

NURSES' EXPERIENCES WITH RESPONSIVE BEHAVIOURS IN ACUTE CARE

NURSES' EXPERIENCES WITH RESPONSIVE BEHAVIOURS OF DEMENTIA IN ACUTE
CARE AND PERCEPTIONS OF P.I.E.C.E.S. EDUCATION: AN INTERPRETIVE
DESCRIPTION

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A Thesis Submitted to the School of Graduate Studies in Partial Fulfilment of the Requirements
for the Degree Master of Science in Nursing

McMaster University MASTER OF SCIENCE IN NURSING (2018) Hamilton, Ontario

TITLE: Nurses' Experiences with Responsive Behaviours of Dementia in Acute Care and
Perceptions of P.I.E.C.E.S. Education: An Interpretive Description

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NUMBER OF PAGES: viii, 200

ABSTRACT

Background: Approximately 56,000 persons with dementia are admitted to hospitals annually and 75% of them experience responsive behaviours. Responsive behaviours are words/actions used to make one's needs known (e.g. wandering, yelling, hitting, and restlessness) and are perceived by healthcare professionals to be a challenging aspect of dementia care.

Aims: This study explores the perceptions of nurses about: (a) caring for older adults with dementia experiencing responsive behaviours in acute medical settings and (b) an educational intervention in dementia care called P.I.E.C.E.S. (Physical, Intellectual, Emotional, Capabilities, Environmental, and Social assessment).

Methods: Thorne's interpretive description approach was used. In-person, semi-structured interviews were conducted with 15 nurses and allied health professionals from acute medical settings in a hospital in Ontario. Data were analyzed using experiential thematic analysis.

Findings: Themes related to caring for individuals with responsive behaviours included the following: (a) providing nursing care for older adults with responsive behaviours of dementia is a complex experience, (b) there are many barriers to dementia care within acute medical settings, (c) nurses use a combination of pharmacological and non-pharmacological strategies to care for older adults with dementia, (d) there is limited continued use of P.I.E.C.E.S. education although the program and its approaches were seen as relevant for dementia care, and (e) participants viewed organizations as responsible for improving dementia care in acute medical settings.

Conclusions: Findings provide guidance for improved support for nurses who provide care to persons experiencing responsive behaviours in acute medical settings such as increasing staffing. Strategies should be implemented to provide continuous educational reinforcements to help staff apply P.I.E.C.E.S such as interdisciplinary rounds focusing on responsive behaviours.

Acknowledgements

My journey was made possible because of encouragement, support, and attention from wonderful people in my life. I feel truly blessed to have been mentored by a kind, caring, knowledgeable, and supportive supervisor, Dr. Jenny Ploeg. I would like to express my deepest gratitude for your strong commitment in providing me with an enriching learning experience and ensuring my success in the graduate program. I cannot thank you enough for helping me grow as a researcher, scholar, and gerontological advocate. I would like to thank my committee members, Dr. Sharon Kaasalainen and Dr. Lori Schindel Martin, for sharing their expertise and passion for gerontology. I am grateful that both of you joined my committee and openly shared your knowledge and wisdom with me. My thesis reflects what I have learned from all three of you and I could not have asked for better mentors. I would also like to thank my external examiner, Dr. Carrie McAiney, for taking the time to share her perspective and for her thoughtful feedback.

Thank you so very much to my family. Your love and dedication to ensuring my success in life is deeply moving. I am blessed to have such a beautiful family. Thank you to my mother, Solida, for sharing her wisdom with me and showing me that the sky is the limit. She is the most courageous figure in my life. She was only 17 when she escaped her homeland, Cambodia, on her own following the civil war to seek a better life in Canada. Thank you to my father, Sein, for showing me the meaning of perseverance and hard work. I would like to thank my sister, Judith, for her love and kindness. I would also like to dedicate my thesis to my mother's grandfather who was living with dementia in Cambodia and went missing during the outbreak of the civil war. I hope that now every person with dementia in Canada and worldwide receives good care.

Thank you so much to the Alzheimer's Society Foundation of Brant, Haldimand-Norfolk, Hamilton, and Halton for providing me with financial support for my study. The Alzheimer's Society is a valuable organization that provides continual support for persons living with dementia, their family, and healthcare providers.

Finally, I would like to thank all the healthcare professionals who participated in this study and took the time to share their experiences with me. I would like to share my appreciation for all nurses caring for older adults with dementia everyday. I hope that their voices will be heard, and changes will be made.

ABBREVIATIONS

BPSD	Behavioural and Psychological Symptoms of Dementia
HCP	Healthcare Professional
PSW	Personal Support Worker
RN	Registered Nurse
RPN	Registered Practical Nurse

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CHAPTER 1: INTRODUCTION

Dementia affects close to 50 million people worldwide and this number is expected to double every 20 years (Alzheimer's Disease International, 2017). The prevalence of dementia has been estimated as 564, 000 Canadians (Alzheimer's Society of Canada, 2016). As the aging population continues to grow, there is a greater prevalence of dementia as it is associated with age. The prevalence of dementia doubles every five years following the age of 65 (Fiest et al., 2016). Dementia is a neuropathological disorder that impacts cognition and progressively damages brain cells (Prince, Albanese, Guerchet, & Prina, 2014). Some of the symptoms consist of memory loss, challenges with problem-solving, and language difficulties. These symptoms are significant enough to alter individuals' actions and affect their ability to complete activities of daily living (Alzheimer's Society of Canada, 2017c).

Dementia leads to a loss of autonomy, decreased quality of life, and an increase in healthcare utilization (Fiest et al., 2016). With more older adults with dementia relying on acute care services, one quarter of hospital beds are occupied by this population (Hynninen, Saarnio, & Elo, 2016). In Canada in 2016, 56, 000 individuals with dementia were being cared for in hospitals (Alzheimer's Society of Canada, 2016). Many acute care settings, however, do not provide optimal dementia care practices for older adults with dementia due to the focus on acute care priorities and inadequate staff training (Turner, Eccles, Elvish, Simpson, & Keady, 2017). Compared to the general population, older adults with dementia in acute care hospitals experience poorer nutrition and functional ability, an increased risk of delirium, longer hospital stays, higher risk for mortality, and a higher risk of falls associated with responsive behaviours (Mukadam & Sampson, 2010; Rudolph et al., 2010; Sampson, Blanchard, Jones, Tookman, & King, 2009; Sampson et al., 2014; Zhu et al., 2015).

As dementia progresses, persons with dementia are more likely to express responsive behaviours. It has been estimated that 70% to 90% of persons with dementia will be affected by responsive behaviours over the course of their illness (Freeman & Joska, 2012). Based on data from the Resident Assessment Instrument-Home Care (RAI-HC) and the Resident Assessment Instrument-Minimum Data Set (RAI-MDS), 58% of persons with dementia will experience responsive behaviours in LTC (Canadian Institute for Health Information, 2010). When persons with dementia receive care in hospital 75% of this population will experience responsive behaviours on at least one occasion (Sampson et al., 2014).

Responsive behaviours can be defined as words, movements, or actions that persons with dementia use to have their needs known. The term emerged from persons with dementia and is the preferred choice of term to represent dementia-related behaviours (Murray Alzheimer Research and Education Program, 2017). Researchers have adopted the socially acceptable term responsive behaviours to reflect the preferences of persons living with dementia. The term recognizes the inherent abilities of persons with dementia in being able to create meaningful interactions with others without focusing on deficit (Dupuis, Wiersma, & Loiselle, 2012). Older adults with dementia attempt to make themselves heard and it can be frustrating when others are unable to understand what they are communicating. Some examples of responsive behaviours include the following: grabbing onto others, wandering, yelling, hitting, kicking, restlessness, repetitive sentences/questions, making noises, and sexually inappropriate behaviours (Alzheimer's Society of Canada, 2017b; Draper, Finkel, & Tune, 2015).

The hospital environment is not ideal for older adults with dementia as this type of setting may trigger responsive behaviours such as wandering, sleep interruptions, hitting, kicking, or yelling (Sampson et al., 2014) and cause feelings of distress, insecurity, anxiety, fear, and

restlessness (Baille, Merit, & Cox, 2012; Hynninen et al., 2016). Being in hospital heightens the sensitivity of clients with dementia to responsive behaviours due to being in a new environment that has numerous triggers (e.g. noise and poor lighting) and receiving care from hospital staff who have limited knowledge of their preferences (Schindel Martin et al., 2016).

The terms Behavioural and Psychological Symptoms of Dementia (BPSD) and responsive behaviours have been used interchangeably in the literature. Both terms similarly define a set of symptoms used to express one's need such as agitation and calling out (Moniz-Cook et al., 2012). Responsive behaviours have become an important area in dementia care as the causes of these behaviours are multifactorial and complex in nature (Sampson et al., 2014). Other well-known terms exist that share similar meaning to responsive behaviours such as challenging behaviours and aggressive behaviours. The terms challenging and aggressive behaviours have negative connotations as they seem to suggest that a problem is caused by an individual and not due to his or her disease (Alzheimer's Society of Canada, 2012). By removing negative words that are often associated with the term *behaviour* such as *challenging* and *aggressive*, there is a stronger focus on discovering the reason behind the response (Hung, Lee, Au-Yeung, Kucherova, & Harrigan, 2016). Stigma can be minimized regarding caring for older adults with dementia by avoiding the application of labels that are non-conducive to the quality of life of older adults with dementia. Responsive behaviours can also be considered as a subset of BPSD resulting in disturbances related to perceptions, thinking, mood, or behaviours (Draper et al., 2015). The term BPSD appears to be more in keeping with a clinical diagnostic language or a medicalized term for persons with dementia rather than a way of expressing one's needs. See Appendix A for a glossary of terms.

Using person-centred language is one of the recommendations made by the Alzheimer's Society of Canada (2012) when discussing dementia and the changes that occur in persons with dementia. This type of language maintains respect and dignity towards the person with dementia. Person-centred terminology such as need-driven dementia-compromised behaviours (NDB) and responsive behaviours are more neutral terms in addressing such behaviours associated with dementia (Algase et al., 1996). NDBs occur among individuals with dementia because they are attempting to fulfil a goal or have their needs met (Algase et al., 1996; Kolanowski, Richards, & Sullivan, 2002). Although NDBs and responsive behaviours share similar meanings, the term responsive behaviours will be used throughout the thesis as it is more reflective of the constructivist paradigm underlying Thorne's (2016) interpretive descriptive approach used in this study. Reflecting the underlying assumptions of interpretive description, the term responsive behaviours acknowledges the multiple layers that exist underneath a behaviour and the subjective experience of living with dementia (Murray Alzheimer Research and Education Program, 2017).

Responsive behaviours can be interpreted based on a context, such as the hospital, and they constitute shared realities (Thorne, Kirkland, & MacDonald-Emes, 1997). Nurses, allied health professionals, persons with dementia, and their family caregivers all share experiences regarding episodes of responsive behaviours in hospital but from different perspectives. The term also suggests that persons are responding to their environment using specific behaviours because their needs are not being met. Using the term responsive behaviours prompts Healthcare Professionals (HCPs) to perform problem solving and implement strategies to ensure that all clients have their needs met regardless of whether or not they can verbalize their needs. It promotes reflection among HCPs and understanding that individuals with dementia respond differently to their environment. Throughout the thesis the sentence consisting of *responding to*

or *addressing responsive behaviours* will be used as nurses are reacting to situations and finding solutions. They are not trying to manage or deal with responsive behaviours which implies one is trying to exert control over others (Alzheimer's Society of Canada, 2012).

Responsive behaviours are symptoms of dementia that are perceived by HCPs to be one of the most difficult aspects of dementia care to attend to in acute care settings. This reflects that little is understood about addressing responsive behaviours. There is a need for more research in supporting staff caring for older adults living with responsive behaviours of dementia in hospital (Sampson et al., 2014). Many HCPs perceive that there is a lack of education in providing non-pharmacological approaches in addressing responsive behaviours through an individualized approach (Marx et al., 2014; Schindel Martin et al., 2016). With the growing number of older adults with dementia in acute care settings, HCPs are not able to meet the needs of this population due to a lack of understanding related to dementia and ability to address responsive behaviours (Turner et al., 2017). Nurses may be the most impacted by responsive behaviours in acute care settings as they spend the most time providing care and building relationships with clients and families. Nurses are frontline clinical staff who face many challenges when caring for clients with dementia on acute medical units such as barriers in communicating with clients affected by sensory and cognitive impairments (Kavlak, Yildiz, & Tug, 2015). Barriers in communication, poor environment designs and limited non-pharmacological approaches can negatively impact how nurses experience this issue.

Nurses are also expected to excel in providing dementia care despite inadequate staffing and few educational training opportunities (Coffey et al., 2014). To meet the demands of dementia care in acute care areas, there is a need for careful preparation in ensuring that HCPs including nurses are providing care that meets the needs of the growing older adult population

(Schindel Martin et al., 2016). Nurses in acute care settings typically focus on treating acute illnesses however, they are now being confronted with behavioural issues that cannot be easily resolved. Educational curricula of many disciplines often do not prioritize teaching students about strategies to respond to responsive behaviours yet, they are frequently caring for this population in hospitals (Hynninen et al., 2016). Responsive behaviours may create obstacles in being able to provide care and complete nursing tasks that are typically required in an acute care setting such as checking vital signs or obtaining blood samples. Engaging older adults with dementia to participate in care acts designated by nurses becomes difficult.

In caring for this population and attempting to complete assigned nursing tasks, nurses report being hit, bitten, or physically injured (Marx et al., 2014). Nurses working in hospitals perceive that almost 50% of physical and verbal acts inflicted upon them occur during the delivery of care for clients diagnosed with dementia or Alzheimer's disease (Speroni, Fitch, Dawson, Dugan, & Atherton, 2014). The Public Services Health and Safety Association (PSHSA) has recognized that healthcare workers including nurses are vulnerable to experiencing workplace violence resulting in increased healthcare costs due to injuries (PSHSA, 2007). The term *workplace violence* represents specific language used by the PSHSA when discussing workplace safety in hospitals. In this thesis, workplace violence is a term borrowed from the PSHSA as it does not reflect the values of neutrality and person-centeredness. Using a workplace violence lens infers that responsive behaviour in the dementia context is enacted with the intent to induce harm, rather than the intent to deflect harm.

To address issues of violence, the PSHSA has now developed a workplace safety risk assessment tool for acute care settings including strategies for delivering care for clients with dementia (PSHSA, 2017b). Experiencing physical and verbal forms of responsive behaviours in

the workplace affect employee satisfaction and burnout and influence the decision of nurses to change professions (PSHSA, 2007). Considering that many older adults are living with dementia and experiencing responsive behaviours in hospital, there is a need to highlight the existing problems and consider the educational needs of staff related to dementia care.

Problem Statement

There is a pressing need for more research to address complex issues associated with dementia. The current state of care for clients with dementia in hospitals has revealed that more research is needed to ensure that persons with dementia feel supported and have their needs met (Turner et al., 2017). There have been many qualitative studies and a few literature reviews exploring the experiences of professionals in caring for older adults with dementia in acute care settings (Digby, Lee, & Williams, 2016; Fukuda, Shimizu, & Seto, 2015; Houghton, Murphy, Brooker, & Casey, 2016; Hynninen, Saarnio, & Isola, 2014; Moonga & Likupe, 2016; Turner et al., 2017). However, some studies combine the experiences of nurses with those of other disciplines and yet nurses have been found to spend more time providing direct care for clients than other HCPs (Westbrook, Duffield, Li, & Creswick, 2011). The uniqueness of care experiences of nurses should be better reflected within research.

Further, studies have examined the experiences of caring for persons with dementia in specific acute care settings (e.g., surgical settings, emergency departments, and psycho-geriatric units) (Cunningham & McWilliam, 2006; Edvardsson & Nordvall, 2008; Hynninen et al., 2014) but none have focused specifically on acute medical units (i.e. general internal medicine). Other studies were focused on general hospital settings and did not differentiate their findings based on type of unit (Digby et al., 2016; Houghton et al., 2016; Moonga & Likupe, 2016; Turner et al., 2017). It is important to focus on acute medical units as these areas provide services to a large

clientele of persons with dementia (Sampson et al., 2009; Sampson et al., 2014) and have great potential for improvement of care.

There have been a number of studies of educational programs to support nurses and other HCPs caring for older adults with dementia demonstrating that the phenomenon of responsive behaviours has been of long standing interest to clinicians and researchers (Asthill, 2004; Elvish et al., 2014; Galvin et al., 2010; Hung et al., 2016; McAiney et al., 2007; Pizzacalla et al., 2015; Schindel Martin et al., 2016; Speziale, Black, Coatsworth-Puspoky, Ross, & O'Regan, 2009; Stolee et al., 2009). However, few have used an in-depth qualitative approach to assess staff perceptions of these programs and how the programs support them in caring for persons with responsive behaviours. Qualitative research is needed to understand the educational needs of staff in addressing responsive behaviours and ensure that educational approaches are perceived as valuable in daily staff practice. The areas where research is still a priority are the effectiveness of dementia educational programs leading to practice changes and the evaluation of intervention programs implemented within healthcare institutions to address dementia (RNAO, 2016).

Another current issue is the rise in physical and verbal aggression experienced by nurses caring for persons with dementia experiencing responsive behaviours. Approximately 76% of nurses experience aggression from both clients and visitors and 50.4 % of nurses working in acute care settings perceived that the aggression they experienced were related to caring for persons with dementia (Speroni et al., 2014). The PSHSA (2007) suggests that workplace violence needs to be addressed in hospital by implementing dementia care educational programs for staff such as P.I.E.C.E.S. education (Hamilton, Harris, Le Clair, & Collins, 2010). P.I.E.C.E.S. is an acronym where the letters **P-I-E** stand for a person's **Physical, Intellectual, and Emotional** health. The letter **C** represents maximizing the **Capabilities** of an individual to

enhance quality of life. The final letters **E-S** represent the current living **E**nvironment of a person and the **S**ocial being that includes a person's belief, culture, and life story (Hamilton et al., 2010). See Appendix B for a summary of dementia care educational programs targeted for acute care settings. Only three published evaluation studies exist regarding P.I.E.C.E.S. education (Hung et al., 2016; McAiney et al., 2007; Stolee et al., 2009) although it is a standardized and well-recognized educational intervention within dementia care. However, there have been no qualitative studies focusing on nurses' perceptions of the P.I.E.C.E.S. program in addressing responsive behaviours among older adults with dementia in acute medical settings.

Overview of the Thesis

The purpose of this thesis is to explore nursing experiences of responding to responsive behaviours among older adults with dementia in acute medical settings and their perceptions of P.I.E.C.E.S. education. The thesis is organized into six chapters. The first chapter has provided an introduction on responsive behaviours of dementia in hospital and the problem statement. The second chapter provides a reflective summary of my personal experiences in caring for older adults experiencing responsive behaviours and my views on dementia care education. Chapter 3 consists of a literature review and critique of current papers discussing the nursing experiences with responsive behaviours and dementia care educational programs. Chapter 4 discusses the methodology of the study including context, design, sample, data collection and analysis, and strategies used to promote trustworthiness of findings. The fifth chapter consists of the results related to the nurses' experiences with responsive behaviours, HCPs' perceptions of P.I.E.C.E.S. education, and recommendations to enhance dementia care. The last chapter provides a discussion of findings in comparison to the recent literature including implications for practice, policy, education, and research. At the end, I discuss the study's strengths and limitations.

CHAPTER 2: REFLECTIVE SUMMARY

When researchers have their own experiences related to the phenomenon of interest, there is a need to highlight pre-existing knowledge prior to data collection. Reflective thinking is a process that encourages researchers to explore their past experiences. This strategy minimizes influence over the perspective of participants by being aware of one's own personal stance. When incorporating reflexivity (i.e. profound self-awareness) and reflection, not only are researchers performing recollection of past events, but they are also evaluating their subjective response to events (Finlay, 2002). They are analyzing their experiences in a thoughtful manner and recognizing that knowledge is constructed. The following section describes my personal understanding of responsive behaviours of dementia in an acute care hospital.

Prioritizing Nursing Responsibilities

Following my new graduate nurse six-month orientation on various acute medical units, I received an offer to work on the long-term care (LTC) unit at a large teaching hospital in Ontario. By then I had cared for a few persons with dementia on acute medical units and thought that I was adequately prepared based on this experience. The LTC unit is a secure unit providing services for clients who are typically older adults with dementia, some of whom experience responsive behaviours. With two nurses assigned to over 25 patients, I felt that I had a lot of responsibilities to fulfil. During my first year on the unit, I was focused on following a strict routine based on obtaining vital signs and administering medications. I was trying to be efficient and work at the same pace as the more seasoned nurses. I felt that responsive behaviours served as distractions from more important nursing priorities. I frequently had to stop my medication rounds to answer the repetitive questioning of clients or redirect a client away from another client's room. I was feeling frustrated in not being able to complete a task without interruption.

Although being task-focused ensured that I was meeting my nursing duties every shift, it did not allow me to be creative and flexible. I soon realized that the type of care that I was providing was not suitable for the client population that I was caring for. I recognized the need for a more person-centred approach for my clients. Clients on the LTC unit are typically waiting weeks to months in hospital to be relocated to another LTC facility. There are therefore many opportunities for staff to get to know clients. I also realized that when responding to responsive behaviours, I had to tailor my approach based on the personal interests and life stories of clients. I discovered this when caring for Mrs. Carrara (name has been changed).

Understanding Mrs. Carrara

Mrs. Carrara had been previously diagnosed with dementia and spoke little English. She frequently experienced responsive behaviours in hospital. She would wander into the rooms of other clients and become upset when staff redirected her. She would state that “this is my house” and refuse to leave. When Mrs. Carrara was in distress, she would shout, hit, punch, or kick staff and other clients, and speak in Italian. During a night shift, I had just completed my medication rounds when a Personal Support Worker (PSW) reported that Mrs. Carrara had hit her and was entering the room of other clients. I feared for the safety of the staff and other clients. I tried to provide Mrs. Carrara with emotional reassurance and offered her snacks but she began shouting and waving her arms. There was a physician order for a vest restraint as needed when Mrs. Carrara experienced agitation and her family agreed that a vest restraint could be applied when deemed necessary. At the time, I thought that applying a vest restraint was the best solution.

With the assistance of two PSWs, I walked with Mrs. Carrara back to her room and applied a vest restraint for Mrs. Carrara in bed. Mrs. Carrara was yelling in Italian and was trying to push the staff away. I attempted to help calm and reassure her but this was not successful as

Mrs. Carrara did not seem to understand why she was being restrained. Mrs. Carrara reached out and punched me on the right side of my cheek. I was surprised at first and felt a dull pain. Once in bed Mrs. Carrara eventually fell asleep. I performed frequent monitoring of Mrs. Carrara throughout the night. The vest restraint was removed once she became calm. As I documented the incident at the nursing station, I tried to imagine what Mrs. Carrara must have experienced. I felt guilty and upset in having to resort to physical restraints. I felt that being punched meant that I was being punished for my actions. I also felt that restraints were a form of punishment for responsive behaviours when Mrs. Carrara was simply trying to express herself.

As Mrs. Carrara remained on the unit awaiting a transfer to a mental health unit, I began to learn more about her life history. I learned that she enjoyed talking about her family and enjoyed sweet treats such as ice cream. We would sit together at the nursing station and discuss her interests. When she was not in distress, she was able to converse almost entirely in English. When Mrs. Carrara shouted, hit others, or began to wander, these behaviours indicated that she was hungry, searching for the bathroom, or she was tired. Once I learned more about Mrs. Carrara and began to re-interpret her responsive behaviour as an expression of her unmet needs, I no longer relied on application of physical restraints.

Since meeting Mrs. Carrara, I began to implement a more personalized approach with all clients living with dementia on my unit. I no longer followed a strict routine and I found creative ways to ensure that clients' needs were being met. I have now revised my personal understanding of responsive behaviours and find that within every behaviour, there is a hidden message. As a nurse caring for older adults with dementia, I find that it is my responsibility to advocate for appropriate dementia care. I hope that my fellow nursing colleagues will see responsive behaviours in a new light as well. I believe that providing education in dementia care for acute

medical nurses can change their perceptions and actions. I also feel that it is important to highlight this issue and give a voice for nurses who sometimes feel powerless.

Realizing the Need for Practical Strategies in Dementia Care

I was given the opportunity to be trained in Gentle Persuasive Approaches (GPA), a dementia care training program, (Schindel Martin & Dupuis, 2005) a year after beginning my position on the LTC unit. Although I had knowledge of dementia, I lacked skills in addressing responsive behaviours of dementia. As a result, I experienced verbal threats from clients and had experienced responsive behaviours of a physical nature. I believe that incidents where I had been punched, hit, and sworn at could have been prevented if I had more practical skills. I did not realize that educational supports existed to help nurses respond to responsive behaviours.

My organization implemented GPA in response to a large influx of older adults with dementia in acute care settings. Education alone, however, is not always enough to enhance the practice of nurses as they also require a mentor to help them interpret and apply evidence-based knowledge (Brown, Wickline, Ecoff, & Glaser, 2009). To transform the care culture, there is a need to consider sustainability of dementia care education and the outcomes of education on long-term practice (Dewing & Dijk, 2016). I have always been interested in hearing what nurses thought of educational programs in dementia care and whether it changed their practice. There is a need for continuous learning for nurses throughout their nursing career through frequent educational opportunities. There is a need to explore other educational programs such as P.I.E.C.E.S. education to offer a variety of tools to support nurses in providing care for older adults with dementia. P.I.E.C.E.S. education has recently been introduced and implemented in my workplace organization. I am interested in understanding the perceptions of nurses regarding P.I.E.C.E.S. education and the influences the program has had on their practice.

CHAPTER 3: LITERATURE REVIEW

Search Strategy

Two searches were conducted to retrieve relevant literature. I had two meetings with an experienced health sciences librarian at the university to review the search strategies used to locate studies. The searches focused on: (a) the experiences of nurses in caring for older adults with dementia living with responsive behaviours in acute care and (b) educational interventions to respond to responsive behaviours among older adults with dementia in acute care. In the first search, no studies explored acute medical settings in isolation so the search was broadened to include all acute care settings. The search strategy consisted of accessing the following electronic databases: AgeLine, CINAHL, PsycInfo, PubMed, and MEDLINE. The key search terms used consisted of: *dementia, Alzheimer**, *acute, hospital, ward, medical, nurs**, *staff, practi**, *profession**, *experiences, perceptions, attitudes, views, and feelings*. The search terms were combined using AND/OR where applicable. The term *responsive behaviours* and other similar terms were omitted in the search as these were considered redundant as responsive behaviours are well-known occurrences that are typically discussed within studies exploring the experiences of dementia care. A total of 1,672 articles were retrieved from all five databases. Once duplicated articles were removed, 1,272 papers remained.

Studies were included if they met the following criteria: (a) focused on an acute care setting, (b) included Registered Nurses (RNs) or Registered Practical Nurses (RPNs) in the sample, (c) explored nursing care experiences for clients with dementia or Alzheimer's disease, (d) considered the experiences or perceptions of nurses in addressing situations where responsive behaviours occur, (e) published between January 2007 and August 2017, and (f) written in English. Clinical commentaries, unpublished studies, dissertations, and editorials were excluded

from the review. Studies that focused on acute care settings in general were included as no studies that focused only on acute medical units were found that explored dementia care and responsive behaviours. Studies were excluded if they: (a) did not include responsive behaviours or BPSD, (b) did not differentiate between dementia or other cognitive disorders, (c) did not focus on dementia, (d) occurred in long-term care homes, day hospitals, retirement homes, specialized dementia care units, outpatient settings, rehabilitation units, respite care, or palliative care units, or (e) did not consider the perspectives of RNs or RPNs. See Appendix C for the Preferred Reporting Items of Systematic Reviews and Meta-Analyses (PRISMA) flow diagram for the search strategy (Moher, Liberati, Tetzlaff, Altman, & the PRISMA Group, 2010).

A second search was conducted for studies related to dementia care educational interventions. The same five databases were accessed to retrieve relevant literature. The key search terms were combined and included the following: *dementia*, *Alzheimer**, *acute*, *hospital*, *ward*, *medical*, *nurs**, *staff*, *practi**, *profession**, *education*, and *training*. The search limitations from the previous search remained the same. By searching all five databases, a total of 1,722 articles were retrieved. After duplicated articles were eliminated, 1,309 papers were screened. Studies were included in the review if they met the following criteria: (a) focused on acute care settings, (b) included RNs and RPNs in the sample, (c) explored either a need for education or an educational intervention in dementia care, (d) explored responsive behaviours within the need for nursing education or an intervention program, (e) published between January 2007 and August 2017, and (f) written in English. Studies were excluded if they: (a) were focused on programs to address agitation, (b) implemented programs for delirium without considering dementia, (c) occurred in long-term care homes, day hospitals, retirement homes, specialized dementia care units, outpatient settings, rehabilitation units, respite care, or palliative care units, (d) failed to

include RNs or RPNs in the sample, (e) focused mainly on best-practices in dementia care, or (f) omitted evaluation data. See Appendix D for the PRISMA flow diagram of the second search strategy (Moher et al., 2010).

As part of the second search, I conducted a specific search for literature on P.I.E.C.E.S. The search terms *P.I.E.C.E.S. education* and *dementia* were combined to find P.I.E.C.E.S.-related literature. An exception was made to include two long-term care studies evaluating P.I.E.C.E.S. education (McAiney et al., 2007; Stolee et al., 2009). This decision was made as to date there are only three studies evaluating P.I.E.C.E.S. education (Hung et al., 2016; McAiney et al., 2007; Stolee et al. 2009). I contacted P.I.E.C.E.S. Canada and spoke with a clinical expert regarding existing research related to P.I.E.C.E.S. From this contact I was referred to the study by Stolee et al. (2009) that is included in the review.

Many single studies located through both searches were already included in a systematic or literature review (e.g. Byers & France, 2008; Fukuda, Shimizu, & Seto, 2015; Hynninen et al., 2014). The single studies were therefore not included in the present review to avoid the potential repetition of findings. The next section provides a summary of findings based on the studies located through the search strategy.

Overview of Studies

Through the first search, five relevant studies were found consisting of four reviews (Digby, Lee, & Williams, 2016; Houghton et al., 2016; Moonga & Likupe, 2016; Turner et al., 2017) and one single study (Hynninen et al., 2016) that was not included in a review. The second search yielded ten studies consisting of one review of dementia training programs (Scerri et al., 2017) and nine single studies (Coffey et al., 2014; Hung et al., 2016; Marx et al.; 2014; McAiney et al., 2007; Pizzacalla et al., 2015; Sampson, Vickerstaff, Lietz, & Orrell, 2017; Schindel Martin

et al., 2016; Speziale et al., 2009; Stolee et al., 2009). After locating relevant studies, they were critically appraised using the Critical Appraisal Skills Programme (CASP) (2013) checklists for qualitative studies, trials, and systematic reviews. These checklists provide specific questions tailored to evaluate the design and results of the study. These questions are organized into three broad sections and focus on the validity of findings, the results found, and the extent to which results can be applied locally. The strengths and limitations of each study were evaluated. The following sections provide a synthesis and critique of the literature.

Nursing Experiences in Addressing Responsive Behaviours of Dementia

The four reviews that were located explored the experiences of nurses and HCPs with responsive behaviours in various types of acute care settings (Digby et al., 2016; Houghton et al., 2016; Moonga & Likupe, 2016; Turner et al., 2017). The single study by Hynninen et al. (2016) explored the surgical setting. Some of the studies included in the reviews were identical across multiple reviews (Cowdell, 2010; Eriksson & Saveman, 2002; Nolan, 2007). Although the papers used different methodologies to analyze the literature, the findings were similar across the papers. Each study will be described individually. Afterwards, the findings of the four reviews and the single study will be synthesized followed by a critique of the reviews. Following the discussion of findings and the critique of studies, the gaps in the current literature will be explored. See Table E1 in Appendix E for a more comprehensive overview of the studies.

Digby et al. (2016) explored the views of nurses and persons with dementia regarding care provided in hospital through a qualitative integrative review. The review included 24 qualitative studies that considered multiple perspectives (i.e. clients, families, nurses, allied health professionals, and students) to understand care experiences. Various types of acute care

settings were included (e.g. psycho-geriatric units, surgical wards, and geriatric wards). Almost half of the studies included were from the United Kingdom (n=10) and none were from Canada.

The second review was a qualitative synthesis focused on exploring the experiences and perceptions of healthcare staff in providing care to clients with dementia in acute care settings (Houghton et al., 2016). Nine qualitative studies were included in the review and only one study was conducted in Canada (Robinson et al., 2012). The approach used in this review consisted of the synthesis framework that considers a pragmatic view on identifying common themes (Carroll, Booth, & Keeper, 2011).

The third review was a systematic review conducted by Moonga and Likupe (2016) that explored nurses' and healthcare support workers' experiences in dementia care on orthopaedic wards. No studies evaluating the experiences on orthopaedic wards were found so the authors reviewed 14 studies that explored care in acute care settings instead. Both quantitative and qualitative studies were included in the review. The authors were not explicit in stating the country of origin of each study however, from a table provided some studies were conducted in Sweden, Australia, and the United Kingdom.

The fourth review was a meta-synthesis by Turner et al. (2017) that examined 14 qualitative studies that explored the experiences of HCPs in caring for clients with dementia in general hospital settings. A meta-ethnographic approach was used to synthesize interpretations between studies (Noblit & Hare, 1988). None of the included studies in the review were conducted in Canada. The studies explored the perspectives of various HCPs such as nurses, healthcare assistants, and allied health professionals.

In addition to the review papers, a single study exploring nursing care experiences was included (Hynninen et al., 2016). Hynninen et al. used a cross-sectional survey study design to

describe the care practices of nurses providing care for older adults with dementia in surgical settings located within six hospitals in Finland. Participants included 191 nurses and four other healthcare providers. The findings were quite similar across all papers and were synthesized.

Synthesis of Findings of Papers

A synthesis of findings was conducted and findings were combined under common themes. This synthesis explores the findings from the perspectives of nurses. The themes developed were the following: (a) unsuitable care environment, (b) uncertainty in providing dementia care, (c) stigma associated with older adults with dementia, and (d) ethical conflicts when providing care.

Unsuitable care environment. Nurses working in acute care settings perceived that delivering care for persons with dementia was not a priority for them (Digby et al., 2016). The acute care environment functions on delivering care with speed and is predominately disease-oriented. Nurses believed that they were faced with inadequate staffing and that they were already struggling to provide basic care (Turner et al., 2017). Nurses perceived that care for older adults with dementia consumes extra time (Digby et al., 2016). HCPs including nurses experienced time constraints that impacted quality of care (Houghton et al., 2016). They were faced with having to prioritize care based on acuity. HCPs recognized the need to consider the entire person and not just the disease process when caring for clients with dementia however, they were unable to find enough time to build a meaningful relationship (Turner et al., 2017). Time and effort were often spent in close monitoring of clients with dementia and addressing responsive behaviours (Turner et al., 2017).

When an insufficient amount of time was spent in calming and providing emotional reassurance for clients with dementia, this led to responsive behaviours of a physical nature such

as hitting or kicking (Moonga & Likupe, 2016). Physical needs were given more importance in hospitals than emotional and psychological needs (Turner et al., 2017). Nurses were found to provide hands-on care more than any other type of care (e.g. administering medications and performing hygiene care). These activities were frequently performed in a routinized fashion with minimal engagement with clients. Lack of encouragement to participate in one's own care resulted in clients' episodes of responsive behaviours (Digby et al., 2016).

HCPs including nurses recognized the structural inadequacies of acute care settings in meeting the best-practice standards of dementia care (Turner et al., 2017). One review found that nurses believed that clients with dementia should not be admitted to acute care settings, as such environments trigger responsive behaviours and staff are not prepared to respond to these behaviours (Digby et al., 2016). The hospital environment leads to anxiety and being in hospital can be a frightening experience for clients with cognitive impairments (Moonga & Likupe, 2016). The acute care setting restricts movement for clients with dementia. Nurses would close doors to prevent clients from leaving the unit or wander into the rooms of other clients. Nurses provided clients with dementia little to no privacy and this was perceived to be a strategy to implement client safety (Houghton et al., 2016).

The acute care setting was seen to be constantly changing, noisy, and crowded (Digby et al., 2016). This environment had a mix of clients with different diagnoses and high traffic from medical teams mobilizing around the unit. These environmental issues created confusion for older adults with dementia and triggered responsive behaviours (Moonga & Likupe, 2016). Responsive behaviours occurred as clients were attempting to take control of their situation and this resulted in wandering and calling out. To respond to such behaviours, nurses would use less favorable strategies such as chemical and physical restraints (Digby et al., 2016). Nurses

appeared to blame clients for their actions when applying restraints (Houghton et al., 2016). Nurses felt guilty in applying restraints but they often defended this approach as necessary for the safety of the client and staff. Having longer work experience increased nurses' understanding of persons with dementia as nursing staff with longer work experience were less likely to use physical restraints than others ($p = 0.045$), however the relationship between work experience and use of restraints was weak to negligible (Hynninen et al., 2016). Instead of learning to address the needs of clients living with responsive behaviours of dementia, nurses sought strategies to transfer clients to other settings (Digby et al., 2016).

Uncertainty in providing dementia care. HCPs were unsure of how to approach older adults with dementia and provide care (Moonga & Likupe, 2016). Nurses lacked education in dementia care and they were unprepared to deliver effective care. Acute care nurses received very little mental health education. This lack of knowledge led them to resort to chemical and physical restraints to address responsive behaviours of dementia (Digby et al., 2016). Staff who had not received dementia care training often avoided interacting with clients with dementia and were unsure of how to communicate with them (Moonga & Likupe, 2016). This population therefore received poor care as they were at times unable to use a call bell or verbalize their needs (Houghton et al., 2016).

Acute care nurses were found to question their own competency in communicating with clients with dementia and delivering efficient care. They acknowledged that they need to implement person-centred care through trust, recognizing responsive behaviours, and engaging clients in activities of daily living (Turner et al., 2017). Nurses found it challenging to build a therapeutic relationship with persons with dementia because both nurses and clients did not have clear understanding of the nursing role in delivering dementia care (Moonga & Likupe, 2016).

Care practices were often based on the culture of the units and personal ideologies and experiences of nurses instead of standards or guidelines for dementia care (Digby et al., 2016). When nurses were uncertain of how to care for older adults experiencing responsive behaviours, they would be left to sleep in the hallways to avoid disturbing other clients. Clients were also given high doses of sedatives to address responsive behaviours (Turner et al., 2017).

With a lack of dementia care training in hospital, nurses felt stressed and powerless when providing care for older adults with dementia experiencing responsive behaviours (Moonga & Likupe, 2016). When nurses were unable to effectively respond to episodes of responsive behaviours in hospital, they had feelings of inadequacy and anger (Digby et al., 2016). Nurses felt that their efforts in providing care for older adults with dementia experiencing responsive behaviours were not worthwhile. They felt dissatisfied with their current employment because they believed themselves to be incompetent (Digby et al., 2016). Nurses who received training in dementia care were less likely to experience stress and burnout compared to those who had not received training (Moonga & Likupe, 2016). Nurses who received dementia care training were more likely to rate their skills in delivering dementia care as good compared to those who did not receive training (Hynninen et al., 2016).

To overcome uncertainty in dementia care, nurses were found to use personal strategies to learn more about clients with dementia and find solutions to address responsive behaviours in surgical settings (Hynninen et al., 2016). Hynninen et al. (2016) found that 52% of the nurses ensured that they were familiar with the life stories of clients with dementia before providing counselling. More than half of the nurses (61%) asked clients if something was the matter when responsive behaviours occurred. More than half of the nurses (59%) believed that they could address responsive behaviours effectively. When responsive behaviours occurred, 59% of

nursing staff attempted to provide pain medication for clients with dementia and 57% of nurses relied on distraction techniques.

Stigma associated with older adults with dementia. When nurses did not engage clients with dementia, clients often felt marginalized and depersonalized (Digby et al., 2016). Nurses would assign negative labels to clients with dementia and called them “difficult” (Cowdell, 2010, p. 87). Such labels affected the care that clients with dementia received in hospital due to negative nursing attitudes (Turner et al., 2017). Clients with dementia were treated differently than clients who did not have dementia as nurses often disregarded dignity for persons with dementia. Nurses felt that safety was more important than dignity and did not provide privacy for clients with dementia. When nurses began to stereotype clients with dementia, they were unable to see the person behind the behaviour (Houghton et al., 2016). Negative labels were sometimes included in the nursing handover and followed clients with dementia throughout their hospital stay. A client could be called a confused client by the nurses without considering the influence of the hospital environment or staff’s approach (Digby et al., 2016). Nurses in acute care settings perceived caring for older adults with dementia as devaluing their role. Caring for older adults with dementia was understood in the nursing culture as being less prestigious compared to other specialties (Turner et al., 2017). When nurses had to address responsive behaviours in hospital, this was understood as a nuisance as it was an additional task that disrupted the acute care nursing routine (Digby et al., 2016).

Ethical conflicts when providing care. Nurses faced ethical dilemmas when caring for clients with dementia because they were unsure of how much control in decision-making a client with dementia should have. They found themselves stuck in a difficult situation where they were weighing the pros and cons of administering necessary care against the client’s will or respecting

their choice of refusal (Moonga & Likupe, 2016). Nurses understood the need for autonomy and dignity yet, when providing care for older adults, they were often faced with making decisions for clients. Nurses who administered sedatives for clients living with responsive behaviours felt that this action impacted the dignity of clients (Houghton et al., 2016). Nurses were found to use physical force with clients with dementia compared to other clients because of communication barriers. Nurses understood this as necessary to be able to complete assigned nursing tasks yet they experienced guilt and assumed poor care was due to lack of skills (Digby et al., 2016).

When ethical dilemmas occurred related to administering medications and nutrition, nurses either administered care against the wishes of clients or respected their choices (Moonga & Likupe, 2016). Nurses were found to balance safety and dignity such as when implementing a one-on-one healthcare aide to provide constant monitoring for clients. Privacy was disregarded as clients with dementia were being followed at all hours (Houghton et al., 2016). When faced with ethical dilemmas where clients lacked the cognitive ability to make informed choices, nurses relied on family members for further instructions (Moonga & Likupe, 2016).

Critique of the Papers

In terms of the strengths of the reviews, three of the studies critically appraised individual studies using a recognized tool consisting of the CASP (2013) tool (Digby et al., 2016; Houghton et al., 2016; Turner et al., 2017). Only Digby et al. (2016) however, provided a critical appraisal score for each study. Not all studies included in the Digby review were deemed to be of high quality and it is important that authors discuss limitations of findings due to the poor quality of available studies. This finding indicates that there is a need for a high quality qualitative study using a rigorous analytic approach to provide an accurate portrayal of the nursing experiences in delivering care for older adults with dementia in acute care settings.

Another limitation of the reviews was that the expertise of nurses, the role of HCPs, and settings varied across individual studies. Digby et al. (2016) combined studies that explored the experiences of nurses and persons with dementia in a single review. The authors recognized the differences in care experiences of nurses and clients with dementia, although the experiences of both groups are interdependent. Digby et al. (2016) also discussed that cultural differences between countries created obstacles when trying to compare findings. Moonga and Likupe (2016) stated that the findings of their review may not be transferable to orthopaedic wards. The expertise of nurses and HCPs on orthopaedic wards is unique and such individuals may hold different skill sets than general acute care staff. The review by Turner et al. (2017) focused on general hospital settings and most papers were unclear as to the area of expertise of staff. It was unknown whether staff working in different settings had different experiences in dementia care.

Three reviews included only qualitative papers (Digby et al., 2016; Houghton et al., 2016; Turner et al., 2017) while one review included both quantitative and qualitative studies (Moonga & Likupe, 2016). Within all three reviews, there was a lack of Canadian studies included. Only one review (Houghton et al., 2016) included a single Canadian study (Robinson et al., 2011). There is a need for more studies conducted in Western Countries like Canada. Due to the limited number of North American studies, it is challenging to transfer findings to these locations. Canada has a unique healthcare system and the findings may not provide an accurate representation of the experiences of Canadian nurses and persons with dementia.

Hynninen et al. (2016) focused solely on the nursing experiences in providing care to older adults with dementia on a surgical ward and the study design had potential limitations. This study was conducted in Finland and findings may not be transferable to other countries. In terms of the instrument that was used to collect data, it was a newly established instrument and was

only pilot-tested on a single surgical ward. It was however reviewed by a panel of experts (i.e. gerontological nursing researchers, doctoral students, and nurses) for construct and content validity. The study had a low response rate (38%) which the authors speculated could be due to many factors (e.g. busy schedules, too many surveys, and a holiday occurring during the survey period). The authors did not address what strategies they used to address the low response rate and did not follow-up on survey responses using a qualitative approach to obtain an in-depth exploration of nurses' experiences in dementia care. The following section is dedicated to highlighting the gaps in the current literature related to nursing experiences with responsive behaviours of dementia in acute care settings.

Gaps in the Literature Related to Nursing Experiences

Overall, the four reviews (Digby et al., 2016; Houghton et al., 2016; Moonga & Likupe, 2016; Turner et al., 2017) and the single study (Hynninen et al., 2016) had a minimal focus on responsive behaviours of dementia. This current literature was more focused on revealing the experiences of HCPs regarding dementia care in general. Responsive behaviours are an important aspect of dementia care to consider within acute settings as this is seen to be the most challenging issue for nurses in hospitals (Digby et al., 2016). Responsive behaviours should therefore be recognized as having a significant impact in the lives of persons with dementia. When examining the literature related to responsive behaviours among older adults with dementia in acute care settings, only one study was conducted in Canada; Canada's healthcare system is unique and this topic should be explored in this context. Many studies incorporate the perceptions of nurses with others and generalize their findings. There is a need to distinguish the perceptions of nurses in acute care settings as their role is unique. They interact most frequently with clients with dementia and their families. Generally, nurses care for the same clients

throughout their shift and have the most interactions with clients putting them at an advantage in building a positive relationship with older adults with dementia.

There is a need to distinguish different experiences based on various types of acute care settings. These areas are unique regarding the types of care that are typically provided in these settings. Challenges with dementia care have been known to occur on acute medical units however, this has not yet been fully explored in the literature (Moonga & Likupe, 2016). Most studies discuss acute care units as a single setting however, acute medical units provide different types of services compared to surgical oncology or orthopaedic surgery units. Most older adults with dementia will receive care on acute medical units before being transferred to specialized units (Sampson et al., 2014). At times, an older adult with dementia experiencing responsive behaviours may have a prolonged stay on acute medical units as they are waiting to be admitted to long-term care. The longer the client with dementia remains in hospital, the more likely they will experience responsive behaviours (Alzheimer's Society, 2009). Based on the findings of this literature review, nurses in acute care settings are not well-equipped or trained to respond to persons with dementia experiencing responsive behaviours (Digby et al., 2016; Turner et al., 2017). The following section will provide a review of the literature related to education for nurses in caring for clients with dementia experiencing responsive behaviours.

Education for Addressing Responsive Behaviours in Acute Care

Ten relevant studies were located that explored education for dementia care including responding to responsive behaviours in acute care settings (Coffey et al., 2014; Hung et al., 2016; Marx et al., 2014; McAiney et al., 2007; Pizzacalla et al., 2015; Sampson et al., 2017; Scerri et al., 2017; Schindel Martin et al., 2016; Speziale et al. 2009; Stolee et al., 2009). Two of the studies only explored the need for education (Coffey et al., 2014; Marx et al., 2014). Only a

single review of dementia training programs was located (Scerri et al., 2017). The remaining seven studies evaluated specific educational programs (i.e. P.I.E.C.E.S., GPA, and train-the-trainer) (Hung et al, 2016; McAiney et al., 2007; Pizzacalla et al., 2015; Sampson et al., 2017; Schindel Martin et al., 2016; Speziale et al. 2009; Stolee et al., 2009). The studies were conducted in Canada, the United States, Ireland, and the United Kingdom using quantitative and qualitative designs. The findings related to the need for education identified by Coffey et al. (2014) and Marx et al. (2014) will be synthesized due to the similarities between findings. It was not possible to synthesize all findings of individual studies implementing educational programs due to the variability of interventions, so these are summarized below. See Table E2 in Appendix E for a more comprehensive overview and evaluation of the individual studies.

Need for dementia care education. Two studies exploring dementia care educational needs were identified. Coffey et al. (2014) sought to identify the education needs of nurses providing dementia care in acute care settings in Ireland. They conducted a cross-sectional survey as part of a multicentre study. The study included six hospitals and 151 nurses completed the survey. Most of the participants were staff nurses (72%) working in various hospital settings. The survey questionnaire used to collect data consisted of a pre-existing tool that was modified and previously used for the National Audit of Dementia United Kingdom (Royal College of Psychiatrists' Centre for Quality, 2010).

Another study exploring the need for dementia care education was conducted by Marx et al. (2014). This study consisted of a cross-sectional survey to explore the education and training needs of staff providing care in a chronic care hospital in the United States. The sample (n=37) consisted of nurses and allied health professionals providing care for clients with dementia on a geropsychiatry unit in hospital. The questionnaire administered was created by a group of

research experts and HCPs. It also included a section that assessed the knowledge of participants by modifying the Alzheimer's Disease Knowledge Scale (Carpenter, Balsis, Otilingam, Hanson, & Gatz, 2009).

The findings of the studies by Coffey et al. (2014) and Marx et al. (2014) were similar as they both revealed the need for more education for nurses in responding to responsive behaviours. Most nurses (83%) working within acute hospital settings perceived that they do not have enough training to provide effective dementia care (Coffey et al., 2014). Although nurses and other HCPs had strong knowledge of dementia, they lacked hands-on skills. Almost all the staff (92.3%) desired more information and skills in using non-pharmacological approaches. Coffey et al. found that 51% of nurses believed that education related to avoiding the use of chemical or physical restraint was inadequate or not readily available. HCPs wanted to learn more about how to promote client safety (89.7%) and how to overcome challenges that occur during care delivery (84.2%) (Marx et al., 2014). In the study by Coffey et al. (2014), less than half of the nurses (42%) perceived that education regarding addressing responsive behaviours was adequate. With a lack of education and training, three quarters of staff reported feeling frustrated and overwhelmed when having to deliver care for persons with dementia. More than half of HCPs including nurses (67%) reported that they experienced responsive behaviours of a physical nature at work while providing care for this population (Marx et al., 2014).

The strengths of the study by Coffey et al. (2014) were the inclusion of a large sample and a specific focus on the perceptions of nurses. The limitations of the study were that only descriptive statistics were used to analyze the results. Coffey et al. collected very little demographic data and did not consider confounding variables (e.g. workplace setting and years of experience). The authors mentioned poor uptake of dementia care training in acute care

hospitals however, they did not explore educational uptake in their study. Compared to Coffey et al., Marx et al. (2014) had evaluated their data using descriptive and inferential statistics. Marx et al. (2014) evaluated whether there were statistically significant differences in knowledge between nurses and allied health professionals however, they failed to differentiate findings based on disciplines. Only knowledge on dementia was assessed for differences between groups. Both studies (Coffey et al.; Marx et al.) explored the need for education. The following review explored the existing programs in dementia care.

Review of Educational Programs for Dementia Care

This section describes and critiques a review that explored educational programs for dementia care. Scerri et al. (2017) explored the current research regarding dementia training programs for HCPs working in hospital. They conducted a systematic review using narrative synthesis as an approach to combine findings (Popay et al., 2006). The review included 14 studies that used either a quantitative or mixed methods design. Most of the included studies were conducted in England (n=6). The findings of the study were: (a) interdisciplinary ward-based, short-sessions, and active learning principles were commonly used training approaches, (b) most programs aimed to change staff's attitude towards responsive behaviours and enhance their confidence in caring for clients with dementia, (c) most studies had high levels of staff satisfaction with the training programs, (d) there was a lack of appropriate length of follow-up of the programs to determine long-term effects, and (e) about half of the studies evaluating educational programs were of poor quality.

In the review by Scerri et al. (2017), each study was critically evaluated using 11 of 14 criteria established by Kmet, Lee, and Cook (2004). None of the studies consisted of randomized controlled trials so three criteria pertaining to randomization and blinding were omitted. Most of

the participants were nurses. Studies that evaluated change in learning for HCPs were often focused on the change in belief regarding responsive behaviours and self-efficacy in dementia care. Although most studies used validated instruments for data collection, some were not rigorously tested or validated such as the scale used by Galvin et al. (2010). There is therefore an uncertainty about the accuracy of results. Scerri et al. (2017) found that some studies evaluating client outcomes did not provide enough clarification related to follow-up of clients. For example, McPhail, Traynor, Wikstrom, Brown, and Quinn (2009) reported reduced responsive behaviours following training but, it is not known whether the same clients were followed-up pre-and post-training.

The strengths of the review (Scerri et al., 2017) were critical appraisal of each study and including the scores of each paper in the review. The authors also used Kirkpatrick's four-level training model (2009) to assist in the selection of studies and interpretation of results. This was appropriate as the model considers various success indicators for training programs. Although the review did include clear inclusion and exclusion criteria for the selection of studies and while five databases were searched (i.e. PubMed, PsycInfo, CINAHL, AgeLine, and Academic Search Complete) the search strategy lacked comprehensiveness. The authors included few search terms. There was no mention of contact with experts to review the search strategy or seek relevant papers. The process for reaching consensus regarding including or excluding papers was also not mentioned. Although some Canadian studies exist regarding educational interventions for dementia care, none were included in the review. There was a narrow range related to the country of origin of studies, so findings may not be transferable to other settings. In addition to the single review retrieved, seven individual studies have been implemented and evaluated an

educational intervention for dementia care. These studies will be reviewed and critiqued in the next sections.

Single Studies of Educational Programs for Dementia Care

The review of the single studies of educational programs in dementia care is separated into three sections based on distinct programs: (a) train-the-trainer program, (b) Gentle Persuasive Approaches, and (c) P.I.E.C.E.S. education.

Train-the-trainer program. Sampson et al. (2017) conducted a mixed methods study to evaluate the effect of a dementia training program for HCPs in acute care hospitals. The pre-test questionnaire was completed by 1,688 HCPs and 456 (27%) completed the post-training questionnaire. Staff members consisted of nurses and allied health professionals working in various settings such as acute medicine, surgery, and orthopaedics. The training program lasted about one hour and delivered interactive and experiential dementia care modules. Using the train-the-trainer model, staff were trained by local leaders who received two full-days of training before being certified to teach others. The program was evaluated at the individual, group, organizational, and system level. Quantitative data were collected through a questionnaire distributed among participants focusing on self-perceived competency called the Sense of Competence in Dementia Care Scale (SCIDS) (Schepers, Orrell, Shanahan, & Spector, 2012). Qualitative data were collected by a member of the research team and a dementia care leader using the Persons, Interactions, and Environment (PIE) qualitative observation tool (Young, Hood, Woolley, Gandesha, & Souza, 2011).

The study found a small but significant increase in sense of competency post-training (Sampson et al., 2017). The mean SCIDS was 43.2 (Standard Deviation (SD) 11.3) at baseline and 50.7 (SD 11.1) at the three-months follow-up ($p < 0.001$). Regarding effectively addressing

care challenges, there was an improvement in SCIDS score from a mean score of 8.9 (SD 3.5) pre-training to 10.6 (SD 3.7) at the three-months follow-up ($p < 0.001$). Based on PIE observations, more positive behaviours among staff were observed when clients experienced responsive behaviours. Sampson et al. (2017) revealed that staff would smile more often at clients and maintained eye contact with these clients. The strengths of the study were a comprehensive evaluation of the education program and a large sample size. Despite the noted benefits, the study lacked a longer follow-up and the education sessions were short. A one-hour training program may be too brief to provide enough education for staff regarding dementia care. A pre-and post-test design was used and no control group was implemented. The study also had a low response rate as only 27% of participants completed the post-training questionnaire. The authors did not describe the course content. Although the study used a mixed methods design, there was no description of the integration of qualitative and quantitative findings.

Overall, the review by Scerri et al. (2017) and the study by Sampson et al. (2017) revealed that dementia training programs have positive outcomes for staff and clients. However, the dementia training programs and tools used to collect data varied from study to study. There is a need for a more standardized approach to providing dementia care education for nurses. These studies briefly discussed the effect of training for staff in being able to respond to responsive behaviours however, this was not an important focus in their studies. There are several other approaches to specifically address responsive behaviours among older adults with dementia such as Gentle Persuasive Approaches (GPA) (Schindel Martin & Dupuis, 2005) and P.I.E.C.E.S. education (McAiney et al., 2007). These programs are standardized dementia training programs that have been evaluated. The studies using these approaches will be reviewed below.

Gentle persuasive approaches. GPA is an educational program that was developed as part of an educational initiative to enhance dementia care in Ontario, Canada (Speziale et al., 2009). GPA is focused on providing dementia education to clinical staff through in-person, evidence-based, and standardized formal training. The program was initially created to meet the needs of the dementia population in long-term care settings. GPA has now been applied within various settings where older adults with dementia may seek care such as acute hospital settings (Schindel Martin et al., 2016). Three studies have evaluated GPA in addressing responsive behaviours among older adults with dementia (Pizzacalla et al., 2015; Schindel Martin et al., 2016; Speziale et al., 2009). All of these studies were conducted in Canada and used the standardized GPA curriculum consisting of a 7.5-hour face-to-face session providing content and hands-on techniques in dementia care. The program is separated into four modules: (a) person-centred care approaches and philosophy, (b) changes to the brain typical in dementia and delirium, (c) communication strategies, and (d) self-protective skills for staff and techniques used in client, family, and team debriefing sessions (Schindel Martin et al., 2016). Certified GPA coaches were responsible for delivering the program (Schindel Martin et al., 2016). The three GPA studies were described in chronological order as the rigour of methodological designs used in each study reflects progress over the years in evaluating the program.

Speziale et al. (2009) implemented a pre-and post-GPA approach among 99 clinical staff and allied team members caring for individuals experiencing responsive behaviours on a geriatric psychiatry inpatient unit. Participants receiving GPA included nurses as well as staff from various departments (e.g. social work and environmental services). GPA was evaluated based on staff satisfaction, risk event profiles to monitor responsive behaviours, occupational health and safety records, and mental health indicators. Immediately after taking GPA, 92.7% of staff felt

that they could address responsive behaviours and 90% felt they had learned strategies to address them. Three-months post-GPA 82% of staff felt confident in addressing responsive behaviours and 81.6% believed they learned useful strategies. Physical restraints were less utilized in this setting post-GPA. The rates of responsive behaviours significantly declined throughout the three-months follow-up by 50% ($p=0.0001$). There was however, no difference in occupational injury rates post-GPA. This study considered numerous evaluation measures but failed to use a rigorous methodological design. Various disciplines were included in this study and findings were generalized across disciplines. A geriatric psychiatric unit is a unique setting that is tailored to meet the needs of older adults with mental health issues and findings may not be easily transferred to other settings such as acute medical units specializing in general medicine.

Using a pre-and post-test design, Pizzacalla et al. (2015) evaluated the impact of GPA for staff working on an orthopaedic unit providing care for clients with dementia and delirium. This study evaluated self-efficacy and satisfaction before and three months after GPA. The number of participants who completed the GPA workshop consisted of 72 however, only 52 participants completed the before and after survey. Participants included nurses, healthcare aides, and allied health professionals. Non-clinical staff were also included such as business clerks and security personnel. Similar to the findings of the study by Speziale et al. (2009), there was improved staff knowledge regarding addressing responsive behaviours and recognizing triggers.

Study results indicated that the confidence level of staff increased following GPA in providing dementia care (Pizzacalla et al., 2015). The mean score based on a seven-point Likert scale in being able to recognize triggers for responsive behaviours increased from 3.96 (SD 1.204) to 5.35 (SD 0.883) immediately after receiving GPA ($p < 0.001$). Staff were extremely satisfied with the program, found it relevant to their practice, and would recommend GPA to

their peers. Most of the participants (93%) rated the program as a six or seven on a seven-point rating scale regarding practicality.

Schindel Martin et al. (2016) conducted a nonrandomized controlled trial with repeated measures to determine whether GPA could enhance self-efficacy for staff providing dementia care within an acute care hospital in Canada. This study also used focus groups to explore the impact of training, issues for implementation, and suggestions to sustain GPA in acute care. Participants included nurses, healthcare aides, occupational therapists, and physiotherapists. There were 468 participants in the intervention group and 277 participants in the wait-listed group. Staff worked in different areas in acute care such as medicine and intensive care. The study found that staff who received GPA had significantly higher self-efficacy scores in being able to provide dementia care compared to the wait-listed group. The mean self-efficacy score at baseline for the intervention group was 43.01 (SD 10) and 54.68 (SD 6.46) at the six to eight week follow-up ($p < 0.001$). The mean self-efficacy score for the wait-listed group did not increase but in fact decreased slightly from baseline 46.96 (SD 10.1) to 6-8 weeks follow-up 45.17 (SD 8.56) ($p < 0.001$). The qualitative component of the study revealed that participants: (a) had more confidence in delivering dementia care, (b) increased team collaboration, and (c) changed their practice by using strategies other than restraints to address responsive behaviours.

Pre-GPA, staff admitted to using strategies consisting of administering psychotropic medications and applying physical restraints (Schindel Martin et al., 2016). These strategies however, were being used less as a first-line treatment for responsive behaviours six to eight weeks post-GPA. Speziale et al. (2009) similarly found that the use of restraints decreased following GPA training. Qualitative data revealed that staff had a better understanding of responsive behaviours without making negative assumptions about clients. They recognized the

need to assess clients experiencing responsive behaviours and understand the triggers for such behaviours. They considered the client's perspective when attempting to understand why responsive behaviours were occurring.

Schindel Martin et al. (2016) had a large sample size and used quantitative and qualitative methods to strengthen their findings. There were some significant differences between groups such as unit assignments, education level, and the number of staff who worked full time day shifts. There were also significant differences among demographic variables as randomization was not possible for this study. To account for potential differences between groups, confounding variables were controlled for in the analysis to ensure that differences between groups post-GPA were attributed to the program and not baseline characteristics.

Pizzacalla et al. (2015) conducted the first study to evaluate GPA in acute care. They did not use a rigorous methodological design to determine the effectiveness of GPA such as an experimental design which was used in the study by Schindel Martin et al. (2016). Compared to the study by Schindel Martin et al. (2016), the studies by Pizzacalla et al. (2015) and Speziale et al. (2009) failed to include more in-depth participant characteristics. It would therefore be difficult to transfer findings to other settings and generalize findings to nurses. Another well-recognized dementia education program is P.I.E.C.E.S. education and it is an important focus for this thesis.

P.I.E.C.E.S. education. P.I.E.C.E.S. is a holistic clinical assessment framework that was created in 1998 as part of a LTC program initiative in Ontario, Canada to enhance dementia care (Ontario Ministry of Health and Long-Term Care, 1999). It has now been modified into a 16-hour interactive and practice-based workshop for HCPs who provide direct care in clinical management of dementia. P.I.E.C.E.S. constitutes an acronym that considers the following

factors as instrumental in the quality of life of older adults: Physical, Intellectual, Emotional, Capacities, Environment, and Social (McAiney et al., 2007). P.I.E.C.E.S. plays an important part in multidisciplinary teams across Canada in preventing and effectively responding to responsive behaviours of older adults with dementia by encouraging HCPs to uncover the meaning behind the actions (Hung et al., 2016).

Two reports exploring P.I.E.C.E.S. education exist (Canadian Foundation for Healthcare Improvement (CFHI), 2013; Ryan, Fisher, & Helfand, 2009). Ryan et al. (2009) explored the perceptions of P.I.E.C.E.S. education among PSWs, directors of care, and psychogeriatric resource consultants in long-term care homes in Ontario. CFHI (2013) reported findings from a quality improvement project that found that P.I.E.C.E.S. led to a 25% reduction in the use of antipsychotics in long-term care homes in Winnipeg but did not explore nurses' perceptions following training.

Three studies have explored P.I.E.C.E.S. education (Hung et al., 2016; McAiney et al., 2007; Stolee et al., 2009). All studies implemented standardized P.I.E.C.E.S. education by delivering course content in-person over two or three-days. The course content covered in the sessions consists of: (a) assessments and interventions for persons with complex mental health needs, (b) exploring actions associated with brain changes, (c) exploring psychotropic medications, (d) reviewing dementia and other cognitive disorders, (e) reviewing lab values, and (f) becoming a leader to improve practice (Hamilton et al., 2010). The sessions for all three studies were delivered by P.I.E.C.E.S. educators who were composed of highly skilled clinicians from various disciplines. McAiney et al. (2007) evaluated the long-term sustainability of P.I.E.C.E.S. education in long-term care (LTC) settings in Ontario by administering surveys and conducting interviews. Most participants who received P.I.E.C.E.S. education consisted of RNs

(84.8 %) while other participants included RPNs, social workers, and others. The number of staff that participated in the three-day education sessions was 1,086 while 1,020 staff members participated in the two-day sessions. The number of staff that actually completed the questionnaires were 1,024 learners pre-program and 792 learners post-program. The program was evaluated in 1999, 2001, and 2002.

The P.I.E.C.E.S. education sessions resulted in significant increases in being able to recognize and address responsive behaviours as well as having increased knowledge in using assessment tools (McAiney et al., 2007). There was a small statistically significant increase in the ability of staff to identify responsive behaviours post-P.I.E.C.E.S. in 1999 (mean 3.4 (SD 0.82) pre-P.I.E.C.E.S. and 3.75 (SD 0.64) post-P.I.E.C.E.S.; $p < 0.001$). In 2001, there was no longer a significant difference. Following P.I.E.C.E.S., staff were more confident in documenting behaviours and interpreting responses (mean pre-P.I.E.C.E.S. 3.6 (SD 1.01) and 4.10 (SD 0.76) post-P.I.E.C.E.S.; $p < 0.001$). This change remained significant when the program was implemented and evaluated once again in 2001 (mean 3.45 (SD 1.11) pre-program and 3.84 (SD 0.99) post-program; $p < 0.01$). Having a psychogeriatric resource person within long-term care settings was found to be helpful. This person served as a P.I.E.C.E.S. resource for staff. Although this study had a large sample size and a long length of follow-up consisting of three years, the study did not have a control group. McAiney et al. (2007) recognized the need for a stronger design but stated that it was not possible due to limited funding.

Stolee et al. (2009) expanded on the survey results of McAiney et al. (2007) and conducted qualitative telephone interviews with 20 LTC representatives to explore long-term sustainability and strategies to promote P.I.E.C.E.S. education. They were interested in understanding the varied success of P.I.E.C.E.S. implementation in different settings. The

authors included participants from LTC settings with high and low success of implementing P.I.E.C.E.S. to offer a variety of strategies and barriers. The results from the interviews were that most representatives continued to have positive views regarding P.I.E.C.E.S. education one-year post-implementation. Representatives perceived that staff had increased knowledge in delivering care and had positively impacted the quality of life of residents. The authors found that having outside support from geriatric psychiatrists and psychogeriatric resource persons were helpful in encouraging staff to implement P.I.E.C.E.S. and to complete behavioural flow sheets consistently. Strategies to increase success in sustaining this program were: increased management support, P.I.E.C.E.S. specific activities (e.g. team consultations and developing care plans), and availability of P.I.E.C.E.S. trained staff.

The strengths of the study were that it considered multiple indicators of success and included the perceptions of representatives from homes with varied success with P.I.E.C.E.S. (Stolee et al., 2009). Direct quotes and questions asked to participants were included. The authors however, did not mention what qualitative design was used. The interviews ranged from five to 30 minutes and were not conducted in-person. This could have impacted the quality of the interviews. McAiney et al. (2007) and Stolee et al. (2009) were the first authors to evaluate P.I.E.C.E.S. but this was only done within LTC settings.

Hung et al. (2016) conducted a qualitative study exploring factors that enable HCPs to adopt P.I.E.C.E.S. education on a mental health unit in Canada. Participants received P.I.E.C.E.S. training over March and April of 2015. Focus groups were conducted with 20 staff and individual interviews were conducted with three unit leaders one month post-training. Staff consisted of nurses, PSWs, and allied health professionals. The appreciative inquiry approach was used in the study (Cooperrider, Whitney, & Stavros, 2008). This approach was suitable as it

sought to create change through discovery and teamwork. The following factors that improved knowledge translation were identified: (a) creating positive energy to promote development, (b) using an interdisciplinary approach, and (c) using knowledge translation tools. Staff found that P.I.E.C.E.S education helped them understand responsive behaviours and triggers as a team. Staff were better able to examine the cause of responsive behaviours and avoid making assumptions. Despite the promising findings, the study did not mention the qualitative design used. The authors discussed the Promoting Action on Research Implementation in Health Services (PARiHS) knowledge translation framework (Kitson et al., 2008), but did not incorporate it into their study. Gaps of the literature review are identified in the next section.

Gaps in the Literature Related to Education for Dementia Care

Many studies evaluating educational interventions for dementia care used poor methodological designs and there were few studies using a rigorous qualitative design. There is a need for more qualitative studies related to educational interventions to understand the utility of such interventions for nursing practice. Coffey et al. (2014) and Marx et al. (2014) found that nurses are indeed requesting more support in dementia care and training. Although acute care settings are beginning to implement dementia care programs, it is unknown whether these programs are beneficial for nursing practice in the long-term. It is difficult to determine which dementia training program is the most effective and what kind of course content each provides (Scerri et al., 2017). There are many kinds of educational programs and most authors do not provide a clear description of what their program entails. To address the multitude of dementia care programs that exist, Behavioural Supports Ontario (BSO) has included on their website a comprehensive tool called the Behavioural Education and Training Supports Inventory (BETSI) tool to assist organizations in selecting the best program for their settings (BSO Education &

Training Committee, 2012). Only a few programs were deemed suitable for acute care settings including P.I.E.C.E.S. education and GPA however, there is a lack of studies evaluating P.I.E.C.E.S. education.

P.I.E.C.E.S. education is now being implemented in various settings such as acute care settings however, only three published evaluation of P.I.E.C.E.S. education exist (Hung et al., 2016; McAiney et al., 2007; Stolee et al., 2009). There is a need to explore staff perceptions of the program and determine whether nurses have changed their practice based on education.

Although strategies to sustain and promote knowledge translation have been explored, none were reflective of fast-paced environments such as the acute medical setting where older adults with dementia are seeking treatment for acute illnesses (e.g. pneumonia and urinary tract infections) (Sampson et al., 2009). P.I.E.C.E.S. education has not yet been evaluated within acute care settings however this is an area that provides services to many older adults with dementia (Sampson et al., 2014). P.I.E.C.E.S. education differs from GPA as it provides a framework to address the complex needs of individuals with dementia and their families. P.I.E.C.E.S. education is more than just an acronym as it prompts clinical decision-making within an interdisciplinary team (Hamilton et al., 2010).

In summary, there is a gap in knowledge about the unique experience of nurses caring for older adults with dementia in acute care settings in Canada. There is a lack of qualitative studies exploring their experiences and their perceptions of educational interventions. The scarcity of Canadian studies exploring the nursing experiences in dementia care is concerning. There is a lack of studies evaluating well-known, standardized dementia education programs such as P.I.E.C.E.S. education even though it has been implemented across Canada in various sectors (e.g. LTC, acute care, and primary care) (Hamilton et al., 2010). There is also a need to

understand the impact of P.I.E.C.E.S. education on nursing practice by placing greater emphasis on the opinions and experiences of nurses who receive training. A new study is needed to explore the unique experiences of Canadian nurses and their views on dementia care education. Considering the current gaps in research, the following purpose and research questions were developed.

Purpose of the Study and Research Questions

The purpose of this interpretive descriptive study was to explore nursing experiences of responding to responsive behaviours in acute medical settings among older adults with dementia and the perceptions of nurses and allied health professionals of P.I.E.C.E.S. education. There are three research questions for this study:

1. What are nurses' experiences in providing care for older adults with dementia living with responsive behaviours during their stay on acute medical units?
2. What are the perceptions of nurses and allied health professionals regarding P.I.E.C.E.S. education in acute medical units and its impact on their practice in responding to responsive behaviours of dementia?
3. What are the recommendations of nurses and allied health professionals in improving dementia care and P.I.E.C.E.S. education uptake in acute medical units?

CHAPTER 4: METHODOLOGY

This chapter focuses on describing the research methods that were used in this study.

This chapter begins with a discussion of the suitability of using a qualitative research design for the purpose of the proposed study. The study design is then described including rationale for why interpretive description (Thorne, 2016) is a suitable approach for the study. Thorne's (2016) principles are embedded within each aspect of the research consisting of the setting, sampling, recruitment, data collection, and data analysis. This chapter will conclude with strategies used to promote trustworthiness and rigour.

Rationale for Selecting a Qualitative Research Design

A qualitative research design was selected for this study as it is most suitable to gain an in-depth understanding of a complex phenomenon and detailed information through direct conversation with those who experience a phenomenon and to empower others to share their stories (Creswell, 2013). Responsive behaviours of dementia are considered complex and multifactorial in nature. There are many different perspectives associated with caring for clients with responsive behaviours among HCPs and perspectives can only be fully understood by talking with those who have firsthand experiences in this area. A qualitative research design therefore allows one to interpret and understand a phenomenon of interest based on the realities of participants who are experiencing it. Nurses also need to feel empowered and encouraged to truthfully share their experiences in caring for older adults with responsive behaviours. Only a qualitative research design could ensure that the voices of nurses are heard and that their experiences and recommendations are being acknowledged as influential in shaping dementia care. A qualitative design ensures that the richness of data provided by nurses caring for older adults with dementia is respected by staying true to the words of the nurses.

Study Design

The study design that was used to answer the research questions was interpretive description (Thorne, 2016). This design was selected as it is ideal to explore clinical practice issues such as the nursing experience in recognizing and addressing responsive behaviours among older adults with dementia. Interpretive description was created in response to a nursing need to base qualitative research on foundations and objectives that resonate with nursing's unique approach to inquiry (Thorne, Kirkham, & Macdonald-Emes, 1997). Interpretive description focuses on clinical realities. It generates knowledge by relying on interpretation and explanation while implementing credibility criteria for qualitative studies (Thorne, Con, McGuinness, McPherson, & Harris, 2004). It considers multidimensional clinical phenomena and explores issues that arise from various disciplines such as nursing (Thorne, 2016).

Responsive behaviours associated with dementia are a complex phenomenon and this study sought to understand how nursing staff experience one of the most challenging symptoms of dementia in an acute care setting. The clinical realities of nurses also consist of providing daily care for older adults with dementia in acute care settings. The interpretive description design also resonated with the second research question consisting of the perceptions of nurses and allied health professionals regarding P.I.E.C.E.S. education. It considers the complexity and interrelatedness of components that advance nursing knowledge (Thorne et al., 1997). By understanding the multiple interrelated factors that impact the perceptions of P.I.E.C.E.S. education in acute medical settings, the facilitators and barriers to implementing P.I.E.C.E.S. education can be uncovered. Interpretive description therefore enables nurse researchers to make a difference in the clinical world (Thorne et al., 1997).

Setting

The setting for the study was acute medical settings in an urban teaching hospital in Southern Ontario, Canada. The approximate number of acute medical beds located within this hospital is 131. The specific acute medical settings targeted were clinical teaching units and a cardiology unit. Acute medical settings had been chosen as the setting as these areas have not been explored in relation to research related to P.I.E.C.E.S. although education has been delivered in these settings. The setting allows applied practice researchers to interact with their participants and applied contexts are usually the initial inspiration for the study (Thorne, 2016).

Sampling

The sample for the study was composed of three groups of participants. The first group of participants consisted of RNs and RPNs who have cared for older adults (aged 65 years and older) with dementia living with responsive behaviours in acute medical settings. The second group of participants consisted of RNs and RPNs who have cared for older adults with dementia experiencing responsive behaviours in acute medical settings and have received P.I.E.C.E.S. education. The third group of participants consisted of P.I.E.C.E.S. educators and allied health professionals who had received P.I.E.C.E.S. training. They provide an interdisciplinary lens of point of care providers delivering dementia care for older adults living with responsive behaviours in acute medical settings. They had backgrounds in nursing education, social work, physiotherapy, and occupational therapy. I confirmed whether HCPs had actually received standardized P.I.E.C.E.S. education based on a list of names available to BSO team leaders.

Purposive and theoretical sampling were used to select participants (Thorne, 2016). The types of purposive sampling used in this study were criterion sampling, maximum variation sampling, and snowball sampling (Patton, 1990). Criterion sampling was used to locate

participants who met the study criteria (Patton, 1990). Nurses in the first group of participants met the following criteria: (a) hold the professional designation of RN or RPN, (b) currently work in an acute medical setting, and (c) have cared for at least one older adult with dementia experiencing responsive behaviours in an acute medical setting within the past two years. Nurses in the second group of participants met the inclusion criteria as above and in addition had received P.I.E.C.E.S. education offered through employment. P.I.E.C.E.S. educators and allied health professionals met the following criteria: (a) have experience in either caring for or interacting with older adults with dementia experiencing responsive behaviours in acute medical settings, (b) currently working closely with nurses delivering dementia care either through interprofessional collaboration or supporting their practice by delivering P.I.E.C.E.S. education, and (c) have received P.I.E.C.E.S. education. Nurses and allied health professionals who worked only on acute mental health units, the forensic psychiatry unit, or the LTC unit were excluded. None of the nurses consisted of my colleagues as I work on the LTC unit which is not included as the setting for the present study.

Maximum variation sampling was used to locate participants with different years of work experience, education levels, and dementia care preparation. Maximal variation enhanced diversity among the demographics of participants but the similarities within the experiences of participants still made it possible to identify common themes (Patton, 1990). Snowball sampling was used as a recruitment strategy to seek information-rich participants (Patton, 1990). The type of participants sought were those that colleagues believed would be able to share unique experiences in delivering care for older adults with responsive behaviours. Participants were asked to inform other eligible colleagues about taking part in the study and provide them with contact information of the investigators. To include multiple data sources as suggested by Thorne

(2016), P.I.E.C.E.S. educators and allied health professionals were interviewed. They provided their perspectives about dementia care practices in nursing.

Theoretical sampling was used following data collection and analysis of the initial phase of the study as patterns and themes emerged. Thorne recommends using such a technique as experiences of participants cannot be well understood until data collection begins (Thorne et al., 1997). Theoretical sampling ensured that varying perspectives were sought and included in the study by actively seeking participants with different demographic characteristics (Thorne et al., 1997). The gaps in understanding that led me to further sampling was the need to sample participants with varied levels of years of nursing experience as new graduate nurses may have different perspectives and understanding of responsive behaviours than senior nurses. Newly graduated nurses recently completed their nursing education while senior nurses typically depend on their organizations to provide ongoing education.

Approximately 150 nurses work on the targeted acute medical units. About 26 HCPs working at the hospital site received P.I.E.C.E.S. training and not all of them work on acute medical units. Only four P.I.E.C.E.S. trained nurses were currently working on acute medical units at the time of recruitment. Two P.I.E.C.E.S. trained acute medical nurses had moved on to work in critical care settings. P.I.E.C.E.S. training occurred in March of 2017. There was no known training date for a future session at the hospital site as the training was funded by BSO as a one-time educational opportunity. The sample size based on Sally Thorne's (2016) interpretive description design for a common phenomenon can be five to 30 participants. Responsive behaviours are common within the acute hospital setting so a sample size ranging from 10 to 15 participants in total across all three groups was targeted. Many qualitative studies conducted in the field of health used relatively small sample sizes (Thorne, 2016). Previous studies using

interpretive description included anywhere from 12 participants (Thorne et al., 2004) to 459 participants (Philips, Esterman, & Smith, 2014). A total of 15 HCPs participated in this study. The number of nurses included was 10 of which four were P.I.E.C.E.S. educated. Three allied health members participated in this study as well as two P.I.E.C.E.S. educators who were responsible for delivering the educational program.

Recruitment

BSO clinical leaders who have implemented P.I.E.C.E.S. education on acute medical settings, the P.I.E.C.E.S. Canada consult group, nursing managers, and the director of nursing at the hospital site were contacted. To recruit participants for this study, I requested that a BSO leader send an introductory email invitation to all eligible participants. This email outlined the purpose of the study and provided contact information of the investigators. The e-mail provided information regarding the type of participants sought for the study by listing inclusion and exclusion criteria. Before this e-mail was sent, I gained approval from the director of nursing. BSO clinical leaders were approached to identify the HCPs who received P.I.E.C.E.S. training as well as the P.I.E.C.E.S. educators who delivered training.

Nursing managers shared information about the study during their nursing meetings. I obtained approval from nursing managers to introduce my study to the nurses through a brief in-person introduction and to post a recruitment poster in the staff rooms and at the nursing stations. Introducing the study in person provided a face-to-face opportunity for nurses to ask me questions related to the study and address concerns. An incentive was offered to all participants (i.e., \$25 Tim Horton's gift card). Approximately two weeks before the date of an interview, all participants were emailed a copy of the consent form and interview guide to have an opportunity to familiarize themselves with the purpose of the study and interview questions.

Data Collection

For this study, individual face-to-face semi-structured interviews were conducted to gain the most comprehensive understanding of the phenomenon to be studied. Interviews were conducted with nurses and allied health professionals between December 2017 and March 2018. Nurses were asked about their day-to-day experiences in delivering care for older adults with dementia living with responsive behaviours. They were asked about the challenges met in care delivery, the barriers and facilitators of the acute medical environment, and education received in dementia care including P.I.E.C.E.S. education. Nurses were asked about collaborating with families and allied health professionals as well as strategies to improve dementia care. The questions that were used for the interviews prompted participants to expand on their ideas and provide clarification.

A second data source was used for this study consisting of interviews with P.I.E.C.E.S. educators and allied health professionals. The interviews with allied health professionals and P.I.E.C.E.S. educators focused on their experiences in collaborating with and supporting point of care nurses in providing dementia care for clients living with responsive behaviours as well as recommendations for dementia care. They were asked to elaborate on how P.I.E.C.E.S. education can support the practice of nurses and enhance teamwork. This strategy provided a comprehensive understanding of how others view responsive behaviours of dementia. This also provided insight about their perceptions of P.I.E.C.E.S. education in delivering care in acute medical units. Participants were encouraged to reflect on their own experiences and interpret them. By using such approaches, meaningful strategies were shared by participants to improve dementia care and the application of P.I.E.C.E.S. in acute medical settings.

Interview guides were developed and included open-ended and focused questions directed at the central phenomenon (Creswell, 2013). Interview guides were developed based on semi-structured qualitative research methods (DiCicco-Bloom & Crabtree, 2006) and began with general questions pertaining to the research topic such as experiences in dementia care while allowing participants to share their stories in their own words (Polit & Beck, 2012). Interview guides were developed based on dementia literature and feedback from the supervisory committee who hold expertise in dementia care, gerontology, and qualitative research. Participant demographics were collected such as age, gender, years of nursing experience, educational level, and years worked on an acute medical setting. Participants were asked if they had completed a previous dementia training program such as GPA, U-First, or Montessori/DementiAbility Methods within the last five years. See Appendix F for the participant characteristics questionnaire for nurses and Appendix G for the interview guide for nurses. The participant characteristics questionnaire and interview guide for P.I.E.C.E.S. educators and allied health professionals were modified from the ones provided to nurses. See Appendix H for the demographic questionnaire and Appendix I for the interview guide for P.I.E.C.E.S. educators and allied health professionals.

All interviews took place at a time and workplace setting chosen by participants. Some participants suggested to be interviewed after work and some requested to be interviewed during quieter times during their work hours. Interviews took place at private locations at the workplace of participants such as within unoccupied staff and conference rooms. This strategy respected the confidentiality of participants and mitigated exposure related to other colleagues being aware of study participation. Minor interruptions occurred during the interviews such as asking a colleague to attend to a client and being excused to answer a brief work-related phone call. These

small interruptions only occurred with nurses and is reflective of the busy nature of acute medical nursing. Some interviews were rescheduled at more convenient times and days for nurses due to unforeseen increased workload at the participant's request. The length of interviews ranged from 25 to 45 minutes. During the interviews, I avoided using value-laden prompts and I encouraged participants to provide direct answers to questions without controlling the interaction (Thorne, 2016).

Reflective field notes were made immediately after the interviews to describe important aspects such as non-verbal cues and environmental disruptions. Field notes were used as suggested by Thorne (2016) to capture actions and to highlight personal reactions by bringing important elements to light such as emotions experienced by participants that could not be audio-recorded. Field notes were therefore interpreted in conjunction with interviews to provide a more complete description of a phenomenon consisting of addressing responsive behaviours of dementia.

Data Analysis

I used a well-known approach that is consistent with Thorne's (2016) design and suitable for various types of research questions consisting of thematic analysis for data analysis. Thematic analysis is a method that is used to identify themes and patterns within data by focusing on the qualitative research question (Braun & Clarke, 2006). Thematic analysis has been used in other studies using Thorne's (2016) interpretive descriptive design (Edwards, McClement, & Read, 2013; Kalengayi, Hurtig, Ahlm, & Ahlberg, 2012). The specific variation of thematic analysis that was used for this study is experiential thematic analysis. Experiential thematic analysis is appropriate for the present study as it focuses on the viewpoints of participants, their experiences, and how they understand their world (Braun & Clarke, 2013). In

following Braun and Clarke's (2006) method, I followed the six phases of thematic analysis: (a) becoming familiar with the data, (b) performing coding, (c) seeking themes, (d) reviewing themes, (e) creating a definition for themes and naming them, and (f) developing a written report.

Step One: Becoming familiar with the data. I transcribed verbatim all of the audio-recordings. I was fully immersed in the data before beginning to code, organize, and highlight relationships between codes (Thorne, 2016). I listened to each audio-recorded interview three times before interviews were transcribed. Afterwards, I reviewed the interview transcripts three times independently and again with my supervisor before coding the first transcript. I allowed myself time to experience initial reactions when first examining data (Thorne, 2016). My initial reactions to the data were documented in an electronic notebook. I familiarized myself with individual cases and generated common themes from these cases (Thorne et al., 1997).

Step Two: Performing coding. Data were analyzed concurrently as interviews were being completed and a structure to examine data in a standardized fashion was developed. I sought guidance from my supervisor during the initial coding process so that I could use this systematic process for subsequent interviews. During coding, I ensured that codes developed reflected my research questions. Every piece of data from the interview transcripts was coded. I did not use excessive precision when first performing coding as it could limit the breadth of analysis. Instead, I initially relied on broad coding and applied general labels. Consistent with Thorne's approach (2016), constant comparative analysis was used to identify similarities and differences across participants and participant groups. Once all data items were coded, they were reviewed to create themes in the next phase (Braun & Clarke, 2006).

Step Three: Seeking themes. Themes were created based on the codes to highlight meaningful patterns within the data related to the research questions. Themes were generated

based on similarities between codes and the data (Braun & Clarke, 2006). I considered the relationships between codes and themes. Dedoose, a computer software program, was used to help organize themes (SocioCultural Research Consultants, 2018).

Step Four: Reviewing themes. Once themes were generated, they were reviewed by myself and my supervisory committee. I ensured that the themes were representative of the codes and data set. Themes were combined if they were deemed to be similar. Some themes were separated into two distinct themes if they were too broad and were deemed distinct such as in the case of separating strategies used to support persons with dementia into pharmacological and non-pharmacological strategies.

Step Five: Creating a definition of themes and naming them. Each theme was analyzed in-depth and a written analysis of each theme was created. I reflected on the themes and interpreted the meaning of the themes in relation to the research questions. Once a definition for each theme was generated, I began to name the themes by considering conciseness and suitability (Braun & Clarke, 2006). Readers should be able to have a general sense of the meaning of a theme through its name and careful attention was provided in naming them.

Step Six: Developing a written report. When writing a report of the themes generated, I ensured that the story I told reflected the voices of the participants and the data. I provided a comprehensive discussion of the themes and provided evidence to support the claims made. The report also represents the existing context of the current literature surrounding my phenomenon of interest (Braun & Clarke, 2006). Following thematic analysis, a secondary data analysis approach was used to compare the main concepts of the P.I.E.C.E.S. manual (Hamilton et al., 2010) to nursing transcripts to triangulate findings from more than one data source.

Secondary data analysis. A secondary data analysis method was used to incorporate cross-validation so that two sources of data, transcripts and the P.I.E.C.E.S. manual, can reveal patterns (Thorne, 1994). The nurses' transcripts were grouped based on those who did and did not receive P.I.E.C.E.S. training. I then conducted an extensive review of the P.I.E.C.E.S. manual (Hamilton et al., 2010) and came up with major concepts that were explored in the document. Once major concepts were identified, I used a constant comparative approach to compare data obtained from the nurses to the P.I.E.C.E.S. concepts to reveal similarities and differences related to the application and understanding of P.I.E.C.E.S. concepts between both groups. I wanted to see how well concepts were being understood and applied in both groups and whether P.I.E.C.E.S. education influenced the understanding of such concepts.

Promoting Rigour and Trustworthiness

To promote the rigour and trustworthiness of the study, strategies were integrated within the study process. A reflexive journal was maintained during the study process to ensure that I recognized my role as an influential one that could impact the study process through personal actions and past experiences (Finlay, 2002). I reflected on my assumptions and ideas about the phenomenon before collecting data and during data analysis by documenting them (Thorne, 2016). The reflexive journal contained entries where I commented on my emotions and the emotions of participants that arose during the interviews, strong themes that emerged, and the recognition of how my clinical experiences might shape my understanding of the results. I am also a nurse caring for older adults with dementia living with responsive behaviours and this was recognized to avoid placing assumptions on the experiences of others. In my journal I reflected on how I understand responsive behaviours and my perceptions in caring for older adults with dementia living with responsive behaviours.

I implemented data source triangulation by using multiple sources for data collection consisting of interviews with nurses, P.I.E.C.E.S. educators, the P.I.E.C.E.S. manual, and allied health professionals. This process assisted in achieving credibility and complementarity as well as validating data (Lincoln & Guba, 1985). Although the main focus of this study was on the perceptions and experiences of nurses, information received from P.I.E.C.E.S. educators and allied health professionals served as supportive data. Having multiple sources of data also allowed me to make comparisons between the perceptions of nurses and allied health professionals to highlight similarities and differences in caring for or interacting with persons with responsive behaviours.

Investigator triangulation was used by seeking feedback from members of the supervisory committee as they hold expertise in qualitative research, gerontology, dementia, and/or responsive behaviours. The committee members reviewed four transcripts each, two transcripts of non-P.I.E.C.E.S. trained nurses and two transcripts of P.I.E.C.E.S. trained nurses, to obtain a strong sense of the data and potential themes. The student investigator and the thesis supervisor performed independent coding of six transcripts each consisting of the two transcripts of P.I.E.C.E.S. educators, two transcripts of non-P.I.E.C.E.S. trained nurses, and two transcripts of P.I.E.C.E.S. trained nurses.

The student investigator and the thesis supervisor met bi-weekly for three to four months to compare codes and come up with a general coding framework. Once preliminary themes and sub-themes were developed, the student investigator and the supervisor met with the committee members monthly for two to three months to discuss themes and whether some themes should be combined or divided into separate themes. Consensus regarding the acceptance or elimination of themes was reached through open and rich discussions among the student investigator, the

supervisory committee, and the supervisor. To increase the transferability of the study findings, rich thick descriptions were used when describing the study's setting and sample (Lincoln & Guba, 1985). The student investigator ensured that field notes were made using rich descriptions so that they could complement data from interviews.

For interpretive description, the criteria to achieve credibility consist of “epistemological integrity, representative credibility, analytic logic, and interpretive authority” (Thorne, 2016, p. 96). To reflect epistemological integrity, I ensured that my line of reasoning was aligned with my research questions, the design I chose, and the assumptions that I made about knowledge generated. I reflected on my research questions independently and incorporated suggestions from my supervisory committee to ensure that data obtained were appropriate in answering my research questions. I maintained my epistemological position throughout the study process through transparency and making notes in a reflexive journal to ensure that my assumptions did not influence the perspectives of participants.

To ensure representative credibility, I used triangulation of two data sources to expand knowledge generated through different worldviews (Thorne, 2016). I included data from allied health professionals to support the claims made by nurses and to offer an alternative perspective on caring for or interacting with older adults with dementia. Including two data sources better supports theoretical statements made and enhances validity of such claims. Credibility was maintained throughout this study by using purposive sampling to seek information-rich participants who frequently encounter responsive behaviours and reaching data saturation through the emergence of repetitive patterns of themes. These strategies all reflected interpretive description principles (Thorne, 2016).

In terms of analytic logic, I ensured that the study process followed clear logic and was explicitly described by ensuring that the description of my research methods was detailed yet sound (Thorne, 2016). A thorough review of the current literature was also conducted prior to developing the research protocol to ensure that this study was supported by recent evidence and was reflective of the current gaps in the literature. I ensured that my coding framework that includes the direct quotes of participants supported my interpretations and claims. As I am a novice researcher, I sought the input and collaboration of my supervisory team members to assist in data analysis by validating or refuting themes.

When considering interpretive authority, I displayed honesty in my findings and took into consideration my past experiences (Thorne, 2016). I was aware of my role as an interpreter of data and ensured that my themes were reflective of the words of the participants. I maintained a journal throughout the study process and performed reflexivity to increase the trustworthiness of my findings by separating my assumptions from the perceptions of others. I also allocated a section near the start of my thesis to describe my own personal reflections on responsive behaviours of dementia and the perceived need for education in dementia care. This allowed me to reveal to my audience how my interest for responsive behaviours of dementia blossomed and how I view the phenomenon of interest.

Ethical Considerations

Ethics approval was received from the Hamilton Integrated Research Ethics Board (HiREB #4101). All participants received a written introduction to the study and provided written informed consent. See Appendix J and Appendix K for the informed consent forms for nurses and for P.I.E.C.E.S. educators and allied health professionals. To protect anonymity of their responses in the data set, codes were used and the location of employment was not

documented. Participation in the study was voluntary. Participants were free to choose not to attend the brief introductory presentation of the study on their units. Only one e-mail was sent out to participants as most participants volunteered to take part in the study following in-person presentations. During the interviews, some emotions resurfaced from participants associated with caring for older adults living with responsive behaviours. One participant cried near the beginning of the interview as this participant felt that caring for older adults made her think of her parents. The interviewer asked the participant if she would like a break from the interview at which she declined. Throughout the rest of the interview, no further strong emotional expressions occurred.

Participants were asked to recall past events in caring for persons with dementia during the interviews and some participants shared personal experiences in being met with responsive behaviours of a physical nature which could have caused distress. I planned to provide participants with contact information for counselling through their occupational health department although, none of the participants requested counselling or appeared to require it. Participants were provided with the option to refuse to answer any questions and withdraw from the study at any time without facing any consequences. Participants were also free to choose to end the interview at any time.

Financial Consideration

Financial support for this study was provided through a research grant provided by the Alzheimer's Society Foundation of Brant, Haldimand-Norfolk, Hamilton, and Halton. Funding was received during the Fall 2017 cycle.

CHAPTER 5: RESULTS

This chapter reports the findings of the study and is separated into different sections to report main themes. This chapter begins with reporting the demographic characteristics of all HCPs included in this study and highlights which educational program in dementia care they completed. The themes and sub-themes of this study are divided into three sections reflective of the main research questions: (a) nurses' experiences in providing care for older adults with responsive behaviours, (b) nurses and allied health professionals' perceptions of P.I.E.C.E.S. education, and (c) recommendations for dementia care and P.I.E.C.E.S. education. Embedded within the section pertaining to P.I.E.C.E.S. education is a secondary data analysis conducted by comparing the concepts in the P.I.E.C.E.S. manual to the responses made by both P.I.E.C.E.S. and non-P.I.E.C.E.S.-trained nurses. Direct quotes of participants are embedded within the themes and are used to support statements made. Direct quotes are coded with a letter N for nurses, the letters PTN for P.I.E.C.E.S. trained nurses, AHP for allied health professionals, and PE for P.I.E.C.E.S. educators. A summary of key results will be provided at the end of this chapter to highlight important findings.

Demographic Characteristics

The mean age of the 15 HCPs was 42.9 (SD=12.9) (Table 1). Years of experience working in an acute medical unit ranged from less than one year to more than 10 years of experience. Most of the participants had 10 years or more of experience in their current role (60.0%). Most of the participants were female (86.7%) and only two participants were male (13.3%). In terms of highest level of education completed, most of the participants had a bachelor's degree (73.3%). More than half of the participants were working full-time at the time of the study (60.0%). Participants worked in a variety of roles such as a RN, RPN, nurse

educator, physiotherapist, occupational therapist, and P.I.E.C.E.S. educator. Some participants held more than one position such as behaviour specialist, psychogeriatric resource consultant, and geriatric case manager.

Table 1. Demographic Characteristics of HCPs (N=15)

Participant Demographics

Characteristics	n (%)
Age in years [Mean (SD)]	42.9 (12.9)
20-29	4 (26.7%)
30-39	1 (6.7%)
40-49	5 (33.3%)
50 and above	5 (33.3%)
Gender	
Female	13 (86.7%)
Male	2 (13.3%)
Highest education completed	
College diploma	4 (26.7%)
Bachelor's degree	11 (73.3%)
Professional background	
Nursing	11 (73.3%)
Occupational therapy	2 (13.3%)
Physiotherapy	1 (6.7%)
Social work	1 (6.7%)
Current role(s)*	
Registered nurse	7 (46.7%)
Registered practical nurse	3 (20.0%)
Nurse educator	1 (6.7%)
P.I.E.C.E.S. Educator/Behaviour specialist/ Psychogeriatric resource consultant	2 (13.3%)
Physiotherapist	1 (6.7%)
Occupational therapist/geriatric case manager	1 (6.7%)
Number of years of experience in current role(s)	
≤ 2	2 (13.3%)
3-4	3 (20.0%)
5-9	1 (6.7%)
10 and up	9 (60.0%)
Number of years of experience in an acute medical unit	
≤ 1	2 (13.3%)
1-2	1 (6.7%)
3-4	5 (33.3%)
5-9	3 (20.0%)

10-14	2 (13.3%)
15 and up	2 (13.3%)
Employment status	
Regular full-time	9 (60.0%)
Regular part-time	6 (40.0%)
Completed a dementia care training program within the last 5 years	
Yes	14 (93.3%)
No	1 (6.7%)
Dementia care training program(s) completed within the last 5 years**	
P.I.E.C.E.S. Education	9 (60.0%)
Gentle Persuasive Approaches (GPA)	14 (93.3%)
U-First	1 (6.7%)
Montessori/DementiAbility Methods	2 (13.3%)
Geriatric certificate program	1 (6.7%)
Crisis Prevention Institute (CPI): dementia care training	1 (6.7%)
Attended a dementia care conference within the last 3 years	
Yes	5 (33.3%)
No	10 (66.7%)

* Some participants worked in more than one role

** Most participants completed more than one dementia care training program

All but one participant had completed a dementia care training program within the last five years (93.3%). The HCPs who had completed a training program in dementia care took a variety of well-known courses. Within the last five years GPA had been offered to all nurses at the study site and it is now offered as part of the orientation program for new hires to the hospital. More than half of the participants completed more than one dementia care training program within the last five years with most receiving GPA (93.3%) and P.I.E.C.E.S. training (60.0%). Over half of the participants did not attend a dementia care conference over the last three years (66.7%). P.I.E.C.E.S. educators in this study received more training compared to other participants. This may be reflective of the need to remain up-to-date in dementia care due to their roles as P.I.E.C.E.S. educators. Table 2 provides a dementia care education matrix to reflect dementia care training received by participants. This table allows one to interpret quotes in the context of training programs that participants completed.

Table 2. Dementia Care Education Matrix

Participant	Program Name					
	P.I.E.C.E.S.	GPA	U-First	Montessori/DementiAbility Methods	Crisis Prevention Institute	Geriatric Certificate Program
AHP-01	X	X				
AHP-02	X	X				
AHP-03	X	X				
N-01		X				
N-02		X				
N-03		X				
PTN-04	X	X				
N-05		X				
N-06						
PTN-07	X	X			X	
N-08		X				
PTN-09	X	X				
PTN-10	X	X				
PE-01*	X	X		X		X
PE-02*	X	X	X	X		

*To protect the identity of P.I.E.C.E.S. educators, code numbers were not included with quotes.

Nurses’ Experiences in Caring for Older Adults with Responsive Behaviours

The nursing experiences in delivering care for persons with responsive behaviours of dementia were reflected in five major themes: (a) delivering dementia care is a complex experience, (b) using pharmacological strategies to support older adults with dementia, (c) using low investment non-pharmacological strategies to support older adults with dementia, (d) facing barriers in providing dementia care, and (e) encountering facilitators in delivering dementia care.

Each of these themes are explored in the next sections. See Table 3 for a list of themes and sub-themes related to nursing experiences.

Table 3. Themes of Nurses' Experiences with Responsive Behaviours

Themes	Sub-themes
1. Delivering dementia care is a complex experience	<ul style="list-style-type: none"> a) Navigating through different perspectives: <i>"you have to look at every side"</i> b) Providing care can be challenging: <i>"basic nursing care...is difficult"</i> c) Embarking on an emotional journey: <i>"you try to control your emotions"</i> d) Labelling persons living with responsive behaviours: <i>"he was just really combative"</i>
2. Using pharmacological strategies to support older adults with dementia	<ul style="list-style-type: none"> a) Using chemical restraints in <i>"desperate"</i> situations: <i>"they're kicking, they're screaming, they're biting"</i> b) Using chemical restraints as a pro-active approach: <i>"knowing that it's [responsive behaviours] coming"</i>
3. Using low investment non-pharmacological strategies to support older adults with dementia	<ul style="list-style-type: none"> a) Involving allied health professionals and specialty teams: <i>"they share a different way"</i> b) Involving families: <i>"if the family is involved then it is really helpful"</i> c) Using person-centred approaches: <i>"I love playing music for patients"</i> d) Assigning a one-on-one provider: <i>"there is always somebody with them"</i> e) Ensuring safety: <i>"the patient is in a safe place"</i> f) Using written information as a resource: <i>"the social worker notes, OT [occupational therapist] notes, PT [physiotherapist] notes"</i>
4. Facing barriers in providing dementia care	<ul style="list-style-type: none"> a) Limited time and a focus on acute needs: <i>"it's priority over chronic"</i> b) A <i>"fast-paced"</i> environment and push for discharges: <i>"it's an active environment so it's even harder"</i> c) Inadequate staffing and increased workload: <i>"we don't have the staff to do it"</i> d) Under-stimulation for older adults with dementia: <i>"I think they're very bored"</i>
5. Encountering facilitators in delivering dementia care	<ul style="list-style-type: none"> a) Shared care practices and strong interprofessional collaboration: <i>"we all help him"</i> b) Good continuity of care: <i>"they're used to my familiar face"</i> c) Holding team meetings: <i>"behavioural rounds might help"</i>

Delivering dementia care is a complex experience. Nurses shared common perceptions and complex experiences in addressing responsive behaviours which reflect the strong influence of the nursing culture on acute medical units. The sub-themes were: (a) navigating through different perspectives, (b) providing care can be challenging, (c) embarking on an emotional journey, and (d) labelling persons living with responsive behaviours.

Navigating through different perspectives: “you have to look at every side”. Nurses reported having to navigate through and incorporate different perspectives when delivering care for persons with dementia. They felt that they were faced with multiple perspectives in acute medical units related to the views of family members of older adults with dementia and allied health professionals. To ensure that the perspectives of family members were being reflected in nursing care, nurses negotiated care priorities with families of clients with responsive behaviours. Nurses recognized the difference in perception of “good care” between nurses and families in acute medical settings and sought solutions that would satisfy both parties:

...there is one particular family that came in and did not like the way we were managing the patient yet, we were doing really well but, ...They're finding fault with everything we do yet, we were doing amazing with this patient...you have to look at every side...So you try and listen, you try and negotiate, you try and come to a resolution together. (PTN-04)

Nurses were also faced with unrealistic expectations of family members of clients with responsive behaviours. Families believed that nurses should be constantly monitoring their loved ones and a lack of resources on acute medical units was perceived as impeding their ability to meet expectations:

Also, with these responsive behaviours if they're climbing out of bed, if they're a danger to themselves or others, families expect us to be at the bedside 24/7. And that's challenging as well because we don't have the capacity to do that... (N-08).

In navigating and addressing the views of family members, conflicts arose between nurses and family members when they were unable to come to an agreement regarding plans of

care for clients with dementia. In terms of discharge planning, some nurses felt that clients with dementia could be cared for at home by family caregivers, yet family members did not agree: *“You know we try to get them ready to go home but, the family doesn’t think they’ll be able to cope and doesn’t want to take them home...”* (PTN-07). The reasons for families not wanting to care for loved ones with dementia exhibiting responsive behaviours at home were perceived by nurses as related to caregiver burnout, fear for the safety of their family member, and lack of education on dementia. Allied health professionals also discussed experiences of conflict with families, particularly related to discharge planning: *“...the family wanted this patient to go to long-term care...but she started having responsive behaviours here...So, then there were some beds available for the behavioural unit and the family did not want that patient to go”* (AHP-03). In order to avoid conflicts with families it was seen as important to assess *“if the family has a good understanding of the dementia patient”* (N-06). Some nurses mentioned the need to educate families on dementia and responsive behaviours because they felt that some families *“would take actions that can...agitate the patient simply because they’re not educated enough”* (N-05).

Nurses were also faced with having to navigate through different perspectives among allied health professionals in delivering care for persons with dementia living with responsive behaviours. Nurses felt that they were in a better position to advocate for clients with dementia compared to other HCPs because they were the most familiar with their clients: *“Not to say that we know better as nurses but we are observant more because of the time we’re able to spend with the patient. So, it’s just educating them [medical students] on the patient...”* (N-02). Nurses felt that they rapidly recognized changes in the medical condition of clients with dementia and persevered in pushing the medical team to take action when necessary. Nurses sometimes felt that their perspectives were not considered by others and that their voice was not acknowledged

within the healthcare team. They felt that they were sometimes left out of the team's decisions to the detriment of the client as they perceived themselves to have a strong knowledge base related to the responsive behaviours of older adults with dementia.

...with nursing sometimes, I feel like we get left out of the collaborative team. I feel like the team they have their meeting and sometimes they don't consult with the nurses which can be a challenge because we're the ones that see their behaviours hourly. Potentially plans are made that don't align like as how we feel... I don't feel that we're always included in the discussions. (N-08)

Allied health professionals felt that the lack of involvement of nurses in team meetings and discharge planning impacted client care as nurses were largely unaware of what the next steps were for clients with dementia.

Well I think sometimes we've got a plan together, we've done a family meeting, again no nurse, with home care and social work, PT, OT, a doctor usually and got a plan and ok we're gonna put on these services for this person. They're going to be able to go back to their retirement home and the nurse kinda goes "they can't go to a retirement home" ...because they haven't been involved in making plans...they're maybe not on the same page with the rest of the team. (AHP-02)

Providing care can be challenging: "basic nursing care...is difficult". Nurses perceived that being able to deliver care (e.g. performing venipuncture, initiating intravenous therapy, and obtaining vital signs) for older adults living with responsive behaviours on acute medical units as challenging. Almost half of the nurses perceived that performing invasive treatments and assessments for persons with dementia took more effort, time, and skill than for other clients. Some of the nurses recognized that clients with dementia may experience discomfort with and may not be able to understand the benefit of such routine tasks leading to the refusal of care: *"Sometimes it's challenging because they may not understand why we're doing these things and these things are painful, uncomfortable, and often times they may refuse them. So it could be challenging to do... that type of care"* (N-08). Even when nurses were able to perform routine assessments, the accuracy of some assessments such as a blood pressure reading may be

impacted by the poor cognition of persons with dementia and being unable to follow instructions.

One nurse reported the difficulties in obtaining vital signs:

So, putting a blood pressure cuff on their arm, that squeezes, that tightens, can escalate their behaviours. They think we're doing that to them, it's uncomfortable, they want to rip that off. They get stressed out, their blood pressure gets elevated, their reading may not be accurate. Getting a temperature even...it may have to be axillary and that's if they're able to stay still. So in that aspect of basic, basic nursing care, it is difficult. (N-02)

Nurses also felt that some treatments such as intravenous therapy were necessary for the well-being of clients with dementia. They felt morally conflicted in providing life-sustaining treatment while clients were clearly in distress and refused such treatments. One nurse shared an experience in providing treatment on an acute medical unit:

I was helping a colleague with a patient who was actually living with dementia...on our unit and I remember we were trying to insert like an IV for him because we had to provide medical treatment...he was kicking and yelling and grabbing on to us and it was very, very difficult...it was heartbreaking to see him act like that too but, at the same time we're trying to provide him with the medical care that he needs. So...that was very challenging. (N-05)

Embarking on an emotional journey: “you try to control your emotions”. When delivering care for older adults with dementia experiencing responsive behaviours on acute medical units, nurses were overwhelmed with various emotions. They experienced one emotion after another and sometimes emotions were experienced simultaneously such as anger and vulnerability. The most common emotions that were expressed by nurses were frustration, anger, fear, and sadness. Nurses delivering care for persons with dementia on acute medical units were frustrated due to the busy nature of the environment and not being able to effectively address responsive behaviours. More than half of the nurses reported feelings of frustration related to various factors such as not having time to attend to clients with dementia and being met with resistance in delivering care. One nurse reported sympathizing with clients with dementia exhibiting responsive behaviours and feeling frustrated in not being able to always meet the

needs of clients with dementia: *“You feel bad for the patients but, also you get a little frustrated too because it’s a medicine floor. It’s very busy. Things start happening really quickly”* (N-03).

When clients with dementia exhibiting responsive behaviours had additional health issues, providing care for such clients was perceived to cause even more frustration among nurses in attempting to meet their needs: *“...there was a patient on our unit that had dementia and was blind. So, the frustration was in two aspects, it was the cognition and sight”* (N-02).

In trying to provide comfort and find a reason behind a responsive behaviour, some nurses reported feeling frustrated in not knowing what clients were trying to express as reported by one nurse:

They’re acting out for a reason but, it definitely is challenging to deal with especially when you don’t know why they’re upset or why they’re showing those behaviours and they can’t explain it. So, it can be stressful as well to try and figure out what’s going on. (N-08)

Some nurses also expressed frustration because they felt that their philosophy of “best” care was not being provided. These nurses reported feeling internal conflict related to not being able to provide good care based on their standards because the occurrence of responsive behaviours among clients with dementia affected care delivery: *“...sometimes it’s really frustrating because...your perception of best care is not being given because of responsive behaviour. They’re not very compliant...they’re not open to receiving care”* (PTN-10).

Among allied health professionals, some responsive behaviours were perceived as causing frustration, particularly calling out or repetitive behaviours. Such behaviours were deemed as even more frustrating to address than responsive behaviours of a physical nature.

I do find it upsetting, to some degree. Especially you know the calling out. Actually, the aggressive behaviours, the hitting...I once had someone throw a glass of water at me and...that actually didn’t bother me. It’s the calling out, it’s the crying and repetitive questions that I find harder to handle personally. (AHP-02)

An allied health professional perceived that providing direct care for persons with dementia can be frustrating because of lack of time and the need for modification to one's approach:

I think for the average staff working day to day providing hands on care, it can be quite frustrating, partly because it takes time and it takes a lot of adjustment to your own approach to give the person with dementia a successful outcome. (PE)

Nurses reported feeling angry when physically harmed at work and feeling that not enough action occurs at an organizational level when nurses do get hurt. When nurses encountered responsive behaviours of a physical nature, initially they were upset when met with physical force by clients with dementia but, this anger soon turned to feelings of vulnerability and powerlessness. One nurse shared a personal story of being punched by a client with responsive behaviours and the turbulent emotions that were experienced:

Well I think it's human nature to be really upset. You try to control your emotions or your anger. You just gotta realize that these are patients and basically, they don't know what they're doing sometimes...so that's what I felt to be honest. There's anger, there's...you kind of like feel sometimes helpless at the same time because you can't do anything. (PTN-10)

Nurses were also upset at how often responsive behaviours of a physical nature occurred on acute medical units and that not enough strategies were being implemented to prevent these behaviours from occurring in the first place. When responsive behaviours of a physical nature did occur, nurses perceived that the organization was either slow to take action or did not implement changes to protect their safety and the safety of others: "...unfortunately when it [responsive behaviours of a physical nature] happens, nothing changes. So that makes the nurses upset because nothing, we feel nothing is being done" (N-01). Nurses were angry when they found themselves in situations where responsive behaviours of a physical nature occurred due to lack of available resources. One nurse shared personal views on being met with responsive behaviours of a physical nature: "...you feel a little bit angry because you've been put

in that situation [where responsive behaviours of a physical nature occur] wondering if maybe there's not enough resources or perhaps the patient wasn't medicated sufficiently..." (N-06).

A few nurses reported experiencing fear when delivering care for older adults with dementia exhibiting responsive behaviours on acute medical units. The risk of harm associated with persons exhibiting responsive behaviours of a physical nature towards nurses or others was perceived as frightening. Nurses reported that being physically harmed at work was not seen as uncommon for nurses. *"...nurses are hit and kicked and punched...we get afraid of them too because we don't want to get hurt and some nurses end up getting hurt too..." (N-01).* Nurses feared for their own safety and the safety of other clients.

...like everybody else, immediately you get a little frightened [when responsive behaviours of a physical nature occur]. It takes you back and it makes you nervous...you're fearful for your own safety. You're fearful for the safety of other people that may be involved. (N-06)

Some nurses reported that responsive behaviours can occur unprovoked and that these behaviours are unpredictable. Due to the fear for one's own safety, one nurse expressed looking for employment outside of the organization:

Scared in a sense you know...you never know who's behind you and they're just gonna like hit you. Yeah, I feel scared for myself. That's one of the reasons why I try to look for another job because it's a very risky thing to do. When I got hit, it was an eye opening. (PTN-10)

Nurses were also saddened to witness how dementia affects an individual leading to responsive behaviours and that persons with dementia are not in control of their behaviours. Almost half of the nurses reported feelings of sadness in delivering care for older adults with dementia experiencing responsive behaviours. Nurses felt that when clients with dementia experience responsive behaviour of a physical nature and unintentionally harmed others, this brought about feelings of sadness as they empathized with these clients: *"I don't think they walk around thinking "oh, I am gonna beat them up". I think there's something that's initiating that*

and it's very sad" (N-06). Nurses expressed feeling sad when they felt that they had exhausted all of their strategies and were unable to effectively address responsive behaviours of a physical nature:

...we had one person who had like really severe dementia and he was very combative...I felt bad for him...it was kind of a sad situation. He was just remembering things from his past and nothing was really getting through to him... (N-03).

Due to the unfamiliarity of the acute medical units and being met with different staff and routines, some nurses felt sad to witness the distress that these clients experienced: "...*anxious and the depth of her despair and crying, like that's very, very sad to see*" (PTN-04).

Although nurses experienced strong emotions when caring for older adults with responsive behaviours, they often minimized and dismissed their experiences by stating that "*it can be stressful*" (N-08) and they felt "*a little bit angry*" (N-06) and "*a little frightened*" (N-06). Some situations in care delivery were seen as "*kind of a sad situation*" (N-03). Giving little importance to emotions and repressing them reveal that nurses were perhaps not discussing their emotions with peers and others in their organization. Nurses learned to devalue or ignore their feelings. Nurses stated that they were upset when met with responsive behaviours yet, they belittled their experiences and felt that the organization did not adequately address this issue.

Labelling persons living with responsive behaviours: "he was just really combative".

Nurses recognized that responsive behaviours were associated with dementia and perceived that older adults with dementia did not intend to do harm to themselves or others, yet they applied depersonalizing labels to this population. Nurses understood that responsive behaviours were out of the control of clients: "*It's [responsive behaviours] not directed at me. It's...their disease process*" (PTN-04). Some of the nurses reported understanding how dementia affects brain functioning impacting the ability of persons with dementia to follow commands as "*their brain*

isn't processing what you've actually told them" (PTN-07). In the process of disorientation, fluctuating levels of awareness, and attention deficits, responsive behaviours may occur.

Despite the nurses' reported understanding of responsive behaviours, nurses applied labels to older adults exhibiting responsive behaviours, perhaps subconsciously. Labelling may be common due to the nursing culture in acute medical units that encourages rapid recognition of medical issues. Nurses often labelled persons with responsive behaviours by using negative terms such as *"aggressive"*, *"confused"*, *"behavioural"*, and *"combative"*. When sharing a story related to caring for a client with dementia who resisted hygiene care, one nurse called this client combative: *"...every time you would go into his room to change him, to do anything, he was just really combative..."* (N-03). Responsive behaviours were also perceived to be associated with verbal or physical aggression. When nurses heard the term responsive behaviours, they were quick to assume that some form of aggression may be exhibited. One nurse stated: *"the big picture is usually...we're talking about the verbally and physically aggressive patient"* (PTN-09).

Some of the more senior nurses believed that the term responsive behaviour was fairly new and it was poorly understood in acute medical settings. One nurse felt that the term responsive behaviour *"sugar-coats"* (N-06) responsive behaviours of a physical nature: *"...when I hear responsive behaviours because I am an older nurse and because I've worked with violent patients, I go right to knowing they're violent then I know how to approach them better"* (N-06). Older adults with responsive behaviours were impacted by stigmatization on acute medical units as nurses felt that these clients were typically violent. By applying labels for persons with dementia, some nurses believed that this increased awareness of the types of responsive behaviours clients may exhibit and encouraged them to take safety precautions.

Only three nurses of the total sample of 10 had an understanding of responsive behaviours that was consistent with recent definitions in the literature consisting of a way to communicate a need (Murray Alzheimer Research and Education Program, 2017) while most allied health professionals understood that such behaviours reflect an unmet need. The poor understanding of responsive behaviours among nurses is perhaps a contributor to stigmatization of older adults with responsive behaviours. Of the three nurses who perceived responsive behaviours to be related to an unmet need, only one was P.I.E.C.E.S. educated.

The nurses who did perceive responsive behaviours as a mode of communication felt that such behaviours took place because older adults with dementia are not able to verbally communicate their needs and they are trying to exert some control in an unfamiliar environment. One new graduate nurse shared a definition of responsive behaviours that eloquently reflected how they are defined within research:

In terms of responsive behaviour with individuals living with dementia, I think it's a way of them expressing their needs or their wants simply because they would have difficulty expressing those...I feel like their behaviour is a way of them exerting control or in their environment, basically. (N-05)

Compared to nurses, allied health professionals were more likely to hold a personal definition of responsive behaviours that was reflective of the recent literature: *"From my point of view, responsive behaviours are the way that a person with dementia, particularly, expresses or responds to something..."* (PE).

Using pharmacological strategies. Nurses used pharmacological strategies to support clients with dementia experiencing responsive behaviours. Nurses reported: (a) using chemical restraints in *"desperate"* situations and (b) using chemical restraints as a pro-active approach.

Using chemical restraints in "desperate" situations: "they're kicking, they're screaming, they're biting". Nurses reported using chemical restraints as a last-resort solution

and in times of desperation when they were unable to address responsive behaviours through other alternatives such as talking with clients. Chemical restraints were administered due to the limited resources available in the acute medical setting. Nurses reported using chemical restraints when de-escalation was ineffective and clients had signs of distress: “...*a patient is getting aggressive, it’s a language barrier, they’re kicking, they’re screaming, they’re biting and the only form before physical restraints...it’s usually prn Haldol or something chemical...*” (N-02). Nurses perceived that the use of chemical restraints was a short-term solution for clients exhibiting responsive behaviours and recognized the risk for clients in terms of side effects and safety issues such as falls. One nurse shared feeling morally conflicted and desperate when clients with responsive behaviours posed a safety risk to others and themselves:

[when asked of feelings associated with using chemical restraints] Desperate...Well first of all the drugs that we do use there are side-effects and you know what we’ve got a patient now that’s going to go to sleep...whether it’s the middle of the day...That’s not...a normal pattern but, of course as a nurse...you’re now going to get two hours of being able to do stuff but then the patient is sometimes groggy, you know? Huge falls risk but, we need them [chemical restraints] sometimes. But, do I always agree with them? No. (PTN-04)

Most nurses in this study reported administering chemical restraints when they found themselves in desperate situations and they felt that they had already exhausted other alternatives. Feeling desperate also meant that nurses had no other choice but to administer a chemical restraint as they were falling behind on their nursing duties. Allied health professionals also perceived that medications can potentially be beneficial for clients with dementia as a last-resort strategy but, that their use could lead to poor outcomes.

...the only medications that really help a person with dementia that is neither depressed or psychotic are sedation...and that’s ultimately going to lead to falls and bladder and bowel issues...So, we have to let go of the false belief that medication for a lot of these folks and the problem with that is the alternative, the non-pharmacological alternatives take time and people and sometimes a lit bit of training. So, I think it’s difficult in lots of settings but certainly in acute care. (PE)

Using chemical restraints as a pro-active approach: “knowing that it’s coming”. Some nurses reported administering chemical restraints for persons with dementia with known responsive behaviours before these behaviours were exhibited. Being pro-active in this sense was perceived as a way to prevent harm to themselves and others. Nurses would ask physicians if they could order medications for clients with responsive behaviours if they felt that clients had a routine of exhibiting responsive behaviours at a certain time:

...usually if I think somebody should have something [medication] to help them settle like at 3 pm, I’ll go to the doctor or geriatrician and say “you know what, he gets, you know he gets agitated, can we get something you know prior to knowing that it’s coming?” too or if they just have a prn, as needed, and we know it’s everyday then we are going to ask them and say, can you order that daily? (N-01)

Some antipsychotics were also perceived as medications typically prescribed for persons with dementia. One nurse stated: “...some of the medications, we know it’s for dementia patients like *Haldol and the other medication...Seroquel...*” (PTN-09). More than half of the allied health professionals perceived that nurses at times were quick to administer chemical restraints before trying non-pharmacological approaches: “*I think I’ve seen it [medications] sometimes used not inappropriately but before other things have been tried which I think is a bit frustrating*” (AHP-03). Allied health professionals also recognized that limited time and resources impacted the practice of nurses in acute medical settings. An allied health professional shared an example:

...acute care nurses by and large tend to...gravitate more to quicker solutions and tranquilization...and the sentiment is limited time, limited resources, competing priorities. So, some of the work that needs to be done to come up with meaningful strategies and solutions by and large is not perceived by acute care nurses. (PE)

Using low investment non-pharmacological strategies. Nurses used simplistic forms of non-pharmacological approaches to provide care for persons with dementia including involving different individuals (e.g. one-on-one providers, families, specialty teams, and security personnel) and person-centred strategies. These strategies required low investment in terms of

resources and time. Strategies used were (a) involving allied health professionals and specialty teams, (b) involving families, (c) using person-centred approaches, (d) assigning a one-on-one provider, (e) ensuring safety, and (f) using written information as a resource.

Involving allied health professionals and specialty teams: “they share a different way”.

Collaborating with and including a variety of allied health professionals in the care of persons with dementia were perceived to be beneficial by all nurses. Involving allied health professionals promoted sharing of information about the client. Nurses felt that other HCPs should be involved in the care of clients with dementia to provide different perspectives.

I think it's [collaborating with allied health] really important because as a nurse we take the broad way but the other healthcare providers like PT, OT, they share a different way about the patient and when we talk about the patient, we can see the big picture and then plan for the patient. Each patient now every time what went well and then how to approach the patient...So working as a team is really more effective for patient care. (PTN-09)

Nurses felt that involving a variety of allied health professionals in the care of clients with dementia experiencing responsive behaviours helped keep these clients occupied and provided time for nurses to attend to other duties. Nurses therefore perceived the need at times to transfer care of their client with responsive behaviours to others:

If physio is involved and say listen “he really wants to go for a walk now, do you think you’d take him?”. That gives me time as well. Social workers are phenomenal...The behavioural therapist has absolutely...we’ve only kind of known this in the last year and they’ve been amazing. Occupational therapy, they’ll come up and maybe get things for them to do. We have one particular patient in there now, he has paintings, he has colouring things, he has...we’re always finding ways to keep him occupied. (PTN-04)

Nurses also involved specialty teams to support them in providing care for persons with dementia and they relied on their expertise for advice, information, and consent, particularly regarding ordering medications.

...we have geriatricians...that’s a positive part of what the hospital does. So sometimes the geriatricians are helpful and sometimes medications are needed so they would be the ones

that prescribe those and sometimes those are actually very helpful...and sometimes these people improve. (N-08)

All of the allied health professionals in this study involved various disciplines when caring for clients with dementia. They also relied on nurses to share information about persons with dementia and relay information to families. Allied health professionals perceived that specialty teams (i.e. Behavioural Support Ontario (BSO) and geriatrics team) were valuable resources to have on site to support HCPs in caring for clients with dementia and providing helpful suggestions for care. BSO are composed of expert clinicians who provide recommendations for staff delivering care for clients with complex behaviours including responsive behaviours of dementia (BSO, 2017):

At an organizational level, we are actually quite lucky here because we have a geriatrics team that is very helpful. We also have [name removed] who is a BSO lead and she actually establishes all these patients who require these extensive plans. (AHP-01)

Involving families: “if the family is involved then it is really helpful”. Nurses recognized the need to involve families in the care of persons with dementia because they have the most knowledge about the person and serve as a source of familiarity and comfort. All of the nurses reported involving families in the care of persons with dementia experiencing responsive behaviours throughout their stay on acute medical units. Providing care for clients with dementia was perceived as less challenging if family was involved:

...most of the time the patients aren't really suspicious of their families. They're more receptive to take care for them and so...when they are able to help us then we try to utilize them as much as we can. We try to get as much help as we can from them. (N-03)

Collaborating with family members was perceived by nurses to decrease emotional distress for older adults with dementia through familiarity: “...if family was involved there would be more compliance, less responsive behaviours, because with dementia, they feel lost and with family around them, they feel more...there's less anxiety, there's less agitation” (PTN-10). When

persons with dementia were unable to share their own life story, families were perceived as an important substitute for providing personal information that could help nurses better care for and know these clients:

...when the family is there, we'll ask and we'll talk about their family member and say "oh, he used to be a school teacher" or "a policeman". So that makes us understand more you know, it's nice for us to understand what they did when they were healthy. (N-01)

Nurses would seek the involvement of family members and friends in providing information regarding persons with dementia as part of a process to gather data:

...talking to their family or friends is the easiest thing and the most useful resource because they tend to be the ones that know the patient the most. Even if the patient cannot remember certain things about themselves, their friends and families usually know and getting that information from their friends and families can really be helpful... (N-05)

Most allied health professionals perceived the usefulness of involving families in the care of clients with dementia through the provision of comfort and familiarity. Allied health professionals felt that families or friends can provide valuable information to help individualize care. One allied health professional beautifully illustrated this perspective:

*In cases where they are not able to share or be a good historian for themselves, you look to... the closest person to them. It could be a family member, it could be a friend but you search for things that are from their distant past, things that will resonate with them, proper names, routines, things that will...**make their heart sing** and music is an example of that. So, we look to the person within their lives who is perhaps in the best position to be a very good historian and see what we could get from that and hopefully share that and blend that into care. (PE)*

Using person-centred approaches: "I love playing music for patients". Nurses incorporated person-centred approaches to understand the reality of persons with dementia, learn more about them, and respect their preferences. A few nurses reported using some form of a person-centred approach to help them better care for older adults with dementia experiencing responsive behaviours. Nurses reported learning more about their clients by asking them about their personal stories while completing nursing tasks:

I really talk to patients when I [am]...providing care. I'm the type of person that says "so, what did you do before you retired?". It's always...one of my first questions that I ask during a bed bath for somebody or you are in there just meeting for the first time in the morning. You might be doing their vitals or starting to care for them before you know them because...delving into their past can help you understand them. (PTN-07)

Nurses used person-centred approaches to make persons with dementia feel comfortable during their stay on acute medical units. Nurses perceived comfort to be an important aspect of care for persons with dementia and used various strategies to ensure that they were at ease during their stay in hospital such as creating a familiar environment, offering one's presence, and using distraction techniques. Comfort was achieved by ensuring that clients with dementia had activities to keep them occupied and relaxed: *"We had one gentleman who loved to read the newspaper so we get the newspaper and if he gets agitated...we'll have him sit at the table in the lounge and have the newspaper in front of him"* (N-01). Comfort was also achieved by creating a calming and familiar atmosphere through music: *"I love playing music for patients. I think that music always brings out memories whether good or bad and in most cases they are good. So if there's a certain type of music that they like in the past..."* (N-02).

Having a meaningful interaction with clients with dementia was perceived to help facilitate care for this population. Nurses reported using life props such as favorite stuffed animals and photographs of family members to provide familiarity for clients with dementia, initiate conversations, and provide orientation:

...we got to know pictures of his family...and then we start talking about his family and...when his family would come in, we would have them write their name when they visited and you could say "Oh I see that earlier today your son [name] came to visit you"...and then try and orientate him... (PTN-07)

Some nurses empathized with older adults with dementia and understood how frightening the acute medical unit can appear to them. To offer reassurance and comfort nurses would take walks with clients around the unit and provide human touch: *"We're gonna go for a walk with*

them, hold their hand and talk to them” (N-01). They offered these clients their simple presence and provided orientation to the time of day. One nurse reported using multiple comforting strategies including remaining close to them, promoting exercise, and playing music:

Definitely walking around or putting patients in a wheelchair and taking them for walks as a distraction. Some patients are comforted by people at the bedside so if we have time to just sit with them, I think that's helpful. It's probably very scary to be in this foreign place. What are some other ways? Some patients have tv or music that might be a distraction. I find...opening the blinds...so that they're oriented to like "oh, it's daytime, it's nighttime". I had one patient, I think that worked for her. (N-08)

Providing bed baths and showers were perceived by some nurses to bring comfort for clients with dementia through cleanliness. To encourage clients with dementia to participate in activities of daily living such as showering, nurses used conversation as a distraction so that showering became an opportunity to talk about familiar people such as children. One nurse shared an example of using distraction as a way to provide comforting care through showering:

I was able to talk with them and convince them to come and have a shower. And during that shower we chatted and we talked and I went to where they were in their head, you know? Talking about their young children. Their children are all grown, right? And in their 60's but, talking about young children and my children and schools and engaging them to keep their minds off of things. (N-06)

Nurses typically used simplistic non-pharmacological approaches to achieve person-centred care such as talking with clients with dementia and being flexible in meeting their needs. Only a few nurses implemented non-pharmacological approaches supported by evidence such as playing music, using life props, and promoting exercise by walking with clients with dementia. Only one nurse mentioned independently providing activities for clients with dementia such as reading the newspaper and *“giving them some tasks like folding face cloths”* (N-01).

Some allied health professionals also reported using person-centred approaches to care for clients with dementia. One allied health professional shared the importance of getting to know clients with dementia to provide better care as a team:

...sometimes you have a person with dementia in your acute care for quite a long time for a variety of reasons. So it's worth getting to know as much about them as you can. It's going to help everybody not just the person. (PE)

Allied health professionals also reported that comfort was perceived as an important aspect of care for clients with dementia. One allied health professional shared a similar experience to one of the nurses related to creating a comfortable atmosphere to encourage showering and to use music as a distraction:

...I have a client or...recently discharged a client who was a huge, huge Johnny Mathis fan so that's a theme that's so big in her life...what the care providers did was that they blended that into the care. So, while care was introduced and during the care, the providers would sing along to the music that was softly playing in the background and humming so the experience became more about listening to the music than it did actually the care task itself. (PE)

Assigning a one-on-one provider: "there is always somebody with them". Nurses assigned PSWs or behavioural trained workers (i.e. Bartimaeus (BART) workers) to remain with persons with dementia throughout their shift for constant monitoring. BART workers may not provide direct care for clients but, they are skilled in supporting persons with responsive behaviours. They have a post-secondary education and expertise with clients with complex behavioural needs. They received specialized training in crisis prevention and safety management based on the care needs of populations such as children or older adults (Bartimaeus, 2018). Assigning a one-on-one provider ensured that the patient and others were safe. All but one nurse reported involving one-on-one providers in the care of clients with dementia experiencing responsive behaviours. Nurses perceived that one-on-one providers lessened their need to monitor clients themselves and provided them with reassurance that clients were safe:

It's [involving PSWs] just another extra pair of eyes, just to keep an eye on them. If something gets out of hand, they could just kind of call out at us and we could kind of be more alert and see what's going on. When you don't have someone then it's hard to kind of organize your day because...at the back of your mind, you're just like what are they doing right now? Are they ok? Are they safe? So, it's a big help. (N-03)

Delegating the task of constant monitoring of clients with dementia experiencing responsive behaviours allowed nurses to use their time for other duties. Nurses felt that they were unable to provide enough time and attention for clients exhibiting responsive behaviours on acute medical units, so PSWs were used to fill in that gap in care: *“Sometimes when they are too aggressive or too agitated we do get a one-to-one PSW to be with them because as a nurse we don’t have time to spend as the time that they require”* (N-01). Some nurses mentioned the need to have one-on-one workers who are specially trained in addressing responsive behaviours. The organization therefore invited BART workers to provide much needed one-on-one support. The approaches and skills these workers brought were perceived by nurses as more effective than PSWs. One nurse shared the benefit of BART workers for a client experiencing responsive behaviours:

He [BART worker] was fabulous. So one-on-one. He had a couple guys continuously but, this man would chase people down the hall...He would go in and take stuff out of people’s rooms...the BSO, got involved and the Bartimaeus workers and he got to know them, really helped...had the one person[BART worker] with him to get him out in the hall, put him in a wheelchair, to get him out and be able to watch him...so he was a very difficult...and the BSO really helped and the Bartimaeus trained people helped. (PTN-07)

Ensuring safety: “the patient is in a safe place”. Nurses perceived that safety is an important factor for persons with dementia and those surrounding them. Implementing strategies for safety was seen as an important priority for more than half of the nurses: *“So most important is that the dementia patient is secure. Yeah, make sure the patient is being cared for and the patient is in a safe place”* (PTN-09). To promote safety, nurses used negotiation and involved family members to help prevent harm from occurring:

...a patient we got in over the weekend extremely violent, was on a form, very violent, had a walking stick and refused to let the walking stick go but, when we went in he had in a way that he could swing. So what we did was brought the son in and he wouldn’t give up the walking stick. So I said “we have to move him, so he can keep it but, you have to hold on to it so he

doesn't hit us". So rather than pulling the walking stick off him and now escalating to...we kept it to that he could keep it but, also protected our safety. (PTN-04)

Nurses performed close monitoring of patients, applied physical restraints when necessary, and involved security personnel to protect the safety of persons with dementia and those around them. Some nurses perceived that the use of physical restraints for persons with responsive behaviours was necessary when the safety of the client and others was in jeopardy. One nurse shared the need for physical restraints: *"I don't like using them [physical restraints] but, sometimes they are a necessity especially when their safety is...you know compromised a bit and our safety. We have to use them then so be it, right?" (N-03).*

Some nurses reported involving on-site security personnel to provide assistance in de-escalating situations, particularly when responsive behaviours of a physical nature occurred. Nurses felt that security personnel served as authority figures to help assist nurses in redirecting clients through a more powerful presence. Some nurses felt more comfortable in addressing responsive behaviours of a physical nature with the presence of security personnel for safety reasons: *"Honestly, if they start getting aggressive, I personally wouldn't feel comfortable handling that if they were to become physically aggressive so I would feel more comfortable if security personnel were present (N-05)."* Allied health professionals also perceived safety to be an important aspect in the care of persons with dementia. Almost half of the allied health professionals in this study perceived that care provided for clients with responsive behaviours should ensure the safety of themselves and others: *"I want to make sure that I'm able to help and address the need of that patient in a safe manner that's safe for the patient and safe for myself as well" (AHP-03).*

Using written information as a resource: "the social worker notes, OT notes, PT notes". Nurses used written information in the form of notes made by the allied health team and

other nurses to learn more about persons with dementia. Nurses also ensured that information was transferred to other nurses and allied health professionals to provide effective care for persons with responsive behaviours. Nurses used information written by a variety of disciplines to gain a more holistic understanding of clients with dementia and their preferences. One nurse stated: “...*medical history and then notes from the doctors and psychiatry and the social worker notes, OT notes, PT notes. So, everything is a resource for us for patient care*” (PTN-09). Nurses also ensured that written information was communicated to other staff members who may not be directly involved in caring for clients with responsive behaviours. One nurse reported using signage to alert others to be cautious when interacting with clients with responsive behaviours: “*Closing the doors, having barriers where there’s a sign in front of their doors to notify other visitors or other allied health, kitchen staff, cleaning staff that this patient can be responsive in behaviours and to limit that stimulation...*” (N-02). Posting signs outside of clients’ rooms was meant to promote safety however it may create stigma as it does not respect the dignity of clients when done so publicly.

Allied health professionals similarly sought information accessed through the charts of clients with responsive behaviours to learn more about clients. Most of the allied health professionals sought notes from a variety of disciplines including nursing. Some allied health professionals perceived that it takes time to conduct an in-depth review of the medical chart of clients with responsive behaviours and they felt that nurses did not always have the time to fully read medical charts. One allied health professional shared a concern related to information not being brought to the attention of nurses soon enough.

...I had one instance where a patient came in with quite severe responsive behaviours, sexual responsive behaviours, and the nurse didn’t know the extent of what that was because she didn’t have a chance to read the chart and I think that should really be passed on because that patient could have possibly posed a risk to other patients...and staff. (AHP-03)

Facing barriers in providing dementia care. The barriers to care delivery for persons with dementia were perceived by nurses to be related to organizational factors of acute medical units. The perceived barriers were: (a) limited time and a focus on acute needs, (b) a fast-paced environment and push for discharges, (c) inadequate staffing and increased workload, and (d) under-stimulation for older adults with dementia.

Limited time and a focus on acute needs: “it’s priority over chronic”. Nurses reported that having enough time to provide client care was a large barrier on an acute medical unit. Some nurses felt that delivering care for persons with dementia was time-consuming. Acute priorities were perceived as most important in acute medical settings and dementia care was given little priority when dealing with urgent issues. The theme of limited time in acute medical settings and focus on acute needs was shared by almost all nurses. Nurses felt that they spent more time with persons with dementia than other clients when de-escalating situations where responsive behaviours occur. Nurses felt that other clients were being neglected: *“We have to deal with their behaviours and then when they don’t calm down or settle, we spend even more time with them. So, we feel that the other patients are being neglected...”* (N-01).

Acute care priorities were also given more importance over care for persons with dementia as persons with dementia were typically perceived by nurses as medically stable:

Due to acuity in patients, it’s priority over chronic. Unfortunately, dementia is a chronic disease, there is no reversal, no medication, no anything that can revert the brain in that sense so when...we have a code going on or an MI [myocardial infarction] or something that’s happening to a patient, that takes precedence. And then the patients with dementia unfortunately become lower on the priority scale... (N-02)

Nurses in acute medical settings often had to prioritize nursing tasks throughout their shifts. At times, nurses reported that medical emergencies occurred and they may end up spending many hours attending to an acutely ill client. Nurses reported the importance of ensuring that clients

were medically stable. One nurse stated: *“Probably the most competing [priority] is trying to keep a patient stable. Like most dementia patients, yes but like depending on what they’re in for...if they’re already stable, you’re kind of competing with the unstable patient”* (N-03). In acute medical units, nurses perceived that there was less priority on dementia care and less time spent on providing dementia care education by the organization: *“...we really don’t focus that much on that [dementia care]. We’re acute medicine so we focus more on getting the medical issue resolved and moving on...”* (N-06).

More than half of the allied health professionals also shared views that supported the nurses’ perspectives on lack of time available to attend to clients on acute medical units. Allied health professionals recognized the need to prioritize care in an acute medical unit. They reported that nurses may not have the time to monitor clients experiencing responsive behaviours if another client in acutely ill:

...this is acute medicine, a lot of the nurses are involved with patients who have acute medical needs and often times they’re busy with these patients who are acutely ill. And in the meantime, something is happening with these patients with the responsive behaviours because there is nobody to supervise or assist them... (AHP-01)

Allied health professionals felt that acute medical units were typically focused on medical needs and that HCPs including nurses may not feel that they have time to implement person-centred approaches to care for clients with responsive behaviours. An allied health professional shared:

Well acute medical setting’s a different set up because...they’re often there for a relatively short period of time, heavily medically focused on needs. And the care provider simply may not have the time or at least the perception that they have the time to engage in person-centred care but, behavioural challenges do exist on acute care units. (PE)

A “fast-paced” environment and push for discharges: “it’s an active environment so it’s even harder”. The fast-paced acute medical environment was perceived by nurses as creating challenges to provide care for persons with dementia due to high noise levels from fast-moving

traffic and task-focused routines. The acute medical setting was also seen as an unsuitable environment for persons with dementia leading to poor outcomes for this population. Nurses perceived acute medical settings to be a highly active and busy area of the hospital. One nurse stated: *“...it’s hard because it’s a fast-paced place. So, people are coming and going to tests all day... more people in the room...The porter’s there, the nurse’s there...it’s an active environment so it’s even harder [to care for persons with dementia]”* (PTN-07). Nurses perceived that acute medical units contain too much stimuli for clients with dementia, were disruptive, and impacted their overall well-being leading to functional decline.

...the most disruptive thing we do here is noise. It’s so disruptive. The call bells, you can hear them in every single room and you can hear us say “nurse to this room”. Like not being able to sleep is just...I think is very harmful. So that is very hard to provide care because they do not get sleep and they probably get more confused so I think that makes it difficult. I think people get worse here and again just not having the time and the staff to really get them into their normal routine. (N-08)

Nurses felt that the acute medical unit was not an appropriate care setting for clients with dementia and that responsive behaviours may be triggered by the medical environment itself:

I don’t think that acute care is really like friendly for dementia patients...there’s a lot more people, a lot more strangers. People with dementia, they’re seeing all these new people every single day and sometimes they can scare them and like even noises in the acute care setting, those can really trigger patients with dementia too. So, I think the environment itself, it would be a trigger for responsive behaviours for dementia patients. (N-05)

Acute medical units were also perceived by nurses to expedite discharges once clients were medically stable due to the lack of in-patient beds in hospital. Clients with dementia were seen as impacted by the internal push for discharges. *“It’s such a rush, rush to get them [patients with dementia]out...out of hospital back to where...they’re going. It’s such a rush to place people and the bed flow is enormous”* (PTN-07). Most of the allied health professionals perceived the acute medical environment to be a fast-paced setting as well focused on facilitating client discharges. *“I would say because there’s such a large focus on discharge and trying to discharge*

people quickly and move them through the system that I think that is one of the biggest challenges [in providing dementia care]” (AHP-03). Allied health professionals perceived that care provided in hospitals for persons with dementia was not optimal. Similarly, as nurses reported, they felt that these clients suffered negative outcomes in the acute setting.

I think that the other issue is that people often with dementia come into hospital with delirium or develop one in the hospital. Sometimes they're still in the vestiges of the delirium when they come out again...they come out worse, they come out less mobile, they come out less well...So we don't like people with dementia going into hospitals unless they have to. (PE)

Inadequate staffing and increased workload: “we don't have the staff to do it”. Most participants felt that nursing care provided for persons with dementia was sometimes compromised due to lack of available staff on acute medical units. For example, one nurse stated: *“We don't have enough staff to cater. We cannot look after these patients. We cannot look after these patients the way they should be looked after based on that we don't have the staff to do it”* (PTN-04). Nurses perceived inadequate staffing to affect their ability to interact, build a therapeutic relationship, and provide comfort for clients with dementia: *“...they do need that interaction, they do need that comfort measure. Unfortunately, on acute medicine floors, it's not always available especially when we're short staffed”* (N-02). Nurses felt that their organization did not provide them with enough staffing support to care for clients with dementia experiencing responsive behaviours: *“Staffing is a big issue...on my unit alone...although there's lesser acuity compared to other [units], I feel that we are being neglected in terms of support.”* (PTN-10).

Nurses perceived the workload on acute medical units to be heavy due to the expectations for completing a number of required nursing and documentation tasks throughout their shift. Nurses had to deal with multiple demands such as frequent monitoring of persons with dementia while delivering routine care. Most of the nurses felt that the workload impacted their ability to provide dementia care. Nurses felt that they had too many clients assigned to their care ranging

from five to eight patients and that they could benefit from increased staffing: “...we also need some more physical support or staff support because it’s just...the patient load is just too much” (PTN-10). Nurses perceived the workload and having to fulfil multiple nursing requests as impacting their ability to establish a therapeutic relationship with clients with dementia: “There’s a lot of paperwork and other things and with any patient having dementia or not, I find that we don’t have time...to sit and talk with our patients like we used to years ago...” (N-01). On acute medical units, the workload had been deemed to jeopardize the safety of nurses and clients due to the lack of capacity and resources to keep up with numerous demands. One nurse stated that unsafe workload forms have often been sent to the nursing union:

It’s so busy here and we’ve been doing a lot of workloads lately and I do fear for the patients. I fear that I can’t lay eyes on you every 15 minutes and I only have to do it every hour... You worry that something is gonna happen. (PTN-07)

Being able to monitor clients with responsive behaviours who wander was perceived as especially challenging by nurses as they feared for the safety of these and other clients.

Allied health professionals also reported that an increased workload and multiple demands impacted their ability to provide dementia care:

Well because it [responsive behaviours] often isn’t related to physio...it does kind of slow me down a little bit because I’m someone who can’t really ignore them...I suppose partly that’s related to the caseload and busyness and having to get a lot done in a day and so to slow down and help somebody does kind of affect how I move through my day. (AHP-02)

Allied health professionals perceived that HCPs were already having to complete much documentation and many tasks, therefore adding additional work related to dementia care may be poorly received by staff. One allied health professional hoped that the P.I.E.C.E.S. assessment forms could be completed more frequently but, recognized the workload as a barrier:

...it would be great if something like the P.I.E.C.E.S. approach and something like the behaviour protocol could be used more widely. But, because of the pressures in acute

care...in terms of charting, completing forms and all of that already, it's really hard to add anything on top of that. (PE)

Under-stimulation for older adults with dementia: “I think they’re very bored”. Some nurses and an allied health professional reported under-stimulation in acute medical environments as impacting the care and well-being for clients with dementia. This under-stimulation may lead to responsive behaviours and decline in the functional status of patients.

Sometimes they’re in bed for way too long, we’re not getting them up in their chair. We’re not stimulating any of their cognitive abilities, there’s no activities here that they can actually enjoy. So, like definitely trying to get them in their normal routine and to do things that are familiar to them but, I think that’s very challenging. (N-08).

Nurses felt that clients with dementia lack stimulation in terms of activities and interactions with family members. Under-stimulation was perceived to lead to increased confusion.

I think they’re very bored. I think they’re just sitting in their rooms looking at the four walls. Some of them can’t walk. So they’re just sitting there in rooms or in bed and sometimes they don’t have family members. I think just sitting there bored, you’re gonna get even more confused too. (N-01)

An allied health professional also felt that there were inadequate therapeutic activities for persons with dementia on acute medical units. *“I think that there isn’t enough for them to do, so there’s not enough activities to keep a person with dementia busy so that they are not doing other things” (PE).*

Encountering facilitators in delivering dementia care. Nurses perceived that care for persons with dementia was made easier on acute medical units by having the following facilitators: (a) shared care practices and strong interprofessional collaboration, (b) good continuity of care, and (c) implementing team meetings.

Shared care practices and strong interprofessional collaboration: “we all help him”. Nurses felt that care provided for persons with dementia should be a collaborative effort among other nurses and allied health professionals. Most nurses believed that when HCPs help care for

clients with dementia even if they were not assigned to these patients, care delivery was much easier. One nurse shared an example of nursing collaboration:

And the great thing about that is...by these patients belonging to everyone...I've never nursed him before but, having seen him in action and sitting there and kind of taking over when the going gets rough for the other nurse. We all help him and it's much easier for me to deal with him... (PTN-04)

Sharing information between providers in acute medical settings was also perceived as beneficial to deliver standardized care based on the preferences of clients with dementia:

...sometimes I'll ask them [allied health professionals] if they noticed anything so that helps the both of us to care better for the patient and because of the sharing of information, I'm able to let's say pass it on to the next nurse and that information kind of accumulate, I realize and it makes it easier and easier and the care for that patient really does get better... (N-05)

Having an interdisciplinary team accessible to nurses and strong interprofessional collaboration was perceived as beneficial for persons with dementia in holistically meeting their needs. Half of the nurses in this study felt that acute medical units shared a naturally strong sense of interprofessional collaboration and therefore made it easier to deliver care for clients with dementia. Nurses reported that care for clients with dementia experiencing responsive behaviours should involve as many different HCPs as possible as these clients are affected by many complex issues: *"I think it's [interprofessional collaboration] really important because there's a lot of different things going on and it's not just a medical issue, it's a social issue as well. So definitely getting everyone involved...makes for a greater success."* (N-08). Nurses felt that the team shared common goals for clients with dementia and that they usually collaborate effectively together on acute medical units. One nurse stated:

...see at the end of the day, we all want what's the best for the patient. So let's try it your way this way, we'll do it this way or I have said to allied health "please don't go anywhere near my patient now, it really is not a good time". Ok, when would be a good time? "Will you check back in with me in maybe an hour. Not always feasible but, everyone is fine. (PTN-04).

Nurses perceived that on acute medical units, other HCPs are readily accessible to fulfil requests made by nurses on behalf of clients with dementia:

I think maybe we have more sources, we have a lot of people coming in and out...it's a busy floor so you're getting a lot of doctors and so you could get things done maybe a little bit quicker and also you have more people, more nurses to kind of help you out with. (N-03)

The accessibility of HCPs and the number of these professionals on acute medical units may also be related to the nature of this study site, that of a teaching hospital. One allied health professional provided suggestions in caring for clients with dementia experiencing responsive behaviours while helping nurses understand more about the client:

...sometimes I feel like asking questions and trying...to pull from them [nurses] is different and more effective than me trying to say "this is what I think it is" and I may not be right...100%, no. But, I think just trying to have that conversation...in a supportive way because the nurse is the one who is there dealing and caring for that patient for 12 hours, right? I'm just popping in at various times...so just trying to offer some support...and validating how they're feeling. (AHP-03)

Good continuity of care: "they're used to my familiar face". Good continuity of care ensured that persons with dementia were being cared for by familiar nurses who recognized their routines and encouraged communication of their routines to other providers. Continuity of care was also perceived as helpful for staff as this encouraged familiarity of the person's preferences, needs, and routines. One nurse shared an example:

I think it [continuity] helps a lot because somebody has dementia and I'm with them for like a week and say I know what works for them, what doesn't work... they're used to my familiar face too whereas if it's a new nurse and a stranger and doesn't know what works for them or their routine because they like their routines too, they might tend to listen more to me because I had them for a week and they're more familiar with me. (N-01)

Two allied health professionals shared the importance of having continuity of care for clients with dementia experiencing responsive behaviours, particularly in terms of nursing care: *"The staff is really supportive for these patients, the consistency of a staff member to be with those patients. Not always possible, but we do try to have that consistency there for them"* (AHP-01).

Holding team meetings: “behavioural rounds might help”. Team meetings (i.e. huddles and behavioural rounds) were perceived by nurses to be facilitators in ensuring that information regarding persons with dementia and approaches in caring for them were communicated to nurses and allied health professionals. Behavioural rounds consisted of meetings that focused exclusively on discussing plans of care for clients with dementia experiencing responsive behaviours. These types of meetings were implemented in certain acute medical units. Half of the nurses in this study found that team meetings were beneficial to know more about clients with dementia and to better approach them. Nurses reported that behavioural rounds encouraged sharing of suggestions for care for persons with dementia within the team:

Those [behavioural rounds] are helpful especially if the nurse at the meeting happens to be her patient. So that way we could provide our input because we have that patient too and they might have suggestions that we will try and implement or I'll say “this works for me” so then they're gonna write it in the care plan too. (N-01)

Behavioural rounds provided an opportunity for nurses to take time to assess clients more in-depth. One nurse stated: “...of course the behavioural rounds might help more because we have more time to look at the patient in detail and then sharing...if you work cooperatively with other co-workers then of course it helps (PTN-09). Some of the study units did not implement behavioural rounds, so nurses had to bring up issues related to clients with dementia during quick nursing huddles. These were still perceived as helpful because they ensured that nurses were aware of each other's clients, but to a lesser extent than behavioural rounds.

...we have huddles...in the morning we just try to get all together and see what are the most important issues with everyone and we'll let...our other team members know “ok this patient's confused, just kind of keep an eye on him”, “this patient's a wandering patient, keep an eye on him”. (N-03)

Most allied health professionals also reported that team meetings were beneficial in implementing dementia care in acute medical units. They expressed that interdisciplinary team

meetings were most beneficial to “*see whether the plan needed any changes*” (AHP-01) for clients with dementia experiencing responsive behaviours. Some allied health professionals explained that nurses did not regularly attend team meetings, but their presence and perspective were valuable to learn more about clients.

That was the thing that [name of BSO lead] was trying to get rolling with multidisciplinary rounds for behavioural care planning and the nurses were involved, to some degree...we would try to engage the nurse that had the patient that day. (AHP-02)

Nurses were expected to implement plans of care created by the interprofessional team yet, they may not have been present to discuss or collaborate on the plan during team meetings.

Nurses and Allied Health Professionals’ Perceptions of P.I.E.C.E.S. Education

P.I.E.C.E.S. education was provided as an educational opportunity for a select few nurses and allied health professionals at the study site. Due to similar findings among P.I.E.C.E.S. educated HCPs, interview data from nurses and allied health professionals were combined to explore the overall perceptions of HCPs of P.I.E.C.E.S. education. The perceptions of participants were categorized under four broad themes: (a) impact of P.I.E.C.E.S. education on practice, (b) limited continued application of P.I.E.C.E.S., (c) barriers in applying P.I.E.C.E.S. education, and (d) strengths of P.I.E.C.E.S. education. Within these broad themes, sub-themes were included to provide more detail and to reflect the words of participants. See Table 4 for a list of themes related to P.I.E.C.E.S. education.

Table 4. Themes of HCPs’ Perceptions of P.I.E.C.E.S. Education

Themes	Sub-themes
1. Impact of P.I.E.C.E.S. education on practice	a) Promoted interdisciplinary collaboration: <i>“it makes it easier to communicate”</i> b) Validated current practices: <i>“we were always doing it”</i> c) Promoted holistic care: <i>“I like the holistic approach of the program”</i> d) Provided guidelines and a structured approach: <i>“helps us to categorize”</i>

	e) Encouraged problem-solving and increased knowledge: <i>“beyond what they clinically are at that time”</i> f) Created awareness of health issues: <i>“I’m much more apt to consider a variety of causes”</i>
2. Limited Continued Application of P.I.E.C.E.S.	a) Not consistently using P.I.E.C.E.S.: <i>“I really forgot about P.I.E.C.E.S.”</i>
3. Barriers in applying P.I.E.C.E.S. education	a) Limited time to apply P.I.E.C.E.S.: <i>“it depends on how much time you have”</i> b) P.I.E.C.E.S. concepts were not novel: <i>“I already knew about all the concepts”</i>
4. Strengths of P.I.E.C.E.S. education	a) Practical: <i>“it made sense”</i> b) Well-organized and <i>“relevant”</i> : <i>“it was very well presented”</i> c) Enhanced learning through informative case studies: <i>“I liked the actual case examples”</i>

Impact of P.I.E.C.E.S. education on practice. Nurses and allied health professionals shared common perceptions of the impact of P.I.E.C.E.S. education on practice. P.I.E.C.E.S. education was perceived to have: (a) promoted interdisciplinary collaboration, (b) validated current practices, (c) promoted holistic care, (d) provided guidelines and a structured approach, (e) encouraged problem-solving and increased knowledge, and (f) created awareness of health issues for older adults with responsive behaviours.

P.I.E.C.E.S. promoted interdisciplinary collaboration: “it makes it easier to communicate”. Almost all of the HCPs in this study perceived that P.I.E.C.E.S. education encouraged interprofessional collaboration by creating a standard approach and familiar terminology. HCPs perceived that communication in discussing goals and information related to clients with dementia experiencing responsive behaviours was made more efficient through P.I.E.C.E.S. education: *“Of course, it makes it easier to communicate with the other healthcare providers and nurses”* (PTN-09). Team dialogue was perceived as enhanced through P.I.E.C.E.S. training to implement care plans collaboratively:

...it's a matter of using an approach like P.I.E.C.E.S....which is a team approach....to realizing it's not all on the nurses' shoulders, there are other disciplines that could be accessed to help with implementation to behaviour care planning. I think the three-question template in P.I.E.C.E.S. is a really good way of having that dialogue. (PE)

When caring for clients with dementia experiencing responsive behaviours, HCPs felt that all disciplines should be involved in their care and that P.I.E.C.E.S. took that into consideration: *“I did like that it was interdisciplinary because there you did have all different disciplines including nurses which I thought was really beneficial”* (AHP-02). P.I.E.C.E.S. education also encouraged HCPs to communicate important information to provide better client care:

...definitely it did [P.I.E.C.E.S. changed the way one collaborated with allied health] because like we could always let them know...for example the physio comes in to get this patient up we would always give them a heads up “hey, so the patient doesn't like this...” and then they appreciate that so then...they will know how to approach the patient. (PTN-10)

P.I.E.C.E.S. validated current practices: “we were always doing it”. Nurses and allied health professionals perceived P.I.E.C.E.S. education to complement their current practice and provide reassurance that their practice was supported by best-practices. More than half of the HCPs in this study perceived that P.I.E.C.E.S. education confirmed that their current practice in caring for older adults living with responsive behaviours of dementia was effective and suitable. *“...it [P.I.E.C.E.S.] kind of just reinforced I guess things that we were already doing”* (AHP-03).

One nurse stated:

I think it was because we were always doing it but, what it made you feel...that there is a lot of support there because it is being done. So, for spending time with a patient and all that, you know...you're not going to get yelled at (PTN-04).

HCPs felt that P.I.E.C.E.S. education complemented their practice and encouraged them to express their approach with colleagues: *“P.I.E.C.E.S. is always in our mind, just like articulating that one and then applying it and then to explain to other nurses to communicate. It helps more*

in that way” (PTN-09). Although HCPs felt that they were already applying P.I.E.C.E.S. concepts into their practice, very few HCPs were able to clearly articulate the concepts.

P.I.E.C.E.S. promoted holistic care: “I like the holistic approach of the program”.

Nurses and allied health professionals appreciated the emphasis of holistic care integrated in the program. Most of the HCPs who received P.I.E.C.E.S. education found that the program encouraged the participants to perform holistic assessments and provide care holistically. HCPs perceived a holistic approach to be much needed to learn more about persons with dementia experiencing responsive behaviours by considering various domains. One nurse stated:

“P.I.E.C.E.S. is...the broad way to cover. So, it gives us a more in-depth of understanding about the patient’s history and background” (PTN-09). HCPs felt that P.I.E.C.E.S education considers

more than just their current medical history; all aspects were included in the assessment piece:

“...it [P.I.E.C.E.S.] takes into account everything from their physical capabilities to their intellectual capabilities. It’s all encompassing” (AHP-01). P.I.E.C.E.S. education was seen to

focus on assessment skills in being able to fully capture the life story of clients with responsive behaviours. HCPs reported that knowing social aspects of the lives of clients was important in delivering effective care for clients with responsive behaviours:

Well P.I.E.C.E.S. is really designed to particularly hone assessment skills and so one of the good things about P.I.E.C.E.S. is that the acronym P.I.E.C.E.S. itself includes the social aspects and does emphasize in training that knowing the person and knowing everything about the person is really important to provide effective care and support. (PE)

HCPs perceived that in using a holistic approach as taught in P.I.E.C.E.S. education, older adults with dementia experiencing responsive behaviours were being recognized as unique individuals with unique needs and modes of communication. This view was expressed in the following excerpt: *“I like the holistic approach of the program. I like how...they see a patient as an individual as a unique person and...providing care holistically...”* (PTN-10). In recognizing

that clients with dementia were unique, HCPs were able to implement individualized plans for clients based on their needs and preferences:

I kind of did a care plan for someone else at the time...I was able to go back and delve...into their history and like I said I did with this other man, their likes and dislikes and what they would respond to. (PTN-07)

Learning from P.I.E.C.E.S. education was also perceived to be easily applied in nursing practice due to similarities between philosophies related to holistic care. A facilitator in applying P.I.E.C.E.S. was relevance for practice. P.I.E.C.E.S. concepts and its approach were seen to be consistent with nursing practice. Almost half of the participants perceived that P.I.E.C.E.S. education shared a similar perspective on holistic care to achieve positive outcomes for clients with responsive behaviours. Three of four nurses felt that the transition into using P.I.E.C.E.S. in practice was much easier because holistic care is a common theme emphasized in nursing.

“...for the most part of it...P.I.E.C.E.S., we’ve been applying that because in nursing they always teach us about holistic approach...when I did the training I remember saying to [name], my co-worker... “we’ve been already doing that”.” (PTN-10)

Some HCPs perceived that nurses were already applying P.I.E.C.E.S. approaches due to the emphasis on holistic care without knowing that they were using them. One allied health professional stated: *“I think indirectly they [nurses] are doing it [P.I.E.C.E.S.] without even knowing that they’re doing it” (AHP-01)*. Although nurses were aware of holistic care, P.I.E.C.E.S. training was perceived to help them to better articulate such concepts with their colleagues when caring for persons with responsive behaviours: *“...nurses tend to always learn holistic care. Everything is involved in their P.I.E.C.E.S....you know the skill but you never express it and you never share with other people” (PTN-09)*.

P.I.E.C.E.S. provided guidelines and a structured approach: “helps us to categorize”.

Nurses and allied health professionals reported that P.I.E.C.E.S. education provided a systematic

method to organize one's assessment of persons with responsive behaviours through a broader perspective. More than half of the HCPs who received P.I.E.C.E.S. training felt that P.I.E.C.E.S. education increased organization of their assessments in practice. One nurse stated that P.I.E.C.E.S. has helped to categorize her findings:

I knew how to provide care for the patient from my perspective but...sometimes I have a hard time to articulate what it was exactly the reason for...like spiritually, maybe emotionally or culturally, I couldn't categorize. So, it helps us to categorize to explain the patient's background. (PTN-09)

The structure of the P.I.E.C.E.S. approach was seen to offer a different perspective on clients with responsive behaviours by using a unique assessment format:

...for me just the way that it was packaged was a different frame of reference than I've used before. So just how they broke down all the sections of the PIECES model, I found that was helpful in coming back and...looking at it through a different lens. (AHP-03)

Some HCPs felt that they were already familiar with P.I.E.C.E.S. concepts but were not so much aware of the structure behind it: "So, I think I've known P.I.E.C.E.S., it's just not the P.I.E.C.E.S. itself and how organized or how systematic it is" (PTN-10).

P.I.E.C.E.S. encouraged problem-solving and increased knowledge: "beyond what they clinically are at that time". P.I.E.C.E.S. education was perceived to promote problem-solving and challenged providers to find solutions beyond the typical causes for responsive behaviours. Almost half of the P.I.E.C.E.S. trained HCPs felt that P.I.E.C.E.S. education encouraged critical-thinking and provided them with new perspectives on the causes of responsive behaviours:

"...you don't just take a behaviour as a behaviour. There's something already behind a behaviour...go from head to toe...was it just a family member that left?" (PTN-04). HCPs acted as detectives in searching for reasons behind responsive behaviours and they probed further into new clinical onsets of behaviours. One nurse stated in terms of a change in approach that P.I.E.C.E.S. has brought:

...that you are looking at them beyond what they clinically are at that time. You might look in to say “ok, why are they so confused all of a sudden? What’s the underlying factor? Are they going septic? What exactly is going on?”. Just to look that little bit more... (PTN-07)

HCPs reported that P.I.E.C.E.S. helped them to highlight causes of responsive behaviours and act on those that could be solved through medical treatments or change in approaches. An allied health professional shared how P.I.E.C.E.S. education helped to guide actions:

...so for me it influences how I have a dialogue about behaviours so it means me eliciting behaviours in expressing a very specific way, speculating using those six categories what could be the causes and viewing those causes to see which ones of those are actionable. Not all of them are actionable and...that provides a blueprint for how we move forward. And so that for me, it served me very, very well. (PE)

P.I.E.C.E.S. trained HCPs also perceived that they had more knowledge and skills in caring for clients with dementia following P.I.E.C.E.S. education. The P.I.E.C.E.S. program provided them with opportunities to improve their practice. One nurse reported learning how to conduct cognitive assessments:

We did some of the tools...some of the questions, like MoCAs [Montreal Cognitive Assessment tool]. We talked more about that stuff which I didn’t know so much about. Not that I could relay it all back to you right now. It [P.I.E.C.E.S. education] did help you understand, you know the ratings of them... (PTN-07)

P.I.E.C.E.S. had changed the way allied health professionals defined and understood responsive behaviours. One allied health professional shared a change in perspective:

I would say it [P.E.C.E.S.] certainly has educated me to the fact that they are responsive behaviours that they’re not aggressive behaviours and that they come from somewhere and not just that person acting out for no reason. (AHP-02)

HCPs felt that P.I.E.C.E.S. increased their knowledge and helped them be more comprehensive when completing assessments:

...I think my tendency before P.I.E.C.E.S. was to flag behaviours and then come up with strategies and ideas at that time that seemed to make sense...I may have been ignoring potential causes and potential gaps in my understanding about...areas that should be further explored. So, but for P.I.E.C.E.S. my consideration is more comprehensive now... (PE)

P.I.E.C.E.S. created awareness of health issues: “I’m much more apt to consider a variety of causes”. P.I.E.C.E.S. education was perceived by some HCPs as creating more awareness in terms of underlying causes for responsive behaviours such as delirium. One nurse reported how delirium can be misunderstood as a normal progression of dementia and that P.I.E.C.E.S. education made her more aware of other causes:

...it [P.I.E.C.E.S.] totally makes us think that not everybody is just demented. I think for years people would come in and think “oh, that’s just a demented lady” and that’s a horrible thing to say, but you would. “Oh, they have a history of dementia” and the family might say “yeah, but they weren’t like this at home” and you think well “oh my God, their dementia has progressed”. No. Meanwhile, they have a delirium going on and the delirium clears and you think “oh that isn’t so bad. (PTN-07)

An allied health professional similarly mentioned how delirium was previously understood as being associated with dementia:

...I look back in situations that I encountered where clearly back then that client was delirious...for me it was I guess her dementia was at a...you know. So post-PIECES, I’m much more apt to consider a variety of causes because I think that as professionals we have a further certain affinity for certain likely culprits. (PE)

As expressed by the participant, HCPs may be more apt to consider familiar causes for behaviours and P.I.E.C.E.S. education has helped this HCP to consider a wider variety of causes for responsive behaviours. It was also perceived to encourage HCPs to be more aware of the benefits of involving family members and engaging them to bring in familiar items for persons with dementia such as “*a blanket*” (PTN-07) from home.

Limited continued application of P.I.E.C.E.S. Despite the positive impacts of the program, most of the HCPs reported no implementing P.I.E.C.E.S. in their practice. Following P.I.E.C.E.S. training behavioural rounds were put in place on a few acute medical units to provide opportunities for staff to apply P.I.E.C.E.S. as an interprofessional team. This initiative

was reported by participants as short-lived and no other strategies were put in place to help HCPs apply P.I.E.C.E.S. into practice.

Not consistently using P.I.E.C.E.S.: “I really forgot about P.I.E.C.E.S.” HCPs indicated that they had not been recently using P.I.E.C.E.S. education approaches in practice. They attributed no longer using P.I.E.C.E.S. to the need to focus on acute care priorities and a change in client population. Lack of practice in using P.I.E.C.E.S. assessment skills was seen as impacting the ability of HCPs in using it in acute medical units as they were no longer confident in applying P.I.E.C.E.S. in practice independently. More than half of the HCPs reported not consistently using P.I.E.C.E.S. approaches although they reported using them immediately post-training. HCPs reported that their client population had changed since receiving P.I.E.C.E.S. education and nurses had to care for more acutely ill clients. One nurse stated when asked about using P.I.E.C.E.S. at work: *“Not recently...due to the change of the population here. I think last September...all [medical units] are getting the same medicine patients like same acuity, same everything...I haven’t since. The last time was like August or September of last year”* (PTN-10).

Organizational changes, such as the implementation of a new computer documentation program, were perceived to impact P.I.E.C.E.S. application. An allied health professional stated: *“It sounds terrible but, I used it [P.I.E.C.E.S.] to do my assessment and then just because of all the [computer program], I haven’t had time to...I’ve been thinking about it like “how am I going to use this?”* (AHP-03). HCPs often attributed limited use of P.I.E.C.E.S. in their practice to organizational factors that were not within their control. HCPs felt that they were often busy and focusing their attention on addressing acute care issues on medicine units. They perceived that the length of time that had passed since receiving training affects their ability to apply

P.I.E.C.E.S. in their practice. One nurse reported losing the ability to apply P.I.E.C.E.S. due to lack of practice:

Have I used it? I did back when I used it but, it's the whole thing of if you don't use it, you lose it...I really did at first but, then you get so busy. So, I would have to say not so much anymore. (PTN-07)

Barriers in applying P.I.E.C.E.S. education. Nurses and allied health professionals perceived that the barriers in being able to apply principles of P.I.E.C.E.S. education into practice on acute medical units were related to: (a) limited time to apply P.I.E.C.E.S. into practice and (b) P.I.E.C.E.S. concepts were not novel. These barriers were also seen to be related to structures and priorities of acute medical settings.

Limited time to apply P.I.E.C.E.S.: *“it depends on how much time you have”*. Nurses and allied health professionals recognized lack of time as a barrier in being able to apply P.I.E.C.E.S. Limited time was due to increased workload related to the number of client assignments on acute medical units. More than half of the HCPs in this study felt that being able to use P.I.E.C.E.S. required a significant amount of time and these HCPs did not perceive that they had much time to spare. One nurse stated: *“...I try to [apply P.I.E.C.E.S.] but, it depends on how much time you have”* (PTN-09). HCPs perceived that developing care plans for clients with responsive behaviours using the P.I.E.C.E.S. assessment approach was time-consuming. An allied health professional stated: *“The actual care plan development takes a little bit of time if it's a new behaviour for that patient”* (AHP-01). HCPs felt that their client load was already heavy and they did not perceive that they had enough time to thoroughly conduct an assessment for all clients using the P.I.E.C.E.S. approach. A nurse stated regarding workload:

...the only thing is I feel that P.I.E.C.E.S. training is good if you're dealing with just...like out of our four patients or out of five patients, you're dealing with just one responsive behaviour. So, then you get that opportunity to actually know that patient but, having five patients and three of them are responsive behaviours...there's no chance that I could actually apply my

P.I.E.C.E.S. training because three responsive behaviours in one patient assignment is just... three's a lot and you can't really you know like individualize the care. (PTN-10)

P.I.E.C.E.S. concepts were not novel: "I already knew about all the concepts". Nurses and allied health professionals felt that the concepts that were being taught through P.I.E.C.E.S. education were not new for them and that they already had some knowledge of P.I.E.C.E.S. concepts. This was seen as a barrier to changing the practice of HCPs as they already had implicit confidence in their current ways of practicing. More than half of the P.I.E.C.E.S. educated HCPs in this study felt that they already had enough knowledge about the concepts being taught related to responsive behaviours. HCPs perceived that P.I.E.C.E.S. concepts consisted of familiar knowledge. One nurse stated: *"...because I took the gerontology when I was in fourth year as my specialty so I already knew about lots of patients with dementia and the elderly patient care too. So, I already knew about all the concepts"* (PTN-09). HCPs felt that learning from P.I.E.C.E.S. education sometimes overlapped with knowledge from other dementia care programs. One allied health professional stated: *"I felt like there was a lot of overlap because I've done GPA and I'm a GPA coach"* (AHP-03).

Some nurses perceived that a similar approach to the P.I.E.C.E.S. approach had already been incorporated into their practice but, they were not aware of it at the time and did not have a name for their approach: *"...to be honest, the unit has been applying the same principle. P.I.E.C.E.S. was just like a formal kind of like training"* (PTN-10). Some nurses reported that the P.I.E.C.E.S. approach was already in the mindset of nurses: *"...when you look at it, we do an awful lot of that anyway..."* (PTN-04). Although nurses felt that most of the learning from P.I.E.C.E.S. was not new, some allied health professionals perceived that nurses had poor understanding of responsive behaviours of dementia. Allied health professionals felt that they

had a better understanding of P.I.E.C.E.S. concepts and responsive behaviours compared to other HCPs such as nurses or new learners. One allied health professional reported:

I was surprised when I did the P.I.E.C.E.S. training and talked with some of the nurses how little they did understand about it [responsive behaviours] and how much I felt like I did understand...a lot of this wasn't new news to me but, it did seem to be kind of new news to some of the folks. (AHP-02)

Strengths of P.I.E.C.E.S. education. Nurses and allied health professionals perceived that the strengths of P.I.E.C.E.S. education were related to holistic care, applicability, and how the program was presented. The participants who received P.I.E.C.E.S. training felt that the program had many strengths as it: (a) was practical, (b) was well-organized and “*relevant*”, and (c) enhanced learning through informative case studies.

P.I.E.C.E.S. was practical: “it made sense”. Nurses and allied health professionals perceived P.I.E.C.E.S. education to be applicable for practice and simple and easy to use. More than half of the HCPs in this study felt that approaches and knowledge from P.I.E.C.E.S. education were simplistic yet useful for their practice. Participants stated in terms of P.I.E.C.E.S. education: “...*I found it very useful*” (PTN-07), “*You know what, when I read it, it made sense*” (PTN-04), and “*I just find it logical...*” (PE). The principles of P.I.E.C.E.S. education were perceived as easy to incorporate into practice due to relevance to dementia care compared to concepts of other dementia care educational programs.

...the reason why I feel it's [P.I.E.C.E.S.] positively affected dementia care is because for people to know P.I.E.C.E.S. and understand P.I.E.C.E.S. and the simplicity of P.I.E.C.E.S. It's just so common sense...and it's simple. You know, you look at some other, you know paradigms and they're so complicated and so non-user friendly...who's gonna embrace that? Whereas three questions, simple easy-peasy, right? (PE)

HCPs perceived that establishing plans of care that incorporate P.I.E.C.E.S. concepts for clients with responsive behaviours was an effective and useful approach for these clients.

The P.I.E.C.E.S. plans show that these plans are actually really relevant for these individuals and they were long standing...it was not a short term plan of care, this is a long term plan of care that could be effective and make a difference in that person's stay. (AHP-01)

P.I.E.C.E.S. approaches were also perceived to be appropriate and simple-to-use for HCPs who were new to their professions. One nurse reported using the P.I.E.C.E.S. approach when orientating new learners on acute medical units: *"I tend to use it a lot though because when...I do have lots of orientees, students and when I say "this is the way I approach a patient because patient's background...from what I learned..." (PTN-09).*

P.I.E.C.E.S. was well-organized and "relevant": "it was very well presented".

P.I.E.C.E.S. education was perceived by HCPs to be well presented and a program that inspired better care for persons with dementia. Almost half of the HCPs in this study felt that P.I.E.C.E.S. education was taught in an effective manner and provided a comprehensive overview of important topics related to the care of persons with responsive behaviours. One nurse stated: *"Honestly, probably the best education days that I ever had. I remember saying that in my comments afterwards. Great education...It was very well presented"* (PTN-07). The program was highly praised for its relevance for practice and strategies used to present topics. HCPs were pleased with the training provided and it made them feel that there is still hope in improving dementia care for clients with responsive behaviours: *"I was very impressed and...I loved the program and came away feeling we could do better"* (PTN-04). Some HCPs perceived that information presented during training was thorough and that they received useful resources from the P.I.E.C.E.S. educators such as assessment tools and the P.I.E.C.E.S. manual. These take-away materials were perceived as valuable resources to refer to when having to interact with or care for clients with responsive behaviours. One allied health professional stated:

The information that was provided was relevant...there was nothing lacking from the course itself. It provided a good base. It was a lot of information. We received good tools from them.

A very good book and I keep it actually in my top drawer for reference and a good summary sheet of the assessment and techniques. (AHP-01)

HCPs also found it helpful to be able to complete assignments at home so they could reflect on the content and discuss findings on the second day of training:

I thought that it was good that we did...an assignment. So, we did our assessment of the patient and like handed that in on our day two. I thought that that was really helpful to actually go through the process instead of just hearing the information (AHP-02).

P.I.E.C.E.S. enhanced learning through informative case studies: “I liked the actual case examples”. HCPs perceived that case studies provided them with an enriching learning experience. The case studies were presented in the format of videos, personal stories, and scenarios. These were deemed helpful by almost half of the participants in understanding P.I.E.C.E.S. principles and concepts. HCPs perceived that case studies allowed them to perform critical-thinking to delve deeper when conducting assessments for clients with responsive behaviours: *“I liked at the end of the course, they gave us scenarios and then asked us to get each aspect to find out what’s the problem with the patient. I think it was a good exercise”* (PTN-09). HCPs perceived that they learned best when being presented with case studies of persons experiencing responsive behaviours as this was seen as a powerful strategy in relaying the main message for HCPs: *“I liked the actual case examples. I didn’t think there was enough of those...I thought the case examples are always really good in terms of trying to bring it home and that’s just the way I learn best”* (AHP-02).

Being exposed to personal stories of individuals with responsive behaviours was perceived as a way to visualize the experience of others and the strategies that can be used to care for specific persons: *“I loved the personal stories, that I am able to take the strategies and move forward with...”* (AHP-01). Some HCPs also reported watching videos of the experiences

of others and how this activity helped them be more in-tune with the experiences of their clients.

One nurse shared an example related to delirium:

We watched some videos about delirious patients and...what they went through and three days after their delirium clearing and them describing their stay in the hospital...that was probably part of the stuff that stuck with me the most (PTN-07).

Secondary data analysis. Using a secondary analysis approach, a comparison was made between major concepts found in the P.I.E.C.E.S. education manual (Hamilton et al., 2010) and the concepts that were discussed by nurses who were and were not P.I.E.C.E.S. educated. This approach used triangulation of data sources to augment credibility, which is supported by Thorne (2016). This approach was intended to reveal differences in perceptions and understanding of responsive behaviours of dementia between the two groups of nurses which were not part of the original research questions. The main P.I.E.C.E.S. concepts found in the manual included: (a) interprofessional collaboration, (b) person/family-centred care, (c) promoting safety, (d) examining the environment, (e) pharmacological strategies, and (f) non-pharmacological strategies to support persons with responsive behaviours. See Appendix L for the table of results with quotes. Superficial comments made by participants were not included in the table as such comments lacked richness and they did not depict a strong understanding of a concept. An example of an omitted quote is: *“Geriatrics are good. I don’t mind having them around because basically that’s what they studied and they would know better than me” (PTN-10).*

In terms of the concept of interprofessional collaboration, nurses in both groups almost equally discussed the importance of interprofessional collaboration and using shared solution-finding and care practices in dementia care. Only the P.I.E.C.E.S. educated nurses, however, mentioned the importance of using a common language and approach in caring for persons with

responsive behaviours. Using a common language is an important concept in P.I.E.C.E.S. education to enhance team dialogue.

When considering the concept of person/family-centred care, all nurses in both groups talked about the importance of incorporating the life story of persons with responsive behaviours into nursing care. Three of the four nurses who received P.I.E.C.E.S. education discussed applying holistic care into their practice while only one of six nurses in the non-P.I.E.C.E.S. educated group discussed holistic care for persons with responsive behaviours of dementia.

Promoting and ensuring safety for persons with dementia and those around them was seen as an important priority for both groups of nurses however, only one nurse in the non-P.I.E.C.E.S. educated group mentioned that frailty of persons with responsive behaviours was a concern for safety in terms of risk for delirium. In the P.I.E.C.E.S. educated group, two of four nurses understood frailty as an underlying concern for persons with responsive behaviours and they mentioned more issues (e.g. a urinary tract infection and cancer) aligned with examples provided in the P.I.E.C.E.S. manual such as falls, delirium, and physical illness.

Both groups of nurses discussed the impact of the environment on triggering responsive behaviours either through an unfamiliar environment, over-stimulation, or under-stimulation. Most of the nurses in both groups discussed using medications as a strategy for supporting individuals living with responsive behaviours. In terms of using non-pharmacological strategies to support persons with responsive behaviours, nurses in both groups: (a) applied meaningful interactions to know more about the person, (b) modified their approach in caring for this population, (c) recognized the benefits of team meetings, and (d) networked with specialty teams. The P.I.E.C.E.S. educated group however, relied more on their own life experiences when supporting persons with responsive behaviours as three of four nurses mentioned this concept

while one nurse mentioned this concept in the other group. Being able to incorporate one's own life experiences into nursing practice may be reflective of the fact that the P.I.E.C.E.S. educated nurses were mostly older and more experienced than the other group.

Overall, the secondary data analysis revealed some findings that could be reflective of the impact of the P.I.E.C.E.S. education program in enhancing the practice of nurses such as promoting a common language among disciplines, encouraging a holistic approach, and being able to recognize frailty in persons with responsive behaviours. It reveals that P.I.E.C.E.S. trained nurses were able to translate some aspects of P.I.E.C.E.S. education into practice. Despite the promising findings, it is critical to consider that there was a small number of nurses included in this analysis (n=10). In addition, only four nurses received P.I.E.C.E.S. education so it is challenging to generalize findings and make strong conclusions related to the impact of P.I.E.C.E.S. education on nursing practice. This analysis however provides a valuable overview of similarities and differences between both groups of nurses in how approaches and knowledge taught in the P.I.E.C.E.S. program were understood and used.

Recommendations for Dementia Care and P.I.E.C.E.S. Education

Nurses and allied health professionals described strategies to improve dementia care on acute medical units and enhance the uptake of P.I.E.C.E.S. education. Recommendations provided by nurses and allied health professionals consisted of: (a) ensuring adequate staffing on acute medical units, (b) increasing support from BSO, (c) providing more educational reinforcements, (d) implementing more family/team meetings, and (e) creating a safe unit to support persons with dementia. Table 5 provides a list of recommendations.

Table 5. Recommendations for Dementia Care and P.I.E.C.E.S. Education

Recommendations
1. Organizations should ensure that acute medical units are adequately staffed with nurses and one-on-one providers (i.e. PSWs and BART workers). The nurse-to-client ratio should be revised so that nurses have fewer clients assigned to their care.
2. Organizations should increase support from BSO to help in providing expertise and recommendations for staff in delivering care for persons with responsive behaviours.
3. Organizations should not only offer more opportunities for nurses to receive dementia care training and in-services in dementia care, but they should also implement strategies to enhance uptake of education and provide continuous educational reinforcements (e.g. semi-annual or annual review of educational training and refresher courses). Organizations should provide educational reinforcements that focus on increasing the knowledge of dementia care for staff as well as providing them with practical skills.
4. Organizations should implement more family/team meetings and ensure that nurses attend these meetings. Such meetings should also provide an opportunity for staff to apply P.I.E.C.E.S. concepts as a team.
5. Organizations should create a safe acute care unit that provides specialized services in dementia care and ensure that staff are trained in delivering these services.

Ensuring adequate staffing on acute medical units: “add additional staffing”. To improve dementia care, some nurses recommended that units are adequately staffed with nurses and PSWs who are trained in dementia care: *“Add additional staffing, educated staffing. I think that’s probably the biggest one”* (N-06). Nurses perceived that care for clients with dementia was time-consuming and some nurses therefore recommended more staff to help care for them:

I think the more dementia patients that we have, the more staff that we should have. Instead of having five patients on days, you have two with dementia, you know, you should have an extra nurse too...So, I just have four patients and two with dementia... (N-01)

To support nurses in providing care for persons with dementia, nurses recommended that they receive more support from PSWs and BART workers. Nurses perceived that having more PSW support would help to ensure the safety of clients with responsive behaviours as they could assist the nurses in monitoring these clients. One nurse stated: *“I think it makes it [providing dementia care] easy if the managers are on board and provide one-on-one PSW care to support the nurse so that you can look after that patient and your other people as well”* (N-06). Nurses

felt that having someone else continuously with the client experiencing responsive behaviours gave them time to care for and meet the needs of all clients. Some nurses felt that the PSWs assigned by the organization at times lacked training and a gentle approach with clients with responsive behaviours due to fatigue experienced in their line of work. Some nurses therefore recommended that behaviourally trained one-on-one workers such as BART workers be assigned to support these clients instead and that workers receive training such as P.I.E.C.E.S. education:

Sometimes the PSWs...don't speak English, they're not kind...there's a big language barrier, they're...overworked and burnt-out. So as an organization if we had our own healthcare workers, PSWs, and yeah, a few Bartimaeus trained people would be fabulous...For them to take this [P.I.E.C.E.S.] sure would be like an eye opener. (PTN-07)

In light of multiple priorities and increased workload, nurses recommended decreasing the nurse-to-patient ratio to have more time to apply P.I.E.C.E.S. into practice. Organizations would then have to increase staffing on acute medical units. All nurses except one who received P.I.E.C.E.S. education provided the recommendation of decreasing the nurse-to-patient ratio as a strategy to effectively apply P.I.E.C.E.S. into practice. When asked what would help nurses apply P.I.E.C.E.S. more often into practice, a participant stated: “...less patients. Less patient ratio. We're feeling really overwhelmed like I said with the new [computer program], you are hardly getting your charting done let alone to implement care plans” (PTN-07).

Nurses perceived that if they were to apply P.I.E.C.E.S. concepts and conduct a thorough assessment of clients with responsive behaviours, nurses should only be assigned to care for one or two clients experiencing responsive behaviours at a time:

If given the opportunity to actually have a patient with one responsive behaviour and getting the chance to actually apply P.I.E.C.E.S., I wouldn't mind because you have the time to do it with one but, with three at the same time it's a completely different story. (PTN-10)

With a decreased number of client assignments, nurses felt that they would then have time to conduct a more in-depth review of the client with responsive behaviours that is reflective of the

P.I.E.C.E.S. approach and seek multiple sources of documentation to learn more about their clients:

...if I had less patients, I would love to go talk to patients...and then I can do more study about the patient to read the notes and the medical history, the personal history and then the lifestyle and the family history stuff so we could see more in-depth... (PTN-09).

Increasing support from BSO: “having them [BSO] more frequently on the floor”.

Nurses and allied health professionals recommended to increase services and support from BSO on acute medical units to serve as a dementia care resource when caring for persons with responsive behaviours: “...because the demographic has changed, having them [BSO] more frequently on the floor might be more helpful...” (N-08). BSO clinicians were seen as responsible for conducting comprehensive assessments of clients with responsive behaviours and provide a plan for staff to follow: “We also have [name] who is a BSO lead and she actually establishes all these patients who require these extensive plans...” (AHP-01). Nurses felt that there was a need to increase the presence of BSO staff on acute medical units. BSO was perceived as responsible in leading the team in applying P.I.E.C.E.S. during behavioural rounds. One nurse recommended that each unit have their own BSO clinician and that they spend more time on the units to fully understand the reality of nurses to provide realistic goals for staff:

I think if we had one BSO for at least the...say [unit] and [unit], I think they would have more time with us than just coming here whenever and...you know, just do the rounds because if they're more here then they get to see...what's going on the floor and we could basically put up more realistic goals than putting up something that's really not gonna happen. (PTN-10)

Nurses also recommended that BSO should be involved in orientating new nurses to the hospital to support them in their care for clients with responsive behaviours: “...having them [BSO] involved in hospital orientation would be a great resource...it doesn't have to be a full-day, just half a day, a couple hours...to explain the approach of how to deal with patients...” (N-02).

Providing more educational reinforcements: “more courses”. Nurses recognized the need for more educational supports in dementia care due to the growing aging population. The organization was perceived to provide inadequate training in the area of dementia care for staff, perhaps due to the focus on acute care issues on medicine units. Lack of regular training opportunities was therefore perceived by nurses to impact their ability to effectively care for clients with responsive behaviours. None of the HCPs reported having regular meetings with an expert facilitator to help them translate P.I.E.C.E.S. into practice. One of the few nurses who received P.I.E.C.E.S. training recommended stronger leadership at the management level to ensure that staff have the skills and knowledge necessary to address responsive behaviours:

Another barrier would be lack of training. Well I’m fortunate that I was sent for P.I.E.C.E.S. training and all that but...most of the staff are not trained for that and having said that, I think the floor or the unit or whoever is in charge should engage staff more on training people into how to handle responsive behaviour because it does really help... (PTN-10)

Most of the nurses recommended that they receive regular educational training and in-services in dementia care provided by their organization. Ongoing reinforcement was perceived as necessary to support nurses in caring for older adults with responsive behaviours. None of the HCPs reported opportunities provided by their organization to annually review learning from educational programs in dementia care such as GPA or P.I.E.C.E.S. education. Most of the staff reported receiving GPA training several years ago and had not received any further education or review of GPA since then. Some of the nurses recommended that P.I.E.C.E.S. education be provided for HCPs throughout their organization:

I think providing us with more training even. P.I.E.C.E.S. I’ve never taken it before but, I’ve heard of it. Even providing training like that would be very helpful and in terms of providing more resources or personnel with knowledge or a lot more information on how to care for dementia patients for us would be very helpful. And, maybe like a one to two-hour in-service from those kinds of health professionals would be very beneficial in terms of broadening our knowledge on how to better care for these patients. (N-05)

When providing educational training in dementia care, nurses recommended that these opportunities be scheduled on days when they are not working and be funded by the organization. When implementing in-services for HCPs, nurses recommended that these opportunities be scheduled at times that are less busy for nurses (e.g. after medication rounds and morning bathing care) and of a shorter timeframe. One nurse recommended a shorter length of seminars so that nurses have the ability to attend during work:

I find we don't really have in-services...I've gotten emails about like presentations but, these are an hour and a half, two hours presentations. They're not great for nurses on the unit...if they could provide like half an hour to 45 minutes of something that we could go to on our lunch, I don't know if everyone would be interested in that but, that might be helpful. (N-08)

Some allied health professionals also perceived that more educational reinforcements in dementia care should be provided to all HCPs, particularly nurses: “...I would like to emphasize...that I would like to see the entire nursing population attend the session [P.I.E.C.E.S.]” (AHP-01). One allied health professional recommended that all HCPs be provided with the opportunity to attend GPA and/or P.I.E.C.E.S. training: “So maybe more education. Maybe the opportunity for everyone to take P.I.E.C.E.S. and/or GPA” (AHP-02). GPA had been introduced to almost all existing and incoming staff at the study site however, P.I.E.C.E.S. education had been offered to only a select few HCPs.

Implementing more family/team meetings: “it would be beneficial for us to be included”. Nurses discussed the need for more family/team meetings to discuss plans of care for persons with responsive behaviours and to ensure that nurses’ voices are heard at these meetings. About half of the nurses in this study recommended that organizations implement regular and frequent team meetings. These were perceived as a way to communicate information about clients with responsive behaviours to other HCPs and to enhance shared practices:

I see quite a few patients on my unit with responsive behaviours and I feel like...maybe as part of our meeting or huddle, it would be good to let's say make everybody aware of which patients are the ones that are actively exhibiting responsive behaviours so everyone can kind of...look out for these patients...Generally, our meetings don't really focus on that. (N-05)

Some nurses recommended that they be more involved in team meetings and that their perspectives be considered by the team because they often interact with families and clients.

...it would be beneficial for us to be included in those discussions [team meetings]. I guess probably the behaviours of the patients that they're showing and kind of what we think...they need moving forward and maybe that would help discharge faster...we hear their perspectives and the doctors often miss family members...we could provide insight into how the family's feeling. Are they feeling stressed out, burned-out? Are they willing to go back home with extra support?...I think nurses could provide that perspective. (N-08)

Nurses felt that meetings focusing on plans of care for clients with responsive behaviours were beneficial and recommended having such interdisciplinary meetings. One nurse perceived that the nursing perspective should be considered to ensure that goals for clients are achievable:

As long as the goal is realistic...I would love to have it[behavioural rounds] back...sometimes...the one who's spear heading the behavioural rounds at that time...she doesn't work as a nurse on the floor so...I don't feel that she gets the real world...like you're giving us this goal but, the real world is not going to be like that...So I think it would be best to have behavioural rounds but, someone who actually knows the floor. (PTN-10)

To improve the application of P.I.E.C.E.S. concepts, P.I.E.C.E.S. trained HCPs recommended having frequent rounds to discuss responsive behaviours and apply P.I.E.C.E.S. These meetings were perceived as also including family members of clients with responsive behaviours so that they may be better informed of the plans of care. One nurse recommended that P.I.E.C.E.S. educated staff meet with families to be able to have a holistic discussion:

...if they would let a staff come in for work for like a day or two who would just be P.I.E.C.E.S., not doing P.I.E.C.E.S. but basically getting to know the patient, having a family meeting...and asking the patient's wants...I think that would be very nice. (PTN-10)

Nurses felt that behavioural rounds were helpful in sharing information and applying P.I.E.C.E.S. and that these meetings should continuously occur at least once a week:

...after we had the P.I.E.C.E.S. training and they picked up a couple of nurses to do like rounds...once a week or twice a week. So, they picked like one to two patients who had dementia and then we can discuss as a team not only the nurses like OT, PT, SLP who provide care for the patient...we can all get together and then we share what we learn from the patient and we just get to know about the patient more so we can provide better for the patient but it only happened like twice, I think and they didn't continue. (PTN-09)

Nurses recommended having behavioural rounds to involve P.I.E.C.E.S. trained HCPs of all disciplines in developing care plans for clients with responsive behaviours. This promoted a collaborative effort and enhanced team dialogue:

...behavioural rounds is not... only for nurses...it's an interprofessional kind of rounding who are all P.I.E.C.E.S. trained because we work in a team, right? There's physio, there's OT... there's doctors. If everyone is like P.I.E.C.E.S. trained and then we do behavioural rounds at least once a week... I think that would be a good change... (PTN-10)

Many allied health professionals recommended that organizations implement team rounds to provide an opportunity to apply P.I.E.C.E.S. concepts as a team. Allied health professionals recommended the integration of P.I.E.C.E.S. concepts into pre-established strategies such as meetings. These meetings should be incorporated in units such as acute medical units where there is a high population of older adults with dementia.

I don't know how many meetings you guys already have in acute care but...it might be good on certain units where you have a larger component of people aging with dementia. So, there would be some that have more of that, so the orthopaedic units and some of the other units ...I think you could incorporate it on those units a little bit more easier. (PE)

Creating a safe unit: “a unit...that will cater for these patients”. Half of the nurses in this study recommended that the organization create an acute care unit that includes trained staff and appropriate resources for dementia care. These units would be similar to an Alternative Level of Care (ALC) unit and provide services for persons with dementia requiring routine nursing care. These acute care units would have to implement safety measures which were perceived by nurses as locked units and personal alert systems to notify staff and security personnel of responsive behaviours of a physical nature. Nurses felt that there was a need for an

acute care unit specializing in dementia care in hospital so that clients with responsive behaviours need not remain for long periods on acute medical units: “...could we really as an organization, could we not have a unit or more units that will cater for these patients while they’re waiting to be placed? Acute...medicine is not the place for them” (PTN-04). Nurses recommended that these units be locked for the safety of clients and that they accommodate persons with responsive behaviours by providing them with more space to walk freely on the unit: “More locked units. More units that patients are able to wander. I find that all they want to do is just walk. They just want to walk, they just want to touch, they just want to explore” (N-02). Nurses emphasized the need to have adequate staffing and specially trained HCPs on such units:

...ideally, they should have a specific unit, maybe a specific acute care unit for patients that have these types of behaviours and staff it accordingly so that the right type of trained people are on those units...wouldn't that be lovely? (N-06)

Based on nursing experiences in addressing responsive behaviours of a physical nature on acute medical units, more safety measures were seen as required such as personal alert systems. One nurse recommended a personal device that would immediately notify security personnel by a press of a button if clients were exhibiting behaviours of a physical nature:

See we get these patients who are like physically responsive or responsive behaviours with physical aggression but, we don't get that like in acute mental health where they have that badge and they just press it and then it will just alarm all the security to come or whatever. We don't have that. Like we have to basically yell and like “help!”, you know? (PTN-10)

Summary of Main Results

Overall, the main results of this study were that nurses in acute medical settings navigated through various perspectives, labelled persons with responsive behaviours, and found it challenging to provide care for clients with responsive behaviours. Nurses experienced different emotions when caring for these clients such as sadness, fear, and frustration. There were many perceived barriers to dementia care in acute medical units such as limited time and a

focus on acute priorities, a fast-paced environment, and heavy workload. Some facilitators were perceived to make it easier for nurses to provide care for clients with responsive behaviours such as strong interprofessional collaboration, good continuity of care, and holding team meetings. Nurses used non-pharmacological and pharmacological strategies in their practice.

The key perceived impacts of P.I.E.C.E.S. were that it promoted interprofessional collaboration, validated current practices, and provided a structured framework for care. P.I.E.C.E.S. education was perceived by HCPs as having multiple strengths such as practicality, organization, and relevance for practice. Despite being seen as a valuable program, there was limited P.I.E.C.E.S. uptake by HCPs as most reported no longer using P.I.E.C.E.S. in practice. HCPs perceived that barriers to implementing P.I.E.C.E.S. approaches were related to limited time to apply such approaches and feeling that they P.I.E.C.E.S. concepts were not new.

The recommendations for organizations to support the delivery of care for clients with dementia in acute medical settings were to provide more education for nurses, create an acute care unit specializing in dementia care, ensure adequate staffing, and implement frequent family/team meetings. To enhance the uptake of P.I.E.C.E.S. approaches and make it easier for staff to apply P.I.E.C.E.S. into practice, nurses and allied health professionals recommended implementing team meetings focused on discussions related to clients with responsive behaviours. Nurses also recommended that they have fewer clients assigned to them and only one or two clients with responsive behaviours to be able to have time to effectively conduct a P.I.E.C.E.S. assessment. Furthermore, participants recommended that their organization provide opportunities for them to review main principles of behavioural assessment and management found in the P.I.E.C.E.S. manual on a regular, formal, systematic basis.

CHAPTER 6: DISCUSSION

Overview

This final chapter provides a discussion of the study findings related to the nursing experience in caring for older adults with dementia living with responsive behaviours, P.I.E.C.E.S. education, and recommendations for dementia care. New contributions that this study adds are highlighted. They are: (a) providing nursing care for older adults living with responsive behaviours of dementia is a complex experience, (b) there are many barriers to dementia care within acute medical settings, (c) nurses use a variety of pharmacological and non-pharmacological strategies to care for older adults with dementia, (d) there is limited continued application of P.I.E.C.E.S. education although the program and its approaches were seen as relevant for dementia care, and (e) participants viewed organizations as responsible for improving dementia care in acute medical settings. Findings will be discussed in light of literature. A discussion on the implications for practice, policy, education, and research is included. This chapter ends with a summary of the strengths and limitations of the study.

Key Findings in Relation to the Literature

This study provides important new contributions to the literature regarding the experiences of nurses caring for older adults living with dementia exhibiting responsive behaviours on acute medical settings and HCPs' perceptions of P.I.E.C.E.S. education. Each of these findings are discussed in the following sections.

Complex nursing experiences in dementia care. An important key finding of this study is that care delivery for older adults with dementia living with responsive behaviours is a complex experience for nurses in an acute care setting. Nurses included the perspectives of family members of clients with dementia and allied health professionals during care delivery, but

they had to put in extra effort to have their own voices heard and acknowledged by others. A new contribution that this study makes is that nurses feel that they are in a good position to advocate for clients with responsive behaviours and should therefore be more involved in care planning within the team.

Nurses in the current study understood that the expression of responsive behaviours was associated with a dementia diagnosis yet, they still applied negative labels to this population. Houghton et al. (2016) found that although nurses in hospital typically had a strong knowledge about dementia, stereotyping of clients with dementia still occurred and impacted the ability of nurses to see past the confused state of clients. As labelling was found to be a common practice among nurses in hospital this led to stigmatization of this population (Digby et al., 2016). In the current study, stigma led nurses to believe that clients with dementia should not be cared for on acute care units and that care for this population is not an acute priority. These clients have been found to be perceived as a nuisance in acute care settings by nurses as they affect the ability of nurses to complete routine tasks (Moyle, Borbasi, Wallis, Olorenshaw, & Gracia, 2011).

Providing nursing care and treatment for clients with responsive behaviours was perceived as challenging and this has been found in other studies as well (Digby et al., 2016; Houghton et al., 2016; Moonga & Likupe, 2016). Nurses in the present study found themselves in an ethical dilemma in providing necessary treatments while clients with dementia were clearly in a state of refusal or distress. Ethical dilemmas have been reported by nurses in other studies as they were often faced with uncertainty in making difficult decisions for clients with dementia despite their resistance to care (Eriksson & Saveman, 2002; Moonga & Likupe, 2016).

This study highlights the turbulent emotional journey that nurses undertake when caring for clients with responsive behaviours of dementia. Although previous studies have briefly

discussed emotions experienced by nurses such as frustration and anger (Digby et al., 2016; Eriksson & Saveman, 2002; Turner et al., 2017), the current study provides a more in-depth exploration of emotions and identified sadness as an additional emotion experienced by nurses. Nurses in the current study were frustrated in caring for clients who were resistant to care as this consumed extra time. Frustration has been found to be directed toward persons with dementia by staff (Moyle et al., 2011). Similarly, Eriksson and Saveman (2002) found that frustration occurred when nurses were attempting to provide care and were met with responsive behaviours. Nurses in the current study had to frequently monitor clients with dementia and this practice has been found to lead to frustration as it is time consuming (Turner et al., 2017).

Nilsson, Rasmussen, and Edvardsson (2016) found that feelings of anger and fear among nurses were associated with caring for clients with dementia experiencing confusion or resistance to care, however nurses in the current study typically had feelings of anger when met with responsive behaviours of a physical nature. A new finding of the current study was that not only were nurses upset when they were hurt, but they were also upset with their organization due to lack of action after such incidents and few strategies put in place to prevent responsive behaviours of a physical nature from occurring. An emotion experienced by nurses in the current study not yet discussed in the literature was sadness associated with caring for this population. Previous studies discussed the need for nurses to meet the emotional needs of clients with dementia (Baille et al., 2012; Cowdell, 2010), however the current study reveals that nurses also need support from their peers and management to regulate their own emotions in dementia care.

Multiple barriers and few facilitators for dementia care. The second key finding of this study is that nurses encountered many barriers and few facilitators when implementing dementia care on acute medical units. The acute medical environment was perceived by nurses to

be unsupportive of dementia care due to a strong focus on acute care priorities, limited time, a fast-paced environment, and high demands. Providing care for clients with dementia was perceived by nurses as consuming additional resources such as time and staff when these resources were already scarce in acute medical units. Other studies have also found that inadequate staffing and heavy workload in hospital led to poor quality of care for clients living with dementia (Byers & France, 2008; Hynninen et al., 2016).

The acute care environment was found in the current study to trigger responsive behaviours due to high noise levels and limited time to meet the needs of clients with responsive behaviours. Previous studies similarly found that acute care environments were unsuitable care environments and can trigger responsive behaviours (Digby et al., 2016; Houghton et al., 2016; Moonga & Likupe, 2016). Nurses in the current study also felt that acute medical environments did not provide enough stimulation for older adults with dementia in terms of therapeutic activities and human interaction. Edvardsson and Nordvall (2008) similarly found that due to poor engagement and a strong emphasis on routine nursing tasks, clients with dementia often reported feelings of boredom on psychogeriatric units.

In this current study a few facilitators supported nurses in delivering dementia care on acute medical units. A new contribution made by this study is that strong interprofessional collaboration can help to address the challenges faced with providing care for clients with dementia. Having an accessible and diverse healthcare team on site made it easier for nurses to care for clients with dementia and ensured that the social needs of clients were met as well. Nurses expressed having a good relationship with allied health professionals and being able to share care for clients with dementia. Having strong cohesion within the interdisciplinary team

ensures care is being shared for clients with dementia and that HCPs are learning from one another based on individual experiences with the same clients (Chater & Hughes, 2013).

This current study revealed that nurses found team meetings to be beneficial in sharing information about clients and best approaches that could be used when caring for clients with dementia. Nurses found that team meetings, especially behavioural rounds that focused exclusively on clients with responsive behaviours, were helpful in sharing information across the healthcare team and documenting strategies to care for these clients. Implementing interprofessional huddles to discuss the care of clients with responsive behaviours have been similarly found to promote critical thinking by ensuring that the team is using objectivity in determining the risk and triggers for responsive behaviours (Hung et al., 2016). Similarly, Chater and Hughes (2013) found that team reflection was recognized by staff as beneficial in sharing perspectives about clients with dementia and documenting information.

Using pharmacological and non-pharmacological strategies. The third key study finding is that nurses used pharmacological and low investment non-pharmacological strategies when delivering care for clients with dementia experiencing responsive behaviours. Nurses in this current study were found to rely on chemical restraints in times of desperation due to limited resources in acute medical settings and when they wanted to prevent responsive behaviours from occurring. Nurses recognized the side effects and potential risks associated with administering chemical restraints such as falls and felt morally conflicted as they were unsure if they were doing more harm than good. Similarly, Eriksson and Saveman (2002) found that nurses found themselves in ethical dilemmas as sedating clients with chemical restraints challenged a person's dignity. Hynninen et al. (2014) found that nurses and physicians perceived that chemical and physical restraints increase the personal safety of clients by preventing falls and allowed them to

administer medical treatment. These strategies continue to be used suggesting that the use of chemical restraints is ingrained in the nursing culture in acute care settings.

Nurses involved other individuals to make care delivery easier for persons with dementia as well as to share care responsibilities. Nurses relied on the expertise of specialty teams in providing dementia care and knowledge received from family members regarding their loved ones. Involving families in the care of persons with dementia in acute care settings was valuable in helping staff recognize possible triggers for responsive behaviours and provide comfort for these clients by decreasing anxiety (Digby et al., 2016; Houghton et al., 2016). In this current study, nurses assigned one-on-one PSWs or BART workers to provide constant monitoring of clients with dementia so that they could attend to other nursing duties and to ensure safety of the client and others. Nurses have similarly been found to use approaches such as involving PSWs or students to remain with clients with dementia as a way to limit time spent with this population so that nurses could attend to acute priorities (Turner et al., 2017).

Nurses in the current study typically used simple forms of person-centred approaches to care for clients with dementia such as talking or walking with them, playing music, and using photographs or familiar items to initiate conversations. Some of these approaches require little investment on the part of nurses in terms of resources and time. Training to provide music for persons with dementia is not typically required. Some non-pharmacological approaches can also be implemented without the nurse having to remain present with the client such as when providing activities such as reading a newspaper. Since person-centred approaches requiring low investment are being used by nurses in acute medical settings it is important for staff and organizations to consider whether current practices preserve the selfhood of persons with dementia. Post (2013) advocates for the continual preservation of the personal identity of persons

who are forgetful by focusing on aspects that still have meaning for them such as creativity, emotions, symbolism, music, spirituality, and tactile sensations. Regardless of the person-centred approach implemented nurses should consider whether they are targeting similar aspects.

Some evidence-supported person-centred non-pharmacological approaches for persons with responsive behaviours of dementia consist of music therapy, validation therapy, reminiscence therapy, and meaningful activities (RNAO, 2016; Scales, Zimmerman, & Miller, 2018). Implementing non-pharmacological approaches can provide familiarity, decrease anxiety, enhance positive feelings, and provide cognitive stimulation for persons with responsive behaviours (Scales et al., 2018). These types of approaches vary in terms of time and resources required by HCPs to invest in such activities. The acute medical environment had many perceived barriers that affected the ability of nurses in the current study to implement person-centred care. Being able to adopt person-centred care in acute care settings in another study have been similarly found to be impacted by conflicting priorities, inadequate staffing and resources, and an organization constantly evolving to meet healthcare demands (McCance, Gribben, McCormack, & Laird, 2013). Nurses in the current study mentioned the need to complete nursing tasks such as administering medications and another study found that following strict routines impacted person-centred care (Cowdell, 2010). Similar to the present study, Houghton et al. (2016) found that safety was a more important priority for persons with dementia in hospital and could even cause staff to neglect person-centred care.

Safety was perceived by nurses as an important concern for clients with responsive behaviours in the current study. Physical restraints were used for extreme situations when nurses were unable to effectively address responsive behaviours and when responsive behaviours of a physical nature occurred. Similarly found in a review by Digby et al. (2016), nurses in the

current study justified the need to apply physical restraints as a short-term solution to protect the safety of staff and clients. Security personnel were involved by nurses in the current study to assist in de-escalating situations where responsive behaviours of a physical nature occurred. Such situations in other studies often required involving security personnel to help apply physical restraints or administer chemical restraints (Digby et al., 2016; Moyle et al., 2011).

P.I.E.C.E.S. education had limited continued use by HCPs in acute medical settings.

A key finding of this study which provides a new contribution is that P.I.E.C.E.S. education had limited continued use by HCPs in acute medical settings. This finding can be attributed to issues with knowledge mobilization throughout the organization. This reveals that there is a need for strategies to enhance uptake, help HCPs adopt P.I.E.C.E.S. approaches in their daily practice, and sustain their purposeful use of P.I.E.C.E.S. approaches. HCPs perceived that they were already implementing P.I.E.C.E.S. type knowledge in their practice pre-training and continued to apply the principles after training. However, many HCPs had forgotten the name of main concepts and the theoretical evidence supporting these principles approximately one-year post-training. This illustrates the importance of frequent review for sustainable best practice.

P.I.E.C.E.S. education was perceived by HCPs in the current study as being valuable in terms of its many strengths (e.g. encouraging interdisciplinary collaboration, promoting holistic care, and encouraging problem-solving) to help them care for clients experiencing responsive behaviours. P.I.E.C.E.S. education validated current practices of HCPs and made them feel that their current mode of practice was being supported by evidence. Similarly, McAiney et al. (2007) found that following P.I.E.C.E.S. education staff were better able to identify, comprehend, and assess responsive behaviours. They were also more likely to use a variety of assessment tools for persons with responsive behaviours however in the current study

participants did not report using assessment tools post-training. Hung et al. (2016) similarly found that implementing team meetings to share interdisciplinary perspectives can build positive working relationships in caring for persons with responsive behaviours.

Although positive aspects have been brought forward in some studies exploring P.I.E.C.E.S. education, barriers and facilitators to the program also have an influence on the impact on staff practice. Only one facilitator, relevance for nursing practice, in implementing P.I.E.C.E.S. education was found in the current study and this facilitator was not mentioned in previous studies. P.I.E.C.E.S. education was perceived to be consistent with nursing practice as they both share a strong emphasis on holistic care. This was perceived as facilitating the ability of nurses to apply P.I.E.C.E.S. in practice.

In the current study, the barriers to applying P.I.E.C.E.S. concepts into practice were perceived by nurses and allied health professionals as related to limited time to apply P.I.E.C.E.S. into practice and feeling that they already knew the concepts. Nurses and allied health professionals were already being met with increased workload and lack of resources to support them in their expected duties and they did not perceive the need to change their current ways of practice as a high priority. Lack of time was an important barrier for nurses to adopt evidence-based practice within their organizations (Brown et al., 2009). McAiney et al. (2007) found that barriers to implementing P.I.E.C.E.S. within long-term care settings were associated with increased workload, time pressures, and lack of funding to designate someone in the role of an on-site Psychogeriatric Resource Consultant. Similarly, Stolee et al. (2009) found that lack of time designated in applying P.I.E.C.E.S. and available P.I.E.C.E.S. trained HCPs limited the effective development of P.I.E.C.E.S. education within long-term care settings.

Although the current study reveals that P.I.E.C.E.S. education was perceived to be a satisfactory program that had many perceived strengths, the educational intervention was not successfully implemented in acute medical settings. The operation of behavioural rounds was not systematic at the study site and providers were expected to apply P.I.E.C.E.S. independently. Based on the integrated or i-PARIHS (Promoting Action on Research Implementation in Health Services) framework (Harvey & Kitson, 2016), P.I.E.C.E.S. was poorly implemented at the study site. The four core constructs of the framework are facilitation, innovation, recipients, and context (Harvey & Kitson, 2015). Facilitation is given the most weight in the framework as having a facilitator ensures that they can provide support for learners, refine learning materials, and mentor other facilitators (Harvey & Kitson, 2016). In the current study, there was no expert facilitator such as an advanced practice nurse assigned by the organization to help HCPs adopt P.I.E.C.E.S. into practice. HCPs were therefore poorly engaged and lacked motivation to make consistent changes in their practice by using a P.I.E.C.E.S. approach. Education alone may not always be successful in changing the personal understanding of responsive behaviours.

Perceived need for organizations to make changes to support dementia care. The fifth key finding of this study is that participants felt that acute care organizations need to make improvements to better support care delivery for older adults experiencing responsive behaviours of dementia. Participants perceived that there is a need for more educational reinforcements in dementia care for staff, particularly nurses, working on acute medical units. Nurses felt that they were not prepared to address responsive behaviours of dementia and that they would benefit from receiving regular education in dementia care and attending in-services provided by their organization. Coffey et al. (2014) and Marx et al. (2014) also found that HCPs believed that staff received inadequate training to care for clients with dementia and that they sought more

information on using non-pharmacological approaches. Nurses relied on chemical or physical restraints due to lack of information on non-pharmacological approaches (Coffey et al., 2014).

Nurses in the current study recommended that organizations increase staff support in terms of nurses and one-on-one workers. This strategy was perceived as decreasing the workload associated with caring for clients with dementia experiencing responsive behaviours. Additional staffing levels have been recognized as required in caring for clients with dementia in hospitals however, financial resources were often directed towards other priorities such as discharge planning, managing risks in hospital, and treatment targeting acute illnesses (Digby et al., 2016). Nurses recommended the need to increase supports and services from BSO specialists, who hold expertise in addressing responsive behaviours, and can provide evidence-based suggestions in caring for clients with dementia. Including specialist practitioners within healthcare teams has been found to improve the care of persons with dementia (Digby et al., 2016).

Nurses in the current study recommended that organizations create a safe acute care unit for clients with dementia that allows them to wander freely on the unit and include specially trained staff in dementia care. In the literature Dementia Friendly Wards have been found to optimize care for clients with dementia as staff are adequately trained in providing dementia care and have a better understanding of persons with dementia (Andrews, 2013). These types of wards would also contain a more dementia-friendly environment by decreasing traffic and noise as well as providing signs to orientate clients to the hospital environment.

Organizations need to provide more strategies to sustain P.I.E.C.E.S. education. Nurses felt that if they had fewer clients assigned to their case load and if they only had one or two clients with known responsive behaviours assigned to them, they would be in a better position to conduct a P.I.E.C.E.S. assessment and provide better care for their clients. Nurses felt that they

currently lacked time to perform an in-depth P.I.E.C.E.S. assessment and fully apply P.I.E.C.E.S. concepts when caring for clients with responsive behaviours. Nurses felt that more education such as P.I.E.C.E.S. education should be provided to all nurses and allied health professionals as they could benefit from training. Only a small portion of nurses received training at the study site making it challenging for P.I.E.C.E.S. trained nurses to discuss P.I.E.C.E.S. with others. Stolee et al. (2009) found that the sustainability and positive outcomes associated with P.I.E.C.E.S. education were related to the availability and number of P.I.E.C.E.S. trained HCPs.

In the current study, nurses and allied health professionals perceived that having regular and frequent family and team meetings were valuable strategies to apply P.I.E.C.E.S. concepts. They felt that involving family members in team meetings was a good approach in learning about the client and apply P.I.E.C.E.S. concepts. Behavioural rounds for P.I.E.C.E.S. trained staff were perceived as useful if the perspectives of nurses were considered and if they occurred at a minimum once a week. McAiney et al. (2007) also found that there were certain factors that impacted the success of P.I.E.C.E.S. in long-term care settings such as management support, integration of learning into continuous practice, and reinforcement of learning. Through frequent team meetings, creative solutions can be found to provide better care for clients experiencing responsive behaviours (Hung et al., 2016).

The next section discusses the complex culture and environment of the healthcare organization and provides a comparison between nursing practice reported in the study and the expected gerontological nursing competencies.

Complex Culture and Context

The experiences of nurses providing care for older adults with responsive behaviours of dementia are multifaceted and influenced by many factors such as the nursing and organizational

culture, available resources, and educational preparation. There were many interacting factors that impacted the care experiences of nurses in this study and their ability to distinguish concepts learned from P.I.E.C.E.S. education or other educational programs such as Gentle Persuasive Approaches (GPA). Complexity science theory provides an approach to conceptualize and helps one to understand the interacting factors and relationships within healthcare organizations (Center for the Study of Healthcare Management, 2003). By focusing on the larger adaptive systems within organizations, experiences and practices of HCPs can be better understood when exploring different perspectives and relationships within a context rather than in isolation (Capra, 1996; Davidson, Ray, & Turkel, 2011). Nursing care must evolve to adapt to a transcultural context where complex relationships and diverse cultures (e.g. ethnic and generational) exist (Ray, 2016).

Nurses provide care for older adults with dementia within an organization that has several priorities and these priorities all compete for hospital resources (Davidson et al., 2011). The organizational culture of acute care hospitals is focused on treating disease and delivering efficient care. Hospitals are considered fast-paced environments with little room for flexibility (Nilsson, Rasmussen, & Edvardsson, 2013). The organizational culture influences how nurses provide care by completing tasks with speed and not having the perception of time to implement person-centred care for clients with dementia. The current study revealed that administering medications may be a common practice among nurses and is embedded within the nursing culture as it is a quick solution. Nurses are constantly being faced with changes in healthcare including having to care for more clients with responsive behaviours on acute medical units and organizations have a responsibility to support staff in using more creative approaches in caring for this population (Davidson et al., 2011).

Nurses in the current study had completed various educational programs in dementia care and the organization was perceived as responsible in preparing staff to care for older adults with dementia. Nurses relied on a variety of strategies to help them care for older adults with dementia. These strategies were not always learned from programs such as GPA and P.I.E.C.E.S. education, rather nurses learned to adapt their care approaches based on prior experience and knowledge. With complexity science theory, HCPs overcome complexity in healthcare organizations by focusing on relationships with others, organizational culture, and active participation (Center for the Study of Healthcare Management, 2003). Nurses in this study therefore built relationships with other HCPs, clients, and families to be able to collaborate with them in care delivery. Poor emphasis on dementia care within an organization impacted how prepared and skilled nurses were in delivering care for clients with dementia. To improve nursing practice in areas such as dementia care, there is a need to recognize that healthcare organizations can evolve and are part of a larger picture in improving healthcare (James, 2010).

Gerontological Nursing Competencies

This section provides a discussion on whether nurses in this study were meeting the standards for delivering gerontological care on acute medical units. Although not all nurses in this study had a bachelor's degree, the competencies established by the Canadian Association of Schools of Nursing (CASN) (2017) are relevant to nurses in general. Only two out of three competencies established by the CASN (2017) were applicable to nurses in the current study as the third competency relates to end-of-life care. The first competency consisting of collaborating with older adults and their families to promote health, adapt to changes, maintain function, and prevent illness and injury (CASN, 2017) was not fully met by nurses in the current study as they met less than half of the indicators for this competency. Nurses collaborated with clients,

families, and the team to implement plans of care and used adaptive communication strategies. They did not however mention the need to promote healthy aging including maintaining function and autonomy. Nurses recognized the need to build therapeutic relationships with clients with dementia, but they felt that they did not have the time to establish these.

In terms of the second competency consisting of collaborating with older adults and their families to enhance well-being when faced with acute and chronic conditions (CASN, 2017), nurses in this current study met very few indicators for this competency. Due to lack of time and education, very few nurses in this study mentioned being able to conduct holistic and comprehensive assessments for older adults. Even nurses who were P.I.E.C.E.S. trained did not go into a lot of detail about how they conduct P.I.E.C.E.S. assessments for clients as they said they did not consistently use the approach. Although nurses were found to quickly recognize geriatric syndromes for clients with dementia such as delirium and falls and act upon them, they did not mention the importance of maintaining functional ability of these clients in light of acute and chronic conditions. Physical and chemical restraints were also used by nurses in this study despite known negative outcomes associated with such interventions. Overall, this comparison revealed that much improvement is needed to ensure that all nurses who care for older adults are meeting gerontological competencies. The next section discusses the study implications.

Implications for Practice, Policy, Education, and Research

Practice. In terms of implications for practice, the current study revealed that nurses delivering care for older adults with dementia experiencing responsive behaviours on acute medical units require more support from organizations. Caring for older adults with dementia was found to be a complex experience and barriers such as inadequate staffing and increased workload made it difficult for nurses to provide quality care for clients with dementia. Not only

should organizations ensure that there is adequate nursing staff on acute medical units, but they should also increase staffing in terms of PSWs and BART workers so that they may provide additional support for nurses caring for older adults with responsive behaviours of dementia. These workers should receive training in addressing responsive behaviours.

This study revealed that dementia care in acute care settings is not being given high priority and that nursing care provided for clients with dementia is sub-optimal at this time. There is a need for efficient use of organizational resources to improve dementia care by implementing coordinated care through strong interprofessional collaboration and continuity of care. Coordinated care should also focus on person-centred approaches for persons with dementia (Houghton et al., 2016) to ensure that the preferences and needs of individuals are recognized by every HCP. Strong leadership at the management level is needed to spread positive values in dementia care among HCPs including nurses and ensure that strategies used to care for persons with dementia are reflective of the standards of the organization (Houghton et al., 2016). Nurses need more support in developing leadership skills so that they may better advocate for clients with dementia among the healthcare team in terms of plans of care.

This study also revealed that the nursing culture on acute medical units influences how nurses perceive clients with responsive behaviours of dementia leading to stigmatization. There is a need to reinforce the core values inherent in nursing that consist of empathy and care for clients living with various diagnoses (Digby et al., 2016). HCPs should be encouraged to perform reflective practice to develop a more expanded awareness of the need to apply dementia care principles. The current study results suggest that nurses benefit from on-site resources in terms of specialty teams (i.e. geriatrics and BSO), educational opportunities, and regular team

meetings. Organizations should therefore ensure that these resources are accessible and offered to nurses caring for clients with dementia.

When met with responsive behaviours of a physical nature, nurses reported feeling powerless and that not enough action is taken by employing organizations. Following incidents of a physical nature occurring at work, organizations have a responsibility to provide emotional support and counselling, provide debriefing, and continuously monitor such trends to come up with meaningful strategies to address these incidents (RNAO, 2009).

Policy. Recently, the National Strategy for Alzheimer's Disease and Other Dementias Act (2017) was established to provide more investment in supporting persons living with dementia and their caregivers. There is however a need for a more detailed responsive in how care in hospital for persons with dementia will be improved. A national strategy should include a policy that requires hospitals to publish a yearly statement on dementia care that focuses on: (a) client/family satisfaction, (b) staff training, (c) number of individuals with dementia being prescribed antipsychotics, and (d) personalization of care for persons with dementia as suggested by Boaden (2016). Each hospital should also include a dementia specialist advisor to provide recommendations related to promoting a dementia-friendly environment in hospital (Boaden, 2016).

In terms of a provincial plan for persons with dementia Ontario's Dementia Strategy has provided a broad statement that consists of improving care for persons with dementia and their families by providing more training and education for front-line staff and increasing BSO services in homes and within the community (Ontario Hospital Association, 2017). This strategy however needs to provide a detailed plan in how the current state of care for persons with dementia in hospitals will be addressed. Ontario should have a clear plan in how responsive

behaviours of dementia will be addressed in hospitals by allocating funding for dementia care education for staff and access to geriatric psychiatrists.

There is a need for organizations to ensure that acute medical units are adequately staffed and provide the skills necessary for nurses to deliver dementia care. A hospital guideline should be created that considers the workload of nurses and adjust staffing levels accordingly. Nurses in the current study were found to use a variety of strategies to care for clients with dementia including less favorable ones (i.e. chemical and physical restraints). Hospital policies describing best-practice standards in dementia care should be available for all nurses. Policies should outline suitable dementia care strategies to be used throughout the organization (Houghton et al., 2016), especially non-pharmacological strategies. Organizations should also ensure that nurses meet entry-to-practice gerontological competencies (CASN, 2017) in acute care settings, provide support in helping nurses develop them, and include these competencies within hospital policies.

Education. One of the most important study implications is that nurses delivering care on acute medical units could benefit from more educational support. The current study revealed a need to better equip nurses with knowledge and skills necessary to effectively care for clients with dementia and use evidence-based approaches to respond to responsive behaviours. Nurses require more educational reinforcements in dementia care on how to care for older adults with dementia and overcome acute care barriers that impact their ability to provide dementia care. P.I.E.C.E.S. education was found to be poorly adopted by HCPs due to lack of sustainability efforts from the organization. There is a need for reinforcement of P.I.E.C.E.S. so that HCPs apply P.I.E.C.E.S. into their daily practice, feel confident in using it, and “own” it (Harvey & Kitson, 2015). Organizations should provide ongoing dementia care education based on self-identified learning needs as well as gaps in knowledge and skills of HCPs.

Education in gerontology should be offered within nursing programs so that nurses may develop gerontological competencies (CASN, 2017) prior to entering the workforce. Acute care organizations should support ongoing education and ensure that nurses remain up-to-date in dementia care practices. To improve success within acute care settings, P.I.E.C.E.S. should be implemented within supportive work environments that facilitate ongoing education and put in place initiatives to help staff apply P.I.E.C.E.S. into practice (McAiney et al., 2007; Stolee et al., 2009). Organizations should support the uptake of P.I.E.C.E.S. by implementing regular interprofessional team meetings on acute medical units and ensuring that every staff member has the opportunity to attend P.I.E.C.E.S. training. Designated time to apply P.I.E.C.E.S. concepts into practice should be implemented by management so that nurses have the time to conduct comprehensive assessments and seek input from other providers (Stolee et al., 2009).

When organizations are seeking to provide dementia care training programs for staff on acute medical units, they should first assess HCPs': (a) educational needs in dementia care, (b) current understanding of responsive behaviours, and (c) perceptions of current strategies used to provide care. By focusing on these areas, organizations can evaluate whether P.I.E.C.E.S. and similar programs had a significant impact on staff practice. Organizations should also ensure that educational dementia care programs increase staff confidence levels and the value of their self-perceived role in providing dementia care (Turner et al., 2017). Staff confidence levels should be assessed using existing self-efficacy in responding to responsive behaviours measures (Schindel Martin & Dupuis, 2005). Discussions between unit managers or educators and HCPs should occur before and after training. Educational programs such as P.I.E.C.E.S. education need to incorporate more interactive approaches to engage staff in learning about dementia care by incorporating simulation, role-play, and increasing the number of case studies presented.

Research. The unanswered research questions that arose from the current study are: (a) how is P.I.E.C.E.S. being used in nursing practice on acute medical units, (b) what is the effectiveness of P.I.E.C.E.S. education in improving dementia care, and (c) what are the experiences of nurses in facing ethical dilemmas in dementia care? Despite the recognition of a large clientele of older adults with dementia using acute care services (Hynninen et al., 2016), nurses are still not able to fully meet the needs of clients with dementia due to numerous organizational constraints (e.g. lack of staff, heavy workload, and inadequate training) as highlighted in this current study. There is a need for an observational study to witness the day-to-day nursing experiences in delivering care for clients experiencing responsive behaviours and observe whether P.I.E.C.E.S approaches are being used in practice. Research is needed to determine whether person-centred approaches are being used by nurses post-P.I.E.C.E.S. training and whether training leads to decreased incidents of responsive behaviours and less use of physical or chemical restraints. Research should also provide a comprehensive evaluation of P.I.E.C.E.S. education in acute care settings as was seen in the study by McAiney et al. (2007).

The impact of all training programs including P.I.E.C.E.S. should be evaluated to determine whether direct care for persons with dementia improved following staff completion of training programs (Turner et al., 2017). Presently, dementia care programs delivered in hospital are being poorly evaluated and the sustainability of such programs are rarely considered (Scerri et al., 2017). Future research should explore an experimental design such as a randomized controlled (RCT) trial or a mixed methods design to fully evaluate the effectiveness of P.I.E.C.E.S education for HCPs in acute care settings. The outcomes that could be considered are staff confidence levels in providing dementia care as seen in the study by Schindel Martin et al. (2016) and rates of responsive behaviours of a physical nature (Speziale et al., 2009). Outcomes

should be collected at multiple points in time until two years post-training. The sample could consist of nurses and allied health professionals and multiple study sites should be included. Qualitative data on values, attitudes, and perceived competency of staff could also be collected.

Future research should explore the combinational effects of multiple educational interventions in dementia care such as GPA, P.I.E.C.E.S., and DementiAbility as was similarly done by the BSO education and training committee (2012). Future research however should move beyond the aims of the BSO and explore the impact on staff practice across a combination of programs. It is important to take into consideration that throughout the careers of HCPs they have been exposed to multiple educational programs in dementia care. A quantitative study such as a randomized controlled trial is needed to explore outcomes (e.g. occurrences of responsive behaviours, self-efficacy, and use of non-pharmacological strategies) associated with a combination of programs. This type of study should explore whether some combinations of programs lead to more positive outcomes for staff and clients than others. Future studies should also explore how HCPs learn to distinguish concepts, combine the concepts to integrate learning from different programs, and whether annual review of educational programs is more beneficial than having new programs.

Results of the current study also revealed that nurses found themselves morally conflicted when delivering care for older adults experiencing responsive behaviours. They provided routine nursing care such as initiating intravenous therapy while clients with dementia were in distress and administered chemical restraints even though they realized the poor outcomes associated with their use. More research is needed to explore ethical dilemmas faced in providing care for clients with dementia experiencing responsive behaviours to understand how they make difficult decisions in acute care (Moonga & Likupe, 2016). A qualitative study could be conducted using

a phenomenological design to provide an in-depth exploration of nurses' experiences in making difficult care decisions for clients with responsive behaviours of dementia.

Strengths and Limitations

Strengths of this study were the inclusion of diverse set of participants and a rigorous analytical approach. Although this study focused on the experiences of nurses in providing care for older adults living with responsive behaviours, the perspectives of allied health professionals were also included. By including multiple data sources as suggested by Thorne (2016), credibility and validity were further enhanced (Lincoln & Guba, 1985). A secondary data analysis was conducted by comparing nursing quotes to concepts found within the P.I.E.C.E.S. manual to reveal how well P.I.E.C.E.S. concepts were understood to cross-validate data sources (Thorne, 1994). This approach helped to reveal patterns and provided interpretations of the data. A strong analytical approach was used to develop themes and sub-themes by using experiential thematic analysis and following Braun and Clarke's (2006) six phases of data analysis.

The limitations of the study were the inclusion of a small number of P.I.E.C.E.S. educated nurses (n = 4) and only one study site. Only 26 HCPs including nurses were invited to take part in P.I.E.C.E.S. training and not all HCPs worked on acute medical units. Most of the participants in the study were female however, this is reflective of the trends in the nursing workforce as more than 90% of RPNs and RNs working in Ontario are female (Canadian Institute for Health Information, 2012). The study also included acute medical units within one large urban teaching hospital in Ontario, Canada and it may be difficult to transfer findings to other geographical locations or clinical settings. Interviews occurred almost one year after P.I.E.C.E.S. education was provided to participants. By then behavioural rounds were no longer in place to support HCPs in implementing P.I.E.C.E.S. in practice.

CONCLUSION

Overall, this study provided an in-depth description of the nursing experience in delivering care for older adults experiencing responsive behaviours of dementia within acute medical units. The study revealed that delivering care for this population is complex and often confounded by numerous acute care barriers (e.g. limited time, heavy workload, lack of staff, and focus on acute care priorities) that impact the ability of nurses to provide dementia care. Nurses were often faced with challenging situations when delivering care for older adults experiencing responsive behaviours and used a variety of non-pharmacological strategies to ease the delivery of care. Pharmacological strategies in terms of chemical restraints were also used and justified by nurses to be used in specific situations where one is “desperate” or as a way to prevent responsive behaviours from occurring in the first place.

This study revealed nurses and allied health professionals’ perceptions of the implementation of P.I.E.C.E.S. education on acute medical units and its impact on practice. Some interpersonal principles embedded within P.I.E.C.E.S. that were most familiar to HCPs were being used one-year post training, however these did not continue to be consciously or consistently theorized by all HCPs. This suggests issues with sustainability, further supporting the notion of ongoing facilitation from an advanced practice lead. Based on the experiences of participants, recommendations were provided to improve dementia care in acute medical settings and facilitate the application of P.I.E.C.E.S. into practice. Study findings had numerous implications to improve dementia care in acute care settings by ensuring that nurses have the ability and support of their organization to provide high quality care for clients living with responsive behaviours of dementia.

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APPENDICES

Appendix A

Glossary of Terms

Term	Definition
Aggression	Aggression is a behaviour that is intentional and can be directed towards objects or people. Aggressive behaviours can be either physical or verbal and include kicking, biting, throwing objects, and using foul language (Byrne & Neville, 2010). Most occurrences of aggression related to dementia involve verbal behaviours such as screaming or threatening (Rabins, Lyketsos, & Steele, 2006). Aggression is a less suitable term to describe the actions of persons with dementia as they do not seek to cause intentional harm towards others. Due to cognitive impairment, persons with dementia are using any means necessary to have their needs met.
Agitation	Agitation consists of an overactive state where a person becomes distressed and commonly occurs among persons with dementia (Rabins et al., 2006). A person experiencing agitation has increased motor activity and feelings of tension. Symptoms related to agitation include anxiety, irritability, abnormal verbalizations, and restlessness. Behaviours typically related to agitation are wandering, pacing, screaming, and sleep disruptions (Howard, Ballard, O'Brien, & Burns, 2001). Agitation may lead to responsive behaviours of a physical nature (Drouillard, Mithani, & Chan, 2013).
Alzheimer's Disease	Alzheimer's disease consists of an irreversible and progressive neurological disorder that leads to the destruction of brain cells (Barage & Sonawane, 2015). This disease impacts a person's cognition, mood, and behaviours (Alzheimer's Society of Canada, 2017a). Alzheimer's disease is a subtype of dementia.
Behavioural and Psychological Symptoms of Dementia (BPSD)	The term BPSD is used to describe symptoms related to dementia as a way for persons with dementia to express their needs (Registered Nurses Association of Ontario (RNAO), 2016). A person with dementia may experience symptoms that affect his or her perception, mood, and behaviours (Draper et al., 2015). The behaviours that may occur consist of wandering, repeating questions, and calling out (Moniz-Cook et al., 2012).
Challenging Behaviour	The term challenging behaviour has been linked to BPSD as these types of symptoms typically lead to behaviours that are labelled as challenging within dementia care (Krishnamoorthy & Anderson, 2011). Challenging behaviour has become a catch-all concept when referring to dementia. It includes behaviours such as shouting, biting, wandering, agitation, physical threats towards others, and destroying personal belongings. These behaviours are considered as threats to staff and other clients' safety within a healthcare institution (Andrews, 2006). The term challenging behaviour does not reflect a person-centred approach and suggests that a behaviour is caused because of an issue with a person (Alzheimer's Society of Canada, 2012).

Delirium	Delirium consists of a complex neurological syndrome that presents itself through a rapid onset, alternating course, changes in level of consciousness, difficulty concentrating, and changes in cognition (Martinez, Tobar, & Hill, 2015). Delirium can lead to the development of dementia or exacerbate the pre-existing condition (National Institute for Health and Clinical Excellence, 2010).
Dementia	Dementia is a clinical syndrome that leads to irreversible brain pathology. It has a cluster of signs and symptoms and can be caused by multiple factors or pathological events (Breitner, 2006). Some of the symptoms include memory loss, difficulties with problem-solving, and changes in mood and behaviours (Alzheimer's Society of Canada, 2017c). Alzheimer's disease is the most common cause of dementia (Goldstein, Reyna, & Woodruff, 2015).
Person-Centred Care	Person-centred care consists of promoting self-hood and maintaining normality in one's life. Within the context of dementia, this includes knowing the person, implementing meaningful activities, creating a personalized environment, and respecting flexibility of choices (Edvardsson, Fetherstonhaugh, & Nay, 2010). Through person-centred care, HCPs provide holistic care by becoming familiar with the client from a medical and spiritual perspective. HCPs also respect the client's autonomy in making decisions and share power (RNAO, 2016).
Need-Driven Dementia-Compromised Behaviour (NDB)	NDBs occur when a person is pursuing a goal or expressing his or her needs. These behaviours reflect the interaction between a person with dementia and his or her close environment. Even though such behaviours are recognized as obstacles to care, they hold important meanings considering a person's limited capacity to make decisions and mood changes (Algase et al., 1996). NDB is part of a model uses a holistic perspective to assess behaviours and related interventions (Schindel Martin et al., 2016).
Responsive Behaviour	The term responsive behaviour is the preferred term by persons with dementia used to provide an explanation for their actions. Although similar terms exist such as challenging behaviours, responsive behaviours are more reflective as a mode of expression for persons with dementia as it does not focus on a problem or challenge (Alzheimer's Society of Canada, 2012). It is a meaningful mode of communication and can be impacted by many factors such as environmental, physical, and emotional needs (Alzheimer's Society of Ontario, 2017). The term reflects a person-centred approach and encourages HCPs to determine the reasons for behaviours (Hung et al., 2016).
Workplace Violence	Workplace violence consists of a person using or attempting to use physical force against a worker that could lead to potential physical harm. It may also consist of a perceived threat based on a statement or behaviour in the workplace that can be interpreted as potentially harmful (PSHSA, 2017a). When threatening physical or verbal actions occur among persons with dementia, these actions are now more appropriately termed responsive or defensive behaviours. These types of terminology are more suitable for persons with cognitive impairment as they are attempting to communicate a concern and these behaviours reflect their perceptions of their world (PSHSA, 2007).

Appendix B

Summary of Dementia Care Educational Programs for Acute Care Settings

Name of Program	
Gentle Persuasive Approaches (GPA)	<p>Description</p> <p>The program equips frontline healthcare workers with knowledge and skills to effectively address situations of responsive behaviours. Staff are provided with skills to respond to such situations with respect towards the client. The key concepts built into the program consist of person-centred care, compassion, and gentle persuasive approaches. Staff are taught appropriate interpersonal skills and hands-on approaches.</p> <p>Training typically is offered at the respective practice setting and is delivered by two certified GPA instructors. GPA course material is taught through small groups, role play, brief lectures, experiential learning, case studies, and videos.</p> <p>Advantages</p> <p>There is no cost for participating in the sessions. There is only a \$13.80 fee to cover the cost of the manual. The program targets all members of the interdisciplinary team (e.g. RNs, RPNs, healthcare assistants, and housekeeping staff) and various departments (e.g. the acute care setting, long-term care setting, and complex care). The length of the session is 7.5 hours. The program is also available in French. GPA offers refresher courses, coach certification courses, and courses for student learners. Participants are asked to demonstrate hands-on techniques in addressing episodes of responsive behaviours. They receive immediate feedback from instructors. GPA focuses on delivering practical approaches in addressing responsive behaviours.</p> <p>Disadvantages</p> <p>GPA is more geared towards supporting the professional development of individual HCPs. There is less focus on interprofessional collaboration compared to P.I.E.C.E.S. education.</p>
P.I.E.C.E.S.	<p>Description</p> <p>The program provides best-practice education to understand and improve care for persons with complex physical and mental health that result in changes in behaviours. P.I.E.C.E.S. emphasizes an interdisciplinary approach by sharing care strategies. P.I.E.C.E.S. transfers learning to the workplace setting. It enhances the skills and</p>

	<p>knowledge of staff, provides practical application, and encourages participants to become resource persons for colleagues. P.I.E.C.E.S. focuses on teaching staff to perform a holistic clinical assessment of clients.</p> <p>P.I.E.C.E.S. is delivered by certified educators consisting of Psychogeriatric Resource Consultants (PRC), clinical educators, and geriatric specialists. The program is delivered in three parts: 1) providing course content in-class, 2) applying knowledge and skills from part 1, and 3) reviewing all that was learned.</p> <p>Advantages</p> <p>The program provides a clinical assessment framework for regulated health professionals to holistically care for clients. P.I.E.C.E.S. acknowledges the client and the family at the forefront of care. Care is planned around these two important key players. Various settings can receive training such as retirement homes, long-term care homes, acute care settings, primary healthcare areas, and emergency departments. P.I.E.C.E.S. emphasizes a team-focused approach in care planning. Collaboration with the families of clients and support networks is an important component of the P.I.E.C.E.S. program. The number of participants per session can be up to 25.</p> <p>Disadvantages</p> <p>It is targeted for regulated HCPs only. The program length is 16 hours and a large amount of material is covered during that period. The cost of the program is more expensive than others at \$160 per person.</p>
<p>U-First!</p>	<p>Description</p> <p>The program enhances the confidence of formal healthcare providers in delivering care to clients experiencing responsive behaviours. U-First consists of an acronym to assist staff in:</p> <ul style="list-style-type: none"> Understanding the changes in behaviour among an individual with dementia Flagging the changes witnessed Interacting with persons experiencing a behaviour using skills and knowledge Reflecting on the situation and reporting the behaviour Supporting the individual with dementia and their family members Team involvement <p>U-First incorporates concepts from P.I.E.C.E.S. training and encourages care providers to involve the multidisciplinary team.</p>

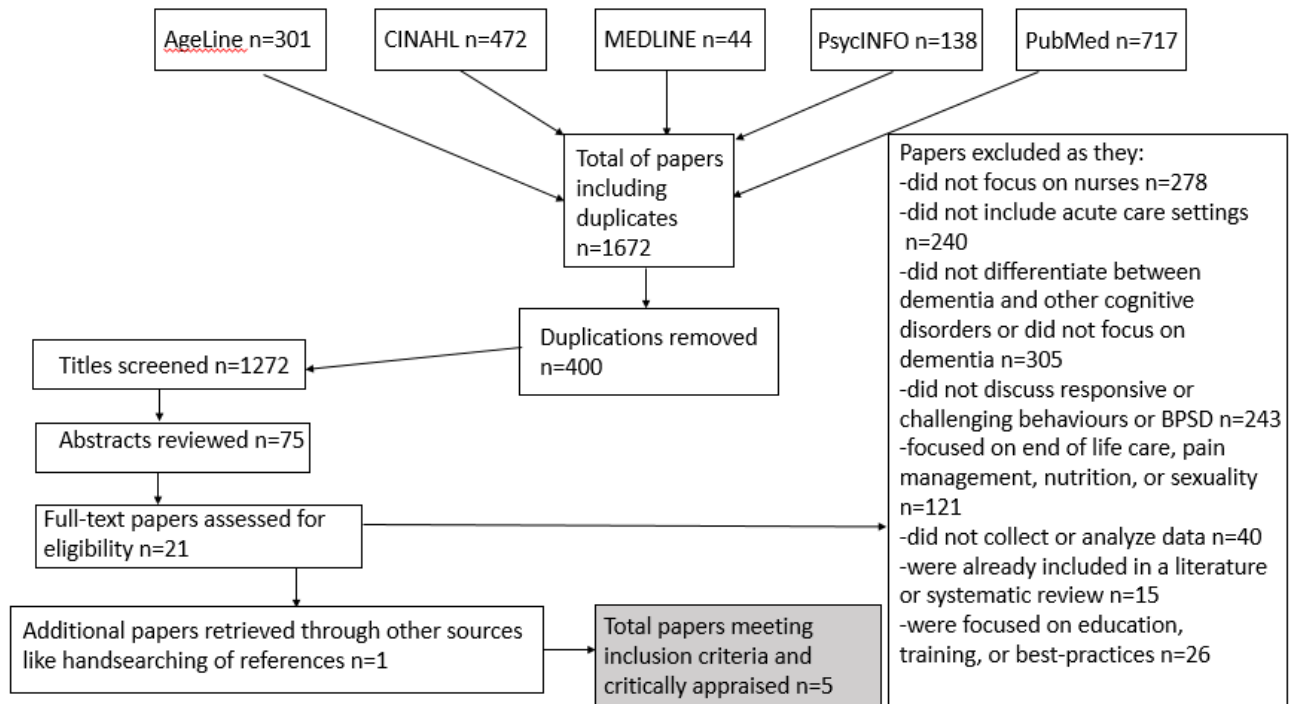
	<p>U-First is delivered by an individual with a post-secondary degree or diploma in a relevant field and/or is enrolled in the Dementia Studies certification program. The instructor must have a minimum of three years of relevant healthcare experience, knowledge in Alzheimer's disease and other dementias, and strong presentation skills. The program is delivered through dialogue and case studies.</p> <p>Advantages</p> <p>The program is targeted for regulated and non-regulated staff who are directly involved in delivering care for clients with Alzheimer's disease and other dementias. The program provides foundational knowledge and skills at a basic level. There are two options available to complete the program: a 6-hour session or two 3-hour sessions over a period of 2 days. The cost is reasonable compared to other programs at \$60 per session.</p> <p>Disadvantages</p> <p>The program lacks more practical applications when delivering the course content. Only two teaching strategies are mentioned for delivering course content consisting of discussions and a case-based approach.</p>
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Note. Information provided in the table was retrieved from the Behavioural Education and Training Supports Inventory (BETSI) tool (BSO Education & Training Committee, 2012). The BETSI tool was originally called the Dementia Education Needs Assessment (DENA) Tool and was used to assist decision-makers within long-term care homes in creating a dementia education plan for staff (McAiney, Hillier, Ringland, & Cooper, 2009).

Appendix C

PRISMA Flow Diagram of the Literature Search on Nursing Experiences in Dementia

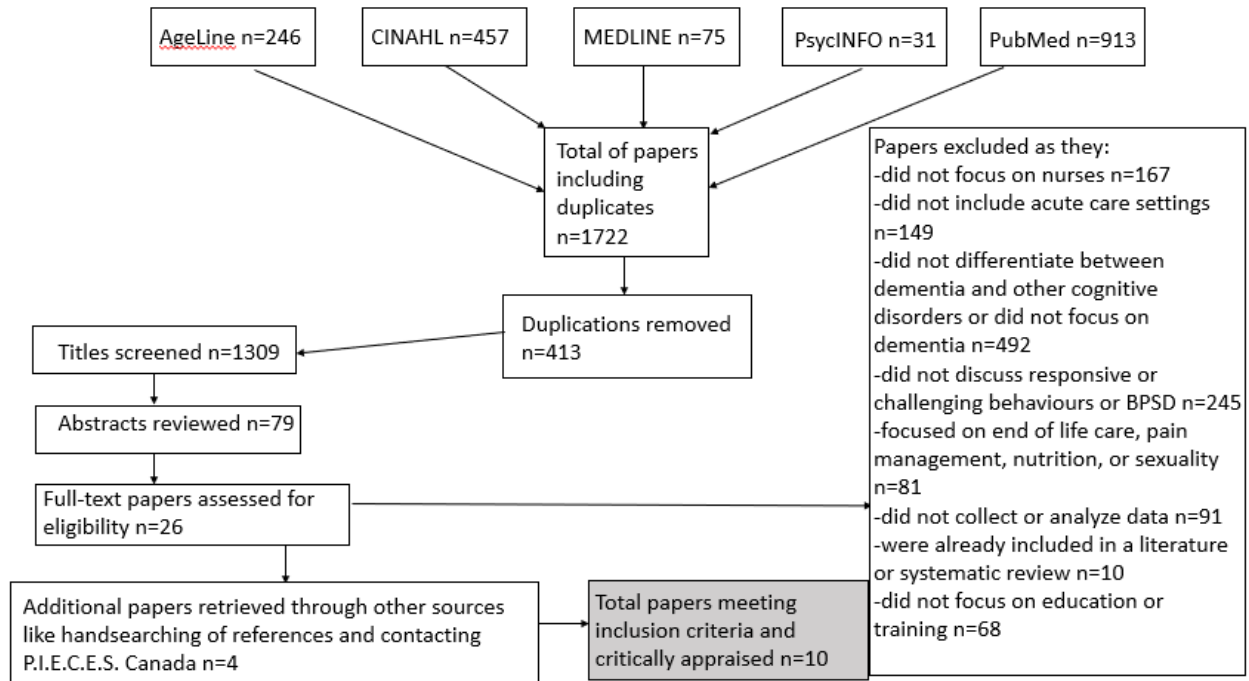
Care



Note. The chart format was inspired by the PRISMA flow diagram (Moher et al., 2010).

Appendix D

PRISMA Flow Diagram of Literature Search on Education in Dementia Care



Note. The chart format was inspired by the PRISMA flow diagram (Moher et al., 2010).

Appendix E

Summary and Evaluation of Studies Included in the Literature Review

Table E1

Nursing Experiences Related to Responsive Behaviours of Dementia in Acute Care

Study Authors (Country)	Description and Critique
<p>Digby et al. (2016)</p> <p>(Studies in the review were from the United Kingdom, Sweden, Australia, Ireland, the United States, Japan, Finland, and Malta)</p>	<p>Aim: To reveal and explore existing research regarding care experiences in hospital from the perspectives of persons with dementia and of nurses.</p> <p>Settings: a) acute care hospitals/settings, b) psycho-geriatric hospital units, c) medical and mental health units, d) surgical wards, and e) geriatric hospital wards.</p> <p>Sample: a) persons with dementia, b) family caregivers, c) nurses, d) healthcare assistants, e) physicians, f) allied health professionals, g) nursing students, and h) unit managers</p> <p>Methodology: Integrative literature review of qualitative studies. Each study was critically appraised using the Critical Appraisal Skills Programme (2013) checklist. Braun and Clarke’s (2006) thematic analysis method was used to analyze the individual study results.</p> <p>Main Findings of Relevance for Present Study: Nursing care for persons with dementia was task-oriented and nurses tend to focus on physical treatment. Nurses felt that they are unprepared and lacked skills in providing dementia care. Nurses stereotyped persons with dementia based on their diagnosis and behaviours. The hospital was seen as a busy and noisy environment for persons with dementia triggering responsive behaviours. Family members were an important source of comfort for persons with dementia in hospital. Nurses were dissatisfied with the care they provided to persons with dementia due to lack of education and limited resources.</p> <p>Critique: Strengths: Clear research aim and inclusion and exclusion criteria for studies. Including a comprehensive table that described the results, strengths, and weaknesses of each study. The authors used the integrative review approach. This was an effective approach as it brings to light the current research gaps (Russell, 2005) and combines the experiences of nurses and clients to reflect a co-existing relationship. Digby et al. (2016) used Braun and Clarke’s (2006) thematic analysis method to develop main themes based on the recurrence of findings across studies.</p>

	<p>Limitations: Most articles were from the United Kingdom, Sweden, and Australia. It may be difficult to transfer findings to other settings. The authors failed to elaborate on the review process. The authors mentioned that consensus was reached through discussions only when developing a structure and naming themes.</p>
<p>Houghton et al. (2016)</p> <p>(Studies included in the review were from Australia, England, Sweden, Canada, Scotland, and Ireland)</p>	<p>Aim: To explore the experiences of HCPs caring for persons with dementia in acute care settings.</p> <p>Settings: a) acute care settings, b) emergency departments, c) medical wads, and d) surgical wards.</p> <p>Sample: a) allied health professionals, b) nurses, c) nursing assistants, d) physicians, e) paramedics, and f) managers</p> <p>Methodology: Qualitative evidence synthesis. Conducted framework synthesis using the dementia care framework, Values, Individualised, Perspective, and Social (VIPS) (Brooker & Lantham 2016). The CASP (2013) tool for qualitative studies was used to critically appraise the studies.</p> <p>Main Findings of Relevance for Present Study: Nurses would commonly use physical and chemical restraints to address responsive behaviours. They perceived this as necessary for client and staff safety. Getting to know the person with dementia helped staff to understand the reason behind behaviours. Becoming familiar with the person with dementia allowed staff to promote independence in the acute care setting. Care provided for persons with dementia was often based on physical care and staff recognized a lack of time to implement person centred-care. Nurses were frustrated when providing care for persons with dementia who were yelling or physically responsive. The acute care environment was not suitable for persons with dementia due to high noise level and increased stimuli. Bonding with persons with dementia in hospital was recognized as an important element to good care. This did not always happen due to lack of time to communicate with this population. Families provided knowledge for staff regarding the person with dementia.</p> <p>Critique: Strengths: A review team and an advisory group performed qualitative evidence synthesis. Members had expertise in qualitative research, qualitative evidence synthesis, and dementia care. The VIPS framework was an effective approach for the review as it reflects person-centred care and sought to unite interpretations regarding the care experiences of staff within a common setting (Brooker & Lantham, 2016).</p> <p>Limitations: Individual results of studies were not included in the review. Most of the studies were conducted in Australia. There may be poor transferability of findings to other settings.</p>
<p>Hynninen et al. (2016)</p> <p>(Finland)</p>	<p>Aim: To describe nursing care practices for older adults with dementia on surgical wards.</p> <p>Setting: A single district in Finland. Included six hospitals (one University hospital and five Central hospitals).</p> <p>Sample: 191 nurses working in surgical wards (163 RNs, 24 RPNs, and four who had <i>other</i> as a designation).</p> <p>Methodology: Quantitative survey study design. Data were collected using a structured online questionnaire sent to the work email of nurses. It consisted of 141 items and four dimensions (nursing demographics, characteristics of older adults with dementia in a surgical ward, characteristics of care in a surgical ward, and use of physical restraints compared to alternative approaches). Variables were analyzed through frequency and percentages as</p>

	<p>well as descriptive statistics. The chi-squared test was used for cross-tabulation of demographic variables and statements and to reveal statistical significance.</p> <p>Main Findings of Relevance for Present Study: Nurses ensured that their verbal communication was clear when counselling older adults with dementia (51%). When clients with dementia experienced responsive behaviours on the wards, the most common reaction was determining what was wrong with the client (61%). Many nurses (52%) would review the client’s chart for background information or instructions in addressing the situation. When responsive behaviours occur, nurses felt that they can manage (59%). They provided pain medications (59%) and used distraction techniques (57%). Nurses with longer work experiences in healthcare or in a surgical ward were less likely to use physical restraints. Nurses who participated in dementia care education were more likely to rate their skills in providing dementia care as good.</p> <p>Critique: Strengths: Validity and rigor were discussed as well as the content and construct validity of the instrument used. The instrument was assessed by a panel of experts and it was pilot-tested for reliability. There were no missing data in terms of responses.</p> <p>Limitations: The study had a low response rate (38%) and only allotted ten days for response time. The questionnaire had 141 items which could affect the participation rate. There was a potential for bias as nurses may respond in a manner that is more favorable than what they usually behave or think. The study was conducted in Finland and findings may be difficult to transfer outside of this setting.</p>
<p>Moonga & Likupe (2016)</p> <p>(Some of the studies included were from the United Kingdom, Sweden, and Australia)</p>	<p>Aim: To review literature related to the experiences of nurses and healthcare workers when providing care for clients with dementia on orthopaedic wards.</p> <p>Settings: Acute care settings. The authors did not specify the type of acute care settings.</p> <p>Sample: a) persons with dementia, b) family members, c) nurses, d) nursing assistants, and 5) allied health professionals</p> <p>Methodology: Systematic review. Both qualitative and quantitative papers were included. Both authors thoroughly read the papers to identify themes. Initial codes were created based on frequent occurrence of words and shared findings.</p> <p>Main Findings of Relevance for Present Study: Responsive behaviours were triggered by the hospital environment and the unfamiliar routine. Nurses did not have time to calm and reassure clients with dementia experiencing responsive behaviours. Most staff in acute care settings had little or no education regarding dementia care and meeting the complex needs of a person with dementia. Nurses experienced stress when addressing responsive behaviours and this led to mental and physical burnout. Nurses felt that providing care for persons with dementia increased their workload. Nurses were faced with internal conflicts related to whether he or she should provide care against the will of a person with dementia.</p>

	<p>Critique: Strengths: An extensive literature search was performed that included searching websites such as the Department of Health and the Alzheimer’s Society. The authors discussed the strengths and weaknesses of each study as well as the findings of relevance.</p> <p>Limitations: The research team was composed of only the two main authors. The authors did not seek the expertise of others outside of the research team. This could have strengthened the findings. The authors did not include the country of origin of each of the included studies making it difficult to transfer findings. No approach for critically appraising individual studies and to synthesize findings was mentioned.</p>
<p>Turner et al. (2017)</p> <p>(Studies included were from the United Kingdom, Australia, Sweden, and Ireland)</p>	<p>Aim: To synthesize findings from qualitative studies to increase knowledge and reveal the need for more training.</p> <p>Settings: a) acute hospitals, b) universities, c) acute elderly medical ward, d) cardiology Ward, e) acute medical, and f) acute surgical</p> <p>Sample: a) nurses, b) nursing students, c) allied health professionals, d) healthcare assistants, and e) ward managers</p> <p>Methodology: Meta-synthesis of qualitative papers using a meta-ethnographic approach. The meta-ethnographic approach allowed the synthesis of interpretations across studies (Noblit & Hare, 1988). The CASP (2013) checklist was used to critically appraise the qualitative studies. Comments made regarding the quality of the studies were quantified by giving each study an overall quality score.</p> <p>Main Findings of Relevance for the Present Study: Staff were uncertain in how to address responsive behaviours of a physical nature. Staff questioned their own competency in providing dementia care. The high noise level and stimulation of hospitals caused increased agitation and anxiety for persons with dementia. Staff restricted the area where clients could wander and clients were frequently redirected back to bed. Spending quality time with clients with dementia was needed however, the organizational culture valued speed of care provision. Clients requiring physical care were given more priority by staff to attend to their needs compared to clients with dementia. Nurses assigned healthcare assistants and students to care for persons with dementia so that they may focus their care on those perceived to require greater care priority. Person centred-care was recognized by staff as essential in providing good care for persons with dementia. Staff recognized the need to know the person with dementia and build a trusting relationship. Education and training provided to hospital staff were infrequent but needed for all staff members. Education was needed to overcome the uncertainties in delivering dementia care.</p> <p>Critique: Strengths: The study had a strong methodology that included critical appraisal of studies and a clear strategy for analyzing the papers. All the authors reviewed the themes and consensus was reached for the final group of themes. Detailed description for each study was included in the review.</p> <p>Limitations: The review had a narrow range of locations (e.g. the United Kingdom and Australia) and findings may not be transferable to different healthcare systems. The number of reviewers and the process for reviewing papers are unknown.</p>

Table E2

Education for Nurses Caring for Older Adults with Dementia in Acute Care

Study Authors (Country)	Description and Critique
<p>Coffey et al. (2014)</p> <p>(South of Ireland)</p>	<p>Aim: To identify the knowledge and educational needs of nurses working in acute hospital settings and delivering dementia care.</p> <p>Settings: Acute hospital settings in the south region of Ireland. A total of six hospitals were included in the study (five publicly-funded hospitals and a single private hospital).</p> <p>Sample: 151 nurses (72% were staff nurses while the rest were nursing managers). The nurses worked in surgical units, medical units, mixed medical/surgical units, geriatric units, emergency departments, and intensive or coronary care units.</p> <p>Methodology: Survey questionnaire design. Participants chose to complete an online or paper-based survey. The survey was developed based on an instrument used in the National Audit of Dementia UK (Royal College of Psychiatrists' Centre for Quality, 2010). Data were analyzed using descriptive statistics.</p> <p>Main Findings of Relevance for the Present Study: Less than half (42%) of the nurses felt that education related to addressing responsive behaviours was sufficient. Education related to avoiding the use of physical and chemical restraints was deemed by the nurses as being insufficient or not available (51%). Most nurses agreed that they understood how dementia affects a person's behaviour (90%), but only half of the nurses were aware of situations they may face or have received guidance on how to respond to responsive behaviours. Almost half (49%) of the nurses felt that they had enough time to discuss care approaches with clients with dementia and their families. Very few nurses (16%) believed that they had enough resources to meet the needs of clients.</p> <p>Critique: Strengths: The study had a large sample size. The study included participants working in various acute care settings.</p> <p>Limitations: Data were only analyzed through descriptive statistics. The study failed to reveal relationships between variables. The researchers responsible for collecting data personally approached participants and this could have affected the response rate (58%). The study was conducted in Ireland and findings may not be transferable to other locations.</p>
<p>Hung et al. (2016)</p>	<p>Aims: To determine the facilitating factors that assist in translating P.I.E.C.E.S. education into practice within an older adult mental health unit and how healthcare professionals experience knowledge translation in affecting practice.</p>

<p>(Canada)</p>	<p>Setting: An older adult tertiary mental health unit located within an urban acute hospital.</p> <p>Sample: 20 staff members that included nurses, PSWs, a pharmacist, a rehabilitation assistant, and a recreational activity worker.</p> <p>Methodology: Qualitative design. Data collection methods consisted of focus groups and individual interviews with 20 participants who received P.I.E.C.E.S. education. Data were analyzed using thematic analysis (Braun & Clarke, 2006). The appreciative inquiry approach was used as guide for the study (Cooperrider, Whitney, & Stavros, (2008).</p> <p>Main Findings of Relevance for the Present Study: P.I.E.C.E.S. team discussions enabled staff to provide good care by trying to understand the triggers for responsive behaviours. Staff recognized clients with dementia as persons with strengths and abilities. Including different disciplines on the P.I.E.C.E.S. team increased the capacity of the team in providing dementia care. Staff recognized the need to train all team members with P.I.E.C.E.S. and not just healthcare professionals. By implementing team huddles and the P.I.E.C.E.S. approach, staff could think more critically in terms of the causes for behaviours. Using a P.I.E.C.E.S. worksheet and setting-up a schedule for meetings were effect strategies in maintaining practice.</p> <p>Critique: Strengths: The study had clear research goals. The authors considered their own roles as clinicians and as having an existing relationship with participants. To overcome this potential for bias, the authors stated that they regularly practiced reflexivity.</p> <p>Limitations: The authors failed to mention the specific qualitative design used in the study. The authors discussed some knowledge translation tools such as the PARIHS framework but, did not actually apply a tool in their study (Kitson et al., 2008). The study did not discuss how validity and trustworthiness were achieved.</p>
<p>Marx et al. (2014) (The United States)</p>	<p>Aim: To evaluate disease knowledge of hospital staff, their perceived needs related to education, and the care environment.</p> <p>Setting: A single geropsychiatry unit at an urban hospital.</p> <p>Sample: 37 staff members (nurses, nursing assistant, and allied health professionals).</p> <p>Methodology: Cross-sectional survey design. A three-part paper-based survey was administered. A modified version of the Alzheimer’s Disease Knowledge Scale was used to evaluate staff’s knowledge (Carpenter et al., 2009). Continuous variables were measured through central tendency. Group differences between nursing and other staff members were measured through independent t-tests. Categorical variables were presented through frequency distributions. Chi-squared tests were used to explore differences of responses between nursing and other disciplines.</p> <p>Main Findings of Relevance for the Present Study: Staff had strong knowledge of dementia with a mean accuracy of 90.9%. There were no statistically significant differences ($p=0.705$) for knowledge levels between nursing (mean 23.93(SD 1.79)) and other staff members (mean 24.27(SD 3.10)). Staff members believed that they required more education related to addressing responsive behaviours through non-pharmacological methods (91.9%), promoting safety (89.2%), and overcoming care-related obstacles (83.8%). Many staff members reported feeling frustrated and</p>

	<p>overwhelmed when delivering dementia care (75.7%). Many staff members reported being physically hurt at work when providing care for persons with dementia (66.7 %).</p> <p>Critique: Strengths: The study included important demographics such as prior experience working with persons with dementia and months spent working on a unit. Tables provided a good visual representation of results.</p> <p>Limitations: Only 11 of the participants consisted of nurses and the authors failed to differentiate findings based on various disciplines. The study focused on a single hospital unit and results may not be generalizable to other settings. The study had a respectable response rate (62.9 %) but, authors could have offered an online survey option.</p>
<p>McAiney et al. (2007)</p> <p>(Canada)</p>	<p>Aims: To describe P.I.E.C.E.S. education to assist in addressing mental health-associated issues in long-term care and evaluate the program's impact and sustainability.</p> <p>Setting: Long-term care homes in Ontario.</p> <p>Sample: Most participants who received P.I.E.C.E.S. education consisted of RNs (84.8 %) while other participants were RPNs, and allied health professionals. The number of staff members that participated in the three-day education sessions was 1,086 while 1,020 staff members participated in the two-day sessions.</p> <p>Methodology: Pre-post survey questionnaire design. Data were collected through surveys and interviews. Survey instruments were created to meet the content of the P.I.E.C.E.S program and with feedback from clinical experts. Surveys were paper based and administered across three points in time (1999, 2001, and 2002). Quantitative data were analyzed using frequencies, percentages, means, and standard deviations. Paired t-tests were used to compare and determine statistical significance of pre-and post-data. The pre-P.I.E.C.E.S. questionnaire was completed by 1,024 learners and 792 of them completed the post-P.I.E.C.E.S. questionnaire. In terms of the education session questionnaire, 1,030 staff members completed the three-day session questionnaire and 990 staff completed the two-day session questionnaire. In terms of surveys of long-term care homes, 439 homes completed the survey.</p> <p>Main findings of Relevance for the Present Study: A small statistically significant increase in the ability of staff to identify responsive behaviours post-P.I.E.C.E.S. in 1999 (mean 3.4 (SD 0.82) pre-P.I.E.C.E.S. and 3.75 (SD 0.64) post-P.I.E.C.E.S.; $p < 0.001$). When the education session was evaluated again in 2001, there was no longer a significant difference found in being able to recognize and address responsive behaviours post-P.I.E.C.E.S. Following P.I.E.C.E.S. there was more confidence in documenting behaviours within behavioural flow sheets and interpreting the results (mean pre-P.I.E.C.E.S. 3.6 (SD 1.01) and 4.10 (SD 0.76) post-P.I.E.C.E.S.; $p < 0.001$). This change remained significant when the program was implemented and evaluated once again in 2001 (mean 3.45 (SD 1.11) pre-program and 3.84 (SD 0.99) post-program; $p < 0.01$). Staff were more confident in recognizing and responding to responsive behaviours following P.I.E.C.E.S. education. Long-term care homes that implemented a P.I.E.C.E.S leadership role serving as an in-house resource were able to facilitate P.I.E.C.E.S. education initiatives. These roles were viewed as important to transfer knowledge associated with addressing behaviours of residents.</p>

	<p>Critique: Strengths: Large sample sizes were included. Survey instruments were evaluated for face and content validity by clinical experts. Multiple data collection methods were used to provide a comprehensive overview of the P.I.E.C.E.S. program.</p> <p>Limitations: It was unclear as to how interview data obtained from important stakeholders were managed and analyzed. There is a lack of reliability regarding instruments as they did not consist of standardized tools. The study failed to use a design with a stronger research methodology such as a randomized controlled trial to assess the effectiveness of P.I.E.C.E.S. by incorporating a control group.</p>
<p>Pizzacalla et al. (2015)</p> <p>(Canada)</p>	<p>Aim: To describe and evaluate an educational program, GPA, to support on an acute care unit to effectively address responsive behaviours related to dementia and delirium.</p> <p>Setting: An orthopaedic surgery unit.</p> <p>Sample: 52 staff from various backgrounds including nursing, social work, physiotherapy, and administration.</p> <p>Methodology: Pre-and Post-survey study design. All 52 participants received GPA training. Self-efficacy was measured before and after the GPA workshops using the Self-Perceived Behavioural Management Self-Efficacy profile (Schindel Martin & Dupuis, 2005). Satisfaction with the program was measured by asking the respondents to provide a rating and written responses. Means and standard deviations were evaluated for both outcomes. An independent t-test was used to measure the differences in results before and after GPA.</p> <p>Main Findings of Relevance for the Present Study: Following GPA, on a seven-point Likert scale confidence scores increased for participants in ensuring a calm atmosphere (Pre-GPA mean 4.14 and SD 1.25; Post-GPA mean 5.57 and SD 0.96; $p < 0.001$). The mean score in being able to recognize triggers for responsive behaviours increased from 3.96(SD 1.204) to 5.35(SD 0.883) immediately after receiving GPA ($p < 0.001$). Staff were more confident in implementing non-pharmacological strategies to address responsive behaviours such as music, drink, snacks, photos, and quiet discussions (Pre-GPA mean 4.19 (SD 1.55); Post-GPA mean 5.86 (SD 0.87); $p < 0.001$). Most staff (93%) rated their satisfaction with the program as a six or seven on a seven-point scale (mean 6.38(SD 0.60)). Staff commented on the relevance of the program. Staff understood that clients should not be blamed for behaviours.</p> <p>Critique: Strengths: The authors used a pre-existing scale specifically designed to measure confidence in addressing behaviours that was reviewed by clinical experts in the field of dementia and responsive behaviours to determine content validity. The authors allowed staff to provide feedback regarding the program in their own words and included the responses in the study. The authors included clear descriptions of the program including the origins of GPA as this was the first study to implement GPA in an acute care setting.</p> <p>Limitations: There was a lack of demographic variables of participants presented in the study. A more rigorous research design was required to assess the effectiveness of the program. A randomized controlled trial may have been more suitable by incorporating a control group.</p>

<p>Sampson et al. (2017)</p> <p>(United Kingdom)</p>	<p>Aims: a) To determine the amount and specialty of staff being trained in dementia care, 2) to explore the changes in dementia care practices prior to and following training, and 3) to measure staff's perceptions of competency in delivering dementia care before training and three months post-training.</p> <p>Setting: Eight acute hospital sites in London.</p> <p>Sample: Participants consisted of nurses, physicians, healthcare assistant, students, and allied health professionals. Participants worked in geriatrics, acute medicine, surgery, orthopaedics, cardiology, and rehab.</p> <p>Methodology: Mixed methods study design. Training consisted of an interactive and hands-on dementia-focused educational program. The number of staff who completed the pre-training questionnaire was 1, 688 and 456 staff members completed the post-training questionnaire. The study applied a change framework that suggests targeting the individual, the group, the organization, and the system (Ferlie & Shortell, 2001). The participants completed the Sense of Competence in Dementia Care staff questionnaire (SCIDS) before training and three months after training (Schepers et al., 2012). Observational data were collected on the units using the Person, Interactions, and Environment (PIE) qualitative tool (Young et al., 2011). To collect data at the hospital level, local dementia leaders were asked to complete a pre- and post- training questionnaire regarding availability of resources for clients with dementia and their family members, non-pharmacological approaches, and the presence of dementia-friendly strategies in hospital. At the systems level, the number of staff who received training, the overall completion rates of the questionnaires, and staff satisfaction with the program were considered. For data analysis, descriptive statistics and chi-squared tests were used to assess the difference between participants who only completed the pre-training questionnaire to those who completed the follow-up questionnaire. Paired t-tests were used to evaluate differences in competency pre- and post-training. A thematic content analysis approach was used (Miles & Huberman, 1994).</p> <p>Main Findings of Relevance for the Present Study: A small but statistically significant increase in competence following training (mean SCIDS 43.2 at baseline and 50.7 at follow-up; $p < 0.001$). There was an improvement in SCIDS score in responding to care challenges post-training (Pre-program mean 8.9 and SD 3.5; Post-program mean 10.6 and 3.7; $p < 0.001$). There were more positive observations following training such as staff smiling and maintaining eye contact with clients with dementia even when experiencing responsive behaviours. Noise levels were not reduced in hospital post-training and there was still a lack of staff presence in the rooms of clients.</p> <p>Critique: Strengths: The study included a detailed demographics table. This demonstrated that staff of various ethnicities were well represented. There was also a good representation of experience levels and specialty. The authors collected data at multiple levels such as the individual and organizational level.</p> <p>Limitations: There was a low response rate in the study as only 27% of participants completed the follow-up questionnaire three-months post-training. There was a lack of integration of quantitative and qualitative findings that is required for a mixed methods study and the specific design used was not mentioned. The authors did not seek ethics committee permission to conduct the study although vulnerable clients and their families were being observed.</p>
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<p>Scerri et al. (2017)</p> <p>(Studies were from the United States, Scotland, England, and Australia)</p>	<p>Aim: To explore the recent research evidence regarding dementia training programs for staff working in hospital settings.</p> <p>Settings: a) community hospitals, b) acute care hospitals, and c) geriatric medicine wards.</p> <p>Sample: a) nurses, b) allied health professionals, c) housekeepers, d) managers, e) clerical staff, f) porters, and g) healthcare assistants</p> <p>Methodology: Systematic review of quantitative and mixed methods studies. Each study was critically appraised based on quality criteria from Kmet et al. (2004). Many of the studies varied from one and another so the authors performed narrative synthesis (Popay et al., 2006). The effectiveness of training programs was explored in each study and categorized using Kirkpatrick’s Evaluation framework (2009). Two authors performed an independent search of the literature. All three of the authors reviewed the studies and synthesis.</p> <p>Main Findings of Relevance for the Present Study: About half of the studies evaluating training programs for dementia care were of poor quality. The most frequently used training approaches were targeting interdisciplinary teams, using short sessions, applying principles of experiential, and active learning. These methods were recommended in dementia care programs as well as reflective approaches. Many programs sought to change attitudes towards responsive behaviours and increase the confidence of staff. The majority of studies found that staff had high levels of satisfaction with training programs which could be due to the need for more training as perceived by hospital staff. The positive outcomes such as increased competency and knowledge in dementia care needs to be followed-up for longer periods to determine the sustainability effects of the programs. The lack of follow-up in studies made it challenging to determine the long-term benefits of the programs in hospital. Dementia care was not found to be typically considered an important priority in hospital.</p> <p>Critique: Strengths: The quality score of each study was included in the review. The study included a detailed summary of all included studies. The study addressed the lack of high quality studies available regarding training programs that affected the ability of the authors to appraise studies using all eleven quality criteria.</p> <p>Limitations: The search strategy lacked comprehensiveness and very few key terms were used to retrieve articles. Relevant Canadian studies were missing from the review. There is a lack of transferability of findings due to very few geographical locations included in the review.</p>
<p>Schindel Martin et al. (2016)</p> <p>(Canada)</p>	<p>Aims: a) To determine whether an educational intervention, GPA, can change the self-efficacy of acute hospital staff in interacting with older adults with dementia, and b) to understand the experiences reported by hospital staff when delivering dementia care for clients experiencing responsive behaviours</p> <p>Settings: Two separate sites within a single large multisite teaching hospital in Ontario. The setting consisted of seven clinical areas in site A that included: a) medicine, b) surgical oncology, c) orthopaedic surgery, d) the intensive care unit (ICU), e) the cardiac Care Unit (CCU), and f) the emergency department. In site B, five clinical areas were: a) medicine, b) ICU, c) CCU, d) emergency department, and e) the burn unit.</p>

	<p>Sample: 468 participants were in the intervention group and 277 participants were in the wait-listed group. Most of the participants were nurses. The rest were healthcare assistants, occupational therapists, and physiotherapists.</p> <p>Methodology: Non-randomized controlled repeated measures design. Staff completed questionnaires at baseline, after eight weeks, and immediately after receiving GPA (intervention group only). Self-efficacy was measured using the Self-Perceived Behavioural Self-Efficacy Profile (SBMSEP) questionnaire (Schindel Martin & Dupuis, 2005). Focus group interviews were conducted post-GPA and qualitative open-ended questions were asked in the surveys. Qualitative data were analyzed using thematic content analysis. Demographic characteristics were analyzed using descriptive statistics. The chi-squared tests were used to determine whether there were significant differences among variables between groups. A two-way ANOVA was performed to measure the effect of the intervention over time.</p> <p>Main Findings of Relevance for the Present Study: Self-efficacy scores were statistically significantly increased immediately after GPA and six to 8 weeks post-GPA. The mean self-efficacy score at baseline for the intervention group was 43.01(SD 10) and 54.68(SD 6.46) at the six to eight weeks follow-up ($p < 0.001$). The mean self-efficacy score for the wait-listed group did not increase but in fact decreased slightly at the six to eight weeks follow-up (46.96 (SD 10.1) at baseline and 45.17 (SD 8.56) at follow-up; $p < 0.001$). Following training, staff had a better understanding of teamwork and sought the assistance of colleagues in addressing behaviours. Staff understood the need to provide a client with dementia space and use effective strategies for challenging situations. Staff addressed behaviours from a more positive angle. They focused their energy on determining the causes and triggers for behaviours as well as implementing strategies to prevent behaviours. Staff avoided correcting the viewpoint of an older adult with dementia. Staff attempted to understand the reality of clients from their perspectives. They interpreted behaviours based on the views of clients.</p> <p>Critique: Strengths: The authors accounted for missing values by imputing data. The authors addressed why randomization was not possible in the study. The study explored baseline differences between groups to determine if significant differences could have influenced self-efficacy. The study had a large sample size and collected quantitative and qualitative data to provide a more comprehensive overview of findings.</p> <p>Limitations: There were some significant differences between groups such as unit assignments and education level. There were also significant differences among demographic variables as randomization was not possible for this study however, confounding variables were controlled for in the analysis.</p>
<p>Speziale et al. (2009) (Canada)</p>	<p>Aim: To evaluate the effectiveness of GPA.</p> <p>Setting: Three geriatric psychiatry units within a healthcare organization in London, Ontario.</p> <p>Sample: 99 staff members. More than half of the nursing staff was included. Participants were from various departments including nutrition services, housekeeping, social work, spiritual care, psychology, occupational therapy, administration therapeutic recreation, and clerical staff.</p>

	<p>Methodology: Pre- and post-test design. All 99 of the participants received GPA training. Satisfaction with the program was measured using a Staff Satisfaction with the Curriculum Tool immediately following GPA training and three months post-GPA. The average number of events of responsive behaviours of a physical nature were monitored three months before and after GPA training. Occupational health and safety records were monitored three months before and after GPA training as well as occupational injury rates and lost time. These numbers were averaged and then compared. The Resident Assessment Instrument-Mental Health (RAI-MH) case mix index (CMI) was used to explore patient acuity three months before and after GPA training (Bjorkgren, Fries, Hakkinen, & Brommels, 2004). The RAI-MH measures the needs and strengths of clients with mental health disorders living in institutions (Hirders et al., 2002). Mean percentages were calculated for staff satisfaction and responsive behaviours of a physical nature rates were measured using chi-squared tests. Paired t-tests were used in analyzing the data regarding changes in patient acuity pre-and post-GPA training.</p> <p>Main Findings of Relevance for the Present Study: More than 80% of staff were satisfied with the program even after three months. Staff believed that they remained competent in responding to responsive behaviours after receiving GPA training. Three months after receiving GPA only 42.9 % used body containment techniques learned in the program compared to 93.9% of participants that stated they would use the techniques immediately after receiving GPA training. There was a statistically significant decrease of 50% in responsive behaviour rates three months after GPA was implemented (p=0.0001). Occupational injury rates and lost time remained unchanged. There was no significant difference between client acuity pre- and post-GPA (p=0.154). This demonstrates that responsive behaviour rates declined regardless of client acuity levels.</p> <p>Critique: Strengths: The study included multiple measures to evaluate the success of the program. The study included an overview of existing educational programs for dementia care.</p> <p>Limitations: GPA training was implemented only in geriatric psychiatry units. It may therefore be difficult to transfer findings to other settings. The study implemented GPA among professional and non-professional staff such as housekeepers but, the authors failed to account for potential differences between these groups.</p>
<p>Stolee et al. (2009) (Canada)</p>	<p>Aims: a) To describe the long-term effect and sustainability of the P.I.E.C.E.S. educational initiative to care for older adults with complex mental health and physical needs as well as related behaviours and 2) to explore how supportive strategies influenced the application of P.I.E.C.E.S education in long-term care residences.</p> <p>Setting: Long-term care homes in Ontario.</p> <p>Sample: 20 long-term care staff who received P.I.E.C.E.S. education and were followed-up from the study by McAiney et al. (2007). The authors included 15 representatives from homes with high success of implementation and five representatives with low success of implementing P.I.E.C.E.S. Most of the participants who took part in the interviews were in-house psychogeriatric resource persons. These participants were usually RNs. Others who were selected for the interviews were RPNs and allied health professionals.</p>

<p>Methodology: Qualitative design. Telephone interviews were conducted a year later after surveys were used to evaluate P.I.E.C.E.S. in McAiney et al. (2007). Questions asked reflected a phenomenological approach. Inductive analysis was used to reveal recurrent themes in the interview data (Patton, 1990).</p> <p>Main Relevance of Findings for the Present Study: Long-term care staff from homes with high success in implementing P.I.E.C.E.S. had more positive views about the program. Participants from most homes believed that their staff had increased knowledge in delivering care, improved assessments in homes, and increased quality of life for residents. Strategies to increase success in sustaining this program were increased management support, P.I.E.C.E.S. specific activities for the homes, and availability of staff trained with P.I.E.C.E.S. Barriers to implementing P.I.E.C.E.S. were lack of time, lack of staff who received P.I.E.C.E.S. training, poor staff support, and a need for a more practical approach.</p> <p>Critique: Strengths: The study revealed that the P.I.E.C.E.S. education initiative still had an impact in most long-term care homes one year after P.I.E.C.E.S. education was delivered. The study included rich descriptions from participants to support themes and concepts that emerged.</p> <p>Limitations: The study did not mention the type of qualitative design used and did not appear to follow a specific methodology. Interviews were conducted over the phone and could have impacted the quality of data. The interviews were brief ranging from five to 30 minutes with an average length of 14 minutes. There was a potential for bias as more participants with high (15) rather than low success (5) of P.I.E.C.E.S. implementation were included.</p>

Appendix F

Participant Characteristics Questionnaire for Nurses

1. What is your age? _____
2. What is your gender? Male Female Other
3. What is the highest level of education that you have achieved?
College diploma Bachelor's degree Master's degree PhD
4. Are you currently licensed in Ontario as a Registered Nurse(RN) or a Registered Practical Nurse (RPN)? RN RPN
5. How many years of nursing experience do you have?
Less than one year One to two years Three to four years
Five to nine years Ten to fourteen years Fifteen years or more
6. How many years of experience do you have in working on an acute medical unit?
Less than one year One to two years Three to four years
Five to nine years Ten to fourteen years Fifteen years or more
7. What is your current employment status?
Regular full-time Regular part-time Casual
Temporary full-time Temporary part-time
Other (Please specify): _____
8. Have you completed P.I.E.C.E.S. training? Yes No
If yes, when did you complete P.I.E.C.E.S. training (please specify the month and year)?

9. Prior to receiving P.I.E.C.E.S. training, have you completed a training program focusing on dementia care within the last five years? Yes No

If you have indicated yes, please indicate which one(s) you have completed:

Gentle Persuasive Approaches

U-First

Montessori/Dementia Ability Methods

Other (Please specify): _____

10. Have you attended any conferences related to dementia care within the last three years?

Yes No

If you have indicated yes, please specify which one(s):

Appendix G

Interview Guide for Nurses

Introduction

Hello, my name is Marie-Lee Yous, and I am a Master's student in the nursing program. This study will allow me to meet one of my program requirements by focusing on an area that holds personal interest. This study was inspired by my own personal experiences as a RN in an acute care hospital. The purpose of this study is to explore the day-to-day nursing experiences of responding to responsive behaviours among older adults with dementia aged 65 years and older. This study seeks to reveal the beliefs, values, and perceptions of nurses caring for this population in acute medical settings. By participating in this study, your views will help my research team and I better understand your experiences.

There are three broad sets of questions that we are trying to answer:

1. What are nurses' experiences in providing care for older adults with dementia living with responsive behaviours during their stay on acute medical units?
2. What are the perceptions of nurses and allied health professionals regarding P.I.E.C.E.S. education in acute medical units and its impact on their practice in responding to responsive behaviours of dementia?
3. What are the recommendations of nurses and allied health professionals in improving dementia care and P.I.E.C.E.S. education uptake in acute medical units?

Delivering Nursing Care

1. How do you define the term responsive behaviour? Can you provide me with an example of a responsive behaviour?
2. Describe what it is like to care for older adults experiencing responsive behaviours (i.e., kicking, hitting, spitting, wandering, yelling, swearing, calling out) on an acute medical unit.
3. How do you perceive that responsive behaviours impact your ability to complete routine nursing tasks (e.g. bathing, checking vital signs, administering medications, obtaining blood samples, etc.) while caring for older adults experiencing responsive behaviours?
4. What aspect of care do you find most important to provide for older adults with dementia experiencing responsive behaviours? What aspect of care do you find least important to provide for older adults with dementia experiencing responsive behaviours?
5. Tell me about a time when you found it challenging to care for an older adult experiencing responsive behaviours. What went well? What did not go so well? Why do you think it did not go very well? What could you have done differently? How would you respond next time if faced with a similar situation?
6. What strategies do you use to learn more about the history, life story, and capabilities of older adults with dementia experiencing responsive behaviours?
7. What factors make it easy for you to provide care for a person with responsive behaviours at a practice level, an organizational level, and a staff level? What factors make it hard for you to provide care for a person with responsive behaviours at a practice level, an organizational level, and a staff level?
8. What can the organization do to better support you in delivering dementia care?

9. Tell me about a time when you involved family members of clients with dementia in helping you care for older adults with dementia experiencing responsive behaviours on an acute medical unit. How does involving family members make it easier for you to provide care? How does involving family members make it harder for you to provide care?
10. Tell me about a time when you collaborated with allied health professionals such as social workers, physiotherapists, occupational therapists, and recreational therapists in providing care for older adults with dementia experiencing responsive behaviours. What went well? What did not go so well? What could you have done differently? How would you respond next time if faced with a similar situation?

Resources

1. What resources are available to you in helping you respond to responsive behaviours of dementia? How do the resources affect your practice?
2. How do you feel about the level of preparation that you have in addressing responsive behaviours?
3. How do you feel about your knowledge of evidence-based practices in dementia care?

P.I.E.C.E.S. Education*

1. What did you like the most about P.I.E.C.E.S. education? What did you like the least about P.I.E.C.E.S. education?
2. What is the most important thing that you learned from P.I.E.C.E.S. education?
3. Tell me about a time when you applied knowledge of P.I.E.C.E.S. in your practice? How has it changed the way you understand and respond to responsive behaviours of dementia on an acute medical unit?
4. What factors make it easy for you to apply knowledge and skills gained from P.I.E.C.E.S. education into practice? What factors made it difficult for nurses to apply knowledge and skills gained from P.I.E.C.E.S. education into practice?
5. What did you wish you learned from P.I.E.C.E.S. education?
6. How has P.I.E.C.E.S. education changed the way you provide care for persons with dementia and their family members? How has it changed the way you see this population?
7. How has P.I.E.C.E.S. education affected how you collaborate with allied health professionals on delivering care for older adults with dementia? Following P.I.E.C.E.S. education, what makes it easier to work with other disciplines? What makes it harder?
8. How has P.I.E.C.E.S. education affected the overall culture of dementia care within your unit? Can you give me an example?
9. What kind of changes do you hope that P.I.E.C.E.S. education could bring to an acute medical unit? What would you like to see?

Conclusion

Thank you for taking the time to share your views and experiences. We are now nearing the end of our interview. Is there anything else you would like to add? Is there anything more you would like to elaborate on? Do you have any questions?

*This section applies to nurses who received P.I.E.C.E.S. education only

Appendix H

Participant Characteristics Questionnaire for P.I.E.C.E.S Educators and Allied Health Professionals

1. What is your age? _____
2. What is your gender? Male Female Other
3. What is the highest level of education that you have completed?
College diploma Bachelor's degree Master's degree PhD
4. What is your current profession? _____
5. How many years of experience do you have in your current profession?
Less than one year One to two years Three to four years
Five to nine years Ten to fourteen years Fifteen years or more
6. How many years of experience do you have in working on an acute medical unit?
Less than one year One to two years Three to four years
Five to nine years Ten to fourteen years Fifteen years or more
7. What is your current employment status?
Regular full-time Regular part-time Occasional
Temporary full-time Temporary part-time
Other (Please specify): _____
8. Have you completed P.I.E.C.E.S. training? Yes No
If yes, when did you complete P.I.E.C.E.S. training (please specify the month and year)?

9. Prior to receiving P.I.E.C.E.S. education, have you completed a training program focusing on dementia care within the last five years? Yes No
If you have indicated yes, please indicate which one(s) you have completed:

Gentle Persuasive Approaches

U-First

Montessori/DementiaAbility Methods

Other (Please specify): _____

10. Have you attended any conferences related to dementia care within the last three years?

Yes No

If you have indicated yes, please specify which one(s):

Please note the questions below are only applicable to P.I.E.C.E.S. Educators

11. How long have you been a certified P.I.E.C.E.S. Instructor (Please specify in years)?

12. How long have you been involved in supporting the practice of professional colleagues in acute medical settings?

Less than one year One to three years Three to five years

Five to ten years Ten to fifteen years Fifteen years and above

13. Prior to becoming a P.I.E.C.E.S. educator, have you taught any other dementia care training program(s)? Yes No

If you have indicated yes, please specify which program(s) you have taught?

Appendix I

Interview Guide for P.I.E.C.E.S. Educators and Allied Health Professionals

Introduction

Hello, my name is Marie-Lee Yous, and I am a Master's student in the nursing program. This study will allow me to meet one of my program requirements by focusing on an area that holds personal interest. This study was inspired by my own personal experiences as a RN in an acute care hospital. The purpose of this study is to explore the day-to-day nursing experiences of responding to responsive behaviours among older adults with dementia aged 65 years and older. This study seeks to reveal the beliefs, values, perceptions, and practices of nurses caring for this population in acute medical settings. By participating in this study, your views will help my research team and I better understand the day-to-day experiences of acute medical nurses and allied health professionals who deliver care for older adults with dementia experiencing responsive behaviours. Through an interdisciplinary perspective, your views and experiences will help us understand how P.I.E.C.E.S education impacts interprofessional collaboration between nurses and allied health professionals.

There are three broad sets of questions that we are trying to answer:

1. What are nurses' experiences in providing care for older adults with dementia living with responsive behaviours during their stay on acute medical units?
2. What are the perceptions of nurses and allied health professionals regarding P.I.E.C.E.S. education in acute medical units and its impact on their practice in responding to responsive behaviours of dementia?
3. What are the recommendations of nurses and allied health professionals in improving dementia care and P.I.E.C.E.S. education uptake in acute medical units?

Caring or Interacting with Older Adults Experiencing Responsive Behaviours

1. How do you define the term responsive behaviour? Can you provide me with an example of a responsive behaviour?
2. Describe what it is like to care for or interact with older adults experiencing responsive behaviours (i.e., kicking, hitting, spitting, wandering, yelling, swearing, calling out).
3. Tell me about a time when you found it challenging to care for or interact with an older adult living with responsive behaviours. What went well? What did not go so well? Why do you think it did not go very well? What could you have done differently? How would you respond next time if faced with a similar situation?
4. What strategies do you use to learn more about the history, life story, and capabilities of older adults with dementia experiencing responsive behaviours?
5. What factors make it easy for you to provide care for a person with responsive behaviours at a practice level, an organizational level, and a staff level? What factors make it hard for you to provide care for a person with responsive behaviours at a practice level, an organizational level, and a staff level?
6. Tell me about a time when you collaborated or supported nurses in providing care for older adults with dementia experiencing responsive behaviours. What went well? What did not go so well? What could you have done differently? How would you respond next time if faced with a similar situation?

7. How do you think responsive behaviours are understood by acute medical nurses?

Receiving P.I.E.C.E.S. Education

1. What did you like the most about P.I.E.C.E.S. education? What did you like least about P.I.E.C.E.S. education?
2. What is the most important thing that you learned from P.I.E.C.E.S. education?
3. Tell me about a time when you applied knowledge of P.I.E.C.E.S. into your practice? How has it changed the way you understand and respond to responsive behaviours of dementia on an acute medical unit?
4. What factors make it easy for you to apply knowledge and skills gained from P.I.E.C.E.S. education into practice? What factors make it difficult for you to apply knowledge and skills gained from P.I.E.C.E.S. education into practice?
5. What did you wish you learned from P.I.E.C.E.S. education?
6. How has P.I.E.C.E.S. education changed the way you provide care for persons with dementia and their family members?
7. How has P.I.E.C.E.S. education affected how you collaborate with nurses on delivering care for older adults with dementia? Following P.I.E.C.E.S. education, what makes it easier to work with nurses? What makes it harder?
8. How has P.I.E.C.E.S. education affected the culture of dementia care on your unit?
9. How much of an impact has P.I.E.C.E.S. education had on care provided by nurses?
10. What kind of changes do you hope that P.I.E.C.E.S. education could bring to an acute medical unit? What would you like to see?

Delivering P.I.E.C.E.S. Education*

1. Tell me about your role in providing P.I.E.C.E.S. education.
2. Tell me about the impact of P.I.E.C.E.S. training on staff practice. Give an example.
3. What makes it easy for staff to apply the knowledge they gained from P.I.E.C.E.S. training? What makes it hard for staff to apply the knowledge they gained from P.I.E.C.E.S. training?
4. How has P.I.E.C.E.S. education affected nursing practice in responding to responsive behaviours on acute medical units?
5. How do you feel P.I.E.C.E.S. education has provided support for nurses caring for older adults with dementia experiencing responsive behaviours on acute medical units?
6. What are your perceptions regarding the satisfaction of nurses regarding the course content and format of P.I.E.C.E.S. education? How do you believe that the course meets the learning needs of nurses?
7. What could be improved regarding P.I.E.C.E.S. training?

Conclusion

Thank you for taking the time to share your views and experiences. We are now nearing the end of our interview. Is there anything else you would like to add? Is there anything more you would like to elaborate on? Do you have any questions?

*This section applies to P.I.E.C.E.S. educators only

Appendix J



Informed Consent Form for Nurses

Study Title: Nurses' Experiences with Responsive Behaviours of Dementia in Acute Care and Perceptions of P.I.E.C.E.S. Education: An Interpretive Description

Investigators:

Local Principal Investigator:

Dr. Jenny Ploeg
Professor, School of Nursing
McMaster University
Hamilton, ON, Canada
(905) 525-9140 ext. 22294
E-mail: ploegj@mcmaster.ca

Student Investigator:

Marie-Lee Yous
Graduate Student, School of Nursing
McMaster University
Hamilton, ON, Canada
(905) 920-4614
E-mail: yousm@mcmaster.ca

Funding Source: None

You are being invited to participate in a research study on responsive behaviours of dementia. Responsive behaviours consist of a way that persons with dementia use to communicate what they are feeling or need. This research study is being conducted by Marie-Lee Yous (Masters student) and Dr. Jenny Ploeg from McMaster University. This study is part of a Masters thesis. You have been asked to participate in this study because you are a nurse working on an acute medical unit and have provided care for older adults with dementia experiencing responsive behaviours.

What is the purpose of the study?

The purpose of this study is to help us learn more about the experiences of nurses caring for older adults with dementia experiencing responsive behaviours on acute medical units. We are interested in learning about your day-to-day experiences in addressing responsive behaviours, how responsive behaviours affect your nursing practice, and what kind of workplace supports are available for you. If you have received P.I.E.C.E.S. training, we are also interested in your perceptions of P.I.E.C.E.S. education and how it has influenced the way you care for older adults experiencing responsive behaviours.

Why is this research study needed?

Many older adults with dementia are admitted to the hospital because they require medical treatment for acute or chronic conditions. Responsive behaviours are often triggered in hospital because of the unfamiliar environment, high noise levels, and crowded areas. Nurses working in hospital settings such as the acute medical unit must respond to these behaviours but, may have

inadequate knowledge and skills to do so. P.I.E.C.E.S. education has been offered to help nurses with their care however, we know little about how nurses perceive P.I.E.C.E.S. education and whether it impacts their practice.

What happens during the study?

Approximately eight to ten nurses, two P.I.E.C.E.S. instructors, and three to five allied health professionals will participate in the study. Once you have agreed to participate in the study, you will be asked to take part in an in-person interview for about 30 to 45 minutes. You will determine the time of the interview based on your availability. The interview will take place at a location of your choosing that is the most convenient (for example, at your work). You will be asked questions related to your experiences as a nurse caring for older adults with dementia experiencing responsive behaviours. If you have received P.I.E.C.E.S. education, you will be asked how P.I.E.C.E.S. education has influenced your practice. You will be asked to provide some background information such as your age, gender, and professional designation at the beginning of the interview. Conversations will be audio-recorded with permission.

What are the possible risks and discomforts of the study?

There are minimal risks in participating in the study. You may feel uncomfortable in sharing your experiences in caring for clients with responsive behaviours. You may request to stop the interview or take a break and choose to continue the interview at another time. You may also withdraw from the study at any time or ask to have your information removed from the study. If you experience distress during the interview, with your permission, we will provide you with contact information from the occupational health and safety department of your organization that provides counselling and support services for workplace incidents.

How will the study benefit me and/or society?

Most of the benefits in participating in the study are indirect. By taking part in the study, you will be providing a voice to nurses working in acute medical settings who are caring for older adults with dementia. You will get a chance to share your stories and experiences. If you agree to take part in the study, you will help us understand what barriers nurses face when caring for older adults with dementia. The study results can also be helpful in the future in ensuring that nurses working in hospital receive adequate training and supports in this area.

How will my information remain private?

Your participation in the study is kept confidential. Any possible identifier such as your name and workplace unit will not be used. No one will have knowledge that you participated in the study unless you choose to inform them. Any information that you provide will not contain identifying information when findings are published or presented. Although information will be kept confidential, others may discuss the content of the anonymized publication. Please keep in mind that due to small numbers of participants it may be possible to identify who respondents are. Your information will not be shared with a manager and will not impact employment status or performance evaluation.

All information that you share with us will remain in a locked cabinet in the Aging, Community, and Health Research Unit at McMaster University. This area is secure and monitored. Data will be kept on a private laptop that is password protected. After the study is complete, data will be archived, without the presence of identifying data, and kept for five years. Audio-recorded files will also be kept for five years and then they will be erased. The findings of the study will be published in academic journals and may be presented at various conferences.

What if I no longer want to take part in the study?

Your participation in the study is completely voluntary. If you decide that you no longer want to take part in the study, you may withdraw your consent at any time. There are no consequences to you if you decide to withdraw from the study. You may choose to withdraw some or all your data at any time during the study. You may refuse to answer any questions during the interview.

Who should I contact if I have questions or concerns about the study?

If you have any questions or concerns about the study, please e-mail or call Marie-Lee Yous at yousm@mcmaster.ca or (905)920-4614 or Dr. Jenny Ploeg at ploegj@mcmaster.ca or (905)525-9140 ext. 22294

How can I receive results from the study?

The study is expected to be completed before the end of August 2018. If you are interested in obtaining a short summary of the results of the study, please provide us with contact details to share the results with you.

Payment

Every participant will receive a \$25 gift card to Tim Hortons at the end of the interview.

This study has been reviewed by the Hamilton Integrated Research Ethics Board (HiREB). The HiREB is responsible for ensuring that participants are informed of the risks associated with the research, and that participants are free to decide if participation is right for them. If you have any questions about your rights as a research participant, please call the Office of the Chair, HiREB, at 905.521.2100 x 42013.

CONSENT

I have read the information presented in the information letter about a study being conducted by Marie-Lee Yous and Dr. Jenny Ploeg of McMaster University.

I understand the potential benefits and risks associated with the study.

I have had the opportunity to ask questions about my involvement in this study and to receive additional details I requested.

I understand that if I agree to participate in this study, I may withdraw from the study at any time. I have been given a signed copy of this form. I agree to participate in the study.

I would like to receive a summary of the study's results. Yes No

If yes, where would you like the results sent:

Email: _____

Mailing address: _____

Written consent of research participant:

Name of Participant (Printed)

Signature

Date

Consent-form explained in person by:

Name and Role (Printed)

Signature

Date

Appendix K



Informed Consent Form for P.I.E.C.E.S. Educators and Allied Health Professionals

Study Title: Nurses' Experiences with Responsive Behaviours of Dementia in Acute Care and Perceptions of P.I.E.C.E.S. Education: An Interpretive Description

Investigators:

Local Principal Investigator:

Dr. Jenny Ploeg
Professor, School of Nursing
McMaster University
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E-mail: ploegj@mcmaster.ca

Student Investigator:

Marie-Lee Yous
Graduate Student, School of Nursing
McMaster University
Hamilton, ON, Canada
(905) 920-4614
E-mail: yousm@mcmaster.ca

Funding Source: None

You are being invited to participate in a research study on responsive behaviours of dementia. Responsive behaviours consist of a way that persons with dementia use to communicate what they are feeling or need. This research study is being conducted by Marie-Lee Yous (Masters student) and Dr. Jenny Ploeg from McMaster University. This study is part of a Masters thesis. You have been asked to participate in this study because you are a P.I.E.C.E.S. educator who delivered P.I.E.C.E.S. education for nurses on acute medical units or an allied health professional who has received P.I.E.C.E.S. education

What is the purpose of the study?

The purpose of this study is to help us learn more about the experiences of nurses caring for older adults with dementia experiencing responsive behaviours on acute medical units. We are interested in learning about the day-to-day nursing experiences in addressing responsive behaviours, how responsive behaviours affect nursing practice, and what kind of workplace supports are available for nurses. We are also interested in your experiences in responding to responsive behaviours and perceptions of P.I.E.C.E.S. education. We are interested in discovering how it has influenced the way you care for or interact with older adults experiencing responsive behaviours and the way you collaborate with nurses.

Why is this research study needed?

Many older adults with dementia are admitted to the hospital because they require medical treatment for acute or chronic conditions. Responsive behaviours are often triggered in hospital

because of the unfamiliar environment, high noise levels, and crowded areas. Health professionals working in hospital settings such as the acute medical unit must respond to these behaviours but, may have inadequate knowledge and skills to do so. P.I.E.C.E.S. education has been offered to help nurses and allied health professionals with their care however, we know little about how nurses perceive P.I.E.C.E.S. education and whether it impacts their practice.

What happens during the study?

Approximately two P.I.E.C.E.S. instructors, three to five allied health professionals, and eight to ten nurses will participate in the study. Once you have agreed to participate in the study, you will be asked to take part in an in-person interview for about 30 to 45 minutes. You will determine the time of the interview based on your availability. The interview will take place at a location of your choosing that is the most convenient (for example, at your work). If you are a P.I.E.C.E.S. instructor, you will be asked questions about your experiences in providing supportive education for nurses on acute medical units. If you are an allied health professional who have received P.I.E.C.E.S. training, you will be asked questions about your experiences in caring for older adults with dementia experiencing responsive behaviours and how P.I.E.C.E.S. education has influenced your practice related to interprofessional collaboration with nurses. You will be asked to provide some background information such as your age, gender, and professional designation at the beginning of the interview. Conversations will be audio-recorded with permission.

What are the possible risks and discomforts of the study?

There are minimal risks in participating in the study. You may feel uncomfortable in sharing your experiences in caring for or interacting with clients with responsive behaviours. You may request to stop the interview or take a break and choose to continue the interview at another time. You may also withdraw from the study at any time or ask to have your information removed from the study. If you experience distress during the interview, with your permission, we will provide you with contact information from the occupational health and safety department of your organization that provides counselling and support services for workplace incidents.

How will the study benefit me and/or society?

Most of the benefits in participating in the study are indirect. By taking part in the study, you will be providing a voice for allied health professionals working in acute medical settings who are caring for older adults with dementia and working alongside nurses. You will get a chance to share your stories and experiences. If you agree to take part in the study, you will help us understand what it is like to collaborate with nurses when caring for older adults with dementia. The study results can also be helpful in the future in ensuring that nurses working in hospital receive adequate training and supports in this area.

How will my information remain private?

Your participation in the study is kept confidential. Any possible identifier such as your name and workplace unit will not be used. No one will have knowledge that you participated in the study unless you choose to inform them. Any information that you provide will not contain

identifying information when findings are published or presented. Although information will be kept confidential, others may discuss the content of the anonymized publication. Please keep in mind that due to small numbers of participants it may be possible to identify who respondents are. Your information will not be shared with a manager and will not impact employment status or performance evaluation.

All information that you share with us will remain in a locked cabinet in the Aging, Community, and Health Research Unit at McMaster University. This area is secure and monitored. Data will be kept on a private laptop that is password protected. After the study is complete, data will be archived, without the presence of identifying data, and kept for five years. Audio-recorded files will also be kept for five years and then they will be erased. The findings of the study will be published in academic journals and may be presented at various conferences.

What if I no longer want to take part in the study?

Your participation in the study is completely voluntary. If you decide that you no longer want to take part in the study, you may withdraw your consent at any time. There are no consequences to you if you decide to withdraw from the study. You may choose to withdraw some or all your data at any time during the study. You may refuse to answer any questions during the interview.

Who should I contact if I have questions or concerns about the study?

If you have any questions or concerns about the study, please e-mail or call Marie-Lee Yous at yousm@mcmaster.ca or (905)920-4614 or Dr. Jenny Ploeg at ploegj@mcmaster.ca or (905)525-9140 ext. 22294

How can I receive results from the study?

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This study has been reviewed by the Hamilton Integrated Research Ethics Board (HiREB). The HiREB is responsible for ensuring that participants are informed of the risks associated with the research, and that participants are free to decide if participation is right for them. If you have any questions about your rights as a research participant, please call the Office of the Chair, HiREB, at 905.521.2100 x 42013.

CONSENT

I have read the information presented in the information letter about a study being conducted by Marie-Lee Yous and Dr. Jenny Ploeg of McMaster University.

I understand the potential benefits and risks associated with the study.

I have had the opportunity to ask questions about my involvement in this study and to receive additional details I requested.

I understand that if I agree to participate in this study, I may withdraw from the study at any time. I have been given a signed copy of this form. I agree to participate in the study.

I would like to receive a summary of the study's results. Yes No

If yes, where would you like the results sent:

Email: _____

Mailing address: _____

Written consent of research participant:

Name of Participant (Printed)

Signature

Date

Consent-form explained in person by:

Name and Role (Printed)

Signature

Date

Appendix L

Comparison of P.I.E.C.E.S. Education Concepts with Quotes from Nurses

P.I.E.C.E.S. Concepts	Non-P.I.E.C.E.S. Trained Nurses (n=6)	P.I.E.C.E.S. Trained Nurses (n=4)
<p>1. Collaborative care - Interprofessional collaboration including team dialogue - Shared solution-finding and care practices - Common language, approach, and tool</p>	<p>Interprofessional collaboration (n=2)</p> <p>N-08: <i>“I think it’s really important because there’s a lot of different things going on and it’s not just a medical issue, it’s a social issue as well. So definitely getting everyone involved...makes for a greater success.”</i></p> <p>Shared solution-finding and care practices (n=4)</p> <p>N-05: <i>“...sometimes I’ll ask them [allied health professionals] if they noticed anything so that helps the both of us to care better for the patient and because of the sharing of information, I’m able to let’s say pass it on to the next nurse and that information kind of accumulates, I realize and it makes it easier and easier and the care for that patient really does get better...”</i></p>	<p>Interprofessional collaboration (n=3)</p> <p>PTN-04: <i>“...see at the end of the day, we all want what’s the best for the patient. So let’s try it your way this way...or I have said to allied health “please don’t go anywhere near my patient now, it really is not a good time”...“Will you check back in with me in maybe an hour. Not always feasible but, everyone is fine.”</i></p> <p>Shared solution-finding and care practices (n=3)</p> <p>PTN-10: <i>“...so say for example the physio comes in to get this patient up we would always give them a heads up “hey, so the patient doesn’t like this...” and then they appreciate that so then...they will know how to approach the patient.”</i></p> <p>Common language, approach, and tool (n=2)</p> <p>PTN-09: <i>“So it’s [P.I.E.C.E.S.] gonna be more effective...Because we try to provide the same way, the care. So patients are expecting the similar way, how we provide care... Make the patients more familiar and comfortable too. So I think it’s gonna be better for us.”</i></p>

P.I.E.C.E.S. Concepts	Non-P.I.E.C.E.S. Trained Nurses (n=6)	P.I.E.C.E.S. Trained Nurses (n=4)
<p>2. Person/family-centred care</p> <ul style="list-style-type: none"> - Individuality and holistic (e.g. social, cultural, spiritual, physical, emotional and medical factors) - Life story (e.g. work history, social history, likes/dislikes, need for social interactions, coping strategies, and cultural traditions) 	<p>Individuality and holistic (n=1)</p> <p>N-05: <i>“I think it [collaborating with families] definitely helps and I think know the patient more because I mean everyone is unique. Everyone has their own preferences and knowing their preferences and what works and what doesn’t work for them can be very helpful in terms of me working with the patient because that’s better nursing care for them and that makes my nursing tasks a lot easier.”</i></p> <p>Life story (n=6)</p> <p>N-06: <i>“Family is a big resource to use and a lot of times when people are in they have pictures on their walls so you can engage because a lot of times when people have dementia, they still know that that’s their mother and that’s their father on the wall and they’ll tell you bits and pieces and then you can kind of piece it together.”</i></p>	<p>Individuality and holistic (n=3)</p> <p>PTN-04: <i>“I think we’re looking now which is so lovely, is that we are looking at the patient as a whole...Everyone deserves the right to be treated with respect, dignity, and they’ve the right to be heard.”</i></p> <p>Life story (n=4)</p> <p>PTN-07: <i>“...I was able to go back and delve...go into their history and like I said I did with this other man, their likes and dislikes and what they would respond to. So I think that makes you more aware and then you’re asking the family “hey, bring in something from home, bring in that blanket”, you know? “Bring in that cat stuffed animal that they might like”. You know it [P.I.E.C.E.S.] really makes you go that second step.”</i></p>
<p>3. Promoting safety</p> <ul style="list-style-type: none"> - Risk prevention and management including addressing risk of harm to persons with responsive behaviours, others in the environment, families, visitors, and staff -Frailty of persons with responsive behaviours (i.e. 	<p>Risk management (n=4)</p> <p>N-06: <i>“I think that the more people that are aware of the patient on the unit, the better because if you see them coming down the hall and you could identify that patient, you know you gotta be a little bit alerted to the fact that they could swing out at you at any minute or something. So for generalized safety on the unit.”</i></p> <p>Frailty of persons with responsive behaviours (n=1)</p>	<p>Risk management (n=3)</p> <p>PTN-10: <i>“So like making sure that they’re toileted, making sure they had a bowel movement or they are not retaining...because sometimes demented people are just having difficulty expressing or they don’t know how to express that they just wanted to pee, kind of, and then they start escalating, because...as simple as that.”</i></p> <p>Frailty of persons with responsive behaviours (n=2)</p>

<p>falls, delirium, and physical illness)</p>	<p>N-08: “...there are so many risks for delirium here [acute medical unit].”</p>	<p>PTN-07: “They have that bit of dementia and then they get sick with the UTI [urinary tract infection] and the delirium just throws them over the edge.”</p>
<p>P.I.E.C.E.S. Concepts</p>	<p>Non-P.I.E.C.E.S. Trained Nurses (n=6)</p>	<p>P.I.E.C.E.S. Trained Nurses (n=4)</p>
<p>4. Examining the environment - Unfamiliar (e.g. physical setting, relocation, different staff and routines) - Over-stimulation (e.g. noise, clutter, and traffic) - Under-stimulation (e.g. isolated, lack of visitors or attention, and few activities)</p>	<p>Unfamiliar (n=4) N-05: “...comparing an acute care setting to a long-term care home, it’s very, very different because in an acute care setting there’s a lot more people, a lot more strangers. People with dementia, they’re seeing all these new people every single day and sometimes they can scare them...” Over-stimulation (n=4) N-08: “...the most disruptive thing we do here is noise. It’s so disruptive. The call bells, you can hear them in every single room and you can hear us say “nurse to this room”. Like not being able to sleep is just...I think is very harmful. So that is very hard to provide care because they do not get sleep and they probably get more confused so I think that makes it difficult.” Under-stimulation (n=2) N-01: “I think they’re very bored. I think they’re just sitting in their rooms looking at the four walls. Some of them can’t walk...sometimes they don’t have family members. I think just sitting there bored, you’re gonna get even more confused too.”</p>	<p>Unfamiliar (n=1) PTN-09: “...lots of patients being here, they get demented more because of the environment, right? So try to assign the nurses, the same nurses maybe as much as possible so the patient’s not going to be surprise with all the new different people and then just make sure the patient is safe and then try to approach the patient care from their point of view.” Over-stimulation (n=2) PTN-07: “Well, it’s hard because it’s a fast-paced place. So people are coming and going to tests all day so if you’re in a room with a patient like that can set them off. Patients come three times for three different tests and more people in the room, you know? The porter’s there, the nurse’s there. So it’s an active environment so it’s even harder. So when we can...put them in a quieter room...” Under-stimulation (n=1) PTN-07: “...this man would chase people down the hall...He would go in and takes stuff out of people’s rooms. So he was in a room with somebody else so we isolated him...Quieter environment.”</p>

P.I.E.C.E.S. Concepts	Non-P.I.E.C.E.S. Trained Nurses (n=6)	P.I.E.C.E.S. Trained Nurses (n=4)
<p>5. Non-pharmacological strategies for persons with responsive behaviours</p> <ul style="list-style-type: none"> - Meaningful interaction strategies (e.g. communicate clearly, know the person and provide reassurance) - Modifying one's approach - Relying on life experiences - Team meetings - Collaborating with specialty teams (e.g. geriatric teams and teams specializing in responsive behaviours of dementia) 	<p>Meaningful interaction strategies (n=2)</p> <p>N-06: <i>“And during that shower we chatted and we talked and I went to where they were in their head, you know? Talking about their young children. Their children are all grown, right? And in their 60’s but, talking about young children and my children and schools and engaging them to keep their minds off of things.”</i></p> <p>Modifying one’s approach (n=4)</p> <p>N-02: <i>“...these patients do end up staying on this unit for quite some time...actually sitting down getting to develop the rapport, if it’s not met then care will be difficult because familiarity with them is the best way to approach care and actually get our responsibilities done...if they don’t trust you it’s hard to get them to take the medications or to wash up, to do...simple tasks that you just have to put that time in.”</i></p> <p>Relying on life experiences (n=1)</p> <p>N-06: <i>“...if that was my parent and they were behaving so aggressively and hurting people and hurting themselves, I would want them medicated so that they’re calmer and they can maybe enjoy their dinner, maybe enjoy a television program...”</i></p> <p>Team meetings (n=2)</p>	<p>Meaningful interaction strategies (n=3)</p> <p>PTN-04: <i>“It’s more of a question of talking to them and being able to talk at the right time or you always get an opportunity. Something will always come up, like “Oh, you have tattoos”, like “where did you get those?” ...he was in the army or something, so you’ll start that and by getting that information, when things are...kind of escalating, you could always say “hey, you know what buddy, what did you do when...”, like “did this happen when you were in the army?” or find about the kids. “Hey, how many kids do you have? I have two”. I will bring my personal story to them too.”</i></p> <p>Modifying one’s approach (n=3)</p> <p>PTN-09: <i>“So of course give them choice, right? Of course make them comfortable with that and then a gentle approach to the patient and then offer what they like.”</i></p> <p>Relying on life experiences (n=4)</p> <p>PTN-09: <i>“...then I have lots of life experience because I had kids, I used to live with my parents so from my background I have lots of life experience. So I know more of the things about the patients with dementia like from their life.”</i></p> <p>Team meetings (n=3)</p>

	<p>N-01: <i>“Those [behavioural rounds] are helpful especially if the nurse at the meeting happens to be her patient. So that way we could provide our input because we have that patient...they might have suggestions that we will try and implement or I’ll say “this works for me” so then they’re gonna write it in the care plan...”</i></p> <p>Collaborating with specialty teams (n=3)</p> <p>N-08: <i>“...the geriatricians are helpful and sometimes medications are needed...those are actually very helpful...I should mention that...is good and sometimes these people improve.”</i></p>	<p>PTN-10: <i>“I think it’s [team meetings] ...a good opportunity for us to actually sit down and talk about the patient, what’s best for the patient. As long as the goal is realistic.”</i></p> <p>Collaborating with specialty teams (n=2)</p> <p>PTN-07: <i>“We rely on them [geriatricians] a lot and for their care plans as well. Like you know [name of geriatrician], she dives right in and reading their notes really help. So lots of times, I’ll say to a younger nurse, “read...like read what geri has written”. You really can find out a lot.”</i></p>
<p>P.I.E.C.E.S. Concepts</p>	<p>Non-P.I.E.C.E.S. Trained Nurses (n=6)</p>	<p>P.I.E.C.E.S. Trained Nurses (n=4)</p>
<p>6. Pharmacological strategies for persons with responsive behaviours - Behaviours responsive to medications: physical/verbal aggression, anxiety, restlessness, and wandering with aggression/agitation - Antipsychotics and anxiolytics (e.g. Quetiapine (Seroquel), Haloperidol (Haldol), Lorazepam (Ativan) and Clonazepam)</p>	<p>(n=6)</p> <p>N-02: <i>“Where a patient is getting aggressive, it’s a language barrier, they’re kicking, they’re screaming, they’re biting and the only form before physical restraints and soft restraints, it’s usually prn Haldol or something chemical.”</i></p>	<p>(n=3)</p> <p>PTN-10: <i>“Medication I think, of course scheduled medication is good but, PRN [as needed] medications such as Haldol, Lorazepam that would be...at least for me that would be the least of my selection because most often I find that patients with dementia who are having responsive behaviours or any patient who has responsive behaviours, they respond well to as simple as toileting, as simple as getting them up on chair, as simple as you know, as having them sit where they see a lot of people.”</i></p>