expectations of regulated and unregulated staff.

Organisations from all levels benefit from a rigorous and comprehensive evaluation process to provide feedback and inform decisions, practice, and measure the effectiveness of improvements and systems (Perry et al., 2011). Leadership and management can be supported by evaluation activities and enhancing staff education and the uptake of evidence to improve workplace functions, practice, and outcomes (Cammer et al., 2014).

The complexity of RAC settings requires understanding and effective organisational management of the environment and specific culture to facilitate change and improve practice (Cammer et al., 2014; Gibb, 2013; Perry et al., 2011).

Increasing international migration, as described in two discussion papers, has brought about a pervasive diversity of language and cultural and religious practice to the health care environment and workforce (Haynes, 2016; Mattson, 2009). Organisations must be prepared to accommodate the resident and RAC health workers' differences to ensure respect and positive relationships. A study conducted in Victoria, Australia of language needs of residents identified difficulty meeting residents' basic care needs and social isolation as a risk for non-English speakers, noting 30% of residential aged care residents were born overseas. Runci, et al (2015) go on to report the prevalence of non-English speakers from findings of a survey of 225 RACF that 16% of residents spoke one of 55 non-English languages. Encouragingly 76% of facilities had at least one staff member from support services or health care workers that spoke a LOTE. Language is noted to be of importance for communication with residents by staff with English as a second language conducted by Badger et al, (2012) in a region of England exploring issues of black and ethnic minorities in nursing homes. Assistance with improving language skills of staff are important to ensure resident needs are attended. There is a risk to non-English speaking residents risk social isolation and receiving suboptimal personal care (Badger, 2012)

Expectations are for RAC health workers to demonstrate an understanding and respect for residents in their care through cultural competence (Black, 2009b). Differences in beliefs toward bodily functions and excreta for some religions and cultures present a risk for an individual to manage caring for a stoma and a potential

detrimental impact on cultural practices and inclusion in their communities (Norton, Nunwa, Taylor, Whayman, & Williams, 2009). Identified by nursing home managers interviewed by Badger et al (2012) identified the occurrence of prejudice of residents toward non-Caucasian staff and the need to be sensitive to both resident and staff in managing these incidents.

Recognising the context and culture of an organisation is a collaboration between leadership and management to recognise the RAC staff characteristics and organisational culture when considering strategies to promote, implement, and sustain EBP by the staff in the RAC environment. Currently, no known studies have directly investigated or documented the evidence or context and eventual implementation of stoma care EBP in RAC; however, direction can be taken from experience in other care areas, broader literature, and a comprehensive environmental scan of RAC.

2.5 EDUCATION AND EVIDENCE BASED STOMA CARE

Despite the underlying reason for, or length of time living with a stoma, the person with a stoma deserves access to a health care worker with a positive attitude, who possesses the knowledge to provide competent care, regardless of the setting, whether in acute care, community, or residential aged care facilities (Black, 2011c). Stoma education received while in hospital can be overwhelming to an older person and they will continue to need reinforcement of education, and physical and emotional support to manage the multiple impacts that having a stoma can present (Black, 2011c; Bliss, Westra, Savik, & Hou, 2013; Burch, 2011; Pearson, 2010a). The literature search revealed that a small number of studies noted the need for education for care providers who are non-specialists in stoma care in health care facilities, and more specifically RAC, with strategies discussed and developed in the

United Kingdom (UK) and United States. Stelton and Homsted (2010), in cooperation with fellow members of the Wound, Ostomy and Continence nurse group in the United States, developed a helpful problem solving guide for the non-stoma care specialist registered nurse. The guide is intended to help problem solve stoma issues and complications using an illustrated guide for assessing, evaluating, and prioritising urgency, and details recommended actions for short term management in the absence of a specialist registered nurse (Goldberg, 2011; Stelton & Homsted, 2010). A study in the UK (Black, 2011b) identified the changing features of the aged care work force and characteristics of being unskilled and non-regulated, and initiated the development and supply of a stoma care education package, including course notes and a workbook for completion (Dougherty & Lister, 2011). The objective was for unregulated health care workeres to meet the stoma care needs of older persons in RACFs (Black, 2011d). The reported evaluation indicated positive feedback from participants on the value and influence of education to improve their ability and knowledge in providing stoma care, although pre and post testing was not reported (Black, 2011d).

The concepts of EBP and best practice guidelines (BPG) were introduced in the 1970s and 80s in North America, resulting in a shift for the delivery of health care, and by the 1990s, this had progressed toward evidence based medicine and quality health care (Nelson, 2014). BPG are demonstrated to improve clinical practice and health outcomes (Matthew-Maich, Ploeg, Dobbins, & Jack, 2013), with the objective being to reduce ineffective practice and implement more evidence-based procedures (Wallin, Profetto-McGrath, & Levers, 2005). The use of EBP can be applied to education, administration, clinical practice, and theoretical concepts. Characterised

as directive, evidence based, and quality focused, the goal is for better health care outcomes (Nelson, 2014).

With an increasing prevalence of older persons experiencing acute episodes of care, best practice interventions to improve management of older adults were discussed in a literature review by Hickman, Newton, Halcomb, Chang, and Davidson (2007). Older adults in acute care regularly have chronic and complex illnesses that an acute care approach to management often lacks in meeting their needs. Findings in the review suggest interventions to attain optimal health outcomes for older adults in acute care; a team approach using expertise, use of specific assessment to prevent complications, placing an emphasis on improved discharge planning, and most essential, communication between care providers across the care journey (Hickman et al., 2007). Discharge planning supporting transfer of a person with a stoma to a RACF is essential to ensure quality of life for the person and competent practice by RAC health workers (Black, 2009a; Walker & Lachman, 2013). The inherent value of clinical practice guidelines and promoting EPB encourages implementation related to BPG for stoma care and recognises the unique environment of residential aged care, which may benefit from better practice and health outcomes.

Trends towards evidence based best practice have resulted in the development and implementation of guidelines in stoma care by interested health care professionals. Organisations including The Royal College of Nursing in the UK (Black & Chalmers, 2011b), RNAO in Canada (Grinspun, 2009), and the Ostomy Guidelines Task Force of the Wound Ostomy Continence Nurses in the United States (Goldberg, 2011) have developed guidelines available to professionals to inform practice and maintain person focused outcomes. Fundamental to EBP guideline

development is a comprehensive literature review of the evidence and evaluation of the strength of evidence using a valid and reliable process, such as the Agree collaboration (Brouwers et al., 2010) conducted by expert clinicians and skilled and qualified professionals (Grinspun, Virani, & Bajnok, 2001).

Implementation of EBP can be viewed as changing individual clinicians' practices through strategies, such as education, organisational improvement in quality of care, or change management strategies. Wound management was identified as an area of great importance in RAC health workers needing support with education (Masso & McCarthy, 2009). Wound management is frequently associated with the speciality of stomal therapy and under the direction of the same practitioners, as common skin integrity complications are of importance in a person with a stoma (Burch, 2010).

The Creating Champions for Skin Integrity (CSI) program was a project focusing on promoting and preserving skin integrity through the implementation of evidence based practice in the residential aged care setting (Edwards, 2010). In the final report, findings were reported that would be of value for assessment and development of an evidence based education activity for RAC health workers of stoma care. The strategies for the CSI Program included development of an EB resource tool kit for education; engagement with all levels of staff, residents, and family in education to encourage commitment and continuity of care; support of clinical leadership and management; assessment of staff knowledge when developing plans and resources; and adaptation of education and EBP guidelines in line with differing levels of education, training, and literacy of staff. Results of the assessment found resources needed to be kept brief, easy to use, and accessible; while audit feedback cycles maintained momentum and interest and promoted goal setting

(Edwards, 2010). Evaluation of the program was completed via surveys, clinical skin audits, documentation audits, and focus groups. Outcomes from the CSI program were increased implementation of evidence through increased use of pressure injury prevention measures, documentation of pressure injury risk assessments and wound management, and improved self-rating of confidence by staff. The benefits to residents were decreased prevalence and severity of wounds, use of pressure relieving strategies, improved prevention of skin tears and leg ulcers, and the improved documentation of risk and management plans. Staff responded positively, reporting improved knowledge and confidence in providing evidenced based practice. In conjunction with staff and resident gains, the organisations noted improvements to access to expertise, improved communication between staff, improved local policies and procedures to support guidelines, and training in an audit process to sustain practice. Most significant was the understanding that translation of EBP takes time to be implemented and sustained. (Edwards, 2010).

The development of RAC health workers is essential to meet the care needs of older persons with a stoma. Achieving the implementation of EBP can be supported by evaluation of the RAC environment, staff, and organisations. As an apparent lack of work has been completed in this area, there is an opportunity to progress the necessary research to facilitate EB stoma care and support RAC health workers.

2.6 THEORY AND CONCEPTUAL FRAMEWORK

Fundamental to conducting research is the use of theoretical and conceptual frameworks to underpin the study (Green, 2014). The theory and conceptual frameworks considered to guide the investigation of knowledge, attitudes, and confidence of RAC health workers in caring for an older person with a stoma are discussed below.

Theory provides a logical organised explanation of concepts and the underlying relationships between concepts or variables from which analysis of results to support or reject a hypothesis is undertaken (Ullrich, Sahay, & Stetler, 2014). A conceptual framework draws on concepts from different theories and findings to guide research (Green, 2014). Frameworks provide a useful plan for a group of concepts connecting a population, problem, or environment. Development of the research questions, purpose, literature review, and selection of variables is guided by the framework and facilitates the operationalisation of the research study design (Green, 2014; Ivey, 2015). The theory and conceptual frameworks considered to guide the investigation of knowledge, attitudes, and confidence of RAC health workers in caring for an older person with a stoma are presented in the following sections.

The first theory considered was the Theory of Planned Behaviour (TPB), which proposes that behaviours are influenced by one's perceived control of behaviours, intentions, beliefs, and attitudes (Ajzen, 2011). Madden, Ellen, and Ajzen (1992) explained that beliefs of control can be promoted through resources and opportunities. Control brings motivation, whereas feelings of less control can decrease the intent of behaviours, even in the presence of positive attitudes. Behaviour and attitude are related to individual confidence and ability in performing the task. The premise that past behaviours are an effective predictor of future behaviours is supported by the TPB (Ajzen, 2011) and can influence acceptance of education or change.

Aspects of the TPB can be regarded as fitting the cohort of RAC health workers recruited for this study in identifying needs for education in evidence based stoma care. Behaviour, attitudes, and confidence are areas that are important to inform development of education activities. Education can empower staff with a

sense of control, positive attitude, and belief to perform the intended behaviour as suggested by the TPB. Understanding of the target group, that is, RAC health workers, is necessary to develop an appropriate education resource and the TPB is relevant to achieving a successful outcome of learning and behaviour. A study of registered nurses' knowledge and attitudes toward pain assessment of persons with dementia in palliative care by Burns and McIlfatrick (2015) in the UK. demonstrates the use of the TPB. It considered attitudes toward pain assessment, the role of the RN in pain assessment, and perceived limitations in accurately assessing pain to determine their pain assessment and management behaviour. Despite the intention to perform an accurate assessment the practice, behaviour was found to be ineffective. Aspects identified by Burns and McIlfatrick (2015) to influence knowledge, attitudes, and confidence of staff were experience, education, confidence, resources and time, or workload pressures to influence individual behaviours. The TBP was determined to be inadequate for the proposed study, as it is dependent on an individual centric perception and does not consider organisational obligations or the care recipients' needs.

The theory of reasoned action (TRA) preceded the TPB and is considered useful for predicting behaviour or intentions of behaviour (Newton, Ewing, Burney, & Hay, 2012). The relationship of attitudes to intention to perform a behaviour are closely linked (Ajzen, 2011). Behaviour is considered to be stimulated by moral obligation, emotion, or habit. The theory can be useful to identify the process for implementing strategies to change behaviour. There is a belief by an individual that certain behaviours produce an outcome and attitudes influence behaviour. As indicated, attitudes, intentions, and behaviours are predisposed by a sense of perceived control, stability, emotion, personal values and beliefs, and past behaviour

and achievements (Madden et al., 1992). A cross sectional study conducted in a RACF of personal care workers attitudes and behaviours relevant to oral care in Singapore concluded positive behaviours were displayed toward providing oral care, but staff were less confident in their ability to perform the behaviour (Goh et al., 2016). Recommendations from the findings were to examine PCWs attitudes, beliefs, and expectations prior to implementing education to establish intention or predict behaviours. A study into the use of restraints in RAC found individual behaviour and beliefs influenced the acceptance of whether or not to use restraints (Werner & Mendelsson, 2001). Clearly, personal behaviour and beliefs influence actions of those providing care and may not necessarily meet the needs of the organisation, residents, or the workforce. As with the TPB, although important, the focus on individuals' attitudes and behaviour was beyond the scope of this intended research, looking at RAC health workers and exploration of organisational influences on providing EB resident care.

Implementation science, as stated by Newhouse, Bobay, Dykes, Stevens, and Titler (2013), studies methods, interventions, and factors supporting the adoption of research outcomes and EBP by individuals and organisations with the goal of attaining better clinical practice and informing operational decisions to improve health care quality. For the purposes of this implementation theory was considered appropriate to achieve the intended outcomes of facilitating EBP in stoma care of RAC health workers.

The Diffusion of Innovation Theory (Rogers, 2004) attempts to explain how new ideas and practices are taken up by members of a group or organisation to aid in the diffusion of change and adoption process in health care organisations. Sanson-Fisher (2004) described the theory as adoption or additional effort to adopt clinical

behaviours directed by the consideration of aspects of the innovation being introduced, style of communication, and appropriate person delivering information; while critical steps in the decision making process to adopt innovation are acquired knowledge, clinicians' receptiveness, adaptation to daily practice, and the social context of the clinical environment taken into account (Rogers, 2004).

The spread of innovation, as discussed by Greenhalgh (2008) in a systematic literature review of Diffusion of Innovation in service organisations, is dependent on individuals, social, communication, and support structures. Organisational factors are of importance, such as the influence of leadership in supporting change through education, identifying and promoting champions to disseminate EBP, and organisational backing with current policy and procedures (Greenhalgh, 2008). Recognising the factors for Diffusion of Innovation Theory, Kitson et al. (2008) developed a conceptual framework exploring the context of the organisation and environment, and characteristics of the individuals; to facilitate EBP implementation – the PARIHS framework (Kitson et al., 2008).

In view of the long term aim of this study to develop an education package for RAC health workers in caring for an older person with a stoma, a conceptual framework supporting implementation of evidence based practice was selected. The 'Promoting Action on Research in Health Services' (PARIHS) conceptual framework (Figure 2.1) has been used as a practical framework for research and knowledge transfer activities (Kitson et al., 2008). Kitson, Harvey, and McCormack (1998) introduced the framework, and as it continues to be used in research studies on implementation of evidence based practice, the conceptual elements have been refined and are currently defined as: evidence, context, and facilitation (Hutchinson, Wilkinson, Kent, & Harrison, 2012). As described by Hutchinson et al. (2012),

evidence includes research, clinical experience, patient experience, and information collected from the local context. This element determines the strength of evidence that ensures consistency with professional beliefs and clinical experience. Central to sustainable practice are the inclusion of patients in decision making to support the practice and the opportunity to evaluate through audits. Context is the setting in which the evidence is to be used and is determined by workplace culture, strength of leadership, and an ongoing evaluation cycle of facilitation and practice. An organisation being conducive to change and supported by strong leadership and organisational structure, a supportive culture, a favourable learning environment, role clarity, and team work and a robust quality improvement system will achieve successful outcomes for registered nurses and unregulated staff, residents, and the organisation. The final concept is facilitation, the implementation process that is reliant on the strength of evidence and receptiveness of the context, as explained by Hutchinson et al. (2012). The third element, facilitation, was not examined in this study, as the intent of the research was to assess the current knowledge, attitudes, and confidence of RAC health workers and the organisational context to provide the grounding evidence for development of a facilitation strategy in the future.



Figure 2.1: PARIHS framework: interrelationship of evidence, context, and facilitation

(Hack, T.F., Ruether, J.D., Weir, L.M., Grenier, D., Degner, L.F. (2011))

Elements of the PARIHS (Kitson et al., 2001) conceptual framework were used to guide the investigation of the factors influencing knowledge, attitudes, and confidence of the RAC health workers regarding evidence based stoma care. Application of the PARIHS framework in this research study involved examining two concepts from the PARIHS framework: evidence and context. Evaluation of evidence of knowledge of RAC health workers was achieved by examining knowledge and confidence of evidence based stoma care. Evaluation of the context involved assessment of RAC health workers' attitudes and organisational factors relative to evidence based stoma care, including the need for in-service education, resources being accessible, culture, leadership, and identification of potential implementation strategies. A valuable needs analysis of RAC health workers' knowledge, attitudes, and confidence, and organisational influences for strategies and education to facilitate evidence based stoma care could be achieved applying the PARIHS framework.

Necessary to the PARIHS framework is the collection of evidence regarding organisational resources and knowledge of the RAC workforce as key stakeholders. Assessment of the workplace environment in which the study is to be implemented is also a requirement for development of implementation or facilitation plans for change (Helfrich et al., 2010; Kitson et al., 2008).

Each health care environment presents unique characteristics of culture and context. Gibb (2013) conducted an environmental scan of a RAC workplace to determine the preparedness for change. Issues included lack of insight into the

factors affected by context and the subsequent bearing on implementation of evidence in aged care. In examining workplace culture to enable practice change, barriers of behaviours and attitudes were considered to hinder change and sustainability. The PARIHS framework allows the researcher to examine practice context and determine the most appropriate facilitation approach to attain sustained practice change.

The PARIHS framework has been used effectively for similar studies, for example, to examine evidence based pain management from two perspectives: chronic pain (Anderson, Wang, & Zlateva, 2012), and postoperative pain (Brown & McCormack, 2005). The study of chronic pain management in the community environment determined the need for improved competence and confidence in providing effective pain management (Anderson et al., 2012). The need for a variety of approaches to support education and practice was deemed important to facilitate implementation, considering the context and culture of the organisation and workforce; which aligns with the concepts of PARIHS (Anderson et al., 2012). The second study, of postoperative pain management, found significant factors such as research evidence, patient and clinical experience, and the persons engaged in the local setting and context essential to informing nurses' practice and clinical judgement (Brown & McCormack, 2005). Furthermore, the study described themes identified to impact on pain management in older persons, which included knowledge or insight to deal with uncontrolled pain and effective planning of care. The dependence on PARIHS fundamentals was evident in discovering that staff needed to reflect on reactions, values, and beliefs around pain and their impact on the care provided. Recommendations were made to encourage a culture of education within an organisation, subscribing to the idea that for successful implementation,

interventions require inclusive strategies, particularly of individuals, organisational culture, and the mode of delivery of information in order to be effective (Kitson et al., 2001).

Leadership critically influences the culture and context of an organisation and the workforce and must be considered when planning to implement evidence based practice (Helfrich et al., 2010; Kitson et al., 2008; Stetler, Ritchie, Rycroft-Malone, & Charns, 2014; Ullrich et al., 2014). Urquhart, Sargeant, and Grunfeld (2013) noted that evidence based practice implementation was inhibited when staff felt undervalued, had poorly defined roles, and weak leadership, compounded by a lack of performance review and learning opportunities. Context and culture, as an element of the PARIHS framework, points out that the success or failure of implementation of evidence based practice or change, is dependent on effective and engaged leadership (Stetler et al., 2014). The framework, methodology and flow of the research study and stages is demonstrated in Figure 2.2 Flow Diagram Overall Objective: Residential aged care health workers' Knowledge, Attitudes and Confidence in Providing Care to a Person with a Stoma: Needs Analysis for Education.

Overall Objective: Residential Aged Care Workers' Knowledge, Attitudes and Confidence in Providing Care to a Person with a Stoma : A Needs Analysis for Education

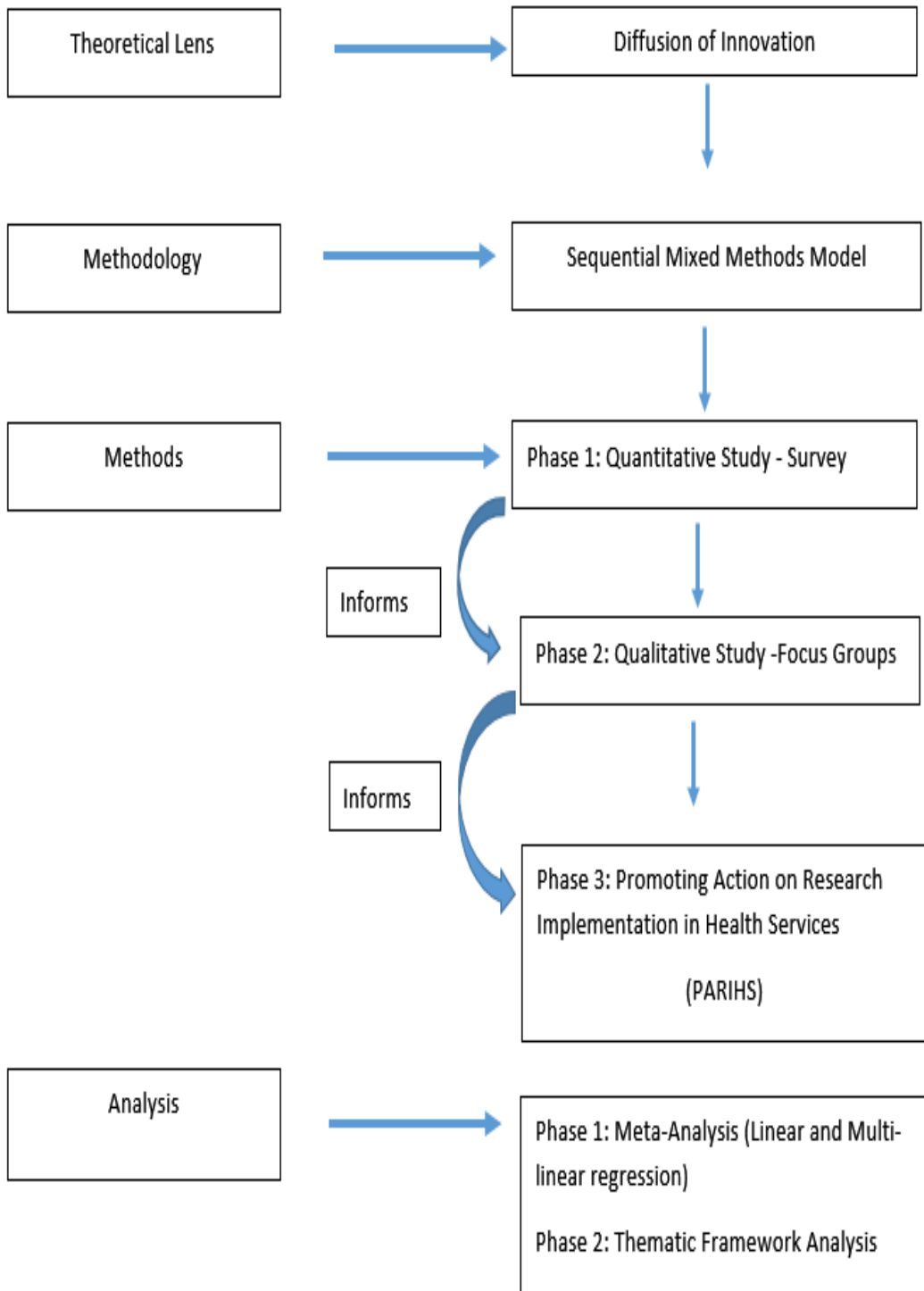


Figure 2.2: Flow Diagram

2.7 CONCLUSION

This study aimed to explore and examine RAC health workers' characteristics, knowledge, attitudes, confidence, and organisational influences of leadership and culture, supported by the PARIHS framework. Evidence is imperative to improving resident care and nursing clinical decisions informed by clinical opinion, individual experience, and research findings (Rycroft-Malone, Harvey, Kitson, McCormack, & Titchen, 2002). The PARIHS framework considers the evidence, the resident, clinical experience of the health care workers providing care, and the diversity of the RAC health workers; thus, it is well suited to the RAC environment (Brown & McCormack, 2005). Guided by elements of the framework, an evaluation of the RAC workforce and environment can identify needs to inform the development of an education program for RAC health workers caring for an older person with a stoma. Subsequently, conclusions can be ascertained as to organisational preparedness to facilitate implementation of EBP for stoma care.

In recognition of the specialist knowledge required to manage stoma care and the potential complications involved, it is important to investigate the level of knowledge, attitudes, and confidence of RAC health workers. There is an apparent lack of Australian and international RAC workforce studies evaluating RAC health workers' knowledge, attitudes, and confidence in providing evidence based stoma care. No literature on attitudes or knowledge specific to stoma care in the RAC cohort was found supporting the proposed research study. The studies in other care areas can be viewed as identifying that knowledge, attitudes, and confidence are important to influence nursing and RAC health workers' in the implementation of EBP.

Chapter 3: Research Design and Methods for Stage One

3.1 INTRODUCTION

The long term aim of this study is to provide an educational activity that aims to facilitate the use of evidence based stoma care for all residential aged care (RAC) workers. In the absence of Australian research on the RAC health workers's educational needs for providing care to an older person with a stoma to inform such a program, this research study was undertaken to explore the perceived knowledge, attitudes, and confidence of RAC health workers in providing evidence based stoma care to an older person. A needs analysis relating to the RAC context, culture, and organisational factors was therefore undertaken to identify criteria for successful facilitation of evidence based practice in the development of an education activity to meet the needs as identified by the end users; the RAC health workers.

This chapter presents the methodology and methods for Stage One, a survey of residential aged care health workers' attitudes, knowledge, and confidence in providing care to an older person with a stoma.

3.2 AIM

The primary aim of Stage One was to identify the knowledge, attitudes, and confidence of RAC health workers in providing evidence based stoma care to an older person. A secondary aim was to identify which factors influence the knowledge, attitudes, and confidence of RAC health workers.

The data collected and subsequent analysis of results will contribute to the future development of an education program for RAC health workers in providing evidence based stoma care to the older person in RAC facilities.

This study answers the research questions as outlined in Chapter Two:

1. What are the knowledge, attitudes, and confidence of residential aged care health workers in caring for an older person with a stoma?
2. What demographic factors influence knowledge, attitudes, and confidence of stoma care of residential aged care health workers?
3. What are the relationships between total knowledge, attitudes, and confidence scores of residential aged care health workers?
4. What is the relationship between years of work experience and experience taking care of an older person with a stoma, and knowledge, attitudes, and confidence in providing stoma care of the residential aged care health worker?
5. What are the preferred educational methods of residential aged care health workers?
6. What workplace context, culture, and leadership factors influence the knowledge, attitudes, and confidence of residential aged care health workers?

3.3 RESEARCH DESIGN

A survey was conducted to answer the research questions. Stage One was completed in two parts; a pilot followed by the main survey. A survey was identified as providing a systematic process for collection of information from a representative

sample of an identified group. Quantitative descriptors identify the characteristics of the larger group from which the sample is a subset (Bowling, 2014; Groves, 2009). As no survey was available to answer the research questions in the RAC context, an adaptation of a survey of Oncology Surgical Nurses (Gemmill et al., 2011) was achieved with direction taken from the Ostomy Care and Management Best Practice Guidelines (Grinspun, 2009) of the Registered Nurses Association of Ontario (RNAO).

3.3.1 Participants

Stage One involved a convenience sample of participants from a metropolitan non-government organisation (NGO) providing residential aged care services. The sample included a staff mix of registered nurses, enrolled nurses, and Personal Care Workers. Comprised of two parts, Stage One involved a pilot survey followed by a main survey. The RAC health workers were employed on a full time, part time, or casual basis in the same metropolitan RAC NGO. The pilot was conducted in one unit; and this unit was later excluded from participation in the main survey. For the main study, four alternate units participated, each in separate buildings and geographical locations to ensure avoidance of surveying the participants of the pilot survey.

3.3.2 Sample Size

The pilot survey was conducted with eight participants of the population intended for the main survey. Prior to the main survey being undertaken, sample size calculations using FluidSurveysTM (FluidSurveys, 2014) were calculated with the following parameters: 90% confidence level and a margin of error of $\pm 5\%$. A sample of 100 respondents was determined to be required for the survey, of the potential total of 200 RAC staff employed in the designated units available to be surveyed.

3.3.3 Inclusion and Exclusion Criteria

The inclusion and exclusion criteria applied for participation of staff across the RAC organisation in both the pilot and main study were:

3.3.3.1 Inclusion Criteria

1. Registered nurses (RN)
2. Enrolled nurses (EN)
3. Personal Care Workers (PCW)
4. Employed in a casual, part time, or full time position.
5. Involved or not involved with caring for older persons with a stoma

3.3.3.2 Exclusion Criteria

1. Non-nursing health care workers (e.g., allied health, medical staff)
2. Staff who participated in the survey pilot study

3.4 INSTRUMENT – SURVEY DEVELOPMENT

A search of the literature was conducted to seek a validated survey that would be relevant to investigating stoma care knowledge and attitudes. The Cumulative Index to Nursing and Allied Health Literature (CINAHL) via EBSCO, Pub Med, and Medline databases were accessed using the search words ‘ostomy care’, ‘stoma care’, ‘knowledge’, ‘attitudes’, ‘confidence’ and ‘surveys’. No specific surveys were found to suit the needs of the study to explore the knowledge, attitudes, and confidence of RAC health workers in caring for an older person with a stoma; however, two relevant publications were retrieved.

The first publication was a report from a study conducted in Turkey, which was a survey of staff nurses’ knowledge and perceived responsibilities of caring for persons with ostomies (Duruk & Uçar, 2013). The survey included two parts to

identify knowledge and attitudes. The survey was developed based on a literature review conducted by university nursing instructors, with nursing faculty members from two universities subsequently evaluating content and questions. The Duruk and Uçar (2013) study conducted a pilot with 12 registered nurses and revisions were made based on feedback and consultation with the previously mentioned faculty members. The main limitation identified in the study was a lack of validation of the knowledge section of the survey. The article was published in English; however, the survey was only available in Turkish. The author was contacted, and responded that they were happy to share, but did not think the translation would be accurate and suggested accessing the English publication. As the survey was not accessible in English, it was excluded.

The second publication was from a study of Ostomy Knowledge of Oncology Nurses and the tool produced was titled Survey of Ostomy Knowledge for Oncology Nurses (SOKON) (Gemmill et al., 2011). The study and survey provided evidence for the development of the RNAO Ostomy Care Best Practice Guidelines for the area of education needs of health care workers looking after individuals with ostomies (Recalla et al., 2013b). The SOKON was developed to assess the knowledge and attitudes of oncology surgical nurses toward providing evidenced based ostomy care. An advanced practice Wound Ostomy Continence Nurse conducted an extensive literature review and expert peers were engaged to complete content validity (Gemmill et al., 2011). A range of essential factors were identified for ostomy care delivery from the literature review by Gemmill et al. (2011). The knowledge and confidence of the oncology registered nurses to provide stoma care education of the patient and how patients learn was studied. Registered Nurses require core knowledge and skills to care for a person with an ostomy; such as stoma

management, care, and resources. The level of confidence of RNs was influenced by level of stoma education, and the frequency of providing stoma care to maintain competence in stoma care and lead to patient satisfaction with care. The tool included six demographic questions and 22 items of knowledge of ostomy and colorectal cancer care. A further section contained 15 Likert scale items addressing staff nurses' attitudes and confidence in their ability to care for a person with an ostomy. The final section contained open ended questions about resources, barriers, and an opportunity to make comments. Gemmill et al (2011) tested the tool for reliability, and statistics were calculated for the measurements of the knowledge and attitude items. A convenience sample of 78 staff nurses from a surgical oncology unit and intensive care unit was surveyed, with a 27% response rate (n=21). The Cronbach's alpha for knowledge assessment items was 0.72 and the attitude assessment items had a Cronbach's alpha of 0.95 (Gemmill et al., 2011). The researchers identified the need for further study with a larger sample size of staff nurses to provide a more robust measure of reliability and to confirm the pilot findings (Gemmil et al 2011) (see Appendix A).

Surveys have been acknowledged as a valuable method of identifying knowledge, attitudes, and confidence (Bowling, 2014). Rubenfeld (2004) discussed the criteria essential for survey development and completion. Attention to the types and structure of questions is necessary to elicit a response that is as near too true as possible. The questions need to be well written. Open ended questions can provide a 'rich source of detail'; however, they can be challenging to analyse. Fixed response questions are easier to analyse and it is suggested they should be targeted to a sixth grade reading level (Rubenfeld, 2004). The layout and format of the survey should

consider length, font, and readability to follow the questions being asked and how to respond (Bowling, 2014; Rubenfeld, 2004).

French (2012); Rubenfeld (2004) suggested that the opportunity to adapt or modify a survey with appropriate permission is useful. Adapting from an existing survey can aid in posing the survey questions in an effective way. During the process of adapting a survey, attention must be given to the possibility that the survey being adapted from may not meet all of the exact same criteria of the survey being developed. Permission to use the SOKON for adaptation was granted following a written request by email to the identified contact person of the research team (see Appendix B), as suggested by Vangeest, Johnson, and Welch (2007).

A preliminary review was conducted of the SOKON to evaluate whether the survey items and design of the survey would be appropriate to the RAC setting. Each question from the SOKON was assessed for suitability and transferability to the RAC context (Appendix C). Items reflective of surgical procedures and post-operative care were omitted from consideration, as they were not applicable to the RAC context. Multiple choice knowledge questions related to basic anatomy, function, and types of stomas were retained for adaptation to the 'Residential Aged Care Health Care Workers Survey: Care of an Older Person with a Stoma'. Attitude questions from the SOKON were assessed and considered for inclusion or exclusion for adaptation to the survey based on the relevance to RAC. Some questions were rephrased and regrouped to also measure confidence, where appropriate.

Aspects of RAC, such as level of care and work force characteristics, for example, level of education, position, and general demographics, informed the adaptation of the SOKON to the RAC setting. RAC facilities may provide two levels of care; low care and high care. Low care is for people requiring accommodation,

help with meals, laundry, room cleaning, assistance with personal care, and possibly nursing care. High care is available to people who require substantial assistance with activities of daily living such as feeding, dressing, and cleaning (Aged Care Guide 2016).

For the survey to be applicable for this research study, staff from the following positions in the organisation were included. Firstly, PCWs, who had a Certificate III or IV in Aged Care, a level of training that can be completed through Technical and Further Education (TAFE) or a Registered Training Organisation. The qualification is unregulated, with no standard syllabus. Other staff included the regulated staff, identified as either ENs or RNs, who are required to have recognised qualifications and registration by the Australian Health Practitioner Regulation Agency.

The original SOKON survey was comprised of four sections; demographics, knowledge, attitudes, and open ended comments. There were six demographic variables that were then rephrased to meet the context of RAC. For example, ‘What patient care areas are you assigned?’ became ‘Do you work in high care, low care or both areas?’. ‘Years as a registered nurse?’ was adapted to ‘What is your position in the organisation? in recognition that not all staff were registered nurses and to recognise the diversity of various levels and positions in RAC. ‘Years in oncology’ became ‘Years in aged care’ and was expanded to include years in health care and ‘Years in the organisation’ was retained. ‘Highest level of education achieved’ was changed to ask for the level of qualification achieved, as RAC employs personal care workers or regulated ENs and RNs. Two questions were asked to establish general and recent experience of RAC health workers of caring for an older person with a stoma. Supplementary demographics were added: age, gender, marital status, and language other than English to describe the RAC workforce (see Appendix D).

3.4.1 Knowledge

Knowledge questions from the original survey were first reviewed for suitability and transferability to the RAC cohort. Of the 22 knowledge questions, eight were eliminated, as the content was related to surgical procedures, post-operative care, and microbiology. The remaining 14 original SOKON questions were retained and further assessed, grouped, and rephrased to consolidate to a final nine multiple choice questions for the RAC setting survey (see Appendix C). Relevant questions included those on stoma location and function, stoma care, problem identification and reporting, stoma appliances, and knowledge of how to access a Stomal Therapy Nurse. The final question located in the knowledge section asked for a ranking of options for preferred educational methods and was placed to encourage thinking of knowledge and how to benefit from education.

3.4.2 Attitudes

Section A of the adapted survey was used to establish the attitudes of the RAC health workers towards caring for an older person with a stoma. The items were assessed on a five point Likert scale, as was the original SOKON survey, from (1) strongly disagree, (2) disagree, (3) neither agree or disagree, (4) agree, to (5) strongly agree. The original SOKON had 15 attitude questions and each question was considered for adaptation to the Residential Aged Care Health Care Workers' Survey. Four questions were eliminated as they related to post-operative and acute care, and were therefore not transferable to the RAC setting. The assessment of the original SOKON highlighted that there were a mix of confidence and attitude questions that would benefit from being asked under those separate headings. Four questions on attitudes from the original SOKON were reviewed and designated as reflective of confidence, and as such were placed in the confidence section of the

survey. In addition, upon review, one attitude question was adapted to a question in the knowledge section. A total of six attitude questions were retained, rephrased, regrouped, expanded, and adapted; for a final total of nine attitude questions in the adapted survey (see Appendix D).

The six questions adapted to identify attitudes related to providing stoma care included: 1) the influence of the frequency of providing stoma care to maintain skill; 2) were they able to provide stoma care often enough to maintain confidence 3) whether they agreed or disagreed with the adequate availability of in-service education, 4) resources, 5) staff, 6) external supports or services. Some changes to questions were required to reflect the RAC context. For example: 'I care for ostomy patients often enough to keep up my skills' was adapted to 'I take care of older persons with a stoma often enough to keep up my skills'. The statement, 'There are adequate staff education or in-service opportunities at the City of Hope to keep my knowledge up-to-date on ostomy care' was adapted to 'There are staff education/in-services in my workplace to keep up my knowledge to help me care for an older person with a stoma' (see Appendix C). From the literature review and at the suggestion of experienced Stomal Therapy Nurses at metropolitan hospitals and community services, three additional questions were developed to assess attitudes. The items addressed attitudes to behaviours related to stoma care. The items were: 'I avoid caring for an older person with a stoma because I do not feel confident to take care of stomas'; 'I do not like caring for an older person with a stoma because of the smell' and 'I do not like caring for an older person with a stoma because of the output' (Majid, Emery, & Whelan, 2012). It is noted that confidence can influence attitudes, and was therefore included as one of the three additional attitude questions in caring for a stoma (Dingwall, 2008) (see Appendix C).

3.4.3 Confidence

A group of 11 questions were adapted from the SOKON to determine RAC health workers' confidence in caring for an older person with a stoma (see Appendix C). Confidence items were, for example, level of confidence in providing support to a resident with a stoma and their families, identifying the type and function of a stoma, and the actual emptying and changing of a stoma appliance. The rating scale from the original survey used a Likert scale and this format was retained with statements to indicate confidence using a four point Likert scale ranging from (1) very confident, (2) confident, (3) somewhat confident, and (4) not confident. In the final adapted questions from the original SOKON, four original attitude questions and one knowledge question were assessed and rephrased to develop 11 confidence questions, as noted in Appendix C. As described above, the four attitude questions adapted from the SOKON to reflect confidence included confidence in knowledge and experience; identifying, reporting and recording concerns with stoma care; types and functions of stomas and the care of the stoma appliance; and changing and emptying stoma appliances (see Appendix C). As an example, the SOKON attitude question 'I feel confident that I have the background knowledge and experience in ostomy care to sufficiently care for my patients at this time' became four more specific questions in the RAC survey. These were: 'I feel confident with my knowledge in caring for an older person with a stoma', 'I feel confident in my experience in caring for an older person with a stoma', 'I feel confident that I know the different types of stoma', and 'I feel confident that I know the different functions of stomas'. Knowledge and experience were measured separately to determine whether they had an influence on confidence. The following SOKON question 'I feel confident that I can assess my patient's ostomy sufficiently well enough to care for my patient with an ostomy at this time' was divided into three questions, as the RAC

health workers first providing stoma care can often be an PCW. The three questions developed were: ‘I feel confident that I can identify problems with a resident’s stoma’, ‘I feel confident that I can report correctly on a problem with a stoma’, and ‘I feel confident that I can record or document correctly on a stoma observation chart’. The purpose was to identify staff confidence in identifying problems, reporting the problem, and recording the problem appropriately. The third SOKON question, ‘I feel confident that I have the skills to size, fit, and apply an ostomy appliance at this time’, was adapted into two questions: a ‘I feel confident in my ability to change a stoma pouch correctly’ and ‘I feel confident in my ability to empty a stoma appliance correctly’ (see Appendix D).

The SOKON knowledge question; ‘Which of the following should be a priority when developing a teaching plan for an elderly person with a colostomy?’ was assessed for relevance to education and support of an older person with a stoma; and upon reflection regarding adaption of the question to the RAC setting, it was felt to be a measure of confidence. Thus, it became two questions: ‘How confident are you that you can support a resident to care for the stoma themselves?’ and ‘How confident are you that you can support family to care for the stoma of a resident?’ Staff provision of education and support to residents and family can indicate the level of knowledge, attitudes, and confidence in caring for an older person with a stoma.

A final area was provided for further comments specifically focused on educational resources for staff in RAC and an opportunity to identify issues directly related to caring for an older person with a stoma in RAC. Additional space was provided for further suggestions or comments.

3.4.4 Considerations for Survey Adaption

The survey adaptation for the RAC environment was aligned to recommendations to feature a combination of fixed responses, multiple choice responses, and ratings using Likert scales. Further suggestions from the literature advised that survey questions should be well written, easy to understand, have easy to analyse responses, and be an appropriate font size (French, 2012; Rubenfeld, 2004) and these factors were considered during the process of survey adaptation. Knowledge questions can benefit from multiple choice responses to prevent bias, ensure clarity, and reduce error (Rattray & Jones, 2007). Appendix C presents the adaptation of questions to be suited to the RAC setting. The adaption required that the language used simple and common reference words to accommodate the anticipated study participants' comprehension, consideration of English as a second language for many staff, and the education level of the staff. Additional clarification of terms such as 'colon' as large bowel and 'abdomen' as stomach was required to ensure staff could identify with and understand what was being asked. For example, a modified question became 'Where is a colostomy (from colon, large bowel) located on the abdomen?'. Multiple choice responses for this question were: Right hand side of abdomen/stomach; Left hand side of abdomen/stomach; At the umbilicus/navel on the hip.

A large portion of the RAC work force has been noted to lack high school education, or as having English as a second language, emphasising the need to consider literacy in developing readable material for this group (Eley et al., 2007b; Estabrooks, Squires, Carleton, Cummings, & Norton, 2015; Lerner, Resnick, Galik, & Russ, 2010; Smith, Kerse, & Parsons, 2005). As questions were to be asked across a range of potential respondents, comprehension was considered to ensure

understanding of the questions for an appropriate response. In 1948, Rudolph Flesch first described the need to assess information readability for the majority of people. The recommended grade level for reading ease was that 60% or greater is considered acceptable. The recommend level of writing for readability for patient information is considered best at a sixth grade reading level of comprehension (Williamson & Martin, 2010). The adapted Residential Aged Care Health Care Workers Survey: Care of an Older Person with a Stoma was tested for grade level and reading ease using the Microsoft Word program function and found to be grade 6.7 and the reading ease 69.9%, both acceptable values. This was considered important to allow for the potential variation in literacy levels and language other than English background of survey participants.

Content validity is necessary to ensure the method of measurement incorporates all of the major variables to be studied for readability and comprehension (Cross et al., 2014; Grove, Burns, & Gray, 2012). Survey content validity was evaluated through consultation with a Stomal Therapy Nurse specialist to review survey questions and make recommendations. The process underwent three reviews until consensus was reached for the final survey.

3.5 PILOT STUDY

Following the above changes, a pilot study was conducted with the survey comprising of the four sections described above. Section A had nine attitude items, each with a five point Likert scale, from (5) strongly agree to (1) strongly disagree. Section B had nine multiple choice knowledge questions and one question that required a preference ranking of educational methods from (1) most preferred to (5) least preferred. Section C contained 11 items with a four point Likert scale asking

respondents to rate their level of confidence from (1) not confident to (4) very confident. Section D collected demographic details (for full survey, see Appendix D)

3.6 ETHICS

Application for ethics approval for both studies was made and granted by the Queensland University of Technology University Human Research Ethics Committee (UHREC) and from the residential aged care organisation (Wesley Mission Research and Ethical Care Group) participating in the research study as required by the UHREC (see Appendix F) and Wesley Mission Brisbane (see Appendix E).

3.7 PROCEDURE AND DATA COLLECTION

The surveys were piloted in the workplace, with immediate pick up and opportunity for feedback provided. All eight completed surveys were returned to a large envelope, in order for anonymity to be maintained. A second envelope was provided for collection of the movie draw entries. A face-to-face feedback opportunity between the researcher and the participants was provided upon completion of the survey.

Well identified barriers to survey completion have been noted to be time, lack of perceived value of the survey to the individual, and survey fatigue (VanGeest et al., 2007). Strategies to overcome low response rates were considered and appropriate actions implemented, as suggested by VanGeest et al. (2007). The range of activities included engagement with the participating organisation and leadership through negotiation of a time and place suitable to meet the needs of staff and resident care and flexibility of time for completion of the survey.

The Research Director of the participating RAC organisation selected the unit to participate in the pilot study in consultation with the Unit Manager. Communication via phone and face-to-face meetings was followed up by a confirmation email with the selected unit's manager, and an appropriate day and time for the pilot survey to be completed was then scheduled. A flyer inviting staff to participate in the pilot study was posted in the staff room and nursing station to provide information regarding the study purpose, clarify which staff were invited to complete the survey, and the time required to participate. An incentive was provided to encourage participation. This included a chocolate and an opportunity to complete an entry form for a chance to win one of three pairs of movie tickets at the completion of the overall study. On the day the pilot study was conducted, a flyer of invitation was also placed in the unit diary to remind staff about the activity and staff were encouraged to participate by the Unit Manager.

The aim of the pilot was for a small sample of RAC health workers to complete the survey to assess the feasibility, length, readability, clarity, and understanding of the survey, and to provide feedback. The pilot survey was conducted on one day and included available staff in the designated unit. No further pilot surveys were completed. The results are discussed in Chapter 5.

Feedback indicated that the survey was lengthy, and perhaps not relevant to them, as they did not frequently care for an older person with a stoma. Reformatting was undertaken to arrange sections to improve the flow of questions. Feedback indicated that the layout of responses in the survey was difficult to understand. Modifications to the placement of Likert responses into a grid provided clearer demarcation and ease for staff to mark their response. No changes to questions were required, as feedback indicated there were no concerns with the phrasing of the

questions (see Appendix D). The feedback received was similar and consistent from all participating staff, and no further surveys were piloted.

3.8 MAIN STUDY

3.8.1 Data Collection and Procedure

The Director of Research of the RAC organisation provided a list of managers of units identified to have a minimum of one older person with a stoma requiring care by RAC health workers. An introductory email was sent and follow up phone contact was made with the identified Unit Managers to schedule a face-to-face meeting. The purpose of the meeting was to provide an introduction to the researcher and to explain the purpose of the study, methods of data collection, expectations of the researcher and the organisation, and to engage management support to schedule participation for completing surveys. Promotional posters were placed in staff areas to encourage completion of surveys. Once the surveys were completed they were to be placed in decorative, clearly marked, sealed boxes that were visually prominent and easily accessible in staff rooms. The boxes were collected within a month (four weeks) of placement by the researcher.

Surveys were initially distributed to three participating units across the RAC organisation, as designated by the Director of Research. The surveys were placed in a prominent area to allow access to the survey for completion and placement in the survey return box. The box was sealed and the opening adequate for the placement of the surveys. The timing was based on the managers' previous experiences that responses not achieved in that time would not be obtained. Of the four participating units, two managers chose to provide each staff member in their area with a survey in the staff mail system to encourage responses. In the other two units, surveys were left on a table in a space easily accessible by staff and next to the return boxes for the

surveys and movie ticket entry forms. Each survey had a chocolate attached and an entry form to complete for a chance to enter a draw to win one of three pairs of movie tickets. The movie ticket draws took place once all surveys were collected and participation in Stage Two was completed (Chapter 4).

The first survey distribution and collection resulted in a total of 61 surveys being completed and returned, representing a response rate of 38%. Repeated visits to the units on weekends and at change of shift time failed to elicit further survey completions. In discussion with staff, they identified a unit that had not initially been surveyed; however, by then had current residents with stomas and there was an opportunity to involve the staff to participate. Communication was made with the manager for permission, and agreement to participate was obtained and the previous process followed. A further 17 surveys were completed and returned for a combined total overall response rate of 47%. Survey distribution, follow up, and returns occurred over a period of three months. The managers and Director of Research were all sent a letter of acknowledgement of participation and gratitude. Movie ticket draw winners were announced and prizes were sent to the appropriate workplace Unit Manager, as had been previously agreed.

Data were entered into a SPSS database by the researcher and a colleague who had completed both a Master of Applied Science by Research and a Nurse Practitioner Master and was competent in the use of the SPSS database. The data entry was completed in collaboration and frequent checks to verify consistent and correct data entry were undertaken. A random sample of 5% of the surveys entered was selected to verify accuracy by a third person. The original surveys were stored in a locked cabinet at QUT.

Data cleaning and consistency checking through frequency distributions and histograms of all variables were run in SPSSv22 (SPSS Inc., Chicago Il) to check for invalid, missing, or inconsistent values. The continuous variables of years of service in the current work place, working in RAC, and years in health care were checked for range, and as displayed on histograms, were normally distributed.

Missing data were noted in the nine question knowledge section of the survey. In order to minimise potential for bias in data analysis the data of non-responses were deemed missing at random and not significant (McCleary, 2002; Saunders et al., 2006). Survey responses indicating no response were designated as an incorrect answer, as failure to answer was considered not knowing, and therefore incorrect (Tabachnick & Fidell, 2001). Outliers were checked against the raw data for accuracy.

3.8.2 Data Analysis

Data were analysed with SPSSv22 (SPSS Inc., Chicago Il). Demographic variables were examined for frequency and descriptive analyses undertaken of all variables. Response categories of some variables, for example, age, position, qualification, and marital status were grouped for bivariate analysis due to the small number of responses in some categories, to provide more robust analysis.

Total knowledge, attitude, and confidence scores were calculated. Total knowledge scores were determined by frequencies of nine individual items and the total sum of correct responses, which had a possible range of 0-9. Total attitude scores were obtained by calculating the total sum of the nine questions as scored on the five point Likert scale ratings of 1 to 5, with a possible score from 9 to 45. In survey Section A, attitude questions four, five, and six were identified as having a value of 1 assigned to a positive response and a value of 5 assigned as a negative

response. Therefore, these values required recoding to ensure that positive attitudes related to higher scores and negative to the lower scores. The remainder of the survey attitude questions were assigned a negative value of 1, increasing up to a positive value of 5 and required no recoding.

Total confidence scores were obtained from the sum of the responses on a Likert scale with ratings of 1 to 4 of the 11 items surveyed, for a possible total score range of 11 to 44. The Likert scores were very (1) confident, (2) confident, (3) somewhat confident, and (4) not confident, which progressed from positive to negative. Therefore, as a higher score would reflect a negative evaluation of the Likert scale ratings, they were recoded so that higher scores reflected higher confidence and lower scores reflected lower confidence.

Descriptive analysis for frequency of response and ranking were completed for education method preferences. The five items previously described were further condensed into two groups; most preferred and least preferred, as a small number of responses and similar response rates for most preferred items one and two were collected. Items ranked as one or two were grouped into the most preferred category and those ranked as three, four, or five were grouped into the least preferred categories of education methods.

Individual knowledge, attitude, and confidence items were tested with Chi square tests to determine relationships of significance or non-significance with demographic and organisational variables. Bivariate analyses of total knowledge, attitude, and confidence scores were tested with t-tests and ANOVA to determine relationships of significance or non-significance with demographic and organisational variables. Pearson's correlation tests were applied to the total knowledge and total attitude scores, total knowledge and total confidence scores, and

finally the total attitude and confidence scores to identify relationships between the three variables.

All variables which were significantly related to knowledge, attitude or confidence total scales were entered into multiple linear regression models to determine the independent contribution of the variables to total knowledge and confidence scores.

3.9 CONCLUSION

On completion of the survey data analysis, the results reported in Chapter 5 were reviewed and considered to guide the objectives of Stage Two. The study further explored organisational factors influencing RAC health workers' knowledge, attitudes, and confidence in stoma care.

Chapter 4: Research Design and Methods for Stage Two

4.1 INTRODUCTION

The second study presented is the qualitative focus group study (Stage Two), undertaken as a method of obtaining supplementary data to expand on the findings from Stage One and provide a deeper understanding of the participants' perspectives (Jayasekara, 2012; Liamputtong, 2013b). Focus groups have been used extensively in the social sciences and distinguished as a method to explore phenomena and obtain data to contribute to the context for themes and meaning (Liamputtong, 2013b). Focus group discussions are considered effective to make the most of the interaction of a group, as they are influenced by the environment and people around them (Jayasekara, 2012; Liamputtong, 2013b; McLafferty, 2004) and have the potential to explore a topic in depth (Cleary, Horsfall, & Hayter, 2014). As explained by Jayasekara (2012), a focus group is a research process that collects data about opinions, values, and beliefs in a shared context during the course of group interaction on a topic of interest presented by the researcher. Gaining new knowledge and evaluating services or programs are suitable for focus group discussions (Halcomb, Gholizadeh, DiGiacomo, Phillips, & Davidson, 2007). Listening to key stakeholders and learning from their perspectives is valuable, especially where knowledge of a subject is limited. Additional attributes proposed are gaining insights to attitudes and the shared experiences of groups through their culture, language, and concepts that shape the participant's perceptions (Carlsen & Glenton, 2011; Papastavrou & Andreou, 2012). A primary advantage is the chance to make the most of group dynamics by observing the interaction of the participants to achieve in-

depth data. The group forum can also facilitate expression and explanation of views within a similar group of participants to openly convey thoughts, feelings, and behaviours (Papastavrou & Andreou, 2012). It is thought that the group situation may influence the balance of power toward the participants and decrease the influence of the researcher on the participants (Jayasekara, 2012).

Stage One results guided the objectives of the focus group discussions to explore the influence of organisational, context, culture, and leadership factors on knowledge, attitudes, and confidence of RAC health workers in providing EB stoma care to an older person. For example, the ease of access to organisational resources and perceptions of support by regulated and unregulated staff, and the influence of experiences with stoma care on knowledge, attitudes, and confidence were further studied.

This chapter describes the research aims, design, methodology and methods, and ethical considerations of Stage Two.

4.2 AIM AND RESEARCH QUESTION

The research question for Stage Two was: What workplace context, culture, and leadership factors influence the knowledge, attitudes, and confidence of residential aged care health workers towards evidence-based stoma care?

The primary aim of Stage Two was to identify and further explore which organisational factors influenced the knowledge, attitudes, and confidence of RAC health workers in providing evidence based stoma care to an older person. Elements of the Promoting Action on Research Implementation in Health Services (PARIHS) (Kitson et al., 2001) conceptual framework; context, culture, and leadership were used to guide the investigation. PARIHS was initially developed as a way of

evaluating implementation projects and has evolved to guide designs of implementation of evidence (Ullrich et al., 2014). As the described study's intent was to inform development of an evidence based stoma care education activity, an understanding of the needs as described by the RAC workforce was necessary. The RAC workforce in this study met the same recruitment inclusion criteria as described in Chapter 3 for the data collection (Hutchinson et al., 2012). Identifying the factors that influence local workplace cultural context is beneficial to informing strategies for facilitating evidenced based practice, such as promoting organisational learning and leadership, promotion of role clarity, and workplace teamwork (Hutchinson et al., 2012). The focus group discussions were undertaken after completion of the Residential Aged Care Health Care Workers Survey from Stage One.

4.3 RESEARCH DESIGN

Qualitative methods were used to further gain a depth of understanding of RAC health workers's perspectives of knowledge, attitudes, and confidence in caring for a person with a stoma. Focus groups were held until the point of saturation where no further comments or new information was expressed by participants and discussion was exhausted and analysed for thematic content from responses to the research question.

Braun and Clarke (2006) described thematic analysis as a foundational method for qualitative analysis. Thematic analysis can be well suited to realist methods describing experiences, meanings, and the participants' reality; or constructionist methods looking at events, realities, meaning, and experiences in relation to topics, relationships, or environments (Braun & Clarke, 2006). Thematic analysis provides a flexible and effective research process, conceivably accounting for a rich, detailed and comprehensive account of data (Braun & Clarke, 2006). The intent of the

qualitative approach was to understand the experiences of the topic being studied by the researcher from the participants' perspective (Carlsen & Glenton, 2011; Vaismoradi, Turunen, & Bondas, 2013), providing a range and degree of understanding and validation of individual perspectives (Larkin, Begley, & Devane, 2014).

From the beginning of data collection, the researcher noticed and looked for patterns of meaning or interest and noted ideas that were possible themes for the coding and analysis of data (Braun & Clarke, 2006). Maintaining field notes at the time of data collection is recommended to capture observations of the participants and document impressions and observations (Liamputtong, 2013b).

Qualitative methods are susceptible to researcher preconceptions due to the familiarity between the researcher and the topic under study; influenced by assumptions, values, interest, emotions, and theories held by the researcher (Tufford & Newman, 2012). 'Bracketing' as explained by Gearing (2004), is a process in which a researcher is impartial of their biases, assumptions, or previous experience to the topic under study. It is important for a researcher to declare their pre-understanding early in the research and I informed participants of my position, being a Stomal Therapy Nurse and the health care settings in which I practiced such as aged care, community and subacute services, and then bracketing to suspend biases in the study (Creswell & Miller, 2000).

4.4 PARTICIPANTS

4.4.1 Inclusion and Exclusion Criteria

Using a convenience sample, the sample characteristics and inclusion and exclusion criteria were replicated from Stage One, as previously described in Chapter 3. It was decided to include people with or without stoma care experience, as

knowledge and confidence of this area of practice is important to all staff, whether possessing experience with stoma care or not. Each participant of the focus groups consented to participate.

4.4.2 Sample Size

Focus group sample size is not definitive. The aim for the focus groups is to continue until the point of saturation is achieved (Carlsen & Glenton, 2011; Cleary et al., 2014). Saturation is proposed to be reached when no new information, themes, or content are being discovered from the focus group discussion. The participants were from a similar cohort, being RAC health workers, and as the topic for discussion was limited to stoma care of an older person, pertinent data collection was achieved to the point of saturation, with no new information forthcoming from the participant groups.

4.5 DATA COLLECTION

Focus groups were asked semi-structured questions pertaining to workplace management of stoma care, access to leadership, and organisational resources and support. Focus groups allowed for open discussions of perceived knowledge, attitudes, and confidence of RAC health care workers toward providing stoma care to an older person. For example; ‘How do you feel about taking care of a person with a stoma?’ and a prompt of ‘What are some of the challenges for you?’. Audio recordings of the focus group interviews were completed using a hand held device and back up smart phone. Consent was obtained from participants as required by the ethics agreements, as previously described. The researcher attended to field notes immediately following each focus group discussion session, to ensure the capture of essential observations of behaviours, non-verbal cues, interpersonal dynamics, and

cultural, context, and leadership influences (Liamputtong, 2013a; Mansell, Bennett, Northway, Mead, & Moseley, 2004).

At this stage, it was important to declare the researchers' relationship with the topic under study. As a Stomal Therapy Nurse (STN), my level of interest, passion, and experience had the potential to influence the analysis of data. Therefore, 'bracketing', a process to alleviate the negative effect of preconceptions that may bias research results, was used (Tufford & Newman, 2012). I worked as a STN in an external organisation, which assisted in bracketing and eliminating the effect of relationships with participants, or a vested interest to interpret results favourably for the organisation.

4.6 PROCEDURE

The managers were contacted by email communication and follow up phone contact was made with the identified Unit Managers to schedule focus group discussions. The purpose of the focus group had been explained in the initial contact meetings. A review of the purpose of the study and expectations of the researcher were provided to the unit managers. The organisation and managers were approached to schedule suitable times and locations for a focus group to be held.

Promotional posters describing the research purpose, length of time required, and incentives were placed in staff areas inviting participation in a focus group discussion. The time for the focus group discussion was negotiated with local managers, who identified the change of shift time between morning and afternoon as optimum for staff availability from work commitments, resident care, and staff personal needs, (e.g. family responsibilities). An opportunity to complete an entry form for a chance to enter a draw to win one of three pairs of movie tickets was offered to participants. Prior to commencing the focus group discussions, an

explanation was provided to the group to identify the researcher, the purpose of the study, the value of their participation, and the need to seek consent for audio recording. The staff were informed that no names would be used and the recording would not identify them individually, and they were permitted to withdraw from the focus group discussion at any time without penalty.

The focus group discussions were subsequently scheduled over a six-week period in collaboration with the managers in the workplace. In consideration of time constraints influenced by resident care needs and staff availability to attend the focus groups there was no division of the roles, positions or regulation status of staff. Consideration was also noted for LOTE to potentially impact on conducting the FGs in allowing time for response and influence of different levels of roles and responsibilities within the groups of participants. Four focus group discussions of approximately 45-60 minutes' duration were conducted. The same RAC units were used for the focus group discussions as for Stage One. For the focus group discussions, two of the five units surveyed for Stage One were combined into one session due to workforce availability. The focus group discussions were held in a common area in the participating work unit. The room was either a class room, activity area, or staff room. The participants sat in a circle or around a table. The researcher introduced themselves and the purpose for the focus group, topic to be discussed, and requested their consent for participation by signing an attendance sheet, acknowledging consent. The researcher further obtained verbal agreement to confirm the participants' understanding of the signed consent to allow for the session to be recorded for transcribing later (Papastavrou & Andreou, 2012). Ethics approval was obtained as described in Chapter 3.

4.7 DATA MANAGEMENT

Discussions were recorded using a digital recorder and an iPhone for a secondary back up. The recordings of the focus groups were transcribed verbatim by a transcriber. Notes were made of observations of demonstrations of emotions, non-verbal cues, verbal inflections and observed interactions, and relationships within the group throughout the session. The recording files and field notes were saved to a secure data storage drive at QUT and the transcribed documents kept in a locked drawer.

4.8 DATA ANALYSIS

There are six phases of thematic analysis, as described by Braun and Clarke (2006). Phase One is to become familiar with the data through listening, transcribing, reading, re-reading, and noting first impressions. Phase Two requires developing the initial codes from interesting aspects of the data in an organised approach and grouping data with the identified code. Semantic analysis organises patterns and provides an overview of meaning, latent analysis examines the features of the data that characterise the meaning given to the data. The third phase involves searching for themes from the identified potential themes and assigning the appropriate data to each of the potential themes. The themes may be further organised as main, sub-themes, or discarded or noted as miscellaneous if found to be relevant, but not seen fit with a main theme. In Phase Four, a review of the coding (Phase One) and themes (Phase Two) are conducted and an illustrated thematic map of the data analysis produced. Phase Five refines the details of the themes and a definitive naming and placing of themes within the overall story discovered in the analysis. The sixth and final phase gives a report demonstrating a selection of examples, relating the analysis to the extracts, research question, and literature (Braun & Clarke, 2006)

As described by Braun and Clarke (2006), thematic analysis of data collection from focus group discussions with RAC health workers was undertaken. The recordings were listened to once, and then listened to repeatedly to allow for note taking and clarification of language and understanding of content. The recordings were then listened to in tandem with reading the transcripts to become familiar with and make clear data gathered from the focus group discussions. Next, initial codes were noted and examples of relevant data placed on post it notes. Searching for themes was further progressed by grouping data under the potential themes. As the themes and groups formed, an analysis was supported by the use of a thematic map to demonstrate an over-arching theme, main themes, and sub-themes to then name the themes. The final report of results then included selected extracts, to convey the story and answer the research question with relation to the literature.

4.9 CONCLUSION

On completion of data collection for Stage One and Stage Two, data analysis was undertaken to explore the results to the research questions. Results are examined in Chapters 5 and 6; with an overview of combined results from Stage One and Stage Two provided in Chapter 7 relevant to knowledge, attitudes, and confidence of staff providing stoma care and organisational influences on RAC health workers providing evidence based stoma care to an older person.

Chapter 5: Results for Stage One - Survey

5.1 INTRODUCTION

This research program explores the knowledge, attitudes, and confidence of residential aged care (RAC) workers in caring for an older person with a stoma. The intent was to provide evidence to inform development of education programs for RAC health workers in providing evidence based stoma care to an older person. As described in Chapter 2, the literature identified the growing demand for RAC health workers to meet the care needs of an ageing population and the associated education and training required to support evidence based care, including stoma care. Stage One was a descriptive cross sectional quantitative survey to identify the knowledge, attitudes, and confidence of RAC health workers in caring for an older person with a stoma. The two parts to Stage One included a pilot study of the adapted survey, as described in Chapter 3, and the main survey.

5.2 PILOT STUDY

A convenience sample was used inviting RAC health workers employed in a single unit of a RACF interested in being involved in the research to complete a pilot study of the 'Residential Aged Care Health Care Workers' Survey: Care of an older Person with a Stoma'. The methods described in Chapter 3 were followed. The aim of the pilot study was for RAC health workers to test the feasibility, length, and understanding of the adapted survey and provide feedback. A total of eight pilot surveys were completed by three RNs, three ENs, and two PCWs. Participants in the pilot study sample were seven females (87%) and one male (13%), of which five (62%) were 31-40 years of age and three (38%) were 51-60 years of age. With

regards to relationship status; five (62%) were in a relationship and three (38%) were not in a relationship. English as a second language had a response of three (38%), with five (62%) indicating English spoken as a first language. Representation in areas of work were: six in high care (75%), one low care (12%), and one (12%) respondent working in both high care and low care. The years of service in the organisation ranged from 3-17 years, with a mean of 7.5 years. The total attitude score range was 18-32 of 36 (mean 34.29 ± 5.53), total knowledge score range was 7-8 of 9 (mean 7.17 ± 1.35), and total confidence score range was 26-40 of 44 (mean 29.9 ± 8.5).

5.2.1 Knowledge

All eight respondents indicated they had cared for a person with a stoma at some time in their experience. Experience providing stoma care in the last 6-12 months varied; two had cared for two residents, four had cared for one, and two had not cared for any. Correct responses for knowledge scores were 7 out of 9 for six respondents and 8 out of 9 answered correctly by an PCW and EN. For knowledge questions, the most frequently incorrect answers were colostomy location, purpose of a stoma, and type of output from an ileostomy.

5.2.2 Attitude

The attitude scores ranged from 18-32 out of a possible score of 9-45 (median 22). Attitude score items indicated that 75% of staff believed they provided stoma care often enough to maintain their skills, and 50% to maintain confidence in providing stoma care. Staff were unanimous at 100% in their attitude of not avoiding stoma care due to odour or output. Organisational support through available written material, in-service education, and an accessible resource person was believed to be sometimes available by 75% of respondents. Only 25% of staff were aware of the

availability of external resources of stoma care education or how to contact a Stomal Therapy Nurse.

5.2.3 Confidence

Confidence scores ranged from 26-40 out a possible score of 44 (mean 34 ± 7). All staff indicated that they had cared for a person with a stoma at some time, with six (75%) having cared for 1-2 persons in the past 6-12 months, and two (25%) not providing stoma care in the past 12 months; however, explaining they had prior experience >12 months ago. Six of eight staff (75%) were somewhat confident in supporting a resident or family to learn about stoma care. Three (38%) staff were not confident with their knowledge to care for a stoma, and four (50%) were confident with their skills to provide stoma care. Six (75%) staff were somewhat confident in observation and reporting of stoma problems. Confidence in knowledge of stoma types and function was neutral, at four and four (50/50%). Confidence in their ability to change and empty a stoma appliance was rated as confident for five (62%) of the eight staff surveyed in the pilot.

Areas of concern noted by staff who completed the pilot survey were taken into consideration. The question on level of educational qualification did not provide an option for hospital trained or re-entry programs for registered nurses or enrolled nurses. The position in the organisation question included an AIN option, but not personal carer. A space was provided as 'other' to allow for entry of any alternate responses. On completion of the pilot survey, participants were given an opportunity for face-to-face feedback with the researcher. Comments included; 'the survey was a bit long', 'we don't have many stomas to take care of', and 'I don't like doing surveys'; 'it is good to do these things as our Director likes us to'. Reformatting was undertaken to arrange sections to improve the flow of questions. Feedback also

indicated the instructions to complete the pilot survey were difficult to understand. Ways to reword the instructions were discussed with the pilot survey participants. No changes to the remaining questions were required, as feedback indicated there were no concerns with the phrasing of the questions (see Appendix D for final survey).

5.3 MAIN SURVEY

Part two of Stage One was the main survey. Surveys were initially distributed to four participating units across the RAC organisation, as designated by the Director of Research. The process described in Chapter 3 was followed.

5.3.1.1 Sample Characteristics

There were 71 females and seven male respondents to the survey. Age groups represented by respondents included 40 (51%) aged 31 to 50 years, 23 (29.5%) 30 years or less, and 14 (17.9%) over 51 years of age. One participant did not provide a response to the age question. Relationship status indicated 20 (26.3%) were not in a relationship and 56 (73.7%) were in a relationship. A language other than English was spoken at home by 35 (44.9%) respondents (see Table 5.1).

The staff who participated in the survey were a representative skill mix of RAC health workers, including 51 (66.2%) PCWss, seven (9.1%) ENs and 19 (24.7%) RNs, with missing data from one participant. Of the PCW group, 48 (94%) had achieved a Certificate III or IV in Aged Care, a level of training that can be completed through TAFE or a Registered Training Organisation. Three staff had no training in aged care for their positions and identified themselves as personal care workers, a position often relying on learning on the job. The regulated staff identified as either ENs or RNs and had recognised qualifications and registration by the Australian Health Practitioner Regulation Agency (see Table 5.1). Of the staff

surveyed; 49 reported working in both high care and low care areas, 22 in only high care, and seven in only low care.

Table 5.1: General Demographics of Residential aged care health workers

		Total N	N (%)
Age (years)	<21	78	2 (2.6%)
	22-30		21 (26.9%)
	31-40		20 (25.6%)
	41-50		20 (25.6%)
	51-60		11 (14.1%)
	61-65		1 (1.3%)
	>65		3 (3.8%)
Gender	Male	78	7 (9%)
	Female		71 (91%)
Area of work	Low care	78	7 (9.0%)
	High care		22 (28.2%)
	Both		49 (62.8%)
Employment position	AIN ^a	77*	51 (66.2%)
	EN ^b		7 (9.1%)
	RN ^c		14 (18.2%)
	CN ^d		3 (3.9%)
	Other ^e		2 (2.6%)
Regulation status	Regulated	77*	26 (33.8%)
	Unregulated		51 (66.2%)
Language other than English	Yes	78	35 (44.9%)
	No		43 (55.1%)
Relationship status	In a relationship	76*	56 (73.7%)
	Not in a relationship		20 (26.3%)

*some items have missing data; ^a Assistant in Nursing, ^b Enrolled nurse, ^c Registered nurse ^d Clinical nurse, ^e other includes manager, advanced practice nurse.

Seventy-two respondents (92%) had at one time provided care to an older person with a stoma, while six had never provided stoma care. The number of residents with a stoma that participants had cared for in the last 6-12 months ranged from zero to greater than five. Looking at how many RAC health workers provided

stoma care for an older person in the previous 6-12 months: 18 had not provided stoma care, 53 had attended 1-3, four had attended 4-5, and two more than 5 (see Table 5.2).

Table 5.2: Experience providing stoma care by Residential aged care health workers

	Total	N (%)
No. of staff who had ever provided stoma care	78	72 (92.3%)
No. of residents provided with stoma care in last 6-12 months	*77	0 Residents 18 (23.4%) 1-3 Residents 53 (68.8%) ≥ 4 Residents 6 (7.82%)

* some items have missing data

Participants had a mean of 8.75 years (sd=8.17) of work experience in RAC. The mean number of years' experience in the current workplace organisation at the time of the survey was 5.25 years (sd=5.14); and the mean number of years of experience working in health care was 11.74 (sd=12.75), (see Table 5.3).

Table 5.3: Summary of Years of Service of Residential aged care health workers

Years of Service	N	Mean ± SD	Range
Current Organisation	77*	5.25±5.14	1-25
Residential Aged Care	76*	8.75± 8.17	1-35
Health Care	54*	11.74±12.75	1-40
Years of Service	N	Frequency	
Years of Service at Organisation	0 - 1 years	77*	18 (23.4%)
	2 – 3 years		20 (26.0%)
	4 – 5 years		12 (15.6%)
	6 - 10 years		20 (26.0%)
	11 – 15 years		3 (3.9%)
	16 – 20 years		3 (3.9%)
	21 – 50 years		1 (1.3%)
Years of Service Residential Aged Care	0 - 1 years	76*	11 (14.5%)
	2 – 3 years		16 (21.1%)
	4 – 5 years		10 (13.2%)

	6 - 10 years		18 (23.7%)
	11 – 15 years		5 (6.6%)
	16 – 20 years		11 (14.5%)
	21 – 50 years		5 (6.6%)
Years of Service In Health Care	0 - 1 years	54*	8 (14.8%)
	2 – 3 years		10 (18.5%)
	4 – 5 years		10 (18.5%)
	6 - 10 years		8 (14.8%)
	11 – 15 years		3 (5.6%)
	16 – 20 years		4 (7.4%)
	21 – 50 years		11 (20.4%)

* some items have missing data, non-responses

5.3.2 Knowledge

A total of nine questions directly related to stoma care knowledge were asked in the survey. Correct response rates from the participants ranged from 3 out of 9, to 9 out of 9 questions correct. The mean knowledge score was 7.14 (sd =1.35, range 3-9) (see Table 5.4). Less than 60% of respondents correctly answered the questions related to correct location of a colostomy and from where stoma supplies were ordered. The following questions were answered correctly by >85% of respondents: identify the purpose of a stoma; able to recognise normal peri-stomal skin; identify reportable conditions to RN or doctor; and correct sizing of base plate and complications. How to locate a Stomal Therapy Nurse and defining ileostomy output were answered correctly by 73% of respondents (see Table 5.4). Internal consistency and a reliability test were calculated for the nine knowledge items. The knowledge scale assessment had a Cronbach's alpha of 0.339, as nine items were assessed, Cronbach's alpha ranged between 0.2 and 0.4, although low, the items covered a broad range of knowledge areas, for example, how to contact a Stomal Therapy Nurse or the type and function of a stoma.

Table 5.4: Residential aged care health workers' Knowledge of Stoma Care

Item	N	Correct N (%)	Incorrect N (%)
Identify purpose of stoma	78	73 (93.6%)	5 (6.4%)
Recognise normal peri-stomal skin appearance	76*	67 (85.9%)	11 (14.1%)**
Identify correct colostomy location	77*	44 (56.4%)	34 (43.6%)**
Define ileostomy output characteristics	74*	57 (73.1%)	21 (26.9%)**
Identify reportable stoma conditions to RN or Dr.	78	77 (98.7%)	1 (1.3%)
Identify stoma base plate			
- CORRECT SIZING	78	72 (92.3%)	6 (7.7%)
- COMPLICATIONS FROM INCORRECT SIZING	78	67 (85.9%)	11 (14.1%)
Identified where to source stoma supplies (external)	72*	46 (59.0%)	32 (41.0%)**
Identified how to locate or contact a Stomal Therapy Nurse	77*	57 (73.1%)	21 (26.9%)**
Knowledge Score	Mean ± SD	7.17 ± 1.35	

* some items have missing data; ** no response to question assigned as incorrect response.

At the bivariate level, higher total knowledge scores were significantly related to increased respondents' age ($p=0.034$) and working in high care areas ($p=0.003$). From a possible knowledge score of nine; respondents <30 years scored lower, with a mean of 6.6 ($sd=1.6$); higher scores were noted for the remaining age groups of 31-

40 years, with a mean of 7.2 (sd=1.4); 41-50 years, with a mean of 7.7 (sd=0.9); and >51 years, with a mean of 7.3 (sd=1.0). The results from testing the relationship between knowledge score and area of work were found to be significant ($p=0.003$ $t=6.137$). Staff working in low care had a mean of 5.6 (sd=2.2), while staff working in high care or working between both low and high care had a mean of 7.3 (sd=1.2). There were no significant relationships found with any other demographic factors (see Table 5.5).

Looking at different staff roles, these were grouped as regulated (RNs or ENs) or unregulated (PCWs, no qualifications). The regulated group scored higher, from 6 to 9 out of 9 (mean 7.7, sd =0.9) and the unregulated group scored lower, at 3 to 9 out of 9 (mean 6.9, sd =1.5) (See Table 5.5). After a t-test, a significant relationship between knowledge scores and staff role was found ($p<0.05$, $t = 6.137$), with unregulated staff scoring 6.9 ± 1.5 and regulated staff scoring 7.7 ± 0.9 (see Table 5.5).

Table 5.5: Residential aged care health workers' Knowledge Score and Demographics

Demographic		N	Mean	SD	t ¹ or F	p
Gender	Male	7.0	6.7	1.4	-0.951	0.345
	Female	71.0	7.2	1.4		
Age group	<30	23.0	6.6	1.6	3.046	0.034
	31 - 40	20.0	7.2	1.4		
	41 - 50	20.0	7.7	0.9		
	>51	15.0	7.3	1.0		
Area of work	Low care	7.0	5.6	2.2	6.137	0.003
	High care	22.0	7.3	1.2		
	Both	49.0	7.3	1.2		
Role	Regulated	26	7.7	0.9	2.780	0.007
	Unregulated	51	6.9	1.5		
Language other than English	Yes	35.0	6.9	1.6	-1.849	0.070
	No	43.0	7.4	1.1		
Relationship	In a relationship	56	7.3	1.4	1.006	0.318

status	Not in a relationship	20	7.0	1.3
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¹ t - Test, F - ANOVA Test, Range 0-9

5.3.3 Knowledge and Experience

The next area examined was the relationships between knowledge score and work experience and stoma care experience. Consequently, years of service, frequency of opportunities to provide stoma care, and perceptions of maintaining knowledge based on experience were examined.

The mean number of staff total years of service or experience in health care, in RAC settings, and in the current organisation were found to be significantly related to knowledge scores ($p < 0.05$). Greater experience in RAC or in the current organisation resulted in higher knowledge scores.

Pearson's correlation was used to examine the relationship between participants' knowledge scores and years of service in the current RAC organisation, years of service in RAC, and years of service in health care. A linear correlation identified a positive relationship between knowledge score and years of service in the organisation $r = 0.237$ ($p = 0.038$), years of service in health care $r = 0.273$, ($p = 0.046$), and years of service in RAC, $r = 0.323$, ($p = 0.004$). The data showed no violation of normality, linearity, or homoscedasticity, as evidenced by an evenly distributed pattern demonstrated on a scatter plot.

All of the three measured criteria for years of service were found to be significantly positively related with total knowledge scores. One can conclude that work experience appears to have a positive influence on knowledge gained (Table 5.7).

Whether staff had ever provided stoma care to an older person, or had not provided stoma care to an older person were not found to be significantly related to knowledge ($p > 0.05$, $t = 0.288$). The number of older persons' participants had provided stoma care to was also not found to be significantly related to knowledge ($p > 0.05$, $F 1.817$), as demonstrated in Table 5.6.

Table 5.6: Residential aged care health workers' Stoma Care Experience and Total Knowledge Score

Item	Criteria	N	Mean	SD	t ¹ or F	p
Provided stoma care	Yes	72.00	7.17	1.34	-0.288	0.774
	No	6.00	7.33	1.63		
No. of residents provided stoma care in last 6-12 months	0	18.00	7.33	1.65	1.817	0.152
	1- 3	53.00	7.22	1.14		
	4- 5	4.00	5.75	0.96		
	> 5	2.00	6.50	3.53		

* t - Test, F - ANOVA Test

Table 5.7: Residential aged care health workers' Years of Service and Total Knowledge Score

Item		N	Mean	SD	r	P
Years of service in:	Organisation	77*	5.25	±5.146	0.237	0.038
	RAC	76*	8.72	±8.179	0.323	0.004
	Health care	54*	11.74	±12.752	0.273	0.046

* some items have missing data r – Pearson's Correlation

5.3.4 Results from Multivariate Analysis

After conducting the bi-variate analyses, all factors found to be significantly related to knowledge scores ($p < 0.05$) were included in a multiple linear regression model to determine their independent influences on knowledge: that is, age group, area of work, regulated position, language other than English (LOTE), years of service in the organisation and years of service in RAC (see Table 5.8). After mutual adjustment for the identified variables included in the model, experience in high care ($p = 0.014$) or working in both low and high care ($p < 0.001$) and years of service in RAC ($p = 0.042$) were independently significantly related to higher knowledge scores (see Table 5.8). These results indicate that working in high care areas and greater number of years of service in RAC were associated with higher knowledge scores. However, in comparison, position, LOTE, or years of service in the organisation were not found to be statistically significantly related to lower knowledge scores (see Table 5.8). Overall, this model explained 34.3% ($R^2 = 0.343$) of the variation in knowledge scores, which suggests there are other variables not considered in this study that could contribute to a higher coefficient of determination.

Table 5.8: Multivariable linear regression of factors influencing Knowledge Score

Demographic	N	Regression Coefficient**	Std Error	Significance	p
Age Group	<30	23.0	0.000	referent	
	31 – 40	20.0	0.094	0.385	0.453
	41 – 50	20.0	0.111	0.480	0.477
	>51	15.0	-0.204	0.569	0.225
Area of work	Low care	7.0	0.000	referent	
	High care	22.0	0.464	0.549	0.014
	Both	49.0	0.712	0.518	0.000
Regulation of position	Regulated	26	0.000	referent	
	Unregulated	51	-0.145	0.309	0.189

Demographic	N	Regression Coefficient**	Std Error	Significance	p
Language other than English	Yes	35.0	0.000	referent	
	No	43.0	0.084	0.325	0.489
Years of service in:	Organisation	77*	0.092	0.034	0.476
	RAC	76*	0.310	0.025	0.042

*Some data missing; **Standardised Coefficient Beta

5.3.5 Attitude

T-tests, and ANOVAs were undertaken to answer the research question of which demographics, role, and experience factors were associated with attitude scores.

A total of nine items formed the attitude scale in the survey to determine staff attitudes to stoma care and caring for an older person with a stoma. The items were placed on a Likert scale with ‘strongly disagree’ valued as 1 and ‘strongly agree’ valued as 5. The attitude score mean was 34.26 ± 5.56 , with a range of 17-35 scored out of a total possible score of 45 (Table 5.9). Internal consistency and a reliability test were calculated for the nine attitude items. The attitude scale assessment had a Cronbach’s alpha of 0.774, indicating a high level of internal consistency for the scale.

A mean score of 3.8 ± 0.99 for one attitude scale item indicated staff believed they provided stoma care often enough to maintain skills, and a mean score of 3.76 ± 0.984 indicated they believed they provided stoma care often enough to maintain confidence in providing evidence based stoma care. The attitude item was neutral for avoiding stoma care, as reported with a mean of 4.09 ± 0.989 . Respondents strongly agreed with the two attitude items of not avoiding stoma care due to odour and output, with a means of 4.26 ± 0.801 and 4.27 ± 0.772 , respectively.

Attitudes toward organisational support were positive, participants reported they had access to staff expertise (3.81 ± 1.026), organisational support of providing internal education (3.92 ± 0.949), and access to external education (3.29 ± 1.263). Somewhat less positive attitudes were reported by 57% of participants, who did not agree they had access to written information (1.73 ± 0.772).

Table 5.9: Residential aged care health workers' Attitudes re: Stoma Care

(Items measured from 1-5, where 1 =strongly agree, and 5 = strongly disagree)

Item		Mean	SD
Staff believe that they provide stoma care frequently enough to:	Maintain skills	3.8	0.99
	Maintain confidence	3.76	0.984
Staff do not avoid stoma care because of	Lack of confidence	4.09	0.989
	Stoma odour	4.26	0.801
	Stoma output	4.27	0.772
Organisational support of stoma care – is there adequate access to:	Written information	1.73	0.772
	Staff with expertise	3.81	1.026
	Internal education/in-service	3.92	0.949
	External education/experts (STN)	3.29	1.263
Total Attitude Score**	Mean ± SD	34.26 ± 5.56	
	Median/Range	26/17.0-35.0	

* some items have missing data. ** Total Attitude Score is the sum of the responses of nine items on a 1-5 scale. Total maximum score of 45.

T-tests and ANOVAs were used to identify the relationships between demographic factors and total attitude scores, and found there were no significant relationships between these scores, as demonstrated in the results shown in Table 5.10. A small sample size of 78 resulted in small numbers in some categories, for example, gender and positions in the organisation; thus, there was a need to group variables for data analysis. Positions of employment were collapsed to two categories, one of regulated (EN, RN) positions, and the other unregulated (PCW) positions, to allow for analysis to be undertaken. Analysis found that no significant

relationship existed between attitude scores and employment position ($p>0.05$) (see Table 5.10).

Table 5.10: Residential aged care health workers' Attitude Score and Demographics

(Items measured from 1-5, where 1= strongly disagree, and 5 = strongly agree)

Demographic		N	Mean	SD	t ¹ or F	p
Gender	Male	6.0	33.8	6.0	-0.211 ¹	0.834
	Female	66.0	34.3	5.5		
Age group	<30	21.0	32.7	6.3	1.108	0.352
	31 - 40	19.0	35.5	4.7		
	41 - 50	18.0	34.1	4.2		
	>51	14.0	35.4	6.7		
Area of work	Low care	7.0	33.7	3.1	1.071	0.348
	High care	22.0	35.7	4.9		
	Both	43.0	33.7	6.1		
Regulation of position	Regulated	25	34.5	6.1	0.254 ¹	0.800
	Unregulated	47	34.2	5.2		
Language other than English	Yes	31.0	35.3	4.3	1.296 ¹	0.199
	No	41.0	33.6	6.3		
Marital status	In a relationship	53.0	34.9	5.2	1.488	0.141
	Not in a relationship	17.0	32.6	6.5		

¹ t - Test, F - ANOVA Test

T-tests, ANOVAs and Pearson's correlations were used to answer the research question regarding the relationships between work and stoma care experience and attitude scores.

Staff experience caring for an older person with a stoma was not found to be significantly related to attitudes of respondents (see Table 5.11). Whether staff had

ever provided stoma care to an older person, or the number of residents they had provided care to were also not significantly related to their attitude scores ($p>0.05$).

Table 5.11: Residential aged care health workers' Experience and Total Attitude Score

Item	Criteria	N	Mean	SD	t ¹ or F	P
Provided stoma care	Yes	67.00	76.72	12.09	1.303 ¹	0.197
	No	5.00	69.33	14.18		
No. of residents provided stoma care in last 6-12 months	0	16.00	70.00	10.95	2.105	0.108
	1– 3	49.00	77.55	12.05		
	4– 5	4.00	83.33	18.28		
	> 5	2.00	78.89	4.71		

¹ t - Test, F - ANOVA Test

Pearson's correlations were used to analyse the relationships between attitude scores and years of service in the current RAC organisation ($r = 0.112$, $p>0.05$), years of service in RAC ($r = 0.017$, $p>0.05$), and years of service in health care ($r = 0.046$, $p>0.05$). Of these three measures for years of service, no significant relationship was found with attitude scores (see Table 5.12). The data showed no violation of normality, linearity, or homoscedasticity, as evidenced by an evenly distributed pattern demonstrated on a scatter plot.

Table 5.12: Residential aged care health workers' Years of Service and Total Attitude Score

Item	N	Mean	SD	r	p
Organisation	72*	5.25	±5.146	-0.112	0.350

Years of service in:	RAC	71*	8.72	±8.179	0.017	0.888
	Health care	51*	11.74	±12.752	0.046	0.747

* some items have missing data; r – Pearson's' Correlation

5.3.6 Confidence

T-tests and ANOVAs were undertaken to answer the research question regarding whether demographics, role, and experience factors were associated with confidence to provide stoma care.

The confidence scale comprised eleven items related to confidence of RAC health workers in providing evidence based care to an older person with a stoma, which were adapted from the Surgical Oncology Nurses Ostomy Knowledge Survey (SONKOS). Items were placed on a Likert scale with a range of 1 'not very confident' to 5 'very confident'. The total confidence score mean was 29.89 ± 8.50 , with a range of 11-31 out of a possible score of 44 (see Table 5.13). Internal consistency and reliability tests were calculated for the 11 confidence items. The items assessed for confidence had a Cronbach's alpha of 0.961, which indicates a positive and high level of internal consistency and reliability between the items.

Table 5.13: Residential aged care health workers' Confidence

(Items measured from 1-4, where 1= strongly agree, and 4 = strongly disagree)

		Total N = 78*	
		Mean	SD
Confidence to provide stoma care support to:	Residents	2.25	0.876
	Family	2.31	0.944
Confidence in stoma care:	Knowledge	2.18	0.879
	Experience	2.18	0.849
Confidence to	Identify Stoma Problems	2.15	0.823
	Report stoma care issues verbally	2.12	0.806
	Document stoma care issues correctly	2.29	0.899
	Identify the types of stomas	2.79	0.985
	Identify types of stomas function	2.72	0.992
	Correctly change a stoma appliance	2.04	0.938
	Correctly empty a stoma appliance	2.06	0.951
Total Confidence Score	Mean ± SD	29.89 ± 8.50	

* some items have missing data; possible score range 11-44

At the bivariate level, higher total confidence scores were found to be significantly related ($p < 0.05$) to working in high care, or both high and low care areas. No further significant relationships were found between demographic factors and confidence scores, as demonstrated in the results shown in Table 5.14.

Table 5.14: Residential aged care health workers' Confidence Scores and Demographics

(Items measured from 1-4, where 1= strongly agree, and 4 = strongly disagree)

Demographic		N	Mean	SD	t ¹ or F	P
Gender	Male	6.0	28.2	9.4	-0.516	0.607
	Female	70.0	30.1	8.5		
Age group	<30	22.0	26.3	9.5	2.492	0.067
	31 - 40	19.0	30.4	7.9		
	41 - 50	20.0	30.7	7.8		
	>51	15.0	33.6	7.1		
Area of work	Low care	7.0	26.3	7.1	3.217	0.046
	High care	22.0	33.5	7.8		
	Both	47.0	28.7	8.6		
Regulation of position	Regulated	26	31.4	7.3	1.056	0.295
	Unregulated	49	29.2	9.0		
Language other than English	Yes	34.0	28.6	8.9	-1.237	0.220
	No	42.0	31.0	8.1		
Relationship status	In a relationship	54	30.4	8.6	0.823	0.413
	Not in a relationship	20	28.6	8.5		

¹t - Test, F - ANOVA Test

T-tests and ANOVAs were undertaken to answer the research question regarding whether there was a relationship between work experience, stoma care experience, and confidence scores. Histogram presentation analysis determined normal distribution of the variables being tested.

A higher frequency of occasions providing stoma care or providing stoma care more recently were both found to be significantly related to higher scores of confidence ($p < 0.05$). Staff who had provided stoma care to one, or greater than five persons scored 70.4 ± 17.7 for confidence scores. Comparatively, staff who had not provided stoma care scored 39.0 ± 13.7 for the confidence score (see Table 5.15).

Table 5.15: Residential aged care health workers' Experience and Total Confidence Score

(Items measured from 1-4, where 1= strongly agree, and 4 = strongly disagree)

Item	Criteria	N	Mean	SD	t ¹ or F	p
Provided stoma care	Yes	70.00	30.99	7.79	4.228	0.001
	No	6.00	17.17	6.05		
No. of residents provided stoma care in last 6-12 months	0	18.00	23.94	7.58	4.916	0.004
	1- 3	52.00	31.35	8.07		
	4- 5	4.00	36.00	8.08		
	> 5	2.00	29.89	8.50		

¹t - Test, F - ANOVA Test

Pearson's correlation was used to compare confidence scores to years of service in the current RAC organisation, years of service in RAC, and years of service in health care. Of the three areas examined, only years of service in residential aged care ($r = 0.257$, $p < 0.05$) was found to be significantly related to confidence. Years of service in health care ($r = 0.195$, $p > 0.05$) or with the current organisation ($r = 0.113$, $p > 0.05$) were not found to be significantly related to confidence (see Table 5.16). The data showed no violation of normality, linearity, or homoscedasticity, as an evenly distributed pattern demonstrated on a scatter plot.

Table 5.16: Residential aged care health workers' Years of Service and Total Confidence Score

Item		N	Mean	SD	r	p
Years of service in:	Organisation	75*	5.25	5.146	0.113	0.336
	RAC	74*	8.72	8.179	0.257	0.027
	Health care	53*	11.74	12.752	0.195	0.161

* some items have missing data; r – Pearson's Correlation;

5.3.7 Multivariate Analysis

After conducting the bi-variate analyses, all variables found to be significantly related with total confidence scores were entered in to a multilinear regression model to determine their independent influences on confidence score: that is, area of work, whether they had experience providing stoma care, the number of residents provided stoma care to in last 6-12 months, years of service in organisation, and RAC (Table 5.17). After mutual adjustment for all variables included in the model, respondents' experience in providing stoma care ($p= 0.028$) and frequency of providing stoma care in the last 6-12 months ($p = 0.036$) were independently significantly related to confidence. However, the respondents' area of work, or their years of service were not found to be statistically significantly related to confidence scores (Table 5.17). Overall, this model explained 33.6% ($R \text{ square} = 0.336$) of the variation in confidence scores, which suggests there are other variables not considered in this study that could contribute to a higher coefficient of determination.

Table 5.17: Multi-linear Regression Confidence Score

Demographic		N	Regression Coefficient**	Std Error	Significance p
Area of work	Low care	7.0	0.000	referent	
	High care	22.0	0.327	3.878	0.118
	Both	47.0	0.192	3.584	0.353
Provided stoma care	No	6.0	0.000	referent	
	Yes	70.0	0.259	3.647	0.028
No. of residents provided stoma care in last 6-12 months	0	18.0	0.000	referent	
	1– 3	52.0	0.264	2.253	0.038
	4– 5	4.0	0.247	4.424	0.036
	> 5	2.0	0.161	6.708	0.203
Years of service in:	Organisation	75*	0.010	0.198	0.934
	RAC	74*	0.173	0.126	0.159

*Some data missing; **Standardised Coefficient Beta

5.3.8 Relationships between Knowledge, Confidence, and Attitude

Pearson’s correlation test was conducted to examine the relationships between total knowledge score, total attitude score, and total confidence score. No significant relationships ($p>0.05$) were found between total knowledge score, and either total attitude or confidence scores. The total attitude and total confidence scores were found to have a strong positive correlation ($r = 0.627$, $p<0.05$) (see Table 5.18).

Table 5.18: Relationships between Total Knowledge, Confidence and Attitude Scores

Correlation	N	Pearson Correlation, r	Significant $p < 0.01$
Total Knowledge Score and Total Confidence Score	76*	0.131	0.259
Total Knowledge Score and Total Attitude Score	72*	0.155	0.193
Total Attitude Score and Total Confidence Score	70*	0.627	<0.001

*some data missing

5.4 EDUCATION PREFERENCES

Frequency analysis was conducted to determine the most preferred to least preferred rankings to explore the research question regarding the preferred educational methods of residential aged care health workers. The five items were online computer based education, DVD, educational folder, in-person education, and smart phone app and were ranked by respondents from most preferred to least preferred educational method. The spread of results was collapsed to most preferred and least preferred categories, as identified by frequency analysis. Not all items were ranked by respondents, as requested on the survey, and some areas were left blank. Only the items that were marked with a preference were included in the results. Items ranked as first and second preferences were collapsed into one group and labelled as

most preferred. Items ranked as third, fourth, and fifth preferences were collapsed into one group and labelled as least preferred. DVDs and in-person education were indicated as the most preferred methods for education to be delivered, being equally ranked at 88%. On-line computer based learning received a 55% preference rating. The least preferred methods for education were an education folder at 40% and a smart phone app, with a 46% response rating (see Table 5.19)

Table 5.19: Residential aged care health workers' Educational Preferences

Items	Total N = 78*	
	Most Preferred ¹ N (%)	Least Preferred ¹ N (%)
Education method		
Online computer based	33(55.9%)	26 (44.1%)
DVD	56(83.6%)	11 (16.4%)
Educational folder	20 (33.3%)	40 (66.7%)
In-person education	56 (83.6%)	11 (16.4%)
Smart phone application	8 (14.8%)	46 (85.2%)

Note 1: Most preferred educational preferences = total of 1st and 2nd preferences; least preferred educational preferences = total of 3rd, 4th and 5th preferences. *some items have missing data

5.5 CONCLUSION

The survey results indicate that knowledge and confidence were influenced by experience in caring for an older person with a stoma. Years of service working in RAC strongly impacted on confidence and attitudes of staff, which confirms that experience contributes to knowledge, confidence, and attitudes. Attitudes of RAC health workers toward stoma care were closely associated with confidence. High care areas of work afforded the opportunity for RAC health workers to provide stoma care, and were therefore significantly related to greater knowledge and confidence of staff, whether regulated or unregulated. Positive attitudes were expressed, as staff

reported they were not deterred from providing stoma care due to stoma output or odour. Responses to the knowledge section of the survey identified that areas most needing further information were how to access a Stomal Therapy Nurse and understanding the specific function of a stoma. Years of service working in RAC strongly impacted on the confidence and attitudes of staff, confirming that experience contributes to knowledge, confidence, and attitudes. Providing accessible and knowledgeable staff to approach for assistance in providing evidence based care was recognised as a positive organisational strength for supporting RAC health workers in stoma care. Staff indicated they were confident and maintained a reasonable level of skill in providing evidence based stoma care in their work place. The most preferred education delivery methods were identified as having a DVD to review or in-person education. A smart phone app and education folder were much less preferred educational methods.

The aim of the study was to explore the attitudes, knowledge, and confidence of RAC health workers in relation to evidence based stoma care to inform development of an educational activity. The described findings are valuable in highlighting the perceived needs of the target group of RAC health workers for an intervention to facilitate evidence based stoma care. Organisational issues, such as access to senior staff and education, the skill mix of the RAC workforce, availability of information and resources, and LOTE were raised, confirming the relevance of the PARIHS framework in covering context, culture, and leadership to facilitate evidence based practice.

Chapter 6: Results of Stage Two – Focus Groups

6.1 INTRODUCTION

The methods for the second stage of this mixed methods research were presented in Chapter 4. A qualitative approach through focus group discussions further explored and elicited information and understanding of organisational influences on RAC staff knowledge, attitudes, and confidence in providing care to an older person with a stoma. Domains to guide the interviews were the influence of context, culture, and leadership factors on knowledge, attitudes, and confidence of RAC health workers in providing evidence based stoma care. The aim was to understand the experiences of the topic being studied from the participants' perspectives (Carlsen & Glenton, 2011; Vaismoradi et al., 2013). Understanding of attitudes, behaviours, opinions, and beliefs can be gained from common themes emerging from group dynamics and interactions (Massey, 2011).

6.2 PARTICIPANTS

The four FG discussions were attended by six, 10, 12 and 19 RAC staff respectively. In addition, two TAFE students on clinical placement for a Certificate III in Aged Care requested to participate and were given the opportunity, as they were considered as having potential future roles in providing stoma care, and as receivers of stoma education. The focus group with 19 participants was the result of the need to combine the staff of two units to allow participation, as work demands were given priority and only one focus group opportunity could be accommodated at that time. Similarly, regulated and unregulated staff attended the focus groups

simultaneously, as organisational demands and staff availability to attend focus group sessions were limiting. Participants who met the inclusion criteria as RNs, ENs, or PCWs, employed on a casual, part time, or full time basis, and who were involved or not involved with caring for an older person with a stoma were invited to participate. Non-nursing health care workers (e.g., allied health, medical staff) were excluded. Informed consent was obtained by asking each participant to sign a consent sheet (Appendix H).

A total of 47 recruits participated, including 31 PCWs, eight RNs, six ENs and two TAFE students. All 47 staff worked in high care, with nine staff declaring they worked in both high care and low care, dependent on staffing needs. The semi-structured questions as defined in Chapter 3 were posed during focus group discussions to elicit information and promote discussion amongst the participants.

6.3 DATA ANALYSIS

Thematic analysis was conducted on the data collected from the focus group discussions, as described in Chapter 4.

Qualitative data analysis guided by Braun and Clarke (2006) requires the researcher to firstly become familiar with the data. The audio recordings of the FGs were repeatedly listened to and transcribed verbatim. The recordings and transcript were then checked in tandem for accuracy of content. This was followed by a re-reading of the transcript and making notations in the columns of semantic and latent themes, recurrent words, phrases, or ideas. Field notes, completed by the researcher after each FG session, were consulted and added to the columns of the transcript where appropriate to note non-verbal and body language, intonations of voices, context, and interactions of participants.

Initial codes were created upon listening to the FG recordings, reviewing the transcripts, and reviewing field notes. Manual coding was undertaken to identify basic codes. The process consisted of writing notes in the margins of transcripts regarding ideas, assumptions, and concepts. Once data was coded, a post-it note was created, and then as the process progressed, grouped into similar potential patterns under common coding (Beck, 2013; Braun & Clarke, 2006; Wiggins, 2004). Singular ideas were not discarded and were placed in a group of independent codes.

Semantic analysis of patterns and broader meaning (Braun & Clarke, 2006) were complimented by latent analysis of the data to assess the underlying ideas, assumptions, and conceptualisations, and to look at what features led to the meaning and form of a theme (Beck, 2013; Bowling, 2014; Braun & Clarke, 2006).

The initial nominated themes were then identified. The relationship of the data to the research questions was considered in alignment with elements of the evidence and context concepts from the PARIHS framework (Kitson et al., 2008). Clear, distinct themes were found, and upon review, demonstrated a repeated and consistent pattern between RAC health workers' responses.

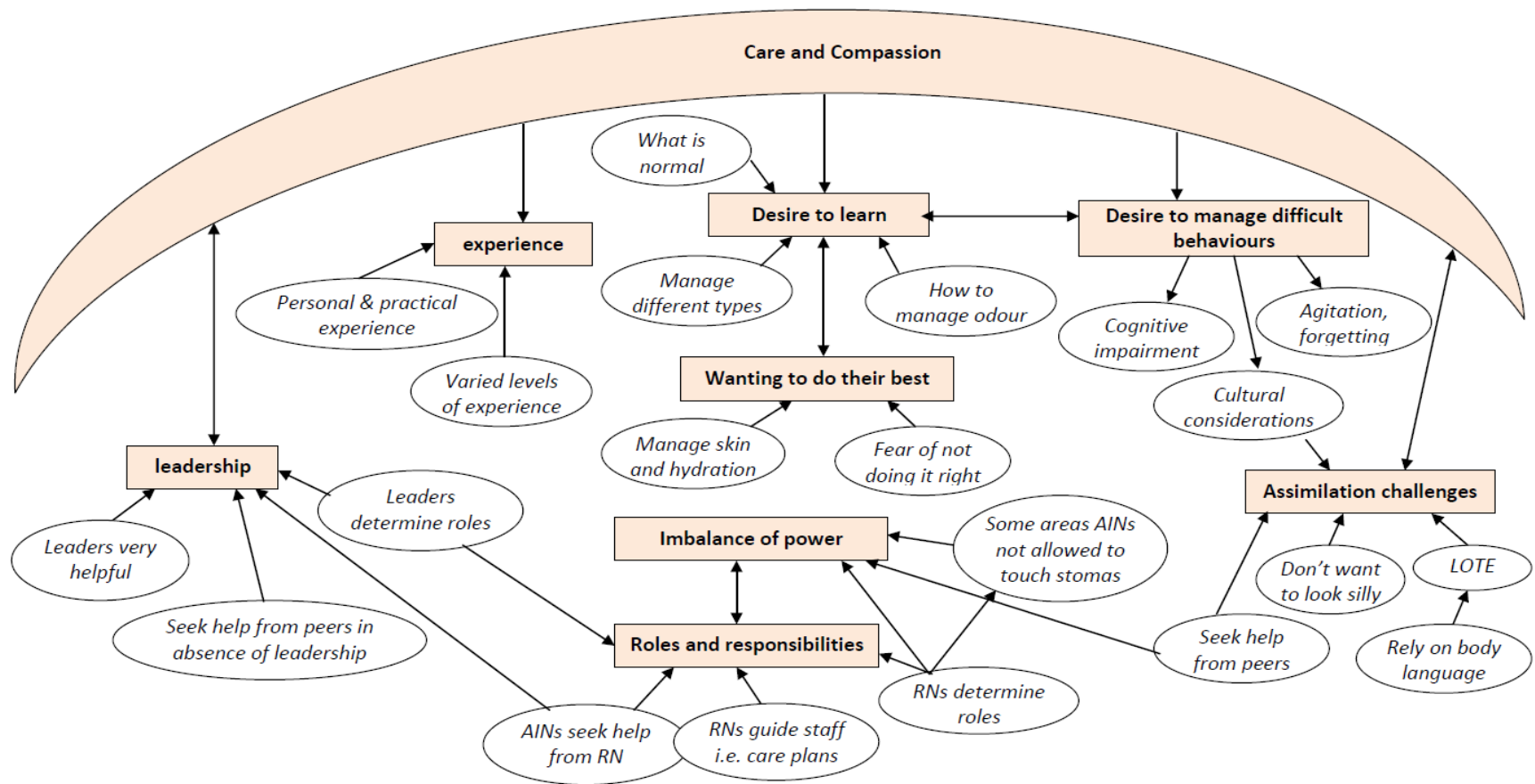


Figure 6.1: Thematic Map

6.4 RESULTS

The over-arching theme recognised from the data analysis was the care and compassion expressed by the RAC health workers; as perceived from statements related to their desire to learn; manage residents' behaviours; do their best; the positive influence of leadership and experience to support care, roles, and responsibilities; recognising and managing the imbalance of power relations; and dealing with barriers and challenges to assimilation in the workplace.

Sub-themes derived from the FG discussions were, difficulties in managing challenging behaviours, influence of experience, wanting to do their best and learn, differences in responsibilities for positions, imbalance of power, influences of leadership, and assimilation barriers/challenges. The identified themes are now presented and summarised.

6.4.1 Care and Compassion

Care and compassion was found to be the overarching theme, as staff frequently expressed care and compassion, with highlighted areas of concern for the residents in the FG discussions. How the resident felt about having a stoma, and embarrassment at having to have the personal care worker attend to the stoma were viewed as important by staff. RAC health workers described that being aware of how to care for a stoma could assist them to support a resident and manage behaviours and embarrassment. They expanded this issue to include the need to be aware of the multicultural diversity of residents in their care, and managing communication related to LOTE. Positive attitudes and insights demonstrating care and compassion toward providing care in general were found to be focused on individual resident needs as participants described:

‘...he gets pretty embarrassed... you just have to try and make him comfortable... reassure him you are doing the right thing...’ and ‘...the resident being embarrassed... try to make them feel okay.’

‘Think about the embarrassment, about the smell, or the way they dress in public...’

‘That gentleman was here a long time... passed away recently... most staff dealt with him ... he was very embarrassed when you emptied the pouch for him... we reassured him, and told him he was not offending anyone...’

‘A lot of people don’t see their own faeces, but with a bag you see it and you see people’s faces when you take it off and they are gagging.’

Another participant identified sensitivity to cultural considerations of residents. The staff aimed to care for the resident and to ensure they were made to ‘feel at home’:

‘...many staff and residents come from other places... staff that speak Mandarin or Japanese talk to the residents in their language and stuff like that, just in an effort to make them feel at home...’

‘...he really doesn’t like it... he is mentally available and gets oh “I’m so sorry”.... Chinese man and they are very polite... he is conscious of the smell and embarrassed to wipe himself... I am sure he is aware of the pungent smell.’

The embarrassment of residents is very apparent in the approach staff consider when dealing with a person with a stoma, and is viewed as a part of their care to try and reduce feelings of embarrassment for the residents.

6.4.2 Desire to Manage Resident Behaviours

Resident behaviours due to the impact of dementia or cognitive decline can lead to frequent appliance changes or difficulties maintaining a pouch in place in the resident's stoma care management. One participant commented:

'He is constantly squeezing his and the urine goes everywhere... forever running out of wafers... tape never holds it...' and 'she is always picking at it and pulling it off... whether it is full or empty she does it...'

A resident of special note had difficult behaviour related to dementia and this made her stoma management challenging. Staff voiced concerns about frequent bag changes and for her personal dignity, as in the following statements:

'...she wants it changed all the time, she forgets and pulls at the pouch... it does not matter if it is full or not...' and '...sometimes she even pulls up her skirt that can be embarrassing for her and we are not always there to stop it...'

'... she can be difficult because of her cognitive impairment... this has been going on for years...'

'Sometimes she wants attention, so she does it (remove stoma appliance)'

'...she wants it changed as soon as it acts... asks you to change it...'

'...agitated all the time... she starts to get paranoid... she has a long psychiatric history, so not just the bag.'

A PCW provided a caring and accepting perspective on the benefit of a resident having a stoma as a way of managing incontinence and maintaining skin integrity:

'As aPCW, I don't know about the other girls, but I think they (stomas) are great, they are so easy to change and to clean, you don't have to worry about them sitting in their own faeces all the time, you just change their bag and

you know they are healthy and you can see it there and it is just done. I don't see them as a burden, I see them as really easy to care for.'

6.4.3 Influence of Experience on care

Participants identified the importance of experience, frequency of providing stoma care, and support by the leadership team when first introduced to the care of a person with a stoma, as important to being able to be confident in providing the right care. Participants recounted the following scenarios related to their first experiences, and feelings about frequency of caring for a person with a stoma:

'We might go two years without having one (stoma)... I've been here 10 years and we have had years of gaps, then you just forget and things change and you see one and it's different and you have to work it out yourself, what happens and it's that area of fear.'

'We are very hands on, as that is our job really.'

'...we get to know when something is wrong, like with 'M', her behaviour changes and her stomach blows up, we give her go-lightly and if that doesn't help, we know to send her to hospital' and '...people with infections and blockages need to go to hospital.'

'I was a little scared at first... especially of the cutting around for the exact size...'

'...there are always different levels of knowledge and experience and [it] depends on how many we have, (group discussion multiple people speaking) ...we have three now, each is different and different bags... some you can wash and some you just throw out...'

'...make sure before you put the right thing on the right spot... you may get leaking if covered wrong...'

'The one we have here, they been like that for a long time, they have been like that for 15 years, so they know how to manage it, but the problem is

now they are getting old and sometimes forgetful, so [that is] why we are always the one who looks after it .’

‘...the first time I have ever seen one, but I didn’t find it too bad. It was a bit red and scary to look at, but it looked sore and when I asked her she said it wasn’t, so I am okay now...’

One registered nurse related her personal experience involving a friend who had a stoma and that friend's difficulties in accepting and managing living with a bag. The impact of this deeply affected her friend’s emotional state and adapting to the change to her lifestyle, which she never really did accept. The group reflected on the experience shared by the RN and surmised that for an older person it must be an extremely difficult adjustment, as they were often dealing with ageing conditions and sometimes leaving their home and moving into RAC. Workplace and personal experiences are valuable, as they inform staff and can influence the attitudes and confidence to provide stoma care.

Attitudes toward stoma care were found to be varied, in that some staff did not really like to attend to stomas due to concerns that they might hurt the resident, or were put off by the output and odour. One staff member remarked that it was easier to change a pouch and for the resident to have a stoma, and not have to clean incontinence and avoid skin irritations.

6.4.4 Desire to Learn

When asked to describe ‘What are the things you would like to know more about stomas?’ the responses were practical and focused on the resident. Areas identified by the participants with respect to the need to learn about stomas were use of stoma equipment, skin care, and odour control. Responses ranged from being uninterested to interested by regulated and unregulated staff, as described below.

Several comments reflected the desire of staff to want to know what is 'normal', why there is a stoma, and what the different types of stomas are, as described:

'...what a stoma should look like, what looks normal, because it can look very red, but that can be normal... But that sort of look on a wound frightens people.'

'...what is the difference between a colostomy and ileostomy, sort of...?'

'I don't understand what is going on behind that bag...' (AIN)

'A lot of us like to know that stuff... some wouldn't, as long as they know how to take care of something. But a lot of us would want to know why.'

The confusion over which appliances and accessories were being used and why one type was used over another was expressed. Staff wanted to know more about the proper uses of stoma equipment and how to procure and manage equipment:

'...has those protector wipes, I'm not sure if staff know how to use them... comes down to education.'

'...want to know about different bags, like why do some have two pieces?' and '...some have clips, I just get used to one and then they are changed...'

'...putting the bag on facing the right direction... placing the base not over the opening... weight will pull it off...'

'...some nursing homes rinse and reuse pouches...' and 'can you reuse them to save money?'

'...the CN orders products... sometimes family' and '... he gets his from the hospital and orders his own...'

'The rotten smell, how do we get rid of that?'

‘...so what about if they empty the bag, can that be rinsed with warm water?’

‘...having a dummy abdomen to practice on would be good, like at university... you can insert parts, so it’s like real life.’

Perceptions, beliefs and opinions were expressed by staff interested in knowing more about stoma care, and the products used. They identified a need to manage resident behaviours and conditions impacting on stoma management, such as signs and symptoms of dementia. For example, agitation or short term memory loss.

6.4.5 Wanting to do Their Best

Frequent references were made by participants about being able to provide the correct or best stoma care. They also expressed their concern for the individual’s feelings and physical comfort when attending to stoma care.

‘...it would be nice to have something that said no, this is right, this is wrong. This is how you do it and this is how it do every time...’

‘...if we wait until it is really full, we think to ourselves that will be a lot to clean up... we try to change before it explodes... she will ask for it to be changed...’

‘...we always give her water at night time, before she goes to bed, and put water in her jug...’

‘...the smell does not really bother me, we use stuff in the bags... drops that’s it...’ and ‘we use those sticky things, I presume to help with odour... he gets pretty embarrassed.’

‘You just hold your breath and duck in case it shoots at you.’

Identifying skin care problems and how to manage the problems were raised within the group.

‘...oh, where it wouldn’t stick on, the irritation to the skin, a bit swollen, the thing was swollen, so we couldn’t keep it on...’

‘...make sure the skin is intact...’

Staff noted that there were certain problems they felt comfortable to deal with, because they had a recurrence of the problem, and had some experience and insight in how to approach a problem.

‘...we had that one resident that had the same problem, so we used the same type of cream to help her get better...’

Others indicated they would immediately contact the senior staff, indicating a RN, CN, or manager to manage a problem. Identification of problems and attempts to problem solve were discussed.

‘...any problems I go straight to the RN...’

The staff identified that although they could manage most stoma care, they would appreciate education, resources, and support.

Staff were aware of the need to maintain fluid intake to prevent urinary tract infections; however, the need to understand food and fluid requirements for a person with a stoma were also remarked on:

‘...what diet and food they should have...’

‘...they have to be on a reduced fibre diet or something... some have a special diet.’

The issue of odour control and management was discussed, and current management strategies shared amongst participants. Odour can be viewed as an unpleasant feature of stoma care, staff expressed their approach to best manage odour when attending to the care as described:

‘...managing odour... use drops or charcoal... one man uses an extra filter we place on the bag...’

‘Odour... that is probably worse than changing a pan. It’s different, something I noticed...’

‘...the smell is very pungent, and I am sure he is definitely aware of that...’

‘...a lot of people don’t see their own faeces but with a bag you see it and you see people’s faces when you take it off and they are gagging.’

6.4.6 Roles and Responsibilities and Organisational Positions

The role and responsibilities were defined at times by the staff skill mix and the organisational processes in managing the care of a person with a stoma. Regulated and unregulated staff were clear in some units as to who did what care, that is, the division of roles and responsibilities. The range of expectations differed, from only regulated staff attending to stoma care, while in other units the care was predominantly provided by PCWs, as they were designated to be the providers of hands on care (regulated staff gave medications and did paperwork). Several staff indicated a readiness to ask a senior nurse to attend to the care without even an attempt to manage the care

‘The RNs are pretty thorough with telling us how to handle it during handover and stuff.’

‘...but the girls don’t change (pouches) that only the RNs...’

‘...the RNs would need to know more than we (AIN) do because there would be problems, we would just go straight to the RN and say that is not right... we are not qualified to make those judgements.’

Senior or experienced RAC health workers were recognised by unregulated staff as available for providing guidance or as a source from whom to seek information:

‘...the admission takes all day and family are invited to be there... by the time we take them over (person with a stoma), they pass it on (care plan) to the girls - that’s all covered, so I think they do that quite well.’

The following scenario demonstrated the need to ensure supervision and support regardless of the role within an organisation:

‘Well, I am fresh to this trade, I was a bit in shock, as I have never had to deal with that kind of situation, and it was just like... what to clean it with. I know now, but it was just showing how to cut it out, you know the sizing and what to clean it with, and roll it up and the sizing, and that was a bit of a tricky thing’ (TAFE student).

6.4.7 Imbalance of Power

The perceived responsibilities and limitations of unregulated RAC health workers in managing a person with a stoma or being permitted to undertake certain tasks were perceived as restrictive at times, despite the unregulated staff feeling capable or interested in providing stoma care. This may lead to perceptions of altered workplace relations, or limiting the engagement by the RAC health workers in participating in stoma care.

‘...the CN will find the information...’

‘...people don’t always like to ask, because they think they look silly, but they don’t. How are you going to learn unless you ask?’ (stated by PCW)

‘I don’t need to know more than we do... few problems encountered go straight to RN and say this isn’t right, can you please come and have a look...’

‘...some of us that are that way inclined, to know more information behind what causes things and how to manage... might feel more confident in reporting these things to the RN or CN and stuff like that.’

‘...some facilities AINs are not allowed to touch stomas; could be reason they do not learn?’

Behaviours and non-verbal communication were observed between participants within the groups of staff in response to views and comments related to management of stoma care, seeking help, or the workplace environment, and these were expressed by regulated, unregulated, and LOTE participants. Silences, glances between people, deep breaths, fidgeting in chairs, and persons dominating responses during communication between unregulated and regulated staff were noted by the researcher to seek clarification regarding responses for later entry in field notes. Staff identified by the researcher as having a language other than English would look at one another and smile and say nothing or comment that they asked others of the same level (PCW) for help, or were more comfortable seeking information from people they knew working in other areas for help. There appeared to be a lack of interaction between regulated and unregulated staff in one group, with clear behaviours of regulated staff dominating and providing the majority of the discussion. In response, the unregulated staff would glance around and not speak, one staff member even sitting on her hands and shifting in her chair as if holding back or uneasy. Participants of another group were adamant they felt no hesitation to approach the manager or senior nurses, as assistance was always reliably provided. The general impression of that group by the researcher was the positive relationship between managers, senior nurses, and all staff as working together very well. One PCW made the following statement:

‘...we all get along and our work place is multicultural, not only staff but residents, and we work to respect it, it is the way it has to be to make things work... I enjoy all the different people.’

6.4.8 Influence of Leadership

FG discussions exploring RAC health workers’ knowledge, attitudes, and confidence in providing stoma care presented an interesting mix of views on leadership. These views ranged from supportive and encouraging, to less positive, where staff were inclined to seek help from peers of similar backgrounds and care needs and not engage with the senior staff in their unit.

‘...the DON does the ordering of supplies...any problems, we just let her know and she handles it...’

It was noted that staff from two areas verbalised an appreciation for their manager and clinical nurse consultant as always readily available and nothing ever being too much trouble or a problem. These staff were animated and contributed openly to the discussions of the workplace and caring for a person with a stoma. Several staff nodded their heads in agreement when the manager and clinical nurse consultant were described as approachable. In contrast, staff in other units would prefer to ‘...seek help from peers or friends, as I feel it is easier to do that than bother the senior nurse.’

Responses about how to promote or provide leadership in stoma care were suggested:

‘It would be handy to have a specific RN to go to if there was a problem... that nurse would have extra training in stoma care and help us’

‘We have people in the organisation who are specialist wound care nurses, we also have a nurse practitioner that we have access to’

‘We also have a GP on the premises.’

6.4.9 Assimilation Challenges and Barriers

Communication was identified as requiring a variety of approaches, as English as a second language was prevalent and many unregulated staff had limited literacy skills. Informing staff about how to deliver stoma care required using care plans, and staff offered suggestions:

‘We communicate successfully, but I think a lot rely on body language... so I think when it comes to something particular, like that maybe a visual would totally benefit everyone.’

The interpretation of non-verbal body language of LOTE staff during interviews by the researcher varied. Staff in the groups who spoke positively about their workplace were relaxed and comfortable, worked together, and felt they could approach managers and senior staff for help. One timid staff member was encouraged to contribute to the discussion and staff listened and clarified or prompted if they thought it was useful to support her contribution. In other groups the researcher noted infrequent or no interaction from LOTE staff. In these groups three to four staff spoke most frequently. This could be attributed to factors such as age, personality, roles, LOTE, or workplace relationships, of which no definitive explanation could be determined by the researcher.

A staff member offered her experience of working in aged care since arriving in Australia 30 years ago ‘...in the beginning I knew nothing and was very shy to ask questions...but over time I learn and now I am just like anyone, I take good care of residents and work with everyone...’. Her story was acknowledged with positive responses from the group laughing and nodding that she never stops talking and helps everyone. No overt negative experiences due to LOTE were noted, the staff

member's story demonstrated the need for time to adjust and learn in the environment. Non-verbal communication behaviours were interpreted by the researcher, as no direct statements were made to indicate whether reluctance to speak was due to the mix of regulated and unregulated staff in the focus groups. The organisational demands and availability of staff influenced the skill mix in the focus groups and was considered to be a factor in the documentation of field notes immediately post interviews and during analysis of data.

6.5 CONCLUSION

Organisational culture factors of context, culture, and leadership were highlighted and explored in the FG discussions. Workplace culture being influenced by leadership within different units was evident in comments made by regulated and unregulated staff in their perceptions of role and level of responsibility for those permitted or expected to provide stoma care. Statements made by some indicated regulated staff had a responsibility to provide support to unregulated staff, with positive experiences being voiced by unregulated staff when help was needed. Opposing, less positive perceptions were noted in other groups who minimally verbalised and demonstrated through non-verbal cues and lack of response or engagement in discussion that access to senior staff was less helpful. Staff identified that they sought help from other units, as their own unit senior staff were difficult to find at times and it was easier to talk to another worker.

Themes arising from the qualitative data analysis further explored and expanded results of the research questions provided in Chapter 2. A greater depth of understanding of RAC health workers' knowledge, attitudes, and confidence was provided via themes to complement Stage One survey findings. Insights into organisational culture, context, and leadership were improved through the FG

discussions, as non-verbal cues, open discussion, and views were in some instances contradictory, or not captured through the surveys. Chapter 7 provides a comparison of the results of Stage One and Stage Two.

Chapter 7: Discussion of Stage One and Stage Two Results

This chapter considers the results of both studies for similarities and differences. Comparison of the results of Stage One and Stage Two identified similar factors that contributed to the RAC health workers' knowledge, attitudes, and confidence in providing evidence based stoma care to an older person. Statements made in focus group (FG) discussions about negative attitudes toward stoma care were in contrast to survey responses which found positive attitudes. Organisational factors were explored with more depth, and the openness of workplace relations, leadership, and impact of cultural differences were not well defined in the survey data. The two studies were completed using mixed quantitative and qualitative methodologies, demonstrated by the use of a survey and focus group discussions (Andrew & Halcomb, 2009). A comparison of the results regarding organisational factors that influence RAC health workers' knowledge, attitudes, and confidence in providing evidence based stoma care is presented below.

7.1 KNOWLEDGE OF EVIDENCE BASED STOMA CARE

The knowledge of RAC health workers relevant to evidence based stoma care was surveyed in Stage One and knowledge scores were calculated. Knowledge was further explored in Stage Two, where staff more specifically conveyed the aspects of stoma care that they had experienced; and therefore wanted more knowledge about, to help them provide better care to residents. The majority of participants across both Stage One and Stage Two worked in high care areas. Staff positions in the organisation were proportionally representative of those in the literature in both

studies, with the greater number of RAC health workers being unregulated staff (Fedele, 2015).

Results from Stage One identified that knowledge was statistically significantly related to staff position in the organisation, the area of work, and years of experience in RAC in caring for an older person with a stoma. The staff with experience working in high care areas were found to have higher knowledge scores.

Statements from Stage Two by aPCW indicated some staff were interested in wanting to improve knowledge and understanding of the function and care of a person with a stoma, although the level of knowledge was not required for aPCW. Knowledge scores for PCWs were reported at an average of 66%. Identified areas of knowledge deficits were similar in both studies with additional learning needs identified following from the opportunity to discuss issues in the FGs.

Stage One survey results for knowledge items identified staff needing to know more about stoma types, supply procurement, and access to experts. Comparable topics of interest raised by the participants in Stage Two included wanting to know more about stoma care, product use. Interestingly the FG discussions revealed the challenges RAC health workers faced with managing resident behaviours that may compromise stoma management and the need to learn strategies to help with caring for an older person with a stoma. In addition, several staff in FGs voiced wanting to do their best in providing stoma care to maximise the residents' quality of life, a factor not surveyed.

The survey results did not indicate that staff disliked attending to stoma care due to odour or output. However, upon further discussion in the FGs, staff were forthcoming about their attitudes with regards to undertaking the task of stoma care. One staff member commented that providing stoma care did not matter, as she did

not attend to stoma care and would get help from others to do it, as she did not like it. Another related how she would hold her breath and get on with the bag changed quickly. On a positive note, several staff expressed that it was part of the job and something you did and that they tried not to upset the resident by making something out of it. Staff spoke about how evidence based practice for stoma function, supplies, and management of odour and output would prove beneficial to the RAC health workers and the residents in their care.

7.2 ATTITUDE TOWARDS PROVIDING STOMA CARE

Results from the survey about attitudes, although not significantly related to knowledge of RAC health workers caring for a person with a stoma, were identified as influencing participants' interest in improving stoma care knowledge in the FGs. Overall, attitudes towards providing stoma care were positive in survey, though comments made in FGs would indicate that some, but not all staff disliked stoma care due to the output and odour.

Results from the survey indicated that attitudes were positively influenced by the years of experience working in RAC and the frequency of caring for a person with a stoma. Likewise, positive attitudes reported by regulated and unregulated staff in FGs were positively influenced by practical experiences, as recounted in occasions and opportunities to provide stoma care. A subsequent, lively interchange of ideas and concerns re managing stoma care problems and useful management strategies by one group was recorded and observed. Suggestions about how to more effectively change and empty stoma pouches, correctly cutting the opening of the base plate, and management of resident behaviours were a few of the areas discussed.

The desire of staff to provide good care was clear from the Stage Two FG comments and was deemed to be a positive attitude. A general expression of

compassion and caring was revealed in focus group statements as participants commented on considering residents' feelings of embarrassment, how to maintain dignity, cultural and language needs, and manage cognitive limitations. Staff expressed the need to know how to care for a stoma and manage problems, as these were important to the quality of life of the resident and staff being able to provide good care. Overall, the survey found knowledge scores to be average or greater, with positive attitudes and confidence regarding RAC health workers providing stoma care to an older person. Interestingly, contrasting individual perceptions and experiences were expressed by participants of the focus groups related to LOTE, roles and responsibilities, leadership, and workplace relationships influencing stoma care and general practice.

7.3 CONFIDENCE IN PROVIDING EVIDENCE BASED STOMA CARE

The two studies identified that confidence and knowledge were strongly influenced by work experience, position, and area of work in the organisation. Confidence scores were noted to be higher in RAC health workers with experience in high care areas, where experience with stoma care was more likely to be required. Staff declared in FG discussions that they were more confident when they regularly attended to providing stoma care, and this was found more often in high care areas as contributing to positive attitudes towards stoma care.

Knowledge of and access to Stomal Therapy Nurse expertise for stoma care was found to be limited or insufficient, as indicted by both survey results and comments made in the FGs.

7.4 ORGANISATIONAL FACTORS' INFLUENCING RESIDENTIAL AGED CARE HEALTH WORKERS

Organisational factors to support staff to provide evidence based stoma care, such as written materials and senior nurse guidance, were examined. The opportunity to further explore organisational factors was achieved in the focus groups to reveal workplace challenges regarding communication and cultural differences, consistent roles and responsibilities, and a lack of in-service education or resources to support evidence based stoma care.

In FG discussions, several staff from two groups asserted that there was a work place culture promoting inclusion and assistance to support the LOTE RAC health workers. Staff surveyed in Stage One reported that they were very aware of how to escalate concerns and felt secure, with easy access to senior registered nurses and general practitioners. However, in the FGs there were mixed responses within two FGs about the apprehension of unregulated staff regarding approaching senior or regulated staff. Instead, these staff opted to seek help from peers within the organisation, not necessarily from their work unit. Participants stated that seeking support elsewhere was influenced by the desire to avoid feelings of embarrassment, preferring to approach peers due to common language, friendship, and their position in the organisation. In one FG, staff identified that they were less inclined to approach certain senior staff, as the approach would not bring any help, and thus, they sought peer assistance instead. Some LOTE staff voiced reluctance to seek senior staff support due to their personal insecurities and identified that they felt more comfortable to approach peers for support, even if the peers were working in a different unit or area. In defence of the workplace, in one FG, a staff member assured the reluctant staff that their concerns could be resolved and that support was available when seeking out a senior nurse.

Findings from the survey regarding staff perceptions of the organisational context and leadership support via access to written material and senior staff were found to be positive across survey responses, with high staff awareness of available sources of information to support delivery of stoma care by both regulated and unregulated staff. Staff in the FGs indicated a reliance on stoma supply associations or stoma supply company sales representatives was common, stating access to Stomal Therapy Nurses was limited to acute practice settings, and no service was available for RACFs.

Statements from FG discussions implied that support and availability of managers and senior nurses was not consistent across all units in the organisation. Although staff responded in the survey as knowing how to access support within the organisation from senior staff, staff with a LOTE and unregulated staff admitted in the FGs to seeking peer support, instead of support from senior nurses, as they felt more secure with peers.

The staff claiming supportive leadership spoke of positive relationships, an appreciation and respect of the Unit Manager and senior nurse. Those who perceived less support expressed feelings of disappointment at not being supported, and indicated that they sought help from peers in alternate work areas, who they identified as having the work experience in stoma care they required. Apparent from Stage Two, was that unregulated staff, who expressed their intent to provide good care to residents, relied on regulated staff for direction and support. One example of support for unregulated staff was provided in Stage Two, in which a participant described how a comprehensive admission assessment was completed by the RN and details of care needs were communicated to all RAC health workers involved in the resident care and supported with a documented care plan.

Leadership in aged care deserves attention and investment as survey findings positively indicated staff access to and support from management. However, focus group discussions found a disparity from the survey findings in statements made by the participants related to senior staff and managers being supportive, to being unavailable or staff feeling they were unapproachable.

LOTE seemed to be a concern for some staff and not for others. The survey results showed that knowledge, attitudes, and confidence were not found to be influenced by a LOTE. However, contradictory statements were made in the FGs that revealed a reluctance by LOTE staff to seek assistance from senior nurses and a preference to approach peers as an alternative, which could influence the attitudes and confidence of RAC health workers in providing evidence based stoma care. These behaviours potentially impact communication attributed to individual factors, such as personalities, experience, length of time in the organisation, or level of confidence. As previously noted, participants stated that reluctance in seeking support elsewhere was influenced by their desire to avoid feelings of embarrassment, preferring to approach peers due to common language, friendship, and position in the organisation. Statements from the FGs divulged perceptions by staff with a LOTE about the challenges of assimilating into the workplace; learning a language, developing relationships with peers and senior staff, and growing personal confidence to undertake care of residents. One staff member shared her experience of joining the organisation, and how over time how she felt included and gained in confidence to participate in the team and offer support to other new LOTE speaking staff. The cultural diversity of the staff and residents was recognised in the FG discussions as part of the changing society and environment in which they lived, and

therefore needed to be respected and well handled by all RAC health workers, regardless of their role in the organisation.

7.5 PREFERENCE FOR EDUCATIONAL ACTIVITY

The characteristics of age, position in the organisation, and LOTE of the RAC health workers, together with experience in providing stoma care are substantial factors to be considered that would influence education activities for this diverse, growing, and in demand workforce. Adult learners aptly describe the aged care workforce with a representation of an age range predominantly over 30 years (Eley, Francis, & Hegney, 2014). The variety of learning preferences and styles need to be taken into account, and the relevance of the learning to the learner is critical in order to be effective (Kemeny, Boetther, DeShon, & Stevens, 2006).

Preferences for mode of education, as indicated in the Stage One survey responses, favoured in-person delivery or access to a DVD. Interestingly, Stage Two participants expanded further on these preferences, with several salient points to consider: LOTE, some lack of literacy, and therefore use of pictures to make education easy to understand; short sharp sessions of 10-15 minutes, as time can be limited; and management providing the time and opportunity to view education and access to the education when required by existing or new staff. Throughout the FG discussions, staff identified that education was needed in high care areas, as residents with stomas were only found in those areas.

7.6 OVERVIEW

The mixed method approach has provided both complementary, and contrasting results. The benefits of the mixed method study design are appreciated in the findings of information and assessment from the survey, and the in-depth

responses collected from the FGs. Evidence and context elements of the PARIHS framework (Kitson et al., 2008) were found to be important factors in the results, identifying workplace culture and context, workforce characteristics, and organisational factors necessary to inform development of education and facilitation of evidence based practice.

The survey results described the demographics and characteristics of the RAC health workers, then compared them with domestic and international cohorts to be discussed in Chapter 8. Assessment of knowledge, attitudes, and confidence were measured and analysed to gain a picture of RAC health workers' needs to inform an evidence based stoma care education activity. The benefits of the FG discussions were the delivery of data providing a greater depth of understanding, and the opportunity to further explore and expand RAC health workers' attitudes and perceptions of organisational factors and provided different results to the survey findings. Discussions encouraged in Stage Two allowed staff to open up and talk about organisational issues from an individual perspective. Valuable aspects of the group dynamics were on display, associated with interpersonal relationships, communication, individual security and confidence within the group, and the influence of position and power differences.

The results from the surveys were either supported or contrasted with results from FG discussions. The differences in the attitudes of RAC health workers were found in caring for a person with a stoma and dealing with output and odour; in addition to perceptions of collegial and management support, with the added complications of differing staff cultures and LOTE.

7.7 CONCLUSION

In summary, the mixed methods study has value, as demonstrated by the combined results from the Stage One survey and Stage Two FG discussions. Stage Two provided a depth of understanding not possible from a survey. The survey results identified RAC health workers characteristics and factors associated with knowledge, attitude, and confidence scores. The combined results are vital to informing an educational activity for RAC health workers and evidenced based stoma care.

Chapter 8: Discussion and Conclusion

8.1 INTRODUCTION

This final chapter overviews the major findings obtained from the mixed methods research. Each study was guided by the project aims: to identify the knowledge, attitudes, and confidence of RAC health workers in providing evidence based stoma care; the contributing influence of organisational factors on the facilitation of evidence based practice; and the education needs of RAC health workers in providing evidence based stoma care to an older person. An illustration of the intricacy of the relationships determined by the characteristics of RAC health workers, influence of organisational factors, and the knowledge, attitudes, and confidence of RAC health workers relevant to stoma care is provided within the context of the conceptual framework, the literature, and the research questions.

The overall findings are discussed and implications for development of an educational activity for stoma care in RAC are examined. Recommendations to inform further research, education, and practice in stoma care have been derived from the findings. A reflection on the mixed method study results supports the conclusions.

The RAC health workers in this study were predominantly found to be female, older, unregulated, worked in high care areas, and just under half of the staff spoke a LOTE, as reported in Chapter 5. Research findings from this local study were similar when compared to the context, characteristics, and issues examined of RAC health workers in Australia and internationally; characteristics of RAC health workers, such as age, gender, area of work, employment status and level of preparation and

training (Black, 2011b; Blake, 2013; Collier & Harrington, 2008; Eley et al., 2007b; Estabrooks et al., 2015; Gantz et al., 2012; Gospel, 2015; Lerner et al., 2010; Moss, 2013; Smith et al., 2005; Squillace et al., 2009).

The current research found that 66% of the RAC staff who were surveyed or participated in FGs were unregulated. As reported by King, Mavromaras, et al. (2013) unregulated staff represent 68% of the RAC workforce in Australia.

There is an awareness of the limited availability and difficulty in maintaining adequate levels of regulated staff employed in RAC (Howe et al., 2012), in addition to issues regarding retention of RAC health workers, whether regulated or unregulated (King, Wei, et al., 2013). This is considered a serious challenge for the growing demand of aged care services (Howe et al., 2012; King, Wei, et al., 2013; Radford, Shacklock, & Bradley, 2015). As identified, this unregulated and minimally trained work force provide the majority of routine care, such as assisting residents with activities of daily living in either low care or high care RAC facilities (Access Economics Pty Ltd, 2009; Eley et al., 2007b). The findings from this study suggest a need for appropriate evidence based stoma care education for staff in aged care areas.

Derived from this study's survey and FG results elements of context and organisational factors as proposed by PARIHS identified differing skill mix and levels of education, and experience of staff providing stoma care. Unregulated staff often have inadequate training to manage the complex resident population and require strong leadership and support to provide care, as noted in a study of pain management knowledge and attitudes of RAC health workers (Douglas, Haydon, & Wollin, 2016).

In promoting adaption to change Masso and McCarthy (2009) suggest the management of an organisation consider: cultural norms, values, and organisational

commitment and capacity to support change. The heavy reliance of RAC on unregulated staff is evident, highlighting the need for managers and leaders to communicate effectively, provide support for the staff through resources and education, and function within the organisational structure by implementing policies and procedure (Forbes-Thompson, Gajewski, Scott-Cawiezell, & Dunton, 2006; Gibb, 2013).

8.2 KNOWLEDGE

Findings from the survey revealed the total knowledge scores to be moderate for all levels of RAC health workers. Overall, higher knowledge scores were held by regulated RAC health workers aged between 30-50 years and working in high care areas. Staff with lower knowledge scores were more likely to be unregulated and younger staff, such as AINs or unqualified RAC health workers (see Table 5.5). Similar findings were identified from studies indicating higher knowledge and more confidence were also present in staff who frequently provided stoma care, had the opportunity to attend in-service and possessed some knowledge acquired in preparatory training and education (Andrews & Sharma, 2013; Cross et al., 2014; Gemmill et al., 2011; Moore et al., 1998)

The study results demonstrated the impact of work and experience gained in working in high care areas on how RAC staff perceived their knowledge of providing stoma care. Roles and functions of RAC health workers' in the current study found staff with greater opportunities to provide stoma care and years of experience in aged care reported higher levels of confidence and knowledge. Knowledge areas noted from the survey to be lower were stoma product knowledge and access to expert assistance.

The RAC participants predominately worked in high care needs areas of RACFs, where the more complex and vulnerable residents reside. The RACFs participating in the study provided a greater number of high care places than low care services. Residents in high care areas are more likely to require stoma care, and this suggests a need for appropriate evidence based stoma care education or programs to facilitate uptake of evidence based stoma care. Reflected in studies in the acute care surgical setting staff indicated higher levels of knowledge and confidence as a result of frequency of caring for a person with a stoma (Andrews & Sharma, 2013; Gemmill et al., 2011). In an observation made by Black (2011c) demand on health care services is trending towards early post-operative discharges, and education defaulting to the RACFs with limited knowledge and skills of a predominantly unregulated staff.

Fedele (2015) commented in a recent Australian Institute of Health and Welfare report that 83% of permanent aged care residents require high care services. In a discussion of the future of aged care nursing in Australia, Willet (2015) pointed out that an estimated half of future residents will experience dementia, and a proportional demand for high care places in RACFs will consequently require a skilled multidisciplinary health care workforce. As noted in the FG discussions behaviour management of residents and stoma care is a concern expressed by the RAC staff and with the increased trends of persons with dementia is to be taken into account in RAC health workers' education needs.

Levels of training and education found in this study were considered to be adequate for regulated staff, as registration is a requirement for employment. Unregulated staff commented in the FGs that most had achieved a Certificate III or IV in Aged Care from a TAFE. Gospel (2015) examined the difference in long term

care training, skills, and qualifications in Germany, Japan, and the UK. Interestingly, the increasing need for RAC health workers to provide cost effective and quality care was consistent across the three countries. However, the approach to training and standards established were reflective of the cultural differences. Japan has a focus on company training and loyalty, the UK focuses on vocational competency training, while Germany has regulated RAC health workers and requires a level of vocational training consisting of a base curriculum and requisite practice hours to be achieved prior to licensing. Germany and the UK are experiencing an increased reliance on an immigrant workforce, with Japan less so. Australia has followed international trends, as noted by Goel and Penman (2015) in a study of rural and remote immigrant workforce in aged care. The immigrant staff were found to be employed in lower level and pay positions, with challenges of workload, poor peer relations, and discriminatory practices, and yet they noted job satisfaction, derived from positive feedback from residents and families and some staff in the workplace, flexible hours, and simply having a job (Goel & Penman, 2015).

Ostomy knowledge was evaluated amongst surgical oncology nurses in a survey (Gemmill et al., 2011) conducted with regulated staff and knowledge and confidence were rated positive for those staff having regular experience with providing stoma care. Recognised occasions of the low volume of stoma patients prompted staff to identify valuable resources to assist in maintaining the requisite knowledge and skills for staff and patient stoma care to include information booklets, videos, or simulation exercises. Similar ideas were voiced during the FG discussions by RAC health workers in the current study to have resources available for all staff, including those with experience, new staff, or those staff not attending stoma care for

long periods of time, due to no demand from a person with a stoma living in the RACF.

Overall, the results from this current research found RAC health workers with positive attitudes toward providing stoma care were also confident and scored higher levels of knowledge. More specifically, survey results indicated moderate to high knowledge scores and corresponding positive attitudes and confidence were significantly related to experience providing stoma care and working in high care areas of aged care. In a study of oncology nurses' attitudes and knowledge of stoma care, Andrews and Sharma (2013) identified that the lack of opportunities to provide stoma care and maintain skills hindered having a positive attitude toward stoma care. Nurses and care givers maintaining a positive attitude toward stoma care has a direct effect on a person's initial adjustment to having a stoma and their long term quality of life (Cross et al., 2014; Persson et al., 2005). Persson et al. (2005) went on to report that a patient's perception of quality stoma care is influenced by nurses demonstrating confidence, knowledge, respect, and a positive attitude while providing education, and hands on stoma care. This observation of attitudes and patients' perceptions of care providers is important. In the survey undertaken in this research, all staff indicated a positive attitude, in that stoma output and odour did not alter their willingness to attend the task. However, statements made in the FGs contradicted these results, with a few staff avoiding attending stoma care, as it was perceived to be an unpleasant task. No literature was found that indicated a direct relationship between stoma output and odour and attitudes toward attending stoma care of RAC health workers or nurses on providing stoma care. A comparison can be drawn between the issue of diarrhoea and attitudes of health professionals and the general public, with soiling and foul odour viewed as offensive (Majid et al., 2012).

8.3 ATTITUDES

Survey findings from this study reported positive attitudes by all staff toward stoma care, and that they were confident that adequate support from senior staff and organisational resources were available to help them care for an older person with a stoma. A contradictory finding was derived from the FG statements, which revealed LOTE speakers were reluctant or unwilling to seek help from senior nurses and would seek help from friends and other LOTE staff, rather than approach senior or English speaking staff. The survey found that just under half of respondents were LOTE speakers, and not identified in FGs. The behaviour of avoiding senior or English speaking staff persisted despite comments made in the FG to the contrary, that senior and English speaking staff were available to help. English speaking regulated and unregulated staff in the participating organisation stated there was support of LOTE staff in recognition of communication barriers and LOTE staff should not be reluctant to seek help. Local and international studies reported that communication issues with residents and staff were prevalent due to nurses and nursing assistants being foreign born and speakers of a LOTE, with difficulties being understood and consequently being reluctant to engage with staff or residents (Estabrooks et al., 2015; Goel & Penman, 2015; Lerner et al., 2010). Goel and Penman (2015) in an Australian study of immigrant staff at a rural aged care facility found that a similar barrier to RAC health workers' knowledge, positive attitudes, and confidence is the reluctance of LOTE staff to engage, ask questions or seek help from senior nurses when help is needed to manage resident care needs. In a global perspective on workplace challenges, communication barriers were noted in Singapore (Gantz et al., 2012). Recognising a diverse multicultural workforce and

ageing population, health organisations introduced language classes to enable foreign nurses to improve communication and were further supported with interpreter services. Pictorial wall charts at the bedside were also implemented for nurses reference and were beneficial in achieving safe and effective patient care and support of foreign born nurses (Gantz et al., 2012).

Management of cultural diversity of the workforce has become prominent in health care management literature (Gwele, 2009; Haynes, 2016; Mattson, 2009; O'Connor, 2007), which provides valuable strategies for an inclusive culture and decrease the risk to barriers to communication, cultural behaviours, and beliefs. Frequent recommendations from U.S.A. studies to influence a strong workplace culture are competent and supportive middle management leadership, positive and respectful workplace environments, and effective communication (Haynes, 2016; Mattson, 2009). Cultural competency is encouraged, for all staff to respect and understand fellow staff and residents' individual backgrounds, which play a role in behaviours and relationships. A responsibility of senior or registered staff is to ensure effective communication and support of all staff in view of cultural differences, the lower level roles and support practice to meet the needs of the persons in their care (Gwele, 2009; Haynes, 2016). Organisational leaders and managers have an obligation to provide policy, procedures, training and promote cultural competency to cultivate a confident and secure workplace for all staff and clients (Gwele, 2009; Haynes, 2016; Mattson, 2009; O'Connor, 2007), highlighting the need for awareness of cultural diversity in the workplace.

Cultural diversity and competence in the workplace has been discussed as an important area of influence in contemporary nursing workforces. Aged care services in Australia are experiencing an increase in migrant populations with one-third born

overseas and 61% from non-English speaking countries, posing challenges for the very old, increasingly dependent on care services (Jeon, Merlyn, & Chenoweth, 2010). Haynes (2016) in a U.S. study commented that cultural diversity was not reflected in the nursing workforce with an unbalanced representation relative to the population being cared for, noting one third of Americans were minorities however 80% of the nursing workforce were non-Hispanic whites. Managing diversity in the workplace as identified in the comparison of results from the survey and focus groups is a complex and dynamic process. Consideration must be afforded to types of diversity; social, organisational and individual values (Gwele, 2009). A South African study (Gwele, 2009) continued by offering strategies to improve cultural diversity management. A strong focus on leadership, management and awareness must be present to minimise unbalanced power relations and achieve a common understanding, acceptance and agreed approach endorsed by all concerned.

In a survey of aged care homes conducted in England by Smith, Milburn, and Mackenzie (2008), the changing cultural diversity of residents and staff was investigated, although managers noted the benefits of cultural diversity of staff and residents, emerging prejudice of residents to staff was appearing. Education was suggested to help improve relationships and acceptance in the workplace (Smith et al., 2008).

In recent literature, issues related to the increasing cultural diversity of the workforce, and indeed the population using health care, has been progressively noted and discussed (Haynes, 2016). Senior or registered staff must ensure effective communication and support of all staff in view of cultural differences, lower level roles, and practice to meet the needs of the persons in their care (Gwele, 2009; Haynes, 2016). Organisational leaders and managers have an obligation to provide

policy, procedures, training, and promote cultural competency to create a confident and secure workplace for all staff and clients (Gwele, 2009; Haynes, 2016; Mattson, 2009; O'Connor, 2007)

Findings from the surveys and FGs can be described as similar to the cultural differences noted in a study of registered nurses by Mattson (2009). Cultural differences are exhibited in the workplace and are part of who the RAC health workers are as individuals determined by personal perspectives of core values, time proclivity, family responsibilities, communication preferences, interpersonal relationships, work ethic, gender, level of education, religion, socioeconomic status, hygiene and clothing. There is a demand for consensus in the approach to managing the evolving multicultural workplace to meet the need for a positive workplace culture based on relationships, communication, life work balance, training and team collaboration (Gwele, 2009; O'Connor, 2007). Mattson (2009) summarises that by identifying cultural differences and developing and implementing skills in conflict resolution a workplace can promote cultural harmony achieving a better workplace culture and ultimately enhanced patient care. The conceptual framework of PARIHS element of context would find identification and influences of cultural diversity a factor in organisational and staff assessment for facilitating EBP.

Statements made in the FG discussions varied in staff approaches to, or acceptance of stoma care activities. A noticeable positive attitude was one of care and compassion in wanting to provide good care by understanding more about how stomas work, stoma product use, and managing problems such as odour or skin irritation. All levels of staff frequently expressed concern with the residents' feelings and needs. The sense of contributing to good care and doing their best in providing good care were expressed by participants as important achievements in providing

care to residents. Despite the overall positive survey results, a few staff in the FGs expressed their dislike of attending to stoma care, describing avoiding the task or attending to it quickly to get it done. In a study of continence care of older persons, Dingwall (2008) noted that poor attitudes were associated with a task approach to care and were reflected in the quality of care to be poor or acceptable. Smith and Godfrey (2002) examined the concepts of being a good nurse as; positive personal and professional goals, possessing the required level of knowledge, and patient focused care. Considering these factors in the context of the study group, comparisons can be made related to staff caring, wanting to understand aspects of stoma care, and maintaining a desire to be able to provide the best care for residents (Smith & Godfrey, 2002). In the context of aged care, these workforce characteristics are supportive of the PARIHS context element in assessing RAC health workers' attitudes to accepting EBP education support for stoma care.

8.4 CONFIDENCE

Survey results from the current study found the confidence scores of RAC health workers ranked higher with staff working in high care, or both high and low care areas, in comparison to low care areas (See table 5.13). Confidence scores were high when knowledge was high of stoma function, management, appliances and available resources (See Table 5.12). More frequent opportunities to attend stoma care in high care areas were detailed as contributing positively to confidence in the subsequent focus group discussions. Similarly, Moore et al. (1998) commented in their findings that home care staff provided stoma care in the community and reported higher confidence and knowledge attributed to more frequent hands-on experience than the acute care comparison group.

While confidence scores derived from the current study survey were positive toward stoma care, FGs statements suggested that some RAC health workers were negatively affected by colleague relations, as revealed by seeking assistance from those with similar language or friends. Further comments expressed feelings of not being able to approach some staff, which produced barriers to communication and working together. Role inconsistencies were discussed in FG, in that staff were or were not allowed to do certain care activities in different units. Staff confidence was highlighted as being influenced by leadership approaches in the workplace. Approachable leaders engendered positive confidence, whereas those who were not approachable contributed to staff feeling unsupported and lacking in confidence. Approaching leaders or senior staff was commented on in the FG as dependent on the individual, experience, or observations in previous interactions or roles and levels of authority. Goel and Penman (2015) found that confidence was positively influenced if staff felt supported and able to communicate with managers. Conversely, confidence was negatively noted in others, who were hesitant to approach regulated or senior staff and more reliant on peer assistance in the workplace (Goel & Penman, 2015).

In this study attitudes and confidence scores were mostly positive for knowledge of hands on management of stoma care and less so for managing different types of stomas, information resources, and access to expert support. Experience appeared to positively influence RAC health workers' knowledge, attitudes, and confidence in providing stoma care to an older person.

Cross et al. (2014) in a survey of RNs and licensed practical nurses (LPN) across three U.S. hospitals also found higher confidence in ostomy care knowledge and skills was associated with more training, number of years of nursing experience,

and knowing how to obtain stoma supplies. Similar conclusions and observations were found in studies of acute, community, and aged care settings (Burch, 2015b; Gemmill et al., 2011; Slater, 2010). The LPNs were noted to have higher confidence scores, as their role was based at the bedside, offering experience with hands on practice, whereas the RN's confidence score was lower, resulting from expectations to support a supervisory role with less clinical practice (Cross et al., 2014). There was a noticeable difference between the roles of the regulated staff from this study's results in providing clinical supervision compared with those from the Cross et al. (2014) study, and these were attributed to the expectations and context of the role in different countries. Regardless of the differences of regulated RAC health workers, an emphasis to support education and training of evidence based practice of RAC staff remains (Savvas et al., 2014b).

In studies involving RAC health workers, their knowledge has been found to influence attitudes, and subsequently confidence (Dingwall, 2008; Douglas et al., 2016). The impact of the interdependence of staff knowledge, attitudes, and confidence on the facilitation and implementation of EBP to effectively changing practice has been highlighted (Cammer et al., 2014; Perry et al., 2011).

Douglas et al. (2016) utilised the PARIHS organisational approach to facilitating EBP to examine evidence based pain management practice in an Australian RACFs. The findings were positive for increased pain management knowledge and confidence improving the practice of RAC health workers with facilitating the implementation of EBP. However, the challenges of the aged care workforce experiencing a growing dependence on unregulated staff and the resulting limitations on scope of practice to meet the needs of the older residents were noted. In a similar study, in Hong Kong, Tse and Ho (2014) studied whether pain

management knowledge and attitudes of nursing home staff were improved through education. They noted significant benefits of education for improving knowledge and attitudes of the RAC staff and improved pain management as reported by residents completing self-assessed surveys of pain management. Considering the success noted in improved knowledge and attitudes of RAC health workers to pain management through EBP education, a similar process can be suggested for stoma care EBP education in RACFs.

Attitudes and confidence scores from the current survey results were mostly positive for knowledge of hands on management of stoma care, and less so for managing different types of stomas, information resources, and expert support. In the survey results, experience appeared to prominently positively influence RAC health workers' knowledge, attitudes, and confidence in providing stoma care to an older person. Although no study was found to relate directly to stoma care in RAC, studies in the acute and community environments have reported on the positive influence of experience on confidence in providing stoma care (Andrews & Sharma, 2013; Gemmill et al., 2011; Moore et al., 1998).

8.5 EDUCATION METHODS

In the current study, responses from the survey and FGs indicated a limited availability of organisational support and access to written documentation for stoma care and in-service education was seldom provided specifically for stoma care. However, a few staff stated in the FGs that senior staff were helpful and that on admission a complete care plan was developed to ensure the best care for residents and provided to staff; however, others found senior staff unapproachable. Studies into palliative care have increased in the RAC setting (Burns & McIlpatrick, 2015;

McInerney, Ford, Simpson, & Willison, 2009; McVey et al., 2014; Pitman, 2013), with growing attention to the aged care worker skill mix of regulated and unregulated staff, as also found in the current study. Pitman (2013) found the combination of high care and low care and skill mix of staff was essential to consider in the development of a self-directed learning package. This experience offers recommendations for educational activity development, as discussed further in this chapter. The current study results identified the need for written resource, access to a stoma care expert and in-service education. Considering organisational factors, as elements of PARIHS, an alignment is demonstrated with results from a palliative care study in RAC facilities in Australia (McVey et al., 2014). Recommendations from the study by McVey et al. (2014) proposed that organisational support included available written resources, education by in-service from a specialist professional, and that positive practice would encourage collaboration and shared decision making by health care workers and residents. These organisational factors are important to assess and consider for successful facilitation and implementation of EBP in stoma care in RAC.

Sharing expertise in stoma care was an issue for Clinical Nurse Specialists in the UK, who, in response to request from acute ward staff for up to date problem solving techniques and practical stoma care skills, explored strategies to facilitate the dissemination of stoma care knowledge and skills to non-specialist nurses (Bossom & Beard, 2009). Two approaches were taken: class based instruction and education on the ward or unit were offered to staff nurses, student nurses, and health care assistants. Documented feedback from program mentors reported that staff were more confident and able to provide the best possible person centred care and responded positively to the location of delivering education on the unit, which lead to

greater attendance and contributed to knowledge (Bossom & Beard, 2009). Nay (2003) cautioned that using expert reference groups may harbour individual views of what is best in the absence of international research. Endeavours to address this area in the research have provided limited studies focusing on the acute care setting (Andrews & Sharma, 2013; Gemmill et al., 2011).

8.6 ORGANISATIONAL FACTORS

The context in which people work is considered to influence knowledge, attitudes, and confidence. Introducing the PARIHS concept as described by Kitson et al. (2001), context relates to clinical practice experience, the personal experience, and organisational influences such as leadership, structure, and workforce. Assessing the RAC contexts, in view of the PARIHS elements was beneficial for implementation of EBP (Masso & McCarthy, 2009; Perry et al., 2011). Both studies noted that successful implementation of EBP could be achieved through the identification of organisational and cultural factors. Masso and McCarthy (2009) reviewed the factors affecting the implementation of evidence based practice in RAC and the need for positive senior and immediate local leadership.

Absent or disengaged leadership to direct staff practice can consequently contribute to a despondent working culture that negatively influences implementation of changes or a deterioration of practice that may be unacceptable (Dingwall, 2008). As discussed in the study FGs in some units leadership was found to be unapproachable or staff lacked confidence to engage with senior nurses. Wright (2009) in a study of organisational culture and leadership identified ineffective organisational characteristics. One theme identified unclear personal and professional boundaries in managing continence and the subsequent tension between levels and

roles of health care professionals to ensure continuity of care. Acceptance of change and sustaining improved evidence based practice was perceived to also be hindered by the established workplace culture of habit and routine (Wright, 2009). Interestingly, comments made in the study of continence practice showed insight as to a lack of consistent and supportive leadership to facilitate and implement change as can be aligned with the context element of PARIHS.

The context in which people work significantly influences knowledge, attitudes, and confidence. There are sometimes division of delegation of stoma care based on roles and responsibilities dictated by the regulated and unregulated status of RAC health workers, which can impact on exposure to attending stoma care. Working in high care areas where a resident's care needs are greater was a contributing factor to gaining stoma care experience. The opportunity to have occasions to provide stoma care and the number of residents requiring stoma care was indicated as greater in high care areas. Within those areas some unregulated staff were permitted to attend stoma care and in others this was only performed by regulated staff. This division is perceived as one of the roles and responsibilities dictated by local leadership, an example of issues with balance of power that can substantially influence workplace culture and practice experience (Masso & McCarthy, 2009; Perry et al., 2011). Participants described in the FGs how they had grown and developed in performing stoma care by learning on the job and facing their internal anxieties related to lack of experience and ability to eventually become more comfortable and confident, not only in providing stoma care, but other tasks.

Most important are the roles of middle managers in aged care, often Registered Nurses functioning in a hybrid role (Meissner & Radford, 2015) to effectively meet clinical and managerial responsibilities, avoiding positional role

tension and retaining positional authority (Jeon et al., 2015). Desirable activities and characteristics to satisfactorily fill the role were described by Jeon et al. (2015) emphasising quality improvement and cohesion of a team through a shared ethos. Recommended leadership skills contribute to effective change management, considering, such as staff behaviour management, and promoting a positive and inclusive culture with a diverse workforce in relation to age, gender, cultural, and religious experiences (Meissner & Radford, 2015). Leadership and management play an essential role in how an organisation responds to the influence of cultural behaviours, differences, LOTE, and other factors toward achieving workplace harmony.

Issues concerning the balance of power can substantially influence workplace culture and practice experience. Perceived support from senior staff by AINs can provide a sense of appreciation and concern for their wellbeing (Radford et al., 2015). There is a prevalence of power and authority in nursing, as discussed by Jervis (2002), relegating unregulated RAC health workers as the lower tier of RAC staff. The culture is derived from a persistent history and practice of role hierarchy in nursing, compelling regulated nurses to protect authority and prestige in the workplace by displaying power and control over less qualified staff with lower positions. Findings from this study also noted organisational factors of inconsistent leadership support within the organisation and perceived positional differences related to roles, responsibilities and LOTE. Staff expressed how senior staff varied in practice; allowing stoma care to be provided by unregulated staff and in other areas not allowing. In an evaluation of utilising PARIHS aiming to influence practice change in aged care, Perry et al. (2011) commented that tensions in organisational culture, hierarchical power relations, and unsupportive managers are substantial

barriers to change in RACFs. Gibb (2013) reported on obstacles to leadership during an environmental scan in RAC using the PARIHS framework, which identified a lack of respect or trust in the knowledge of regulated staff by unregulated staff. Observations were made that unregulated staff were often confused with what to do as they were given differing directives by regulated staff. Visible tensions between leaders as to what was the correct directive was viewed by as a ‘power thing’ behaviour. This highlights an opportunity to assess the organisational positions and hierarchy in the workplace that can negatively affect the AIN position, which is often viewed as inferior, and impact on improvements to practice. The changing dynamic of cultural diversity and increasing reliance on an immigrant RAC workforce represents not only issues of position and authority in an organisation, but the influence of LOTE, cultural beliefs, and behaviours (Goel & Penman, 2015; Gwele, 2009).

The current study survey found education methods options scoring highest were face-to-face education or access to educational content on DVDs. Comments made by staff in the focus groups suggested pictorial resources to help LOTE and low literacy staff to benefit from the education, as well as providing the opportunity to share with residents if appropriate to improve communication and understanding of the care required. The matter of education for a RAC workforce has been discussed in the literature and highlighted the need for education and the value of providing education in RAC, especially to unregulated staff (Eley et al., 2007a; Lerner et al., 2010; Smith et al., 2005). Eley et al. (2007b) explored the factors influencing aged care workers’ response and barriers to education. Limited access to computers and the skills required to use computers was restrictive as a learning

method. Literacy was often found to be lacking in the unregulated workforce limiting written or online learning.

As previously discussed in this chapter, the aged care context presents several challenges in implementing evidenced based practice considering organisational factors, including workplace culture and leadership. Several approaches to education were found in the literature to support EBP in RAC and ranged from didactic sessions (Douglas et al., 2016; Smith et al., 2005), self-directed learning packages (Edwards, 2010; Pitman, 2013), workbooks, and problem solving based learning (Peterson, Hakendorf, & Guscott, 1999) to provide education for facilitation of implementation of EBP to care for residents. These approaches as investigated in this survey; could be recommended in further studies as they were found to have positive effects on implementing EBP with varying levels of success in sustaining EBP long term.

Several studies reported providing education to RAC health workers across a range of topics, such as palliative care, pain management, oral health, dementia management, and depression training (Cadet et al., 2016; Douglas et al., 2016; Fleming & Fitzgerald, 2009; Mellor et al., 2010; Pitman, 2013; Tse & Ho, 2014). A common feature in the literature was evaluation by pre and post testing of the knowledge of participants, methods were predominantly face-to-face education and training. Other methods used for palliative care included a self-directed learning package (Pitman, 2013), and an integrative approach combining cognitive, behavioural, and experiential learning in dementia care education (Fleming & Fitzgerald, 2009). Despite the differing approaches to education, the responses of RAC health workers were similar. Overall findings indicated knowledge, attitudes, and confidence of RAC staff improved, with evidence based education contributing

to improved practice and a positive impact on resident care and quality of life. In the current study, FGs allowed for staff to express ideas that were limited by the survey format, such as a LOTE being a concern for some staff, the need for stoma care specific education, and working together as a team to achieve good outcome for the residents. Relevant issues related to ongoing support, education, and training in support of practice (Pitman, 2013), consideration of literacy, LOTE, and the sustainability of change (Cadet et al., 2016) were noted in the literature.

Adapting education to effectively implement evidence based practice must consider the varied levels of literacy and education of regulated and unregulated staff, and residents were found to be key to the success of the ‘Champions of Skin Integrity Project’ implementing EBP for wound management and healthy skin promotion (Edwards, 2010). Participants in this study of the FGs suggested that practical hands on experiences would be also useful, as was also discovered in the Champions of Skin Integrity Project.

Smith et al. (2005) reported a study of health care workers in RAC from New Zealand who were provided with interactive sessions involving case studies and experiential learning, while Lerner et al. (2010) described day long didactic education in a U.S. study. Both studies used pre and post testing of knowledge (Lerner et al., 2010) and measure of quality of care (Smith et al., 2005) for evaluation and found similar results of increased knowledge, ability to apply the knowledge and deliver the appropriate care contributing to improved quality of care for residents, improved job satisfaction, and an expression of interest for further education. As indicated in this study, face-to-face education was a most preferred method, the New Zealand and U.S. experiences demonstrate the positive benefits of face-to-face education and support the choice made in this survey. Face-to-face sessions were

found to be beneficial however not sustainable as Abernethy and Smyth (2013) found with hand hygiene education in RACF. The activities they identified to support education and practice were posters, hands on training, social marketing and performance feedback. Attention to workplace location and context should also be included in any education planning to promote success.

As previously discussed, Black (2011d), provided stoma care education to RAC health workers through course modules delivered face-to-face and facilitated by learning contracts, stoma care mentors, and requisite completion of a workbook by participants for evaluation. In another innovative approach to stoma care education, a partnership was formed between a stoma product industry company and a university to provide an accredited stoma care course to post graduate registered nurses through a university course, achieving 100% attendance and completion (Harrison & Howlett, 2016). The described methods and findings from education in RAC and stoma care add critical value when considering learning theories, education needs, and delivery mode when planning the development of a stoma care education activity to promote evidence based practice in RAC.

8.7 CONCEPTUAL FRAMEWORK

The conceptual framework of PARIHS as the basis for this research enabled examination of the elements of culture, context, and leadership of the RAC workforce and workplace. This study found factors that are appropriate to utilising the PARIHS framework to implement EBP in RAC. The PARIHS element of context has been validated in recognising organisational factors; leadership, local culture and staff characteristics and diversity.



Figure 8.1: PARIHS framework: interrelationship of evidence, context, and facilitation

(Hack, T.F., Ruether, J.D., Weir, L.M., Grenier, D., Degner, L.F., (2011))

The issue of leadership and workplace culture has featured prominently in recommendations for education and improving EBP, a recurrent theme reflective of the element of context from the PARIHS framework in facilitating evidence based practice. An assessment of the appropriateness of the PARIHS framework in RAC for implementation of EBP was reviewed by Masso and McCarthy (2009); Masso et al. (2014); Perry et al. (2011). These studies revealed leadership and workplace factors for successful facilitation of EBP, which included organisational and cultural issues such as local leadership that promotes quality improvement activities; supporting a skill mix of education and roles; and recognition of the diversity of individual backgrounds and values, stakeholders, and influence of the residents' characteristics.

From this study reluctance to seek help from senior staff identified the importance of organisational context, culture, and leadership as factors requiring assessment to improve practice in RACFs. To be successful, nurse managers need to demonstrate respect of the diverse workforce, implement policies to promote cultural

diversity, and resolve negative issues affecting the workforce (Mattson, 2009). Most importantly, Gwele (2009) stated that regardless of age, gender, race, level of education, or position, all staff are to be valued for their contribution with respect to organisational objectives. Perry et al. (2011) in an evaluation of using PARIHS for implementation of EBP in RAC described the dynamics of the aged care workplace aligned with PARIHS element of context, including staff experience and intuition, and individual staff preferences given value to support change. Factors of organisational context range from receptiveness of the setting, staff, and impact of professional support, with appropriate skill mix in the workplace to support practice improvements and changes.

Culture can be influenced by models of care, such as focus on person centred care or business models with attention to finances and budgets. Leadership teams and managers are viewed as providing guidance, resources, and following organisational processes to achieve improved practice outcomes and engaged staff (Perry et al., 2011). These are vital factors to support the implementation of evidence based practice in aged care and the general workforce. Overall, the association of knowledge, attitudes, and confidence of staff influence the effective implementation of evidence based practice, with understanding and support of the context, environment, and organisation.

8.8 STRENGTHS AND LIMITATIONS

This study, with a mixed methods research design, has contributed to the body of knowledge of the aged care workforce's knowledge, attitudes, and confidence toward evidence based stoma care. No other study to date was found that specifically examined and reported on RAC health workers' perspectives on evidence based

stoma care practice and education in RAC. The findings are considered pertinent to informing the needs of RAC health workers for future EB stoma care education

Valuable implications for education were gleaned from the current study relative to results identifying RAC health workers' characteristics, knowledge, attitude, confidence, and organisational factors. The findings support the conceptual framework of PARIHS, as the influence of workplace culture, context, and leadership were prominently identified in results. The mixed methods design added positively to the findings, as the survey responses and qualitative study findings were found to be contradictory on some issues as described in the discussion. Responses and interaction amongst the participants offered individual and honest perspectives and reactions to the topics under discussion, which were not discovered from the survey.

A limitation of this study was that participation in FGs was requested by senior nurses and managers, leading to reluctance by some staff to attend and contribute. The organisational influence of roles, balance of power, and LOTE can potentially compromise the responses and honesty of participants; however, contradictory responses did surface in some FGs. Recognition must be made that participation in focus group discussions can be hindered by group dynamics, balance of power, a language other than English, experience, and position within the organisation. Due to issues with staff availability to attend FGs, related to workplace and personal demands, the opportunity to segregate staff into regulated and unregulated staff was not achieved. Conducting FG with the capacity to engage with regulated staff separately from unregulated staff would encourage participation as the balance of power would be reduced from a role and responsibility aspect. A group consisting of LOTE participants could provide a secure environment in which participants could

express thoughts and ideas more freely. Certainly, a major consideration for future FG experiences.

The survey conducted was completed with a small number of (78) responses which can influence the results in providing a limited observation of a group that may be influenced by predominant characteristics such as values, workplace culture or collaboration. Validation of the adapted survey used for the study should be undertaken. Repetition of questions was noted, and the evaluation of questions to be retained and omitted requires further consideration. A more comprehensive level of demographic detail would be useful to improve comparison with the national and international literature, and to identify additional factors to consider for RAC workforce education. A larger sample size, and involving additional RACFs, would make a valuable contribution to the diverse and largely unstudied RAC workforce related to evidence based stoma care.

8.9 RECOMMENDATIONS FOR RESEARCH, EDUCATION AND PRACTICE

Recommendations for further studies are suggested from the findings of this research project. Broadly, the area of aged care practice is increasingly in the spotlight and linked to the growing ageing population and demands for aged care services. As people live longer and experience complex comorbidities, research needs to expand to improve practice and education of health care workers leading to improved quality of life for ageing individuals.

More studies are required to best manage the knowledge, skills and expectations of the present range of skill mix and heavy reliance on an unregulated workforce with limited training needs. LOTE is indeed a significant factor in aged care and health that demands support of the staff and methods to improve communication and understanding to provide care and foster positive workplace

relationships. The culture in RAC has a negative connotation which can be changed with implementation of evidence based practice impacting local context, culture and practice, however dependent of leadership and management support. There is an existing small number of studies that have noted the benefits of education and promoting EBP in RAC to improve practice and resident care. The issue remains as to how to sustain the change, and implementation of EBP rather than staff return to the old habits and routines. The organisational factors to be expanded and built upon are identified as essential to influence the sustained change promoting more research of RAC organisational leadership and workplace functions and structures. In summary there is a substantial opportunity to undertake quality evidence studies in residential aged care and of the workforce in implementing and sustaining evidence based practice.

Stoma care and the impact of ageing are currently being discussed in the literature and would benefit from rigorous evidence in support of providing evidence based practice for older persons living with a stoma. As identified in this study the focus group discussions, management of inappropriate resident behaviour due to dementia and respect for an individual's beliefs and personal traits are necessary to provide care with respect and dignity. This observation and recommendation was supported by stoma care nurses from the United Kingdom, who also identified the challenges of managing care of older persons with a stoma in light of limiting co-morbidities and physical and cognitive decline. Further research into these areas would not only benefit the person with a stoma, but the health care providers, including those working in residential aged care.

Determined from the survey and FG results is the need to provide education to the RAC health workers on EBP in areas of resident care. The most frequent areas

studied implementing EBP in RAC have been palliative care, continence care and pain management. Receptiveness by RAC health workers to educational methods have been positive to delivery by face-to-face and DVD education. When developing educational activities for RAC staff it is essential to note the staff characteristics and issues such as literacy and LOTE.

Studies have identified the benefits of EBP facilitation in improving appropriate care, job satisfaction and person focused outcomes. Although as identified in the Introduction chapter the prevalence of older persons living with a stoma in RACFs is unknown the needs remain for staff to provide care guided by EBP. Preliminary educational activities have been implemented in the U.K. and U.S.A. for health care workers and noted to be of value and worthy of expanding.

Considering the context element of PARIHS in the findings of this study several recommendations are of value. Facilitating EBP can positively influence the workplace and practice. Through adapting EBP RAC staff can establish role clarity and define responsibilities. Safe and appropriate care can be provided to residents meeting staff desires of providing care and compassion and the best care to achieve job satisfaction and feel valued in the organisation.

8.10 CONCLUSION

This study explored RAC health workers' knowledge, attitudes and confidence and organisational factors to identify needs to inform development of an education activity for facilitating evidence based stoma care to older adults.

Workforce demographic characteristics and influence on care delivery, desire to learn, relationships between levels of staff, and existing perspectives toward delivering stoma care were identified. Thus, providing the opportunity to obtain a depth of understanding of the RAC health workers at the centre of the study. RAC

health workers' knowledge, attitudes, and confidence were explored to identify needs in developing an evidence based stoma care education activity in facilitating the provision of stoma care to an older person.

In addition, the study explored the characteristics of the RAC workforce and noted similarities from around the globe, as described in the literature. Elements of the PARIHS framework particularly identified organisational context and culture essential in planning for implementation of evidence based stoma care practice in RACFs.

Findings from this study identified LOTE, unregulated workforce, organisational leadership, and access to education as areas to be considered for implementation of EBP stoma care and an effective method to facilitate the change in practice. Challenges and barriers of the aged care context were aligned with similar studies ranging from workforce diversity of levels, cultural background, LOTE, and organisational objectives, structure, and most importantly leadership.

Organisational factors and culture were highlighted that would be useful in determining the needs of RAC health workers for education and training. Most important are organisational leadership support and communication with all levels of staff. Ongoing commitment to providing education and training in order to facilitate implementation of evidence based practice is necessary to achieve improved practice and resident care.

The findings of this study are valuable in identifying the needs for evidence based stoma care. As the ageing population grows, these findings may well support other areas of care with evidence based practice required by the increasingly complex and dependent RAC population. Education and training can be delivered in a format as determined by the responses of participants. Successful development and

delivery of an evidence based stoma care education activity will be guided by the findings of the study.

References

- Abernethy, G., & Smyth, W. (2013). The search for an evidence-based intervention to improve hand hygiene compliance in a residential aged care facility. *Healthcare Infection, 18*(4), 156-161. doi: <http://dx.doi.org/10.1071/HI13021>
- Access Economics Pty Ltd. (2009). *Nurses in residential aged care* (pp. 68). Melbourne: The Australian Nursing Federation
http://anmf.org.au/documents/reports/Nurses_residential_aged_care.pdf
- Access Economics Pty Ltd. (2011). *Caring places: planning for aged care and dementia 2010-2050: volume 2*.
- Adams, T., Dufton, R., Lamb, C., & Taylor, M. (2003). Service development. Hospital secondments of community nurses to improve stoma care. *British Journal of Community Nursing, 8*(12), 539-543.
- Aged Care Guide. (2016). DPS Guide to Aged Care. DPS Publishing Pty Ltd.
<https://shop.agedcareguide.com.au/product.asp?p=37214>
- Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health, 26*(9), 1113-1127. doi: 10.1080/08870446.2011.613995
- Anaraki, F., Vafaie, M., Behboo, R., Maghsoodi, N., Esmailpour, S., & Safaee, A. (2012). Quality of Life Outcomes in Patients Living with Stoma. *Indian Journal of Palliative Care, 18*(3), 176-180 175p. doi: 10.4103/0973-1075.105687
- Anderson, D., Wang, S., & Zlateva, I. (2012). Comprehensive assessment of chronic pain management in primary care: a first phase of a quality improvement initiative at a multisite Community Health Center. *Quality in Primary Care, 20*(6), 421-433 413p.
- Andrew, S., & Halcomb, E. (2009). *Mixed methods research for nursing and the health sciences*. Chichester, U.K: Wiley-Blackwell Pub.
- Andrews, G. R., & Sharma, A. (2013). Attitude of Surgical Oncology Nurses Towards Ostomy Care. *International Journal of Nursing Education, 5*(2), 143-147. doi: 10.1111/j.1365-2648.2010.05455.x. PMID: 21158903
- Australian Government - Department of Health. (2012). 2014-2015 Report on the Operation of the Aged Care Act 1997. Ageing and Aged Care.
<https://agedcare.health.gov.au/publications-and-articles/reports/report-on-the-operation-of-the-aged-care-act-1997>
- Australian Institute of Health. (2012). *Australia's Health 2012: In Brief*. AIHW.
- Australian Government, The Treasury. (2015) Intergenerational Report: Australia in 2055. Canberra.
- Australia, & Swan, W. (2010). Australia to 2050: Future Challenges: the 2010 Intergenerational Report. Commonwealth of Australia.

- Ayalon, L., Arean, P., Bornfeld, H., & Beard, R. (2009). Long term care staff beliefs about evidence based practices for the management of dementia and agitation. *International Journal of Geriatric Psychiatry*, 24(2), 118-124. doi: 10.1002/gps.2077
- Bartle, C., Darbyshire, M., Gaynor, P., Hassan, C., Whitfield, J., & Gardiner, A. (2013). Addressing common stoma complications. *Nursing & Residential Care*, 15(3), 128-133 126p.
- Beck, C. T. (2013). *Routledge International Handbook of Qualitative Nursing Research* Retrieved from <http://QUT.eblib.com.au/patron/FullRecord.aspx?p=1172881>
- Black, P. (2009a). Care of the older ostomate in the residential care setting. *Nursing & Residential Care*, 11(3), 123. Black, P. (2009b). Cultural and religious beliefs in stoma care nursing. *British Journal of Nursing*, 18(13), 790-793.
- Black, P. (2010). Professional promotion: ensuring the value of stoma care services is recognized. *Gastrointestinal Nursing*, 8(1), 27-30.
- Black, P. (2011a). Coping with common stoma problems in care homes. *Nursing & Residential Care*, 13(3), 126-128.
- Black, P. (2011b). The role of the carer and patient in stoma care. *Nursing & Residential Care*, 13(9), 432.
- Black, P. (2011c). Stoma care: training in an era of health service cutbacks. *British Journal of Community Nursing*, 5(4), 191-193.
- Black, P., & Chalmers, F. (2011). Caring for stoma patients: Best practice guidelines and gaining RCN accreditation of this resource. *World Council of Enterostomal Therapists Journal*, 31(1), 9-13 15p.
- Black, P., & Sutchfield, B. (2007). Caring For Stoma Patients: Best Practice Guidelines. *CREST, Clinimed*.
- Blake, N. (2013). An overview of the aged care workforce supplement. *Australian Nursing & Midwifery Journal*, 21(3), 23-23 21p.
- Bliss, D. Z., Westra, B. L., Savik, K., & Hou, Y. (2013). Effectiveness of wound, ostomy and continence-certified nurses on individual patient outcomes in home health care. *Journal of Wound, Ostomy & Continence Nursing*, 40(2), 135-142 138p. doi: 10.1097/WON.0b013e3182850831
- Bossom, C., & Beard, J. (2009). Two approaches to sharing stoma care expertise with non-specialist nursing staff. *Gastrointestinal Nursing*, 7(2), 42-47 45p.
- Bowling, A. (2014). *Research methods in health: investigating health and health services*. Maidenhead, Berkshire, England: Open University Press.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. doi: 10.1191/1478088706qp0630a

- Brooke, E., Goodall, J., Handrus, M., & Mawren, D. (2013). Applying workability in the Australian residential aged care context. *Australasian Journal on Ageing*, 32(2), 130-134 135p. doi: 10.1111/ajag.12016
- Brouwers, M. C., Kho, M. E., Browman, G. P., Burgers, J. S., Cluzeau, F., Feder, G., . . . & Hanna, S. E. (2010). AGREE II: advancing guideline development, reporting and evaluation in health care. *Canadian Medical Association Journal*, 182(18), E839-E842.
- Brown, D., & McCormack, B. (2005). Developing postoperative pain management: utilising the Promoting Action on Research Implementation in Health Services (PARIHS) framework. *Worldviews on Evidence-Based Nursing*, 2(3), 131-141.
- Burch, J. (2008). *Stoma Care* (Vol. 1). GB: John Wiley & Sons Ltd.
- Burch, J. (2010). Caring for peristomal skin: what every nurse should know. *British Journal of Nursing*, 19(3), 166-172.
- Burch, J. (2011). Resuming a normal life: holistic care of the person with an ostomy. *British Journal of Community Nursing*, 16(8), 366-376.
- Burch, J. (2013a). Back to basics: how to care for different types of stoma. *Nursing & Residential Care*, 15(10), 662-665 664p.
- Burch, J. (2013b). Stoma complications: an overview. *British Journal of Community Nursing*, 18(8), 375-378 374p.
- Burch, J. (2014a). Ensuring optimum quality of life in community patients with a stoma. *Journal of Community Nursing*, 28(1), 21-26 26p.
- Burch, J. (2014b). Stoma care in the community. *British Journal of Community Nursing*, 19(8), 396-400 395p. doi: 10.12968/bjcn.2014.19.8.396
- Burch, J. (2015a). How to...care for an older person with a stoma. *Nursing & Residential Care*, 17(5), 254-254 251p.
- Burch, J. (2015b). Examining stoma care guidance for nurses. *Gastrointestinal Nursing*, 13(6), 17-25 19p.
- Burns, M., & McIlfratrick, S. (2015). Palliative care in dementia: literature review of nurses' knowledge and attitudes towards pain assessment. *International Journal of Palliative Nursing*, 21(8), 400-407 408p. doi: 10.12968/ijpn.2015.21.8.400
- Cadet, T. J., Berrett-Abebe, J., Burke, S. L., Bakk, L., Kalenderian, E., & Maramaldi, P. (2016). Evidence-based health promotion in nursing homes: A pilot intervention to improve oral health. *Educational Gerontology*, 42(5), 352-360 359p. doi: 10.1080/03601277.2015.1121754
- Cammer, A., Morgan, D., Stewart, N., McGilton, K., Rycroft-Malone, J., Dopson, S., & Estabrooks, C. (2014). The Hidden Complexity of Long-Term Care: How Context Mediates Knowledge Translation and Use of Best Practices. *Gerontologist*, 54(6), 1013-1023 1011p. doi: geront/gnt068
- Carlsen, B., & Glenton, C. (2011). What about N? A methodological study of sample-size reporting in focus group studies. *BMC Medical Research*

Methodology, 11, 26. doi: 10.1185/03007990802118360
<http://dx.doi.org/10.1186/1471-2288-11-26>

- Cavanaugh, J. T., Ellis, T. D., Earhart, G. M., Ford, M. P., Foreman, K. B., & Dibble, L. E. (2015). Toward Understanding Ambulatory Activity Decline in Parkinson Disease. *Physical Therapy*, 95(8), 1142-1150 1149p. doi: 10.2522/ptj.20140498
- Chang, H. C., Russell, C., & Jones, M. K. (2010). Implementing evidence-based practice in Taiwanese nursing homes: attitudes and perceived barriers and facilitators. *Journal of Gerontological Nursing*, 36(1), 41-48. doi: 10.3928/00989134-20091204-04
- Cleary, M., Horsfall, J., & Hayter, M. (2014). Data collection and sampling in qualitative research: does size matter? *Journal of Advanced Nursing*, 70(3), 473-475. doi: 10.1111/jan.12163
- Collier, E., & Harrington, C. (2008). Staffing characteristics, turnover rates, and quality of resident care in nursing facilities. *Research in Gerontological Nursing*, 1(3), 157-170 114p.
- Colón-Emeric, C. S., Lekan, D., Utley-Smith, Q., Ammarell, N., Bailey, D., Corazzini, K., . . . & Anderson, R. A. (2007). Barriers to and facilitators of clinical practice guideline use in nursing homes. *Journal of the American Geriatrics Society*, 55(9), 1404-1409.
- Colwell, J. C., & Beitz, J. (2007). Survey of wound, ostomy and continence (WOC) nurse clinicians on stomal and peristomal complications: a content validation study. *Journal of Wound, Ostomy & Continence Nursing*, 34(1), 57-69 13p.
- Cooke, C. (2009). American ostomy census: Counting surgeries and ostomy patients in the US. *The Phoenix*, 5(1), 28-29.
- Covinsky K. E., Lindquist K., Dunlop D. et al. Pain, functional limitations, and aging. *J Am Geriatr Soc* 2009;57:1556-1561. *Journal of the American Geriatrics Society*, 58(6), 1195-1196. doi: 10.1111/j.1532-5415.2010.02878.x
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-130.
- Cross, H. H., Roe, C. A., & Dongliang, W. (2014). Staff Nurse Confidence in Their Skills and Knowledge and Barriers to Caring for Patients with Ostomies. *Journal of Wound, Ostomy & Continence Nursing*, 41(6), 560-565 566p. doi: 10.1097/WON.0000000000000065
- Cullen, S. (2011). Gastrostomy tube feeding in adults: the risks, benefits and alternatives. *Proceedings of the Nutrition Society*, 70(3), 293-298 296p. doi: 10.1017/S002966511100053X
- Dingwall, L. (2008). Promoting effective continence care for older people: a literature review. *British Journal of Nursing*, 17(3), 166-172 166p.
- Dougherty, L., & Lister, S. (2011). *The Royal Marsden Hospital Manual of Clinical Nursing Procedures* (Vol. 8). Hoboken: Wiley-Blackwell.

- Douglas, C., Haydon, D., & Wollin, J. (2016). Supporting Staff to Identify Residents in Pain: A Controlled Pretest-Posttest Study in Residential Aged Care. *Pain Management Nursing, 17*(1), 25-37 13p. doi: 10.1016/j.pmn.2015.08.001
- Duruk, N., & Uçar, H. (2013). Staff Nurses' Knowledge and Perceived Responsibilities for Delivering Care to Patients with Intestinal Ostomies: A Cross-sectional Study. *Journal of Wound Ostomy & Continence Nursing, 40*(6), 618-622. doi: 10.1097/WON.0b013e3182a9a7ed
- Edwards, H., Chang, A., & Finlayson, K. (2010). *Creating Champions for Skin Integrity Final Report*. Brisbane, Queensland: Queensland University of Technology.
- Eley, R., Francis, K., & Hegney, D. (2014). Nursing and the nursing workplace in Queensland, 2001-2010: What the nurses think. *International Journal of Nursing Practice, 20*(4), 366-374 369p. doi: 10.1111/ijn.12182
- Eley, R., Hegney, D., Buikstra, E., Fallon, T., Plank, A., & Parker, V. (2007). Aged care nursing in Queensland—the nurses' view. *Journal of Clinical Nursing, 16*(5), 860-872.
- Elsawy, B., & Higgins, K. E. (2011). The geriatric assessment. *American Family Physician, 83*(1), 48-56 49p.
- Estabrooks, C. A., Squires, J. E., Carleton, H. L., Cummings, G. G., & Norton, P. G. (2015). Who is Looking After Mom and Dad? Unregulated Workers in Canadian Long-Term Care Homes. *Canadian Journal on Aging/La Revue canadienne du vieillissement, 34*(01), 47-59. doi:10.1017/S0714980814000506
- Fedele, R. (2015). The age of reason: shining the spotlight on aged care. *Australian Nursing and Midwifery Journal, 23*(5) (Vol. 23, pp. 55-55 51/53p).
- Fine, M. (2014). Intergenerational perspectives on ageing, economics and globalisation. *Australasian Journal on Ageing, 33*(4), 220-225. doi: 10.1111/ajag.12208
- Fleming, R., & Fitzgerald, D. (2009). Large-scale training in the essentials of dementia care in Australia: Dementia Care Skills for Aged Care Workers project. *International Psychogeriatrics, 21*(S1), S53-57 51p. doi: 10.1017/S1041610209008722
- Flesch, R. (1948). A new readability yardstick. *Journal of Applied Psychology, 32*(3), 221-233. doi: 10.1037/h0057532
- Fluid Surveys. (2014). www.fluidsurveys.com/
- Forbes-Thompson, S., Gajewski, B., Scott-Cawiezell, J., & Dunton, N. (2006). An exploration of nursing home organizational processes. *Western Journal of Nursing Research, 28*(8), 935-954.
- Ford, R., & McInerney, F. (2011). An Evaluation of Aged-Care Workers' Knowledge of and Attitudes Toward the Palliative Approach. *Research in Gerontological Nursing, 4*(4), 251-259 259p. doi: 10.3928/19404921-20101103-01

- French, J. (2012). Designing and Using Surveys as Research and Evaluation Tools. *Journal of Medical Imaging & Radiation Sciences*, 43(3), 187-192. doi: 10.1016/j.jmir.2012.06.005
- Frost, L., Harmeyer, F., & Bondoc, S. (2012). The geriatric hand: degenerative changes that affect hand function and occupational performance. *OT Practice*, 17(8), 8-16 16p.
- Gantz, N. R., Sherman, R., Jasper, M., Choo, C. G., Herrin-Griffith, D., & Harris, K. (2012). Global nurse leader perspectives on health systems and workforce challenges. *Journal of Nursing Management*, 20(4), 433-443.
- Gearing, R. E. (2004). Bracketing in research: a typology. *Qualitative Health Research*, 14(10), 1429-1452.
- Gemelli, L. M. G., & Zago, M. M. F. (2002). The meaning of ostomy care to nurses: a case study. *Revista Latino-Americana de Enfermagem (RLAE)*, 10(1), 34-40 37p.
- Gemmill, R., Kravits, K., Ortiz, M., Anderson, C., Lai, L., & Grant, M. (2011). What Do Surgical Oncology Staff Nurses Know About Colorectal Cancer Ostomy Care? *Journal of Continuing Education in Nursing*, 42(2), 81-88. doi: 10.3928/00220124-20101101-04
- Gibb, H. (2013). An environmental scan of an aged care workplace using the PARIHS model: assessing preparedness for change. *Journal of Nursing Management*, 21(2), 293-303 211p. doi: 10.1111/j.1365-2834.2012.01407.x
- Goel, K., & Penman, J. (2015). Employment experiences of immigrant workers in aged care in regional South Australia. *Rural & Remote Health*, 15(1), 2693-2706 2614p.
- Goh, C. E., Guay, M. P., Lim, M. Y., Lim, S. M., Loke, S. Y., Toh, H. E., & Nair, R. (2016). Correlates of attitudes and perceived behavioural control towards oral care provision among trained and untrained nursing home caregivers in Singapore. *Journal of Clinical Nursing*, 25(11/12), 1624-1633 1610p. doi: 10.1111/jocn.13162
- Goldberg, M. (2011). Management of the Patient with a Fecal Ostomy: Best Practice Guidelines for Clinicians. *Journal of Wound, Ostomy & Continence Nursing*(4S), S15-S15 11p.
- Gospel, H. (2015). Varieties of Qualifications, Training, and Skills in Long-Term Care: A German, Japanese, and UK Comparison. *Human Resource Management*, 54(5), 833-850 818p. doi: 10.1002/hrm.21714
- Green, H. E. (2014). Use of theoretical and conceptual frameworks in qualitative research. *Nurse Researcher*, 21(6), 34-38. doi: 10.7748/nr.21.6.34.e1252
- Greenhalgh, T. (2008). Communicating with people who have limited English. *Diabetes & Primary Care*, 10(2), 89.
- Grinspun, D. Ostomy Care and Management, Clinical Best Practice Guidelines. Registered Nurses Association of Ontario. Acedido em abril 29.201 (2009): 2.

- Grinspun, D., Virani, T., & Bajnok, I. (2001). Nursing best practice guidelines: the RNAO Project. *Hospital Quarterly*, 5(2), 56-60 55p.
- Grove, S. K., Burns, N. P. D., & Gray, J. (2012). *The Practice of nursing research: appraisal, synthesis and generation of evidence* (Vol. Seventh). St. Louis, Missouri: Elsevier.
- Groves, R. M. (2009). *Survey Methodology*. Hoboken, N.J: Wiley.
- Gure, T. R., Kabeto, M. U., Plassman, B. L., Piette, J. D., & Langa, K. M. (2010). Differences in functional impairment across subtypes of dementia. *Journals of Gerontology Series A: Biological Sciences & Medical Sciences*, 65(4), 434-441. doi: 10.1093/gerona/glp197
- Gwele, N. S. (2009). Diversity management in the workplace: beyond compliance. *Curationis*, 32(2), 4-10 17p.
- Hack, T.F., Ruether, J.D., Weir, L.M., Grenier, D., Degner, L.F., (2011) Study protocol: Addressing evidence and context to facilitate transfer and uptake of consultation recording use in oncology: A knowledge translation implementation study. *Implementation Science* 6:20 doi: 10.1186/1748-5908-6-20
- Halcomb, E. J., Gholizadeh, L., DiGiacomo, M., Phillips, J., & Davidson, P. M. (2007). Literature review: considerations in undertaking focus group research with culturally and linguistically diverse groups. *Journal of Clinical Nursing*, 16(6), 1000-1011. doi: 10.1111/j.1365-2702.2006.01760.x
- Harrison, P., & Howlett, K. (2016). Developing a stoma care training programme through a unique university-industry collaboration. *Gastrointestinal Nursing*, 14(1), 36-42 37p.
- Haynes, V. (2016). The Road to Cultural Competency: Are We There Yet? *Kansas Nurse*, 91(1), 11-14 14p.
- Helfrich, C. D., Damschroder, L. J., Hagedorn, H. J., Daggett, G. S., Sahay, A., Ritchie, M., ... & Stetler, C. B. (2010). A critical synthesis of literature on the promoting action on research implementation in health services (PARIHS) framework. *Implementation Science: IS*, 5, 82-82. doi: 10.1186/1748-5908-5-82
- Hickman, L., Newton, P., Halcomb, E. J., Chang, E., & Davidson, P. (2007). Best practice interventions to improve the management of older people in acute care settings: a literature review. *Journal of Advanced Nursing*, 60(2), 113-126 114p. doi: 10.1111/j.1365-2648.2007.04417.x
- Hoeflok, J., Guy, D., Allen, S., & St-Cyr, D. (2009). A prospective multicenter evaluation of a moldable stoma skin barrier. *Ostomy Wound Management*, 55(5), 62-69.
- Howe, A. L., King, D. S., Ellis, J. M., Wells, Y. D., Zhang, W., & Teshuva, K. A. (2012). Stabilising the aged care workforce: an analysis of worker retention and intention. *Australian Health Review*, 36(1), 83-91 89p. doi: 10.1071/AH11009

- Hsu, M.-C., Creedy, D., Moyle, W., & Venturato, L. (2004). Attitudes towards professional practice: A survey of Queensland aged care nurses. *Asian Journal of Nursing Studies*, 7(2), 42–50.
- Hutchinson, A. M., Wilkinson, J. E., Kent, B., & Harrison, M. B. (2012). Using the Promoting Action on Research Implementation in Health Services Framework to Guide Research Use in the Practice Setting. *Worldviews on Evidence-Based Nursing*, 9(1), 59-61 53p. doi: 10.1111/j.1741-6787.2011.00238.x
- Ivey, J. (2015). Demystifying Research. How Important Is a Conceptual Framework? *Pediatric Nursing*, 41(3), 145-153 149p.
- Jackson, A. L., Pokorny, M. E., & Vincent, P. (1993). Relative satisfaction with nursing care of patients with ostomies. *Journal of ET Nursing*, 20(6), 233-238.
- Jayasekara, R. S. (2012). Focus groups in nursing research: Methodological perspectives. *Nursing Outlook*, 60(6), 411-416. doi: 10.1016/j.outlook.2012.02.001
- Jeon, Y.-H., Conway, J., Chenoweth, L., Weise, J., Thomas, T. H. T., & Williams, A. (2015). Validation of a clinical leadership qualities framework for managers in aged care: a Delphi study. *Journal of Clinical Nursing*, 24(7/8), 999-1010 1012p. doi: 10.1111/jocn.12682
- Jeon, Y. H., Merlyn, T., & Chenoweth, L. (2010). Leadership and management in the aged care sector: a narrative synthesis. *Australasian Journal on Ageing*, 29(2), 54-60.
- Jervis, L. L. (2002). Working in and around the 'chain of command': power relations among nursing staff in an urban nursing home. *Nursing Inquiry*, 9(1), 12-23 12p.
- Karadag, A., & Addis, G. (2005). Nurse perspectives on stoma care in Turkey. *World Council of Enterostomal Therapists Journal*, 25(1), 14-20 14p.
- Kemeny, B., Boetther, I. F., DeShon, R. P., & Stevens, A. B. (2006). Innovations in community-based and long-term care. Using experiential techniques for staff development: liking, learning, and doing. *Journal of Gerontological Nursing*, 32(8), 9-14 16p.
- King, D., Mavromaras, K., He, B., Healy, J., Macaitis, K., Moskos, M., . . . & Zhang, W. (2013). *The aged care workforce 2012 final report*. Canberra: Department of Health and Ageing.
- King, D., Wei, Z., & Howe, A. (2013). Work Satisfaction and Intention to Leave Among Direct Care Workers in Community and Residential Aged Care in Australia. *Journal of Aging & Social Policy*, 25(4), 301-319 319p. doi: 10.1080/08959420.2013.816166
- Kitson, A., Harvey, G., & McCormack, B. (1998). Enabling the implementation of evidence based practice: a conceptual framework. *Quality in Health Care*, 7(3), 149-158. doi: 10.1136/qshc.7.3.149

- Kitson, A., Harvey, G., McCormack, B., Rycroft-Malone, J., Seers, K., Titchen, A., & Estabrooks, C. (2001). *A framework for enabling evidence based practice -- the PARIHS project*. Geneva, Switzerland: International Council of Nurses.
- Kitson, A. L., Rycroft-Malone, J., Harvey, G., McCormack, B., Seers, K., & Titchen, A. (2008). Evaluating the successful implementation of evidence into practice using the PARIHS framework: theoretical and practical challenges. *Implementation Science*, 3(1), 1.
- Lang, P.-O., Michel, J.-P., & Zekry, D. (2009). Frailty syndrome: a transitional state in a dynamic process. *Gerontology*, 55(5), 539-549.
- Larkin, P. M., Begley, C. M., & Devane, D. (2014). Breaking from binaries--using a sequential mixed methods design. *Nurse Researcher*, 21(4), 8-12. doi: 10.7748/nr2014.03.21.4.8.e1219
- Lerner, N. B., Resnick, B., Galik, E., & Russ, K. G. (2010). Advanced nursing assistant education program. *Journal of Continuing Education in Nursing*, 41(8), 356-362. doi: 10.3928/00220124-20100401-10
- Liamputtong, P. (2013a). *Qualitative Research Methods* (Vol. 4th). South Melbourne: Oxford University Press.
- Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A Comparison of the Theory of Planned Behavior and the Theory of Reasoned Action. *Personality and Social Psychology Bulletin*, 18(1), 3-9. doi: 10.1177/0146167292181001
- Majid, H. A., Emery, P. W., & Whelan, K. (2012). Definitions, Attitudes, and Management Practices in Relation to Diarrhea During Enteral Nutrition: A Survey of Patients, Nurses, and Dietitians. *Nutrition in Clinical Practice*, 27(2), 252-260. doi: 10.1177/0884533611431986
- Mansell, I., Bennett, G., Northway, R., Mead, D., & Moseley, L. (2004). The learning curve: the advantages and disadvantages in the use of focus groups as a method of data collection. *Nurse Researcher*, 11(4), 79-88.
- Marquis, P., Marrel, A., & Jambon, B. (2003). Quality of life in patients with stomas: the Montreux Study. *Ostomy/Wound Management*, 49(2), 48-55.
- Massey, O. T. (2011). A proposed model for the analysis and interpretation of focus groups in evaluation research. *Evaluation and Program Planning*, 34(1), 21-28. doi: <http://dx.doi.org/10.1016/j.evalprogplan.2010.06.003>
- Masso, M., & McCarthy, G. (2009). Literature review to identify factors that support implementation of evidence-based practice in residential aged care. *International Journal of Evidence-Based Healthcare (Wiley-Blackwell)*, 7(2), 145-156 112p.
- Masso, M., McCarthy, G., & Kitson, A. (2014). Mechanisms which help explain implementation of evidence-based practice in residential aged care facilities: A grounded theory study. *International Journal of Nursing Studies*, 51(7), 1014-1026.
- Matthew-Maich, N., Ploeg, J., Dobbins, M., & Jack, S. (2013). Supporting the Uptake of Nursing Guidelines: What You Really Need to Know to Move

- Nursing Guidelines into Practice. *Worldviews on Evidence-Based Nursing*, 10(2), 104-115 112p. doi: 10.1111/j.1741-6787.2012.00259.x
- Mattson, S. (2009). A culturally diverse staff population: challenges and opportunities for nurses. *Journal of Perinatal & Neonatal Nursing*, 23(3), 258-262 255p. doi: 10.1097/JPN.0b013e3181aedf19
- McCleary, L. (2002). Methods. Using multiple imputation for analysis of incomplete data in clinical research. *Nursing Research*, 51(5), 339-343 335p.
- McInerney, F., Ford, R., Simpson, A., & Willison, M. (2009). Residential aged-care workers and the palliative approach: tensions in the field. *Journal of Hospice & Palliative Nursing*, 11(6), 344-352.
- McLafferty, I. (2004). Focus group interviews as a data collecting strategy. *Journal of Advanced Nursing*, 48(2), 187-194.
- McVey, P., McKenzie, H., & White, K. (2014). A community-of-care: the integration of a palliative approach within residential aged care facilities in Australia. *Health & Social Care in the Community*, 22(2), 197-209 113p. doi: 10.1111/hsc.12077
- Meissner, E., & Radford, K. (2015). Importance and performance of managerial skills in the Australian aged care sector - a middle managers' perspective. *Journal of Nursing Management*, 23(6), 784-793 710p. doi: 10.1111/jonm.12208
- Mellor, D., Kiehne, M., McCabe, M. P., Davison, T. E., Karantzas, G., & George, K. (2010). An evaluation of the beyondblue Depression Training Program for aged care workers. *International Psychogeriatrics*, 22(6), 927-937. doi: 10.1017/s1041610210000153
- Mody, L., Saint, S., Galecki, A., Chen, S., & Krein, S. L. (2010). Knowledge of evidence-based urinary catheter care practice recommendations among healthcare workers in nursing homes. *Journal of the American Geriatrics Society*, 58(8), 1532-1537. doi: 10.1111/j.1532-5415.2010.02964.x
- Monge, R. A., & Avelar, M. C. Q. (2009). Nursing care of patients with intestinal stoma: nurse's perceptions. *Online Brazilian Journal of Nursing*, 8(1), 1p-1p 1p.
- Moore, S., Grant, E., & Katz, B. (1998). Nurse perceptions of ostomy patients & their ostomy care competence. *Home Care Provider*, 3(4), 214-220 217p.
- Moss, G. (2013). Diverse workforce 'enhances aged care'. *Kai Tiaki Nursing New Zealand*, 19(7), 13-13 11p.
- Nay, R. (2003). Evidence-based practice: Does it benefit older people and gerontic nursing? *Geriatric Nursing*, 24(6), 338-342. doi: <http://dx.doi.org/10.1016/j.gerinurse.2003.10.001>
- Nelson, A. M. (2014). Best practice in nursing: A concept analysis. *International Journal of Nursing Studies*, 51(11), 1507-1516 1510p. doi: 10.1016/j.ijnurstu.2014.05.003

- Newhouse, R., Bobay, K., Dykes, P. C., Stevens, K. R., & Titler, M. (2013). Methodology issues in implementation science. *Medical Care*, *51*(4), S32-40. doi: 10.1097/MLR.0b013e31827feeca
- Newton, J. D., Ewing, M. T., Burney, S., & Hay, M. (2012). Resolving the theory of planned behaviour's 'expectancy-value muddle' using dimensional salience. *Psychology & Health*, *27*(5), 588-602 515p. doi: 10.1080/08870446.2011.611244
- Norton, C., Nunwa, A., Taylor, C., Whayman, K., & Williams, J. (2009). *Oxford Handbook of Gastrointestinal Nursing*. New York: Oxford University Press, Incorporated.
- O'Connor, T. (2007). Profile. Creating new workplace culture. *Kai Tiaki Nursing New Zealand*, *13*(3), 22-23 22p.
- O'Flynn, S. K. (2015). Encouraging change: exploring perceptions of stoma care nurses on community stoma care services. *Gastrointestinal Nursing*, *13*(8), 32-42 10p.
- Papastavrou, E., & Andreou, P. (2012). Exploring sensitive nursing issues through focus group approaches. *Health Science Journal*, *6*(2), 185-200.
- Pearson, T. (2010). Older people should be given practical support to effectively manage their stomas. *Nursing Times*, *106*(11), 16.
- Pelzang, R. (2010). Time to learn: understanding patient-centred care. *British Journal of Nursing*, *19*(14), 912-917 916p.
- Perry, L., Bellchambers, H., Howie, A., Moxey, A., Parkinson, L., Capra, S., & Byles, J. (2011). Examination of the utility of the Promoting Action on Research Implementation in Health Services framework for implementation of evidence based practice in residential aged care settings. *Journal of Advanced Nursing*, *67*(10), 2139-2150 2112p. doi: 10.1111/j.1365-2648.2011.05655.x
- Persson, E., Gustavsson, B., Hellström, A.-L., Lappas, G., & Hultén, L. (2005). Ostomy patients' perceptions of quality of care. *Journal of Advanced Nursing*, *49*(1), 51-58.
- Persson, E., & Larsson, B. W. (2005). Quality of care after ostomy surgery: a perspective study of patients. *Ostomy Wound Management*, *51*(8), 40.
- Peterson, R., Hakendorf, M., & Guscott, T. (1999). Improving aged care education for Australian rural nurses using problem-based learning. *Journal of Continuing Education in Nursing*, *30*(3), 120-127.
- Phillips, J. L., Davidson, P. M., Ollerton, R., Jackson, D., & Kristjanson, L. (2007). A survey of commitment and compassion among nurses in residential aged care. *International Journal of Palliative Nursing*, *13*(6), 282-290 289p.
- Pitman, S. (2013). Evaluating a self-directed palliative care learning package for rural aged care workers: a pilot study. *International Journal of Palliative Nursing*, *19*(6), 290-294.

- Podlasek, S. (2010). Pain management to promote independence in older adults. *Journal of the American Geriatrics Society*, 58(6), 1195-1196.
- Proebstl, A. (2015). An age old problem: Australians are living longer and someone is going to have to pay. *Ethos: Official Publication of the Law Society of the Australian Capital Territory*, (235), 14.
- Radford, K., Shacklock, K., & Bradley, G. (2015). Personal care workers in Australian aged care: retention and turnover intentions. *Journal of Nursing Management*, 23(5), 557-566 510p. doi: 10.1111/jonm.12172
- Rattray, J., & Jones, M. C. (2007). Essential elements of questionnaire design and development. *Journal of Clinical Nursing*, 16(2), 234-243. doi: 10.1111/j.1365-2702.2006.01573.x
- Recalla, S., English, K., Nazarali, R., Mayo, S., Miller, D., & Gray, M. (2013). Ostomy Care and Management. *Journal of Wound, Ostomy & Continence Nursing*, 40(5), 489-500 412p. doi: 10.1097/WON.0b013e3182a219a1
- Resnick, B., Keilman, L. J., Calabrese, B., Parmelee, P., Lawhorne, L., Paillet, J., & Ouslander, J. (2006). Nursing Staff Beliefs and Expectations About Continence Care in Nursing Homes. *Journal of Wound, Ostomy & Continence Nursing November/December*, 33(6), 610-618.
- Rider, E. A., Kurtz, S., Slade, D., Longmaid, H. E., III, Ho, M.-J., Pun, J. K.-H., . . . & Branch, W. T., Jr. (2014). The International Charter for Human Values in Healthcare: An interprofessional global collaboration to enhance values and communication in healthcare. *Patient Education and Counseling*, 96(3), 273-280. doi: 10.1016/j.pec.2014.06.017
- Rogers, E. M. (2004). A Prospective and Retrospective Look at the Diffusion Model. *Journal of Health Communication*, 9(sup1), 13-19. doi: 10.1080/10810730490271449
- Rubinfeld, G. D. (2004). Surveys: an introduction. *Respiratory Care*, 49(10), 1181-1185.
- Rushton, C. A., Satchithananda, D. K., & Kadam, U. T. (2011). Comorbidity in modern nursing: a closer look at heart failure. *British Journal of Nursing*, 20(5), 280-285 286p.
- Rycroft-Malone, J., Harvey, G., Kitson, A., McCormack, B., & Titchen, A. (2002). Getting evidence into practice: ingredients for change. *Nursing Standard*, 16(37), 38-43 36p.
- Sanson-Fisher, R. W. (2004). Diffusion of innovation theory for clinical change. *Medical Journal of Australia*, 180(6), S55.
- Saunders, J. A., Morrow-Howell, N., Spitznagel, E., Doré, P., Proctor, E. K., & Pescarino, R. (2006). Imputing missing data: a comparison of methods for social work researchers. *Social Work Research*, 30(1), 19-31 13p.
- Savvas, S., Toye, C., Beattie, E., & Gibson, S. J. (2014). Implementation of Sustainable Evidence-Based Practice for the Assessment and Management of

- Pain in Residential Aged Care Facilities. *Pain Management Nursing*, 15(4), 819-825 817p. doi: 10.1016/j.pmn.2013.09.002
- Scott-Cawiezell, J., Schenkman, M., Moore, L., Vojir, C., Connolly, R. P., Pratt, M., & Palmer, L. (2004). Exploring nursing home staff's perceptions of communication and leadership to facilitate quality improvement. *Journal of Nursing Care Quality*, 19(3), 242-252.
- Slater, R. (2012). Choosing one- and two-piece appliances. *Nursing & Residential Care*, 14(8), 410-413.
- Slater, R. C. (2010). Managing quality of life in the older person with a stoma. *British Journal of Community Nursing*, 15(10), 480-484 485p.
- Smith, B., Kerse, N., & Parsons, M. (2005). Quality of residential care for older people: does education for healthcare assistants make a difference? *The New Zealand Medical Journal (Online)*, 118(1214), U1437.
- Smith, K., Milburn, M., & Mackenzie, L. (2008). Poor command of English language: a problem in care homes? If so, what can be done? *Journal of Dementia Care*, 16(6), 37-39.
- Smith, K. V., & Godfrey, N. S. (2002). Being a good nurse and doing the right thing: a qualitative study. *Nursing Ethics*, 9(3), 301-312 312p. doi: 10.1191/0969733002ne512oa
- Squillace, M. R., Remsburg, R. E., Harris-Kojetin, L. D., Bercovitz, A., Rosenoff, E., & Han, B. (2009). The National Nursing Assistant Survey: improving the evidence base for policy initiatives to strengthen the certified nursing assistant workforce. *The Gerontologist*, 49(2), 185-197.
- Stelton, S., & Homsted, J. (2010). An Ostomy-related Problem-solving Guide for the Non-ostomy Therapist Professional. *World Council of Enterostomal Therapists Journal*, 30(3), 10-19.
- Stetler, C. B., Ritchie, J. A., Rycroft-Malone, J., & Charns, M. P. (2014). Leadership for Evidence-Based Practice: Strategic and Functional Behaviors for Institutionalizing EBP. *Worldviews on Evidence-Based Nursing*, 11(4), 219-226 218p. doi: 10.1111/wvn.12044
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using Multivariate Statistics*. (Vol. 4th). Boston, Mass: Allyn and Bacon.
- The Royal Marsden and The Hillingdon Hospitals. (2011). *Stoma Care Knowledge, skills & Practicalities for Health Care Professionals*.
- Tilley, C. (2012). Caring for the patient with a fecal or urinary diversion in palliative and hospice settings: a literature review. *Ostomy/Wound Management*, 58(1), 24-34.
- Treasury Commonwealth. (2015). *Intergenerational Report: Australia in 2055*. Canberra: Australia Government.

- Tse, M. M. Y., & Ho, S. S. K. (2014). Enhancing Knowledge and Attitudes in Pain Management: A Pain Management Education Program for Nursing Home Staff. *Pain Management Nursing, 15*(1), 2-11 10p. doi: 10.1016/j.pmn.2012.03.009
- Tufford, L., & Newman, P. (2012). Bracketing in qualitative research. *Qualitative Social Work, 11*(1), 80-96.
- Ullrich, P. M., Sahay, A., & Stetler, C. B. (2014). Use of Implementation Theory: A Focus on PARIHS. *Worldviews on Evidence-Based Nursing, 11*(1), 26-34 29p. doi: 10.1111/wvn.12016
- Urquhart, R., Sargeant, J., & Grunfeld, E. (2013). Exploring the Usefulness of Two Conceptual Frameworks for Understanding How Organizational Factors Influence Innovation Implementation in Cancer Care. *Journal of Continuing Education in the Health Professions, 33*(1), 48-58 11p. doi: 10.1002/chp.21165
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences, 15*(3), 398-405. doi: 10.1111/nhs.12048
- Vanbellingen, T., Kersten, B., Bellion, M., Temperli, P., Baronti, F., Müri, R., & Bohlhalter, S. (2011). Impaired finger dexterity in Parkinson's disease is associated with praxis function. *Brain & Cognition, 77*(1), 48-52 45p.
- VanGeest, J. B., Johnson, T. P., & Welch, V. L. (2007). Methodologies for improving response rates in surveys of physicians: a systematic review. *Evaluation & the Health Professions, 30*(4), 303-321.
- Walker, C. A., & Lachman, V. D. (2013). Gaps in the Discharge Process for Patients with an Ostomy: An Ethical Perspective. *MEDSURG Nursing, 22*(1), 61-64 64p.
- Wallén, M. B., Franzén, E., Nero, H., & Hagströmer, M. (2015). Levels and Patterns of Physical Activity and Sedentary Behavior in Elderly People With Mild to Moderate Parkinson Disease. *Physical Therapy, 95*(8), 1135-1141 1137p. doi: 10.2522/ptj.20140374
- Wallin, L., Profetto-McGrath, J., & Levers, M. J. (2005). Implementing nursing practice guidelines: a complex undertaking. *Journal of Wound, Ostomy & Continence Nursing, 32*(5), 294-301.
- Werner, P., & Mendelsson, G. (2001). Nursing staff members' intentions to use physical restraints with older people: testing the theory of reasoned action. *Journal of Advanced Nursing, 35*(5), 784-791 788p. doi: 10.1046/j.1365-2648.2001.01911.x
- Wiggins, G. S. (2004). The analysis of focus groups in published research articles. *The Canadian Journal of Program Evaluation, 19*(2), 143-164.
- Willet, B. (2015). *The Future of Aged Care Nursing in Australia*. Health Times.
- Williamson, J. M. L., & Martin, A. G. (2010). Analysis of patient information leaflets provided by a district general hospital by the Flesch and Flesch-Kincaid method. *International Journal of Clinical Practice, 64*(13), 1824-1831. doi: 10.1111/j.1742-1241.2010.02408.x

- Wright, P. G. (2009). *Perceptions of leadership effectiveness in the management of intergenerational work-values conflict: an antecedent of organizational citizenship behavior of perioperative registered nurses*. (Ph.D.), Walden University. Retrieved from <http://gateway.library.qut.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=c8h&AN=2010585861&site=ehost-live>
- Xue, Q.-L. (2011). The frailty syndrome: definition and natural history. *Clinics in Geriatric Medicine*, 27(1), 1-15.
- Yu, D. (2005). Current status and prospect of stoma therapy in China. *Chinese Journal of Nursing*, 40(6), 415Y417.
- Zheng, M.-C., Zhang, J.-E., Qin, H.-Y., Fang, Y.-J., & Wu, X.-J. (2013). Telephone follow-up for patients returning home with colostomies: Views and experiences of patients and enterostomal nurses. *European Journal of Oncology Nursing*, 17(2), 184-189. doi: <http://dx.doi.org/10.1016/j.ejon.2012.05.006>

Appendices

Appendix A: SURVEY OF OSTOMY KNOWLEDGE FOR ONCOLOGY NURSES_2014

Staff Survey on Ostomy Care

The following brief Ostomy Care Survey is designed to identify current gaps in knowledge and services provided to our ostomy patients post operatively. Information you provide will assist the organization in designing an educational program to update your knowledge and skills.

Demographic Information

- What patient care area are you assigned to?
- Years as RN.
- Years in oncology.
- Years at COH.
- Highest nursing degree.
- How many patients with colostomies/ileostomies have you cared for in the last 6 months?

0-3 months 4-6 months 7-9 months 10 or more months

Knowledge Questions

1. Which of the following structures are responsible for the highly absorptive nature of the small bowel's surface?

- a. Villi
- b. Rugae
- c. Peyer's patches
- d. Taeniae coli

2. The small intestine plays an important role in maintenance of fluid-electrolyte balance.

- a. True
- b. False

3. When assessing a new post-operative patient with a new fecal diversion (e.g. colostomy, ileostomy) the nurse should obtain the following information except:

- a. Procedure, pathology and expected outcomes
- b. Stoma location
- c. Mucocutaneous separation
- d. Presence of Jackson Pratt drain

4. How is the type of stoma ascertained?
 - a. Visualization
 - b. Noting the abdominal location
 - c. By examining medical record
 - d. Assessing the type and consistency of the output

5. One indication of the return of bowel function is:
 - a. Decreased abdominal pain
 - b. Decrease of drainage from the closed suction drain
 - c. Resumption of oral intake
 - d. Presence of flatus

6. Pain management in the postoperative period is important to:
 - a. Assist in patient mobilization and hasten bowel function
 - b. Assist in pouch change procedure
 - c. Stop patient from being noncompliant

7. Assessment of a newly created stoma includes the following:
 - a. Stomal edema
 - b. Color of the mucosa
 - c. Height of the stoma
 - d. All of the above

8. The height of the stoma above skin level should be:
 - a. 5-10 cm
 - b. Greater than 4 cm
 - c. At skin level
 - d. 1-3 cm

9. The amount and type of output from a newly created fecal stoma is related to:
 - a. The time of day
 - b. The amount of parenteral fluids
 - c. The location in the intestinal tract
 - d. Fluid and electrolyte absorption

10. The skin around the stoma should be:
 - a. Denuded because of the shaving and surgical scrub

- b. Pale as compared to the rest of the abdomen
- c. Erythematous because of the presence of the pouch adhesive
- d. Intact and healthy

11. The solid skin barrier (wafer) should be cut to fit at the base of the stoma.

- a. True
- b. False

12. Initially to make sure the patients ostomy appliance fits properly, the stoma should be measured:

- a. Daily
- b. Every other day
- c. At least weekly
- d. Bimonthly

13. If the wafer is cut too small,

- a. The stoma could be traumatized
- b. Leakage is more likely
- c. The peristomal skin could easily break down
- d. None of the above

14. The patient has agreed to a temporary ileostomy. The surgeon will bring a segment of the ileum to the skin surface and will open its' anterior wall to allow fecal diversion. This type of ileostomy is called

- a. A double-barrel ileostomy
- b. A loop ileostomy
- c. An end ileostomy

15. You would expect the fecal output from an ileostomy to be

- a. Formed stool
- b. Semi-solid stool
- c. Semi-liquid to very soft stool
- d. A continuous soft to watery effluent

16. Colostomy output depends on the location; the more distal to the small intestine the thicker and less frequent the output.

- a. True
- b. False

17. Which of the following should be a **priority** when developing a teaching plan for an elderly person with a colostomy?

- a. Provide a video and education booklet
- b. Arrange for an ostomy visitor
- c. Schedule short teaching sessions
- d. Use a flip chart for the surgical procedure

18. When teaching a patient who only speaks Spanish and has no family available; which of the following interventions would be the best approach?

- a. Show a video
- b. Arrange a UOA visitor
- c. Arrange to use the services of an interpreter
- d. Provide an education booklet

19. Prior to discharging a patient home from the hospital with an ostomy, it is important to teach all the following except

- a. When and how to empty the pouch
- b. How to open and close the clamp
- c. How to order supplies
- d. When to call the physician or WOC nurse
- e. Community resources
- f. How to change the wafer and pouch

20. Which of the following stoma symptoms must be addressed with the physician immediately?

- a. Bleeding during cleaning
- b. Postoperative edema
- c. Dark purplish color and decrease output

21. A low anterior resection (LAR) is the surgical treatment of choice for patient with colorectal cancer of the upper and middle third of the rectum.

- a. True
- b. False

22. The operative procedure is determined by the anatomic site of the lesion including blood supply and the presence of absence of adjacent organ involvement.

- a. True
- b. False

Attitude Questions

Please answer the following questions on a scale of 1-5 according to the scale given below:

1	2	3	4	5
strongly disagree	disagree	neither agree nor disagree	agree	strongly agree

1. I feel confident that I have the background knowledge and experience in ostomy care to sufficiently care for my patients at this time.

1 2 3 4 5

2. I feel confident that I can assess my patient's ostomy sufficiently well enough to care for my patient with an ostomy at this time.

1 2 3 4 5

3. I feel confident that I know enough about the different types of appliances for the various ostomies and patients' condition to adequately select the proper ones for my patient at this time.

1 2 3 4 5

4. I feel confident that I have the skills to size, fit and apply an ostomy appliance at this time.

1 2 3 4 5

5. I feel confident that I can teach my patients sufficiently well enough to care for themselves at home at this time.

1 2 3 4 5

6. I feel confident that I can advise my patients on community resources for supplies, education and support sufficiently well enough at this time.

1 2 3 4 5

7. I care for ostomy patients often enough to keep up my skills in ostomy care.

1 2 3 4 5

8. There is adequate staff education or in-service opportunities at City of Hope to keep my knowledge up-to-date on ostomy care.

1 2 3 4 5

9. If I am unsure about any aspect of ostomy care, there is someone available who can answer my questions.

1 2 3 4 5

10. I have the proper patient teaching materials (booklets, pamphlets, videos, etc.) to teach my patients/family about ostomy care.

1 2 3 4 5

11. I have enough time during my shift to teach ostomy care to my patient/family.

1 2 3 4 5

12. Patients are well prepared to care for themselves at home at the time they leave the hospital.

1 2 3 4 5

13. Patients are well informed about what to expect regarding their condition, expected changes and care at home at the time they leave the hospital.

1 2 3 4 5

14. I feel that patients will get adequate follow-up care and teaching after they leave the hospital.

1 2 3 4 5

15. I know who to call for answers about ostomy care should I encounter a problem.

1 2 3 4 5

What patient teaching resources do you think would be helpful?


What are some barriers to patient teaching?

Further comments or suggestions for improvement.

Appendix B: PERMISSION TO ADAPT SOKON_2014

Pat Sinasac - Outlook

Page 1 of 1

Office 365 Outlook 2 

New
marcia grant

Include messages from:
Entire mailbox
Current folder (Inbox)
Current folder and subfolders

Show these messages:
All
Older than a week
Older than a month
Older than a year

Folders
Inbox **22**
Sent Items
Drafts **1**
Deleted Items **156**
[More](#)

Groups New
Groups bring people together. Join a group or create one.
[Create group](#)

INBOX Conversations by Date
All Unread To me Flagged

Older

Kathleen Finlayson
Ostomy Care survey adaptation comp 2/09/2014
Hi Pat, sorry for the delayed reply, however, I...

Helen Edwards
Revised ostomy care survey for RAC 23/08/2014
Thanks Pat I have done some editing mostly...

Pat Sinasac
Survey adaptation review meeting 17/08/2014
Hello, Please find attached for discussion Mo...

Pat Sinasac
survey original and adapted 15/07/2014
No preview is available.

Pat Sinasac
Question 13/07/2014
Thank you Kath, I did finally figure that one...

Pat Sinasac
Ethics approval resubmission P. Sinasa 1/06/2014
Hello, Please find attached the survey for us...

Pat Sinasac
Ethics resubmit document 31/05/2014
Hallo, I would appreciate your review and fe...

Grant, Marcia
Request re: Journal of continuing educ 11/05/2014
The survey is available on our website http://...

[Get more results](#)

**Request re: Journal of continuing education in nursing
Vol 42, No 2, 2011**

[Reply](#) [Reply all](#) [Forward](#)

GM Grant, Marcia <MGrant@coh.org> **Mark as unread**
Sun 11/05/2014 3:40 AM
Deleted Items

To: Pat Sinasac <pat.sinasac@student.qut.edu.au>
The survey is available on our website <http://prc.coh.org> Look in the agenda under IX Research Instruments, #29 Staff survey on ostomy care.
You are welcome to use it as is or change it as you see fit. Good luck with your research. Marcia Grant, RN, PhD.

PS Pat Sinasac <pat.sinasac@student.qut.ec> **Mark as unread**
Sat 10/05/2014 10:58 AM
Sent Items

Hello Marcia,
I am undertaking a Masters in Applied Science (Nursing by research) at the Queensland University of Technology in Australia.
I am interested in the Survey on Ostomy Care questionnaire that was described in the Article 'What Do Surgical Oncology Nurses Know About Colorectal Cancer Ostomy Care.'
There is reference to O'Shea 2001 and Secord Et al 2001 which I have reviewed.
The question is can you provide me with a copy of the survey used or direction to obtain one?
My research is undertaking a study of attitudes and knowledge of Residential (LTC) aged care health care workers in caring for an older person with a stoma. The intent is to develop an educational activity to support carers in providing care of the older person with an ostomy in long term care facilities.
I appreciate your time and attention to my request and thank you.
Sincerely,
Pat Sinasac
Stomal Therapy Nurse
Brisbane Australia

Appendix C
ADAPTION TABLE SOKON RAC

Survey

The Survey of Ostomy Care a validated tool from the acute oncology setting (Gemmill et al., 2011) has provided a framework and been adapted to reflect the Residential Aged Care context in Australia. The Registered Nurses Association of Ontario Ostomy Care and Management clinical best practice guidelines (2009) were consulted to identify the educational recommendations for the skill mix of health care workers engaged in providing stoma care to an older person with a stoma in a group of Metropolitan Brisbane residential aged care facilities (RACF).

For the purpose of adaptation the identified levels of health care workers (HCW) are to be compared as below

Register Nurses Association of Ontario Definition of HCW	Australian Definition of HCW
Personal Support Worker (PSW)	Personal Carer Worker (PCW)
Registered Practical Nurse (RPN)	Enrolled Nurse (EN)
Registered Nurse (RN)	Registered Nurse (RN)
Health care providers are all identified positions noted above.	

References

(Gemmill et al., 2011)

Gemmill, R., Kravits, K., Ortiz, M., Anderson, C., Lia, L., and Grant, M. (2011) What Do Surgical Oncology Staff Nurses Know About Colorectal Cancer Ostomy Care? The Journal of Continuing Education in Nursing Vol 42, No 2, 81-88

Registered Nurses Association of Ontario (2009) Ostomy Care and Management Clinical Best Practice Guidelines, Toronto Canada. Registered Nurses Association of Ontario (RNAO)

Survey of Ostomy Care (City of Hope, Pain and Palliative Care Resource Centre (IX Research Instruments / Resources 29. Quality of Life Instruments link <http://prc.coh.org>)

Section A				
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Question Survey of Ostomy CARE	RAC Adaptation	RNAO BPG	LEVEL RN, EN, PC	Rational for adaptation
What patient care area are you assigned to?	<ul style="list-style-type: none"> Do you work in Low care, High care or both 	Health care providers	All	Establish levels of care and assistance with Activities of daily living to suit RAC environment
Years as RN.	<ul style="list-style-type: none"> What is your position in the organisation AIN, EN, RN Years of service in Health Care. 	Health care providers	All	Identify workforce skill mix as in RAC environment
Years in oncology.	<ul style="list-style-type: none"> Years of service working in Aged Care 	Health care providers	All	Identify experience and skills in the area of residential aged care
Years at COH. (City of Hope)	<ul style="list-style-type: none"> Years of service working for Wesley Mission Brisbane 	Health care providers	All	Identify experience and skills in the area of residential aged care
Highest nursing degree.	<ul style="list-style-type: none"> Which of the following qualifications have you completed. (None, Certificate 3, 4 , Diploma, Degree, Post graduate) 	Health care providers	All	Identify foundation level of knowledge of workforce and scope of Practice.

	<ul style="list-style-type: none"> • Have you ever taken care of an older person with a stoma? • If yes, how many residents with a stoma have you cared for in the last 6 months, 12 months? 	Health care providers	All	Identify the frequency of the provision of stoma care to an older Person with a stoma.
Section B Knowledge				
1. Which of the following structures are responsible for the highly absorptive nature of the small bowel's surface? a. Villi b. Rugae c. Peyer's patches d. Taeniae coli			RN	Not adapted as level of knowledge for RAC
2. The small intestine plays an important role in maintenance of fluid-electrolyte balance. a. True b. False				

<p>3. When assessing a new post-operative patient with a new fecal diversion (e.g. colostomy, ileostomy) the nurse should obtain the following information except:</p> <ul style="list-style-type: none"> a. Procedure, pathology and expected outcomes b. Stoma location c. Mucocutaneous separation d. Presence of Jackson Pratt drain 		RN, EN	RN	Not applicable to RAC practice as acute post op care
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<p>4. How is the type of stoma ascertained?</p> <ul style="list-style-type: none"> a. Visualization b. Noting the abdominal location c. By examining medical record d. Assessing the type and consistency of the output 	<p>1. Where is a colostomy (from colon, large bowel) located on the abdomen</p> <ul style="list-style-type: none"> a. Right hand side of abdomen / stomach b. Left hand side of abdomen / stomach c. At the umbilicus / navel d. On the hip 	<p>Health care providers</p>	<p>All</p>	<p>Indicated as knowledge required to determine care of the type of stoma and expected needs e.g. output, nutrition hydration</p>
<p>5. One indication of the return of bowel function is:</p> <ul style="list-style-type: none"> a. Decreased abdominal pain b. Decrease of drainage from the closed suction drain c. Resumption of oral intake d. Presence of flatus 		<p>RN, EN</p>	<p>RN, EN</p>	<p>Not applicable to RAC practice as acute post op care</p>

<p>6. Pain management in the postoperative period is important to:</p> <ul style="list-style-type: none"> a. Assist in patient mobilization and hasten bowel function b. Assist in pouch change procedure c. Stop patient from being noncompliant 	<p>2. Which of the following conditions would need to be reported to a Registered Nurse or Doctor</p> <ul style="list-style-type: none"> a. Unusual abdominal pain and no output from the stoma b. Severe skin irritation, excoriation c. Change to the colour, length and shape of the stoma d. All of the above 	<p>Health Care Providers</p>	<p>All</p>	<p>Pain management is ongoing. Pain assessment and management shifts from post –operative pain to symptoms or complications important to ongoing management.</p>
<p>7. Assessment of a newly created stoma includes the following:</p> <ul style="list-style-type: none"> a. Stomal oedema b. Color of the mucosa c. Height of the stoma d. All of the above 		<p>Health Care Providers</p>	<p>All</p>	<p>RAC health care workers are required to identify stoma complications to report and referral as appropriate for assessment, management or treatment.</p>

<p>8.The height of the stoma above skin level should be:</p> <ul style="list-style-type: none"> a. 5-10 cm b. Greater than 4 cm c. At skin level d. 1-3 cm 		<p>Health Care workers</p>	<p>All</p>	<p>RAC health care workers are required to identify stoma complications to report and referral as appropriate for assessment, management or treatment.</p>
<p>9. The amount and type of output from a newly created fecal stoma is related to:</p> <ul style="list-style-type: none"> a. The time of day b. The amount of parenteral fluids c. The location in the intestinal tract d. Fluid and electrolyte absorption 	<p>3. What should the output from an Ileostomy (from ileum, small bowel) look like</p> <ul style="list-style-type: none"> a. Solid and formed b. Watery and large amounts, diarrhoea c. Semi-liquid to very soft stool d. Semi solid stool 	<p>Health Care Providers</p>	<p>All</p>	<p>Adapted to provide assessment of output from an established or recently Established stoma</p>

<p>10. The skin around the stoma should be:</p> <ul style="list-style-type: none"> a. Denuded because of the shaving and surgical scrub b. Pale as compared to the rest of the abdomen c. Erythematous because of the presence of the pouch adhesive d. Intact and healthy 	<p>4. The skin around the stoma should appear</p> <ul style="list-style-type: none"> a. Excoriated, red, sore and bleeding b. Intact and healthy 'normal' c. Reddened and irritated d. Dark red or bruised 	<p>Health Care Providers</p>	<p>All</p>	<p>RAC health care workers are required to identify stoma complications to report and referral as appropriate for assessment, management or treatment.</p>
<p>11. The solid skin barrier (wafer) should be cut to fit at the base of the stoma.</p> <ul style="list-style-type: none"> a. True b. False 	<p>5. The solid skin barrier (base plate) opening should be cut to fit around the base of the stoma.</p> <ul style="list-style-type: none"> a. True b. False 	<p>Health Care Workers</p>	<p>All</p>	<p>RAC health care workers are expected to apply ostomy appliances Correctly and competently.</p>

<p>12. Initially to make sure the patients ostomy appliance fits properly, the stoma should be measured:</p> <ul style="list-style-type: none"> a. Daily b. Every other day c. At least weekly d. Bimonthly 		RN, EN	RN, EN	Not applicable to RAC practice as acute post op care
<p>13.If the wafer is cut too small,</p> <ul style="list-style-type: none"> a. The stoma could be traumatized b. Leakage is more likely c. The peristomal skin could easily break down d. None of the above 	<p>6. If the opening of the base plate is cut too small or too large the following can happen.</p> <ul style="list-style-type: none"> a. Leakage is more likely b. Skin irritation or breakdown can occur c. Trauma or injury to the stoma d. All of the above 	Health Care Workers	All	RAC health care workers are expected to apply ostomy appliances Correctly and competently.

<p>14. The patient has agreed to a temporary ileostomy. The surgeon will bring a segment of the ileum to the skin surface and will open its' anterior wall to allow fecal diversion. This type of ileostomy is called</p> <ul style="list-style-type: none"> a. A double-barrel ileostomy b. A loop ileostomy c. An end ileostomy 	<p>7. A stoma is an opening onto the abdomen of the bowel to allow for passing of</p> <ul style="list-style-type: none"> a. Urine, Stool or faeces b. Blood c. Sputum d. None of the above 	<p>Health Care workers</p>	<p>All</p>	<p>RAC health care workers are expected to know the different types of Stomas, assess function or complications and report concerns</p>
<p>15. You would expect the fecal output from an ileostomy to be</p> <ul style="list-style-type: none"> a. Formed stool b. Semi-solid stool c. Semi-liquid to very soft stool d. A continuous soft to watery effluent 	<p>8. What should the output from an Ileostomy (from ileum, small bowel) look like</p> <ul style="list-style-type: none"> e. Solid and formed f. Watery and large amounts, diarrhoea g. Semi-liquid to very soft stool h. Semi solid stool 	<p>Health care workers</p>	<p>All</p>	<p>RAC health care workers are expected to know the different types of Stomas, assess function or complications and report concerns</p>

<p>16. Colostomy output depends on the location; the more distal to the small intestine the thicker and Less frequent the output. a. True b. False</p>	<p>9. What should the output from an Ileostomy (from ileum, small bowel) look like</p> <ul style="list-style-type: none"> i. Solid and formed j. Watery and large amounts, diarrhoea k. Semi-liquid to very soft stool l. Semi solid stool 	Health Care Workers	All	RAC health care workers are expected to know the different types of Stomas, assess function or complications and report concerns

<p>17. Which of the following should be a priority when developing a teaching plan for an elderly person with a colostomy?</p> <ul style="list-style-type: none"> a. Provide a video and education booklet b. Arrange for an ostomy visitor c. Schedule short teaching sessions d. Use a flip chart for the surgical procedure 	<p>10. How confident are you that you can support a resident to care for the stoma themselves?</p> <p>11. How confident are you that you can support family to care for the stoma of a resident.</p> <p>Scale of 1-5</p>		All	Ongoing support and education is a care and practice expectation of RAC health care workers
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<p>18. When teaching a patient who only speaks Spanish and has no family available; which of the following interventions would be the best approach? a. Show a video b. Arrange a UOA visitor c. Arrange to use the services of an interpreter d. Provide an education booklet</p>				
<p>19. Prior to discharging a patient home from the hospital with an ostomy, it is important to teach all the following except a. When and how to empty</p>	<p>12. Where are stoma supplies (pouches, base plates) ordered and delivered from a. Pharmacy or chemist b. Doctors office c. Not for profit stoma associations e.g. Qld Colostomy Association, Qld Stoma Association d. Hospitals</p>	<p>Health Care Workers</p>	<p>All</p>	<p>RAC Health care workers will be involved with ostomy supply procurement and supply and are expected to facilitate access, supply and care.</p>

<p>the pouch b. How to open and close the clamp c. How to order supplies d. When to call the physician or WOC nurse e. Community resources f. How to change the wafer and pouch</p>	<p>13. How would you access a Stomal Therapy Nurse? a. Call a hospital b. Check the Australian Association of Stomal Therapy Nurses Website c. Contact the GP d. a and b</p>			
<p>20. Which of the following stoma symptoms must be addressed with the physician immediately? a. Bleeding during cleaning b. Postoperative edema c. Dark purplish color and decrease output</p>	<p>14. Which of the follow conditions would need to be reported to a Registered Nurse or Doctor a. Unusual abdominal pain and no output from the stoma c. Severe skin irritation, excoriation d. Change to the colour, length and shape of the stoma e. All of the above</p>	<p>Health Care Providers</p>	<p>All</p>	<p>RAC health care workers are expected to know the different types of Stomas, assess function or complications and report concerns</p>

<p>21. A low anterior resection (LAR) is the surgical treatment of choice for patient with colorectal cancer of the upper and middle third of the rectum. a. True b. False</p>		RN, EN	RN, EN	Acute surgical pre and post op care. Not required in RAC
<p>22. The operative procedure is determined by the anatomic site of the lesion including blood supply and the presence of absence of adjacent organ involvement. a. True b. False</p>		Health care provider	All	RAC health care workers are expected to know the different types of Stomas, assess function or complications and report concerns

	<p>15. How would you like to learn more about caring for an older person with a stoma</p> <p>a. On line computer based learning b. DVD c. Book or education folder d. In person education e. Smart phone application (app)</p>	Health Care Provider	All	Determine preferred method of access or format of education activity.
Section C Attitudes				
<p>1. I feel confident that I have the background knowledge and experience in ostomy care to sufficiently care for my patients at this time</p>	<p>16. I feel confident with my knowledge in caring for an older person with a stoma Scale 1-5</p> <p>17. I feel confident in my experience in caring for an older person with a stoma 1-5 scale</p>	Health care provider	All	Adapted to reflect context of Residential Aged Care health care workers
<p>2. I feel confident that I can assess my patient's ostomy sufficiently well enough to care for my patient with an ostomy</p>	<p>16. I feel confident that I can identify problems with a residents stoma and report correctly</p> <p>17. I feel confident that I can observe problems with a residents stoma and record correctly</p>	Health Care Provider	All	Adapted to reflect context of Residential Aged Care health care workers

at this time.				
3. I feel confident that I know enough about the different types of appliances for the various ostomies and patients' condition to adequately select the proper ones for my patient at this time.	18. I feel confident that I know the different types of stomas 19. I feel confident that I know the different functions of stomas	Health Care Workers	All	Adapted to reflect context of Residential Aged Care health care workers
4. I feel confident that I have the skills to size, fit and apply an ostomy appliance at this time.	20. I feel confident in my ability to change a stoma pouch correctly 21. I feel confident in my ability to empty a stoma appliance correctly	Health Care Workers	All	Adapted to reflect context of Residential Aged Care health care workers

5. I feel confident that I can teach my patients sufficiently well enough to care for themselves at home at this time		RN, EN	RN, EN	Acute post –op context not applicable to RAC
6. I feel confident that I can advise my patients on community resources for supplies, education and support sufficiently well enough at this time.	<p>22. I avoid caring for an older person with a stoma because I do not feel confident to take care of stomas</p> <p>23. I do not like caring for an older person with a stoma because of the smell.</p> <p>24. I do not like caring for an older person with a stoma because of the output.</p>	Health Care Workers	All	Adapted to reflect context of Residential Aged Care health care workers

7. I care for ostomy patients often enough to keep up my skills in ostomy care	25. I take care of older persons with a stoma often enough to keep up my skills 26. I take care of older persons with a stoma often enough to keep up my confidence	Health Care Workers	All	Adapted to reflect context of Residential Aged Care health care workers
8. There is adequate staff education or in-service opportunities at City of Hope to keep my knowledge up-to-date on ostomy care.	27. If I am unsure of anything about stoma care, there are resources available in to answer my questions in my workplace 28. There is education / in-services in my workplace to keep up my knowledge to help me to care for an older persons with a stoma.			Adapted to reflect context of Residential Aged Care health care workers

<p>If I am unsure about any aspect of ostomy care, there is someone available who can answer my questions.</p>	<p>29. I know who to call / contact for help with problems of stoma care in Wesley Mission Brisbane.</p>	<p>Health Care Workers</p>	<p>All</p>	<p>Adapted to reflect context of Residential Aged Care health care workers</p>
<p>10. I have the proper patient teaching materials (booklets, pamphlets, videos, etc.) to teach my patients/family about ostomy care.</p>	<p>30. If I am unsure of anything about stoma care, there are resources available to answer my questions in my workplace</p>	<p>Health Care Workers</p>	<p>All</p>	<p>Adapted to reflect context of Residential Aged Care health care workers</p>
<p>11. I have enough time during my shift to teach ostomy care to my patient/family</p>		<p>Health Care Workers</p>		<p>Acute post –op context not applicable to RAC</p>
<p>12. Patients are well prepared to care for themselves at home at the time they leave the hospital.</p>		<p>Health Care Workers</p>		<p>Acute post –op context not applicable to RAC</p>

13. Patients are well informed about what to expect regarding their condition, expected changes and care at home at the time they leave the hospital		Health Care Workers		Acute post –op context not applicable to RAC
14. I feel that patients will get adequate follow-up care and teaching after they leave the hospital.	31. I feel confident that I know the different types of stomas and how they function	Health Care Workers		Adapted to reflect context of Residential Aged Care health care workers
15. I know who to call for answers about ostomy care should I encounter a problem.	32. I know who to call / contact for help with problems of stoma care from external sites	Health Care Workers		Adapted to reflect context of Residential Aged Care health care workers

What patient teaching resources do you think would be helpful?	What education resources would be helpful for you the residential aged care (RAC) health care workers?	Health Care Workers		Adapted to reflect context of Residential Aged Care health care workers
What are some barriers to patient teaching?	What are some of the problems or issues for you when caring for an older person with a stoma in a residential aged care facility?	Health Care Workers		Adapted to reflect context of Residential Aged Care health care workers
Further comments or suggestions for improvement.	Further comments or suggestions for improvement.	Health Care workers	All	
Section D specific to RN				
Section E specific to EN, PC				

Appendix D: RESIDENTIAL AGED CARE HEALTH CARE WORKERS SURVEY



Residential Aged Care Health Care Workers' Survey
Care of an older person with a stoma

This survey will ask about issues relating to care of an older person with a stoma living in a residential aged care facility.

If you have any queries or difficulties answering the questions, please don't hesitate to contact:

Pat Sinasac RN STN, (Masters Student, Queensland University of Technology)

Email: pat.sinasac@qut.edu.au

There are four sections of the survey to be completed, A, B C and D.
Allow about 10-15 minutes to complete the survey.

Thank you for completing the survey!

Section A

This section is to provide an understanding of your care for older persons with a stoma in residential aged care.

Please select the rating that most matches your response to the following questions.

1 represents that you strongly **disagree** with the statement

5 represents that you strongly **agree** with the statement.

Please answer the following questions on a scale of 1 to 5 according to the scale given below

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

1. I take care of older persons with a stoma often enough to keep up my skills.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

2. I take care of older persons with a stoma often enough to keep up my confidence.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

3. There is staff education / in-services in my workplace to keep up my knowledge to help me to care for an older persons with a stoma.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

4. I avoid caring for an older person with a stoma because I do not feel confident to take care of stomas

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

5. I do not like caring for an older person with a stoma because of the smell.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

6. I do not like caring for an older person with a stoma because of the output.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

7. If I am unsure of anything about stoma care there are resources in my workplace available to answer my questions.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

8. I know who to call/contact in Wesley Mission Brisbane for help with problems of stoma care.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

9. I know who to call/contact from external organisations for help with problems of stoma care

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

Section B

This section is to find out about your understanding of stoma care.

Please circle the most suitable answer of a, b, c, or d.

10. A stoma is an opening onto the abdomen of the bowel to allow for passing of
- A. URINE, STOOL OR FAECES**
 - B. BLOOD**
 - C. SPUTUM**
 - D. NONE OF THE ABOVE**
11. The skin around the stoma should appear
- A. EXCORIATED, RED, SORE AND BLEEDING**
 - B. INTACT AND HEALTHY 'NORMAL'**
 - C. REDDENED AND IRRITATED**
 - D. DARK RED OR BRUISED**
12. The solid skin barrier (base plate) opening should be cut to fit around the base of the stoma.
- A. TRUE**
 - B. FALSE**
13. If the opening of the base plate is cut too small or too large the following can happen?
- A. LEAKAGE IS MORE LIKELY**
 - B. SKIN IRRITATION OR BREAKDOWN CAN OCCUR**
 - C. TRAUMA OR INJURY TO THE STOMA**
 - D. ALL OF THE ABOVE**
14. Where is a colostomy (from colon, large bowel) located on the abdomen?

- A. RIGHT HAND SIDE OF ABDOMEN / STOMACH**
- B. LEFT HAND SIDE OF ABDOMEN / STOMACH**
- C. AT THE UMBILICUS / NAVEL**
- D. ON THE HIP**

15. What should the output from an Ileostomy (from ileum, small bowel) look like?

- A. SOLID AND FORMED**
- B. WATERY AND LARGE AMOUNTS, DIARRHOEA**
- C. SEMI-LIQUID TO VERY SOFT STOOL**
- D. SEMI SOLID STOOL**

16. Which of the following conditions would need to be reported to a Registered Nurse or Doctor?

- a. Unusual abdominal pain and no output from the stoma
- b. Severe skin irritation, excoriation
- c. Change to the colour, length and shape of the stoma
- d. All of the above

17. Where are stoma supplies (pouches, base plates) ordered from?

- a. Pharmacy or chemist
- b. Doctor's office
- c. Not for profit stoma associations e.g. Qld Colostomy Association, Qld Stoma Association
- d. Hospitals

18. How would you access a Stomal Therapy Nurse?

- A. CALL A HOSPITAL**
- B. CHECK THE AUSTRALIAN ASSOCIATION OF STOMAL THERAPY NURSES' WEBSITE**
- C. CONTACT THE GP**
- D. A OR B**

19. How would you like to learn more about caring for an older person with a stoma?
(rank in order of preference 1 is most preferred to 5 the least preferred)

_____ On line computer based learning

_____ DVD

- _____ Education folder
- _____ In person education
- _____ App for smart phone.
- _____ Other. _____

Section C

This section is to provide understanding of your confidence in caring for an older person with a stoma.

Please select the rating that most matches your response to the following questions.

1 represents that you are very **confident** with the statement
 4 represents that you are strongly **not confident** with the statement.

Please answer the following questions on a scale of 1 to 4 according to the scale given below

- | | 1 | 2 | 3 | 4 |
|-----|--|-----------|--------------------|---------------|
| | Very confident | Confident | Somewhat confident | Not confident |
| 20. | How confident are you that you can support family to care for the stoma? | | | |
| | 1 | 2 | 3 | 4 |
| | Very confident | Confident | Somewhat confident | Not confident |
| 21. | I feel confident with my knowledge in caring for an older person with a stoma | | | |
| | 1 | 2 | 3 | 4 |
| | Very confident | Confident | Somewhat confident | Not confident |
| 22. | I feel confident with my experience in caring for an older person with a stoma | | | |
| | 1 | 2 | 3 | 4 |
| | Very confident | Confident | Somewhat confident | Not confident |
| 23. | I feel confident that I can observe problems with a resident's stoma | | | |
| | 1 | 2 | 3 | 4 |
| | Very confident | Confident | Somewhat confident | Not confident |
| 24. | I feel confident that I can report correctly on a stoma observation | | | |
| | 1 | 2 | 3 | 4 |
| | Very confident | Confident | Somewhat confident | Not confident |
| 25. | I feel confident that I can record correctly on a stoma observation | | | |
| | 1 | 2 | 3 | 4 |
| | Very confident | Confident | Somewhat confident | Not confident |
| 26. | I feel confident that I know the different types of stomas | | | |
| | 1 | 2 | 3 | 4 |
| | Very confident | Confident | Somewhat confident | Not confident |

27. I feel confident that I know the function of different types of stomas
- | | | | |
|----------------|-----------|--------------------|---------------|
| 1 | 2 | 3 | 4 |
| Very confident | Confident | Somewhat confident | Not confident |
28. I feel confident in my ability to change a stoma appliance correctly
- | | | | |
|----------------|-----------|--------------------|---------------|
| 1 | 2 | 3 | 4 |
| Very confident | Confident | Somewhat confident | Not confident |
29. I feel confident in my ability to empty a stoma appliance correctly
- | | | | |
|----------------|-----------|--------------------|---------------|
| 1 | 2 | 3 | 4 |
| Very confident | Confident | Somewhat confident | Not confident |

Section D

This section asks general questions.

Please tick the boxes to answer.

Demographic information

- Age <21 22-30 31-40 41-50 51-60 61-65 >65
- Male Female
- Marital status - Single Married Divorced Defacto Never married
- Do you speak a language other than English at home? **Yes** **No**
- Do you work in?
 - Low care High care Both
- What is your position?
 - PC EN RN CN
 - other _____ (position title)
- Which of the following have you completed?
 - Certificate III Certificate IV Diploma Degree
 - Postgraduate _____ Other _____ None
- How many years have you worked at Wesley Mission Brisbane? _____
- How many years have you worked in Residential Aged Care? _____
- How many years have you worked in the healthcare sector? (e.g., hospital, community / home care, disability services) _____
- Have you ever taken care of an older person with a stoma?
 - Yes No
- How many residents with a stoma have you cared for in the last 6-12 months? _____
- How confident are you that you can support a resident to care for the stoma?

1	2	3	4
Very confident	Confident	Somewhat confident	Not confident

What stoma education resources would be helpful for you the PC, EN, RN or CN working in Residential Aged Care (RAC)?

What are some of the issues for you the PC, EN, RN or CN working in Residential Aged Care (RAC) when caring for an older person with a stoma?

Further comments or suggestions

THANK YOU FOR YOUR PARTICIPATION

Please place completed survey in the sealed survey response box supplied in your work area



20th June 2014

To Whom It May Concern

Wesley Mission Brisbane is committed to implementing best practice and is keen to collaborate in research that will inform practice.

WMB approves Ms Pat Sinasac (QUT Master student) to undertake the research "A needs analysis of residential aged care workers caring for an older person with a stoma; attitudes and knowledge" in a maximum of twelve of our thirteen residential aged care facilities (excluding John Wesley Gardens) and in collaboration with staff from those homes.

This research proposal has been reviewed and approved by the WMB research and ethical care group. The research cannot commence prior to full HREC approval from QUT.

This research has my strongest support.

Yours Sincerely

A handwritten signature in black ink, appearing to read "Judy Wollin".

Dr Judy Wollin



Dr Judy Wollin, RN PhD
Director Quality and Research
Adjunct Professor QUT
Telephone: 07 3621 4532
Mobile: 0409550817
facsimile: 07 3621 4533
Email: j.wollin@wmb.org.au
Web: <http://www.wmb.org.au>

Wheeler Gardens
930 Gympie Road Chermside QLD 4032 P (07) 3621 4500 F (07) 3621 4555 www.wmb.org.au ABN 28 746 881 862



Appendix F
UHREC_APPROVAL.2014 – COPY

Dear Prof Helen Edwards and Ms Pat Sinasac

Project Title: Attitudes and perceived knowledge of aged care workers caring for older people with stomas: A needs analysis for education

Ethics Category: Human - Low Risk
Approval Number: 1400000652
Approved Until: 14/10/2016 (subject to receipt of satisfactory progress reports)

We are pleased to advise that your application has been reviewed and confirmed as meeting the requirements of the National Statement on Ethical Conduct in Human **Research**.

I can therefore confirm that your application is APPROVED.
If you require a formal approval certificate please advise via reply email.

CONDITIONS OF APPROVAL

Please ensure you and all other team members read through and understand all UHREC conditions of approval prior to commencing any data collection:

- > Standard: Please see attached or go to www.research.qut.edu.au/ethics/humans/stdconditions.jsp
- > Specific: None apply

Decisions related to low risk ethical review are subject to ratification at the next available UHREC meeting. You will only be contacted again in relation to this matter if UHREC raises any additional questions or concerns.


Whilst the data collection of your project has received QUT ethical clearance, the decision to commence and authority to commence may be dependent on factors beyond the remit of the QUT ethics review process. For example, your **research** may need ethics clearance from other organisations or permissions from other organisations to access staff. Therefore the proposed data collection should not commence until you have satisfied these requirements.

Please don't hesitate to contact us if you have any queries.

We wish you all the best with your **research**.

Kind regards

Janette Lamb on behalf of Chair UHREC
Office of **Research** Ethics & Integrity
Level 4 | 88 Musk Avenue | Kelvin Grove
p: +61 7 3138 5123

	AGREEMENT TRANSCRIBER FOR QUT RESEARCH PROJECT
Attitudes and perceived knowledge of aged care workers caring for older people with stomas: A needs analysis for education	
QUT Ethics Approval Number 1400000652	

RESEARCH TEAM CONTACTS

Principal Researcher:

Pat Sinasac, RN, Stomal Therapy Nurse,
Candidate, Master of Applied Science
(Research), Queensland University
of Technology (QUT).
Email: pat.sinasac@hrd.qut.edu.au

Principal Supervisor:

Professor Helen Edwards
Faculty of Health Institute of Health and
Biomedical Queensland University of
Technology
Ph: +61 (0)7 3138 4523
Email: h.edwards@qut.edu.au

Associate Supervisor:

Dr Kathleen Finlayson, RN, PhD
Institute of Health and Biomedical
Innovation Queensland University of
Technology
Ph: +61 7 3138 6105
Email: k.finlayson@qut.edu.au

THE AGREEMENT

As this research involves questioning individuals about attitudes and knowledge, I the Principal Researcher in this project, require you to sign this transcriber confidentiality agreement.

As the transcriber for this project you must:

- o Keep all information related to this project secret and confidential.
- o Not disclose to any person or make known in any manner any part of the project's information.
- o Keep the project's information in a secure place so as to ensure that unauthorised persons do not have access to it.

SIGNATURES

This Agreement shall be effective when signed and dated by all parties.

Transcriber

Name

Signature

Date



Witness

Name

Signature

Date

Appendix H
FG_CONSENT_2015

		PARTICIPANT INFORMATION FOR QUT RESEARCH PROJECT –Survey and Focus Group Interviews–	
			
Attitudes and perceived knowledge of aged care workers caring for older people with stomas: A needs analysis for education QUT Ethics Approval Number 1400000652			
Date	Position	Name	Signature
