# Developing a Taxonomy of Health Care Aides Tasks in a Personal Care Home

By

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A Thesis submitted to the Faculty of Graduate Studies of

The University of Manitoba

In partial fulfilment of the requirements of the degree of

MASTER OF SCIENCE

Department of Community Health Sciences

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# ABSTRACT

**Purpose**: to understand the tasks that health care aides (HCAs) are responsible for in a nursing home setting, and to understand which of these tasks HCAs feel are more important.

**Methods:** In Phase 1, focus groups were conducted to validate the list of tasks and ensure HCAs could differentiate between them, according to task urgency, quality of care, and quality of life. During Phase 2, HCAs participated in a Delphi process to reach consensus on the relative importance of these tasks.

**Results:** Participants reached consensus that 12 of 31 tasks were highly important according to task urgency. Of these, 10 were from the medical domain (e.g., skin care). Similar results were reached for the other definitions of importance.

**Conclusions:** This study provides a framework for classifying HCA tasks into three domains (medical, social and indirect). Irrespective of the definition of importance used, medical tasks are consistently deemed as more important.

# ACKNOWLEDGEMENTS

This research could not have been accomplished without the vital help and guidance of my advisor, Dr. Malcolm Doupe. Thank you so much for your encouragement and mentorship throughout this entire process. Thank you also to my committee members, Dr. Verena Menec and Ms. Lori Lamont for their guidance, input, time, and valuable contributions to this work.

Thank you to Dr. Sharon Bruce for serving as Chair for my thesis proposal presentation and to Dr. Mariette Chartier for serving as Chair for my thesis oral defense presentation.

This research would not have been possible if it were not for the funding that I received from several agencies throughout my schooling. I am extremely grateful for the financial assistance that I received from the Western Regional Training Centre (WRTC), Research Manitoba, Translating Research in Elder Care (TREC), and the University of Manitoba.

I would also like to thank my parents, Garry & Sherry, for their unwavering support, encouragement, love, and belief in me.

# DEDICATION

This thesis is dedicated in memory of my Grandma, Mary Spuzak, and Granny, Frances Zinnick, who both always believed in me and supported my dreams and whose personal experiences in personal care homes inspired me to pursue this research.

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# Developing a Taxonomy of Health Care Aide Tasks in a Personal Care Home

# CHAPTER 1: INTRODUCTION

## 1.1 STUDY RATIONALE

Twenty percent of all Canadians will be seniors (i.e., 65+ years old) by the year 2026 (Mitchell, Roos, and Shapiro 2005: 60). This dramatic increase in the number of seniors will impact significantly the demand for nursing home[1] use (European Commission 2008; McGregor and Ronald 2011), and also necessitates the need to ensure that nursing home care is provided in an effective and efficient way. Fundamentally the literature showing how nursing home staff organize their time is sparse. With few exceptions (Mallidou et al. 2013 and Munyisia et al. 2011), very little research has been conducted to identify the range of care tasks that health care aides (HCAs) perform and the perceived importance of these various tasks.

There is an immense about of evidence which shows that HCAs perform the majority (approximately 60-90 percent) of direct care to residents in NHs (Cranley et al. 2011; Cranley et al. 2012; Harrington et al. 2000a; Harrington et al 2000b; Harrington et al. 2012; Kovner et al. 2002; Schnelle et al. 2004; McGregor et al. 2005). However, outside few exceptions (Mallidou et al. 2013; Munyisia et al. 2011), there is sparse knowledge identifying the different types of tasks that HCAs perform. There is also no framework or taxonomy to group these tasks by their likeness. Building on this literature, the present study develops and content validates a comprehensive list of tasks that health care aides (HCAs) perform on a regular basis. The tasks

[1] In Manitoba, nursing homes are referred to as personal care homes. For the purposes of this thesis, the term nursing home will be used throughout as this term is most widely utilized in the academic literature.

are then classified into three domains of a taxonomy (medical care tasks, social care tasks, and indirect tasks), the latter of which was created by amending several existing frameworks found in the academic literature. Finally, the relative importance of tasks is determined from the perspective of the HCAs using three definitions of importance (task urgency, quality of care, and quality of life). Collectively, the evidence provided from this research helps to clarify the types of tasks regularly performed by HCAs in a NH setting, and provides a framework for classifying these tasks into the medical care, social care, or indirect domains. As well, this research demonstrates how HCAs perceive the importance of tasks they are responsible for in a NH setting.

## 1.2 Research Purpose and Objectives

The purpose of the present study is to understand with greater clarity the care tasks that health care aides are responsible for in a nursing home setting, how to organize these tasks by their likeness, and also to understand which of these tasks health care aides feel are more important. Perceived importance of these tasks are defined according to the urgency by which they must be completed, and also according to how much they influence the quality of care provided to, and the quality of life of, the resident.

Using a convenience sample of one nursing home in the Winnipeg Health Region, the research objectives of this study are threefold:

1. To develop and content-validate a comprehensive list of tasks that health care aides complete in a nursing home setting between the hours of 7:30 AM and 3:30 PM (the day shift);

2. To create a taxonomy[2] to classify the tasks health care aides are responsible for; and
3. To classify and rank these health care aide tasks according to health care aide perceived importance of a) the urgency by which the task needs to be completed and b) the impact that completing this task has on both the quality of care and quality of life of the resident.

## 1.3 RESEARCH HYPOTHESES

Three research hypotheses are proposed.

1) Health care aides will be able to identify and reach consensus on a comprehensive list of tasks that they complete in a nursing home setting during the day shift.

2) Health care aides will be able to reach consensus on the relative importance of the tasks they perform, as it pertains to task urgency, and for affecting the quality of care and quality of life of residents.

3) Of all tasks routinely performed by HCAs, those classified as being medical in nature will be ranked as most important, specifically when considering the tasks urgency and quality of care residents. Tasks classified as social in nature are hypothesized to be ranked as less important in terms of task urgency and quality of care but are hypothesized to be ranked as more important in terms of quality of life.

These results are hypothesized based on the academic literature reviewed on this subject. Research pertaining to the task-oriented focus of nursing homes and resident-centered care places a great emphasis of factors such as task completion and the importance of medical and personal care tasks (e.g., feeding, bathing, dressing, etc.) (Brownie & Nancarrow 2013; Canadian

[2] A taxonomy is a system of describing the way in which the different tasks are related by putting them in groups (similar in scope to a framework).

Healthcare Association 2004; Flesner 2009; Gnaedinger 2003; Kane 2001; Sherwin & Winsby 2010; Swagerty et al. 2005). Despite the fact that the social model of care emphasizes the abilities and individuality of each resident and encourages staff, such as HCAs, to provide care and support in a flexible and individualized manner (Gnaedinger 2003), it is believed that medical care tasks will be viewed as more important.

## 1.4 Overview of Thesis

The following chapters will provide greater details of the study. Chapter Two examines the existing literature on this topic and highlights several potential shortcomings of the existing related literature. Chapter Three provides a detailed review of the methods used to complete this study, and study results are provided in Chapter Four. A discussion of study results, care practice implications, and future research directions are provided in Chapter Five of this document.

# CHAPTER 2: REVIEW OF THE LITERATURE

This chapter provides an overview of the related literature. Population aging trends and changing NH use patterns are first discussed. This is followed by a review of the literature examining NH staff levels and the role that HCAs have in providing care to NH residents. This chapter will conclude with a discussion of some existing gaps in the literature, specifically related to the need for a better understanding of the tasks HCAs are responsible for. A framework to help classify these tasks in the NH environment is also necessary and several existing frameworks will be discussed.

## 2.1 DEFINING NURSING HOMES

Nursing homes (NHs) are health care facilities that provide support to people who can no longer care for themselves or remain safely in the community. There are 125 NHs in the province of Manitoba. In the Winnipeg Regional Health Authority (WRHA) alone there are 5,486 NH beds (Government of Manitoba 2012). In 2009-2010, NH occupancy rates were 98.0% in the province of Manitoba (Chateau et al. 2012).

NH facilities are broadly defined as for-profit (proprietary), not-for-profit (lay and religious) and government (Statistics Canada 2008). Three types of not-for-profit NHs exist. Lay ownership refers to a not-for-profit facility that is run by a voluntary lay entity (nonprofessional organization). Religious NHs are operated by a religious organization and are also not-for-profit. Government operated facilities are operated by a department, branch, division, or agency of the government, such as Veteran's Affairs, a municipality, city or town, or regional governance, such as a regional health authority (RHA). Proprietary ownership refers to a for-profit facility operated by an individual, private organization, or corporation.

The prairie provinces (Manitoba and Saskatchewan) are dominated by government-owned NHs which account for 46.0% of all NHs, while religious facilities account for 19.0% of NHs, lay facilities for 18% of NHs, and proprietary for 17.0% of all NHS (Berta et al. 2006). A slightly different pattern is noted when considering NH size. In Manitoba for example, for-profit NHs account for only 15.6% of all licensed facilities but 26.6% of all NH beds (Doupe et al. 2006).

In Manitoba, NHs are publicly funded as part of the provincial health care system but the total cost is shared between the provincial government (Manitoba Health, Healthy Living, and Seniors) and residents who require the services. Residents of NHs pay a per diem rate based on their net income and marital status. For 2015/2016, per diem fees paid by residents ranging from a minimum of $34.50 daily, to a maximum of $80.60 daily (Manitoba Health n.d.).

Numerous services are provided to NH residents in Manitoba. All meals are provided as well as snacks. Residents receive assistance with activities of daily living (e.g., bathing, dressing, using the bathroom) as well as nursing care and prescription drugs eligible under Manitoba's Personal Care Home Program. Laundry services are also provided. Recreational activities are routinely scheduled and physiotherapy and occupational therapy may also be provided if the facility is approved to provide such services (Manitoba Health n.d.). The services and care provided in NHs are increasingly important as the population ages and the proportion of seniors is projected to rise.

## 2.2 Population Demographics and Trends in Nursing Home Use

The world population is aging. Between the years 2000 and 2050, the proportion of individuals 60 years of age and older in the world is projected to double from 11.0 percent to 22.0 percent; while the number of people aged 60 years and older is expected to increase from 605 million to 2

billion over that same time period (WHO 2011). Furthermore, the number of individuals aged 80 years and older will quadruple between the years 2000 and 2050, reaching 400 million people by this latter date. Many of these individuals will require long-term care as they face issues such as limited mobility, frailty, or other physical or mental health problems (WHO 2011).

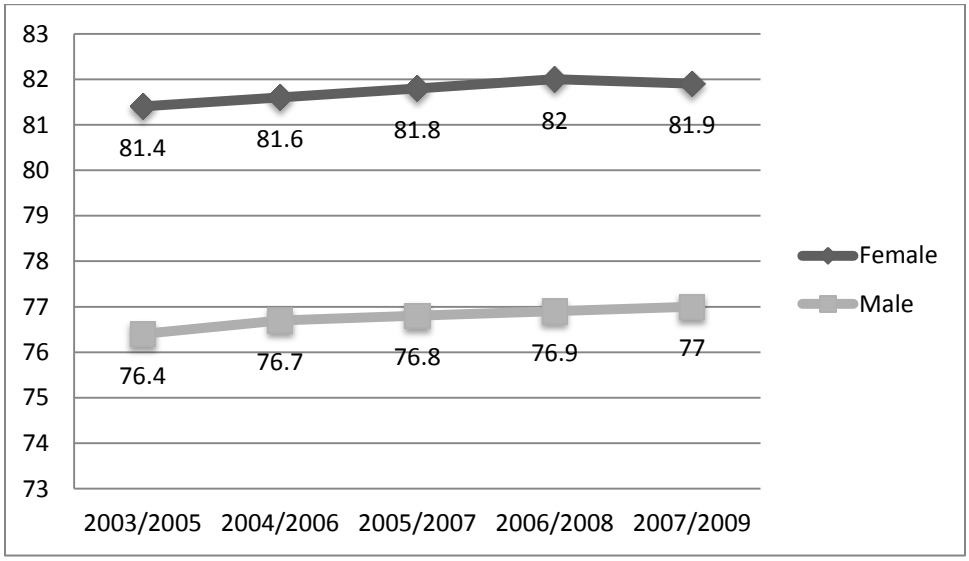
A similar trend exists in Canada. In 2006, the number of Canadians aged 65 years and older exceeded four million people for the first time (Statistics Canada 2006) and by 2011, individuals aged 65 years and older accounted for 14.8 percent (nearly 5 million people) of the total population, a record high (Statistics Canada 2011c). Population aging will continue to accelerate in Canada in the coming years as the baby boom generation (those born between the years 1946 and 1965) reaches age 65 (the first baby boomers reached age 65 in 2011) (Statistics Canada 2011d). These projections are important to consider as it is estimated that nearly half of all Canadian seniors will become residents of NHs at some point during their lives (Statistics Canada 2008).

In Manitoba, the proportion of seniors has steadily increased since 2001 and is projected to continue to increase. Currently, seniors comprise 14.3 percent of Manitoba's total population (Statistics Canada 2011c) and seniors are projected to account for 19.9 percent of Manitoba's population by the year 2026 (Centre on Aging 2010). "The proportion of seniors in the population emphasizes the need to continue to address issues surrounding the aging of the population in Manitoba as well as Canada as a whole" (Centre on Aging 2010).

Changing family structures and gender expectations are also important contextual factors that need to be addressed. The average family size for women is decreasing – women are having fewer children (Chateau et al. 2012). During the baby boom years (between the years of 1946 and 1965), the average number of children per woman was 3.7 compared to 1.7 in more recent

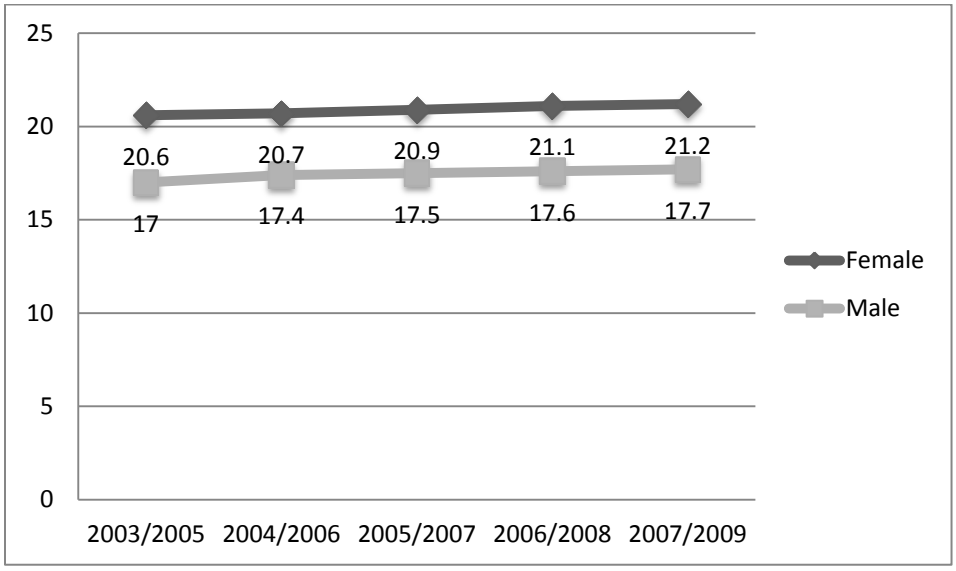
years (Statistics Canada 2011b). This is an important change to note because individuals who have at least one child have a significantly lower probability of being admitted to a NH as compared to individuals that do not have children (Chateau et al. 2012). In addition to decreased fertility rates, the geographic separation of families (children living further away from their aging parents) and changing gender expectations (women being employed full-time versus being available to be full-time caregivers) are important factors to consider when considering long-term care policies (Chateau et al. 2012). These contextual factors, coupled with increasing longevity (Kemp et al 2013) (shown in Figures 1 and 2 below), and the increasing prevalence of multiple co-morbidities among Canadian seniors in general (Statistics Canada 2011a), means that NH bed requirements may continue to increase in future years (Chateau et al. 2012).

**Figure 1: Average years of life remaining at birth, by gender, Manitoba, 2003-2009**




Source: Statistics Canada, Cansim Table 102-0512, 2003-2009

**Figure 2: Average years of life remaining at age 65, by gender, Manitoba, 2003-2009**




Source: Statistics Canada, Cansim Table 102-0512, 2003-2009

NH use patterns have changed considerably in recent years. Individuals are entering NHs for a shorter period of time at an older age (Doupe et al. 2006), so that individuals 75 years of age or older comprise the majority (85.0 percent) of NH admissions (Menec et al. 2002). In Manitoba, one in five men over age 85 and one in three women over age 85 reside in NHs annually (Doupe et al. 2011a).

NH residents are also sicker now than in the past, and are described as a highly vulnerable group with complex care needs and a high degree of dependency on care providers (Berta et al. 2006; Doupe et al. 2011a; Hirdes et al. 2011; Menec et al. 2002; Terrell et al. 2006). Higher rates of chronic diseases, such as hypertension, hypercholesterolemia, and diabetes will be seen as the baby boom generation ages. The rates of these diseases are higher in the baby boom generation as compared to the generation before them (King et al. 2013).The proportion of Canadians with dementia is also projected to increase. By 2038, 9.0 percent of Canadians over

the age of 60 will have dementia and 37.6 percent of individuals residing in NHs will have dementia as well (Alzheimer Society of Canada 2010) Thus, these individuals will require increasingly complex care in the NH environment, which may affect how NHs are staffed in the future. Collectively, this has significant implications for developing strategies aimed at continually improving care in NH environments. Understanding the types of care tasks that HCAs complete is a fundamentally important step in developing these improvements.

## 2.3 Review of Nursing Home Staffing Literature

Numerous studies have shown an association between staffing levels and quality of care in NHs, and that quality of care is proportionate to staffing levels (Alexander 2008; Bates-Jensen et al. 2004; Bowers et al. 2000; Castle 2008; Dorr et al. 2005; Dyck 2006; Harrington et al. 2000a; Harrington 2001; Horn et al. 2005; Kayser-Jones and Schell 1997; Kramer et al. 2000; Kramer and Fish 2001; Macourt 2004; Rantz et al. 2004; Schnelle et al. 2001; Schnelle et al. 2004; Spilsbury 2011; Zhang et al. 2006). With few exceptions (Harrington et al. 2012; McGregor et al. 2005; McGregor et al. 2010), the majority of research on NH staffing levels has been conducted in the United States.

Numerous studies also conclude that more direct care time is associated with better care for residents (Harrington et al. 2000b; Linn et al. 1977; Schnelle et al, 2004; Spector and Takada 1991). In their analyses of 14, 140 NHs in the United States, Harrington et al. (2000a) concluded that 4.55 hours of care per resident-day are required to improve NH quality care. The Centres for Medicare & Medicaid Services (2001) in the United States found that a total of 4.1 hours of direct care per resident day (1.3 registered nurse and licensed practical nurse hours per resident day and 2.8 HCA hours per resident day) is the threshold level of care. Any increases in direct care hours beyond that point will still provide improvements in quality of care, but at a declining

rate. However, across Canada and the United States, there is great variation in NH staffing levels (Berta et al. 2006; Harrington et al. 2012; McGregor et al. 2005; McGregor et al. 2010). In the United States, 39 states have mandated minimum staffing levels ranging from 1.76 (Oregon) to 3.6 (Florida) hours of care per resident day (Mueller et al. 2006). In Canada, total nurse staffing hours vary between 2.13 and 3.30 hours per resident day in British Columbia (McGregor et al. 2010), while in Ontario, nursing and personal care hours per resident day ranged from 1.9 to 5.1 hours per resident day (with a mean of 3.12 hours per resident day) (Harrington et al. 2012). This recommendation is nearly 1 additional hour of care per resident daily than is currently required in Manitoba (3.6 hours) (Government of Manitoba 2007).

Prior to 2007, the province of Manitoba utilized a case-mixed payment system to fund NHs, where facilities received funding for staff based on the care needs of residents (Government of Manitoba 2007). When individuals were admitted to a NH, they were assigned a dependency level or level of care, ranging from 1 (lowest) to 4 (highest). These levels were in turn based on residents' ability to complete activities of daily living tasks (ADLs, feeding; dressing; bathing), plus their help needed for professional interventions to assist with oxygen therapy, intravenous medications, and behaviour management (Doupe et al. 2006). An individual assigned a level of care of 1 would require approximately 0.5 hours of nursing care per 24 hour period while an individual assigned a level of care of 3 or 4 would require at least 3.5 hours of nursing care per 24 hour period (Doupe et al. 2006).

In 2007, staffing levels in NHs were standardized so that residents receive 3.6 hours of direct care from a combination of registered nurses, licensed practical nurses, registered psychiatric nurses, and HCAs (Government of Manitoba 2007). Funding for staff no longer depended on a resident's level of care. To date there is no evidence demonstrating how this

change in funding structure has affected NH staff levels (i.e., increased, decreased, or remained the same).

## 2.4 STAFF MIX

Staff mix, or skill mix, is the "composition of the nursing staff by licensure or educational status" (Van den Heed et al. 2007) and "commonly refers to the combination of three categories of nursing personnel – RNs [registered nurses], LPNs [licensed practical nurses], and HCAs [health care aides aides]" (Rantz et al. 2004). Typically, the staff mix in the NH environment is composed of 70.0 percent health care aides, 10.0-14.0 percent registered nurses and 14.0-20.0 percent licensed practical nurses (Harrington et al. 2009).

The relationship between staff mix and quality of care is not linear, and both staff mix and overall staff levels work together to influence quality of care (Harrington et al. 2009). Studies have shown that a staff mix consisting of a higher percentage of registered nurses to other nursing staff is positively related to quality of care (Harrington et al. 2009). A higher professional-to-non-professional nursing ratio is also associated with greater coordination of care processes in the NH (Castle & Engberg 2008). Nicholas Castle and John Engberg (2008) found that, on average across NHs, 25% of care was provided by registered nurses.

Increasing staff levels are also associated with improvements in NH quality care. Zhang & Grabowski (2004) demonstrate that a greater volume of nursing staff (registered nurses, licensed practical nurses, and health care aides) is associated with decreased pressure ulcer rates. A greater proportion of registered nurses compared to other nursing staff has also been associated with better clinical outcomes such as less weight loss and deterioration in the ability to perform activities of daily living (Castle &Anderson 2011; Horn et al. 2005; Konetzka et al. 2008); fewer urinary tract infections (Konetzka et al. 2008); fewer reports of pain (Castle &

Anderson 2011); lower pressure ulcer rates (Bostick 2004); and a lower likelihood of catheterization (Castle & Anderson 2011). According to Jane Bostick (2004), an increased registered nurse presence is necessary in the NH environment to address the increasingly complex health care needs of older adults.

A greater proportion of health care aides has also been associated with fewer clinical problems in NH environments (Castle & Anderson 2011; Horn et al. 2005; Ooi et al. 1999; Spector et al. 2007; Zhang & Grabowski 2004; Zimmerman et al. 2002), and fewer infections (Zimmerman et al. 2002). In a study conducted in 21 Californian NHs, NHs with the highest number of HCAs were found to perform significantly better in 13 out of 16 measures used to assess quality of care as compared to NHs with fewer HCAs (Schnelle et al. 2004).

HCAs play an integral role in the care provided to residents in NHs. A study conducted in NHs in six Midwest states in the United States found that HCAs view their relationship with residents to be a very important determinant of the quality of care they provide (Bowers et al. 2000). This study found that HCAs were able to develop and build relationships with residents while providing direct care. These relationships in turn led to care being provided in a more personalized manner as the HCAs were able to learn the individual preferences of each resident (Bowers et al. 2000). Ensuring that the HCAs had adequate time to build these relationships helped ensure that care was provided in a professional, yet affectionate manner that met the individual needs and preferences of each resident (Bowers et al. 2000).

Some evidence shows that the type or mix of staff in NHs may be more important than the total number of nursing hours of care provided (Stears et al. 2007). When considering quality of care in the NH environment and potential staffing and policy changes, it is imperative that decision-makers examine care processes more thoroughly. Without knowing how staff organize

their time, it is challenging to the understand the extent to which NH reform policies should focus on restructuring care processes or increasing minimal staff levels. As HCAs provide the greatest volume of NH care to residents, it is particularly important to focus on the role of HCAs in NHs, and how HCAs organize their time within this care environment.

## 2.5 Understanding the Role of Health Care Aides in Personal Care Homes

Health care aides (HCAs) are unregulated personnel who typically work under the supervision of a regulated health care worker, such as a registered nurse (RN). Typical responsibilities in the NH environment for HCAs include providing personal care to residents, such as mobilizing, dressing, bathing, and grooming, and providing assistance with eating (Cranley et al. 2012).

HCAs provide the majority (60.0 – 90.0 percent) of direct (or essential) care to NH residents (Banasak-Holl and Hines 1996; Bowers et al. 2003; Cranley et al. 2011; Cranley et al. 2012; Harrington et al. 2000a; Harrington et al 2000b; Harrington et al. 2012). As a result, HCAs possess a detailed knowledge of the residents that they care for, such as the residents' biographical and vocational histories (Kontos et al. 2010). The amount of time that HCAs spend with residents contributes to their ability to understand residents' behaviours and provide person-centered care (Kontos et al. 2010).

Studies have found that HCAs, despite reporting high levels of exhaustion and cynicism, also report high levels of job efficacy (Norton et al. 2012) and want to be included in the care planning process for residents (Caspar and O'Rourke 2008). Despite the fact that HCAs provide the majority of direct and bedside care to NH residents, Caspar & O'Rourke (2012) report that 44.5 percent of HCAs are rarely, if ever, asked for their opinion regarding the care of residents. This same study reports that 54.1 percent of HCAs reported that they were rarely, if ever, asked by supervisors for their opinions on ward management issues. The study also found that HCAs

did not feel respected by their supervisors, nor did they feel like they possessed the ability to influence the type and/or quality of care they provided (Caspar and O'Rourke 2012).

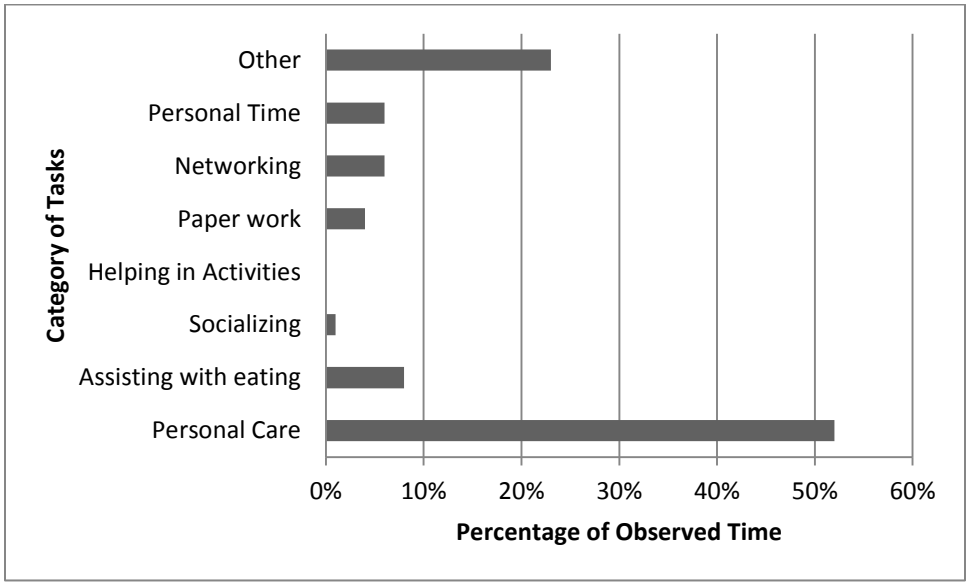
When given the opportunity, HCAs are able to engage in quality improvement initiatives at the bedside, working in a collaborative environment (Norton et al. 2012). HCAs that report feeling empowered and part of the team also report experiencing lower levels of burnout and feeling increasingly committed to their job (Norton et al. 2012). Therefore, focusing on HCAs and the types of care they provide in the NH environment is extremely important.

What type of tasks do HCAs perform and how do they organize their time? With some noted exception, the literature to date in this area is particularly sparse. An Australian work sampling study conducted by Esther Munyisia and colleagues examined the amount of time HCAs spent on categories of tasks in the NH environment. The study recorded 5,276 activities for personal carers (similar in scope to HCAs) in one NH. The NH was divided into two different "houses" – one identified as the "high care house" for residents that fully depended on nursing staff to accomplish all activities of daily living. The second, identified as the "low care house" for residents with dementia and other individuals that required minimal care assistance (2011). These activities were grouped into eight categories: direct care activities (all nursing activities performed in the presence of a resident such as bathing, toileting, oral care, and feeding); medication administration; communication activities (sharing information about a resident with colleagues, staff orientation, and receiving or making phone calls); documentation activities (reviewing resident information, reading notes, making notes, etc.); indirect care activities (stocking supplies, equipment set-up, etc.); personal activities (breaks, personal phone calls, etc.); in-transit (time between tasks); and others (Munyisia et al. 2011). During a period of five days, 52 personal carers were observed. The greatest proportion of personal carers' time in the

"low care house" was spent on communication activities (42.6 percent), followed by direct care (14.9 percent), and documentation (11.8 percent) (Munyisia et al. 2011). In the "high care house," personal carers' spent the greatest proportion of time on direct care (40.2 percent), followed by communication (34.4 percent) and indirect care (8.9 percent) (Munyisia et al. 2011).

Anastasia Mallidou and colleagues (2013) examined HCAs' use of time in a Canadian NH. This time-motion study directly observed HCAs at work in a British Columbian NH and quantified the amount of time they spent on certain categories of tasks. The categories of tasks include: personal care; assisting with eating; socializing; helping in activities; paper work; networking; personal time; and other. Personal care (i.e., activities taking place in private areas such as the resident's room such as continence and toileting, dressing bathing, etc.) comprised 52.0 percent of observed HCAs' time (Mallidou et al. 2013). The amount of time HCAs spent on other categories of tasks is depicted in Figure 3. For example, assisting with eating comprised 8.0 percent of observed HCAs' time and assisting with activities comprised only 1.0 percent HCAs' observed time. Nearly one-quarter (23.0 percent) of HCAs' observed time was classified as other.

**Figure 3: Percentage of Health Care Aide time spent in each activity**




(Source: Mallidou et al. 2013; Copyright Permission – Appendix A)

From their research, Mallidou et al. (2013) report HCAs spend 42.0 percent of a day shift (3 hours and 20 minutes working time) completing one-minute to three-minute activities (Mallidou et al. 2013). Just over one quarter (27.0 percent) of their time was spent in activities that did not involve residents; and during 69.0 percent of the time HCAs worked with residents alone, without involving other staff (Mallidou et al. 2013). The authors concluded that the work environment and culture of HCAs leads to residents experiencing fragmented care and the inability to form trusting relationships with care providers (Mallidou et al. 2013). The study recommended that HCAs' routine practices should be restructured in order to avoid interruptions when completing a task, and to increase the amount of time spent with the resident (Mallidou et al. 2013). However, as shown in Figure 3, the tasks were broadly defined as eight overarching categories, making it challenging to understand specific tasks HCAs are responsible for. Overall,

gaps in the literature currently exist regarding the tasks HCAs are responsible for in the NH environment and how best to classify these tasks.

## 2.6 The Need for a Taxonomy

While much research has been conducted on NHs and staff levels, only a limited number of studies have examined the specific types of tasks that HCAs perform. The majority of the literature on NH staff levels focuses on the duration of time required to care for residents, staff to resident ratios, with much less information provided about the types of tasks that NH care providers perform, and how they approach these tasks. As well, there is currently no framework available to help researchers, policy makers, or health care providers organize these tasks into different components or domains. Such frameworks are important for better understanding the work HCAs are responsible for in the NH environment. A taxonomy is a system of describing the way in which the different tasks are related by putting them in groups (similar in scope to a framework). Taxonomies have been used in many areas, such as education to evaluate learning outcomes (Biggs et al. 2014), psychology to better understand anti-social behaviours (Moffitt 1993), and computer science to categorize algorithms (Scharstein & Szeliski 2002) to provide several select examples.

Many existing frameworks in the NH and health care related literature focus on time management. For example, a time management matrix developed by Stephen R. Covey and colleagues (1994) which is based on the principles of importance and urgency represents a useful strategy to help rank the urgency and importance of tasks based on time management. It is divided into four quadrants; quadrant 1 represents activities that can be classified as important and urgent (Covey et al. 1994). Quadrant II represents activities that can be classified as

"important, but not urgent", while quadrant III includes tasks categorized as urgent but not important and finally quadrant IV which represents tasks that are neither important nor urgent. However, importance and urgency are both based on the concept of time and it does not allow for a discussion of importance based on a different concept, such as quality of care or quality of life for the resident of a NH.

The concept of "institutional time" and the predominant task-oriented culture of many NHs, discussed by Elaine Wiersma (2012), leads to an increased focus on physical care, similar to the findings of the task-oriented or institutional model of care body of literature. This body of literature provides some useful concepts to aid analysis and discussion of the tasks HCAs are responsible for in the NH environment. The task-oriented (institutional model of care) body of literature emphasizes completing tasks, first and foremost (e.g., feeding, dressing, documenting, and medicating) (Brownie & Nancarrow 2013; Canadian Healthcare Association 2004; Flesner 2009; Gnaedinger 2003; Kane 2001; Sherwin & Winsby 2010; Swagerty et al. 2005). According to this medical or hierarchical model, work in NH environments is highly scheduled and focused on task completion (Gnaedinger 2003). Staff, such as HCAs, must follow a rigid schedule. When one single facility must be responsible for delivering medical and nursing care in addition to providing assistance with the activities of daily living (e.g., help with dressing, bathing, feeding, etc.), the medical model and norms of decision-making can begin to blend into other aspects of the residents' lives (Sherwin & Winsby 2010). As residents' care needs become heavier (increased age of residents at time of admission, higher level of acuity, increased complexity of care needs), increased time is necessary to provide care leaving less time to focus on social care (Gnaedinger 2003).

On the other hand, the resident-centred (cultures of care) literature places a much greater emphasis on the psychological, social, and spiritual elements of life (Canadian Healthcare Association 2004). It is also referred to as person-centred care, individualized care, consumer-directed care, and patient-centred care in the literature. This social model of care emphasizes the abilities and individuality of each resident and encourages staff, such as HCAs, to provide care and support in a flexible and individualized manner (Gnaedinger 2003). Again, however, it does not provide a detailed list of tasks health care aides are responsible for nor does it help individuals better understand how to categorize tasks or what to specifically focus on, other than the social aspects of care.

The BASICS hierarchy, another type of framework in the health care-related existing literature, is a "biopsychosocial model of needs arranged hierarchically in ascending order of satisfaction, that is, from the most essential life-sustaining to the high order domains which give lift its meaning" (Ronch 2004: 68).The needs in the model are as follows: **B**iological; **A**ctivities of daily living; **S**ocietal; **I**nterpersonal; **C**reative; and **S**ymbolic. The most resources in NHs are spent on the biological and activities of daily living needs (Ronch 2004), with less focus and resources spent on the latter four needs. A culture change in NHs towards resident-centred care would suggest an increased provision of individualized care (Caspar et al. 2009) and more resources spent on the societal, interpersonal, creative, and symbolic needs of residents. These six needs represented by the BASICS hierarchy mirror the five dimensions of health (physical, emotional, spiritual, social, and intellectual). While a hierarchy such as BASICS can help to categorize the tasks that HCAs perform, it is not sufficient on its own. It would be difficult to determine which of the dimensions each task fit best.

Frameworks such as Covey's time management matrix (Covey et al. 1994), and Wiersma's concept of "institutional time" (Wiersma 2012), both provide useful insight into the decision-making process when considering time management. The task-oriented and resident-centred literature provides extensive information on two different frameworks of care. However, the existing literature does not include a framework which helps individuals know how to group HCA tasks. A strategy to rank the tasks based on their relative importance is also missing. Which tasks are most important? On which tasks should the most time be spent? While it is impossible to have a framework or tool that includes every possible task a HCA may be responsible for in this type of care environment, a framework or tool is needed to help understand the concepts and constructs more clearly. This study aims to fill this gap by developing a tool (or taxonomy) which provides a comprehensive list of tasks health care aides are responsible for in a personal care home environment as well as a way to categorize these tasks and rank them based on their relative importance by utilizing the existing frameworks and models to create something new. The development of the tool will be discussed in Chapter 3.

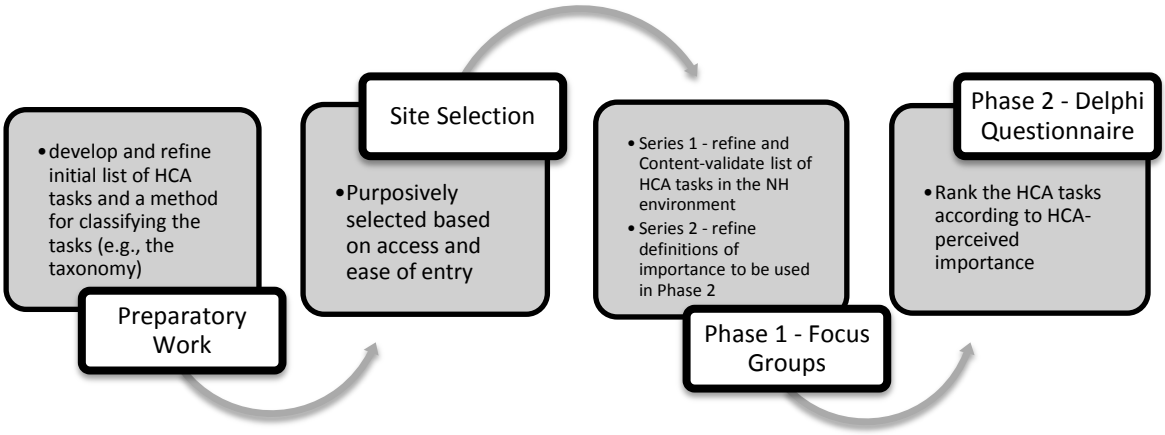
# CHAPTER 3: METHODOLOGY

This study was conducted between May 2015 and September 2015 in two phases using a mixed methods approach (both quantitative and qualitative data collection) to identify the range and categories of activities that HCAs perform in a NH setting between the hours of 7:30 AM and 3:30 PM. The first phase consisted of two series of focus group. The purpose of the first series of focus groups (N=4) was to refine and content-validate the list of tasks. A second series of focus groups (N=5) was used to further refine and verify the definitions of importance that were used in Phase Two.

In Phase Two of the research the Delphi technique was employed with HCAs to reach consensus on the relative importance of tasks they perform, from each of the perceptive of tasks urgency, as well as the quality of care and quality of life of the resident. A schematic of these research activities is provided in Figure 4.

A taxonomy was created to classify the list of tasks into domains and to guide the interpretation of the results of this research study. The taxonomy was developed in part from the literature presented in Chapter 2 of this thesis, and discussions with key stakeholders in the field of long-term care. Details of this taxonomy are presented in this chapter.

**Figure 4: Schematic of Methods**




All results in this research pertain to HCA tasks performed between 7:30 AM and 3:30 PM (the day shift). This time period was chosen based on the recommendation of the Director of Long-Term Care of the chosen facility, Misericordia Place, as it is typically the busiest (i.e., the most activities take place during this time period). This decision was consistently corroborated in the literature (Mallidou et al. 2013; Munyisia et al. 2011) as well as numerous observational studies that also occurred in similar settings between this time period (Barton et al. 1980; Davies et al. 2000; Huijben-Schoenmakers et al. 2009; Mallidou et al. 2013; Munyisia et al. 2011; Westbrook et al. 2008).

## 3.1 THE TAXONOMY

As discussed in the previous chapter, preparatory work was conducted to aid in the analysis of the results, including the development of the taxonomy. The development of the taxonomy took place in two sequential steps. First, an extensive literature review of existing frameworks and

concepts was conducted. The task-oriented vs. resident-centred body of literature, the BASICS framework (Ronch 2004) and the five dimensions of health (refer to section 2.6, Chapter 2) all collectively pointed to using similar terms or concepts in the new taxonomy. These terms became the domains of the taxonomy: medical care tasks; social care tasks; and indirect tasks. These domains were chosen based the academic literature which discussed increasing complexity of care (medical domain) (Brownie & Nancarrow 2013; Canadian Healthcare Association 2004; Flesner 2009; Wiersma 2012) versus the importance of psychosocial care (social domain) (Canadian Healthcare Association 2004; Gnaedinger 2003).

The medical care task domain was based on the task-oriented (institutional model of care) literature and encompassed the biological and activities of daily living needs of the BASICS hierarchy as well as the physical dimension of health. The social care task domain incorporated the resident-centred literature with a greater priority on the societal, interpersonal, creative, and symbolic needs of the BASICS hierarchy and the emotional, spiritual, social, and intellectual dimensions of health. Finally, the indirect task domain incorporated tasks that are not directly related to the resident's care but are required to be completed to maintain the physical environment.

Second, the final list of HCA tasks (which will be discussed in greater detail in Chapter 4), was reviewed by myself and a committee member to ensure the tasks could be classified into the domains of the taxonomy (Table 1). The committee member was solicited as an expert based on their experience and position in the long-term care sector. The appropriateness of these classifications was discussed and approved by all members of my committee.

**Table 1: Taxonomy of Health Care Aide Tasks**

| Medical Care Tasks Domain | Social Care Tasks Domain | Indirect Tasks Domain |
|---|---|---|
| • Continence and toileting<br>• Dressing and grooming<br>• Bathing<br>• Nail care<br>• Oral care<br>• Skin care<br>• Preparing the resident for afternoon nap<br>• Turning/repositioning<br>• Exercise/ range of motion activities<br>• Assisting with breakfast<br>• Assisting with lunch<br>• Assisting with snacks<br>• Transporting the resident<br>• Answering call bells<br>• Hourly checks on residents | • Social care one-to-one with a resident<br>• Social care with a group of residents<br>• Social care with family member(s) of resident(s)<br>• Supervising recreational activities<br>• Participating in recreational activities with residents | • Formal care planning<br>• Informal care planning<br>• Paperwork<br>• Preparing snacks at non-designated snack times<br>• Restocking supplies<br>• Cleaning equipment<br>• Housekeeping<br>• Making beds<br>• Laundry<br>• Transporting a specimen to the lab<br>• HCAs' personal time |

## 3.2 Selection of a Personal Care Home

One NH, Misericordia Place, located within the Winnipeg Regional Health Authority (WRHA) in Winnipeg, Manitoba, was purposively selected based on access and ease of entry for data collection. The Director of Long-Term Care at Misericordia Place offered her assistance with participant recruitment and allowed HCAs to participate in this research during their paid work time.

Misericordia Place is a 100-bed facility located in downtown Winnipeg and opened in February 2000. It is attached to Misericordia Health Centre through an enclosed walkway. This NH consists of private rooms with private bathroom facilities for all residents and sees, on average, 40 new admissions annually (Misericordia Health Centre, n.d.). Misericordia Place is a

faith-based, not-for-profit facility and provides long-term care in accordance with the Catholic tradition of ethical and spiritual values through the legacy of the Misericordia Sisters.

## 3.3 Selection and Recruitment of Research Participants

Research participants were defined as HCAs working solely in the NH setting. HCAs were recruited with the assistance of the resident care managers at Misericordia Place for both phases of this study. To be eligible to participate in this research, participants must have had experience working the day shift (7:30 AM – 3:30 PM) in the NH setting (i.e., at least 8 shifts per month), had worked at Misericordia Place for a minimum of six months, and were proficient in the English language (both oral and written).

Two resident managers of Misericordia Place approached 20 HCAs to participate in the Phase 1focus groups over a two week span of time. These HCAs were from 3 different units within Misericordia Place to help ensure that HCA opinions were provided from different work cultures. The Resident Managers distributed an invitation package to potential study participants which contained: (1) a cover letter from the Director of Long-Term Care (Appendix B) indicating her support of the research study, and (2) a letter of introduction and invitation to participate from the research student (Appendix C-D). This letter also included a phone number and email address to contact the student researcher with any questions or concerns. Interested study participants were asked to contact their manager who would then schedule times for the focus groups (and subsequently the Delphi questionnaires in Phase Two) to occur based on their scheduled work time and availability.

## 3.4 Phase 1: Focus Group Discussions

A draft list of tasks was developed from the existing observational study (Mallidou et al. 2013), plus other literature that described the tasks HCAs complete on a routine basis described previously (e.g., Knopp-Sihota et al. 2015; Munyisia et al. 2011; Pelletier and Duffield 2003) as well as discussions with key stakeholders from the field of long-term care.

Meetings with several key WRHA stakeholders were used to further develop and refine the initial list of tasks prior to the focus groups with HCAs. Key stakeholders included: the Chief Nursing Officer, Director of Resident Services, and the Chief Operating Officer of Deer Lodge Centre; the Director of the WRHA Long-Term Care Program; Clinical Nurse Specialists of the WRHA Long-Term Care Program; numerous other Directors of Care during a Directors of Care Team Meeting; the Director of the Long-Term Care Program at Misericordia Health Centre; and managers and team members at Misericordia Health Centre during a Long-Term Care Program meeting at Misericordia Health Centre. Through these initial discussions with key stakeholders, it was determined that existing categories should be divided into sub-tasks to increase the specificity of the HCAs' role in this complex care environment. This means that the category of "assisting with eating," for example, would be divided into three tasks: preparing the resident for the meal; assisting the resident with eating the meal; and post-meal tasks. Discussions with key stakeholders were also used to initially develop the three definitions of importance (task urgency; quality of care; and quality of life) for use in Phase Two (Delphi questionnaire) of this study.

### 3.4.1 Phase 1 Data Collection – Focus Groups

Focus groups are a type of group interview which "capitalise on communication between research participants to generate data" (Kitzinger 1995). Data can be collected relatively quickly

from a group of participants as opposed to one-to-one interviews. The group interaction that occurs during focus groups is a valuable part of the method (Kitzinger 1995). Researchers can learn not only what people think from focus groups, but also gain insight into how participants think and why they think a certain way (Kitzinger 1995; Rabiee 2004). Focus groups can encourage participation from those who may not want to be interviewed on their own. This methodology also encourages participants who may feel they have nothing to say, to contribute to the discussion that is initiated by other participants (Kitzinger 1995). However, focus groups may inhibit participants who have dissenting opinions to share their thoughts with the group. One or several participants may also control the conversation, limiting how much other group members participate (Kitzinger 1995).

Historically, focus groups were used to gain opinions regarding films, television programmes, advertisements, and health education messages (Basch 1987; Kitzinger 1995; Rabiee 2004; Ritchie et al. 1994). In the present study, the focus groups were not used to gain the HCA participants' opinions regarding a particular topic per se. Rather, the series of focus groups was used to help generate a list of tasks and demonstrate the ability of HCAs to distinguish between the three definitions of importance.

This method was chosen for this particular study because it allowed the HCAs to discuss the tasks they complete in an open environment with their colleagues, rather than one-on-one with an interviewer. The HCAs commented that they felt more comfortable in a small group setting and were able to talk to each other, comment on their colleagues' thoughts and share their own experiences.

Traditionally, focus groups involve 6 – 10 people and are guided by an interview guide (Rabiee 2004). Focus groups are audio-recorded, transcribed, and data are analyzed using software, such as NVivo, to identify themes (Bringer et al. 2004). It must be noted however, the focus groups conducted in this study utilized some, but not all of the processes of traditional focus groups. By necessity, the focus groups in the present study were smaller in size, no formal set of interview guides were used, and while the focus groups were audio-recorded and transcribed, data was not analyzed by software to identify themes.

The Director of Long-Term Care at Misericordia Place agreed to give the HCAs time to participate in the focus groups during their shift so that the HCAs did not have to participate on their personal time. The specific time of 2 PM was chosen as this was typically a less busy time for the HCAs during the day shift. The focus group occurred on site at Misericordia Place and was audio recorded. The Director of Long-Term Care and Resident Managers were aware of the confidentiality of the focus groups and were not present in the meeting room where the focus groups occurred. The research student provided the HCAs with refreshments during all focus groups and each focus group lasted approximately 30 minutes.

The first series of focus groups with HCAs took place during week one of data collection. This set of focus groups was used to refine a comprehensive list of HCA tasks completed in a NH setting. During week one, 4 focus groups over two days took place in a small group setting of 2-3 HCAs at a time, totaling 10 HCA participants. Prior to beginning each focus group, the research student reviewed the consent from with the HCAs and allowed time for questions and clarification. Each focus group was conducted in the same manner, following a set agenda (Figure 5) to ensure consistency between each group. Each subsequent group of HCAs was

provided with a “living” document of tasks and categories that encompassed the previous groups’ comments and revisions.

During each focus group, HCAs were asked to reflect on the tasks that they complete during a day shift and asked to share these tasks with the group. Each group discussed these tasks and was asked to provide as much detail as possible about what all the tasks they are required to do involve.

**Figure 5: Focus Group Agenda - Week One**

1. **Introduction of Research Student and Project:** The focus group begun with the research student introducing herself and her role in the focus group. She provided a short overview of the purpose of the focus group and the research project overall.

   The research student then provided the health care aide participants with consent forms and answered any questions the health care aides had. The health care aides completed the consent form process.

   The research student reminded that health care aides that all discussion that takes place during the focus group is confidential and must remain within the focus group.

2. **Health Care Aide Introductions:** The health care aides were asked to introduce themselves and provide a brief summary of their background/experience in the personal care home setting.

3. **Developing a List of HCA Tasks:** The health care aides were shown a draft list of HCAs tasks and categories of tasks that was developed based on an existing observational study (Mallidou et al. 2013), through conversations with key decision-makers, and through the informal observation of a health care aide at work.

   The health care aides were asked to reflect on this list and think about the tasks that they complete during a day shift for several minutes. The research student then asked the health care aides for their suggestions and comments regarding those tasks. Tasks were written down on a whiteboard and discussion occurred regarding these tasks.

   Once the health care aides felt that a complete list of tasks had been developed, they were also asked to reflect on the categories (e.g., personal care) and sub-categories (e.g. dressing; toileting; etc.) to determine if they were appropriate or if alternate categories and sub-categories should be used. Examples of categories and sub-categories were provided to serve as a foundation or starting point for the discussion.

4. **Closing Remarks:** The health care aides were informed that they would receive a list of the tasks that was created during the focus group the next day. They were asked to reflect on this list during their next 2-3 day shifts to see if it accurately reflected all the tasks that they are responsible for. They were also asked to make note of any tasks they felt were not represented on the list and/or any comments they would like to discuss at the next focus group. The health care aides were thanked for their time.

Once each group of HCAs felt that a comprehensive listing of all tasks had been compiled, they were then provided with a copy of the list and asked to reflect on the list during approximately 2-3 working shifts to ensure all activities were accounted for. The HCAs were also asked to record any tasks missing from the list.

The second series of focus groups during week two of data collection with the HCAs were conducted in a similar manner as the first series. Five (5) focus groups of 2-3 HCAs occurred during this second series, on a total of 12 HCA participants. Of these, 6 HCAs had previously participated in the first series of focus groups and 6 HCAs were new participants, due to scheduling and availability conflicts. Each focus group was conducted in the same manner, following a predetermined agenda (Figure 6).

**Figure 6: Focus Group Agenda - Week Two**

1. **Opening Remarks:** The Principal Investigator had begun the meeting by thanking the health care aides for their participation in the second focus group. She then explained that the purpose of this second focus group was to refine the list of health care aide activities that was developed during the first focus group and to gain the health care aides' thoughts and opinions regarding the importance of the tasks.

2. **Discussion regarding the list of tasks:** The health care aides were asked to reflect on their time using the list during several day shifts. They were then asked to share their experiences and comments.

   Were there any tasks that were not on the list that you are responsible for? Were there any tasks that should not be on the list?

3. **Discussion regarding definitions of importance to be used in Phase 2.** The health care aides were asked to review the three draft definitions of importance provided and share their thoughts and opinions.

   Do these definitions make sense? Can you differentiate between the three?

   Can you apply them to the tasks you are responsible for?

4. **Closing Remarks:** The Principal Investigator thanked the health care aides for their time and participation. She informed them that they will receive the final results of the study following the completion of the study. The health care aide participants were reminded that if they should have any questions, they are free to contact her (the Principal Investigator) or her advisor (Dr. Malcolm Doupe) at any time.

During the second series of focus groups, HCAs were also provided with draft definitions of importance that would be used during Phase 2 of the study (Delphi questionnaire). These definitions were chosen based on consultation with my committee and based on the academic literature which discusses the importance of quality of life and quality of care, (Bowers et al. 2000; Bowers et al. 2011; Castle 2008; Robichaud et al. 2006) as well as issues which refer to timing and task urgency within the NH environment (Mallidou et al. 2013; Wiersma 2012). This series of focus groups was used to verify with HCAs that these three definitions were appropriate metrics of importance. They were asked to review and discuss the definitions (Figure 7) to determine if they understood the differences and could define scenarios where different levels of importance would be applied to a given task.

**Figure 7: Preliminary Definitions of Importance provided during second series of focus groups**

**Time Management**

The ***relative importance*** of the task to time management (i.e., there is a time constraint – the task must be completed within a certain timeframe.) using the explanation below for guidance:

A task ranked as **highly important** must occur within a narrow, set period of time and must take immediate priority. The task is important because it needs to be done immediately, regardless of what other task(s) you may be doing at the time. Tasks that are important, but have a wider period of time during which they must be completed (e.g., at some point during your shift as long as they are completed before you leave for the day, regardless of the other tasks you may have to do as well) may be ranked as **moderately important**. Tasks that have no time constraints in which they must be completed (e.g., if the task is not completed during your shift, it is acceptable for the next shift to complete it) may be ranked as **less important**.

**Quality of Care**

The effectiveness, responsiveness, and safety of care provided to the residents to ensure their physical health and well-being (this plays a large role in determining quality of life of the resident)

**Quality of Life**

Relates to the personal care home resident's ability to live at their highest physical, mental, emotional, and social potential including things like autonomy (being able to make their own choices), dignity, individuality, comfort, well-being and security, relationships and meaningful social activity.

Similar to the first series of focus groups, all focus group participants were provided with a "living document" of the definitions which encompassed the previous groups' comments and revisions. These focus groups were also used to gain initial insights in terms of how HCAs perceived the importance of tasks. While an in-depth qualitative analysis of the focus group audio recordings did not occur, the main themes of the focus group conversations were identified. Focus groups continued until data saturation was reached, which occurred after 5 focus groups sessions which were composed of 2-3 HCAs each.

## 3.5 PHASE TWO: DELPHI QUESTIONNAIRE

The second phase of this study was conducted using a two-round Delphi consensus process. The purpose of this phase was to classify and rank the HCA tasks refined and content-validated during Phase 1. The tasks were ranked according to HCA-perceived importance of a) the urgency by which the task needs to be completed and b) the impact that completing this task has on both the quality of care and quality of life of the resident.

### *3.5.1 EXPLAINING THE GENERAL DELPHI PROCESS*

Participants were selected based on a convenience sample. Health care aides who participated in Phase 1 were invited to participate in Phase 2 and had the option of providing consent for Phase 2 during the Phase 1 consent process. Additional health care aides were recruited with the assistance of resident managers and were subsequently scheduled a date and time to complete the questionnaire. Prior to completing the Delphi questionnaire, consent was obtained from all participants who had not previously consented to the study.

The Delphi technique is defined as "a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem" (Linstone and Turoff 1975). Key aspects of the Delphi technique include providing feedback of the knowledge the group contributed, some assessment of the group opinion or viewpoint, an opportunity for the group to revise their original view, and a degree of anonymity for each individual's responses (Linstone and Turoff 1975).

The conventional Delphi technique is completed by paper and pencil. A questionnaire is developed and forwarded to a large group of people to complete. Once the respondents return the

questionnaire, the results are summarized and the next round of the questionnaire is developed, based on the results of the prior round. The second questionnaire is then sent back to the original group to give them an opportunity to revise their responses, based on the anonymous responses of other group members (Linstone and Turoff 1975).

Advantages of the Delphi technique include the ability to reach consensus on a complex issue, and the feedback between Delphi round can generate new ideas (Powell 2003). However, the Delphi process requires a substantial time commitment (depending on the length of the questionnaire and the number of rounds required), and may lead to a "watered down" version of some people's opinion (Powell 2003).

The Delphi technique has been used in a variety of settings in the academic literature. For example, Boulkedid and colleagues (2011) used this process to select health care quality indicators. Other studies have used the Delphi technique to select important clinical areas to lead to quality improvement in nursing homes (Cranley et al. 2012), to select performance measures for ischemic stroke (Holloway et al. 2001), to identify outcome-based indicators to develop a curriculum for a continuing medical education programme (Esmaily et al. 2008), and to identify important competencies required by emergency room nurses when dealing with violence towards women (Lee et al. 2015). The Delphi technique has also been used in areas not directly related to health services research, such as police management (Loo 2002) and interventions to decrease alcohol use in adolescents (Jander et al. 2015).

This technique was chosen for this phase of the present study to gain HCAs' opinions on their perceived importance of the care tasks they completed. In Round one participants were not involved in developing the original list of care tasks. Rather, this list was prepared in Phase 1 of

the present research. HCAs were asked to reach consensus on the relative importance of these different care tasks, using a Likert scale.

Round one of the Delphi questionnaire was completed by health care aides on site at Misericordia Place during scheduled working hours (between 2 PM and 3:30 PM). Health care aides completed the questionnaire in a small group setting (2-5 HCAs), with the principal investigator present to answer any questions they may have had and to minimize ambiguity. The principal investigator verbally explained the Delphi process and questionnaire, following a predetermined script to ensure the instructions did not vary between groups (Figure 8).

**Figure 8: Round 1 Delphi Questionnaire "Script"**

**Delphi Questionnaire – Round 1 Instructions**

The purpose of this study is to gain a better understanding of the tasks that health care aides are responsible for in a personal care home environment and to better understand how health care aides perceive the importance of these tasks.

To accomplish this, you were asked to participate in a Delphi Questionnaire. The Delphi technique is a research method that helps a group of individuals, such as HCAs, reach consensus on an issue, like the importance of the tasks HCAs are responsible for.

There are four sections in this questionnaire. The first section will ask you a bit of information about yourself, such as your age and how long you have worked at Misericordia Place. The remaining three sections will ask you to think about the importance of each of the tasks listed using three different definitions of importance: task urgency; quality of care; and quality of life. Each section includes a definition and a description of the scoring system.

**Instructions:**

For each section:

1. Provide a score for each of the listed tasks based on how important you think each task is using the definition of importance provided in that section.

2. Please provide a written rationale (explanation) that would help others understand your decision.

Please complete each section in order and completely before moving on to the next section.

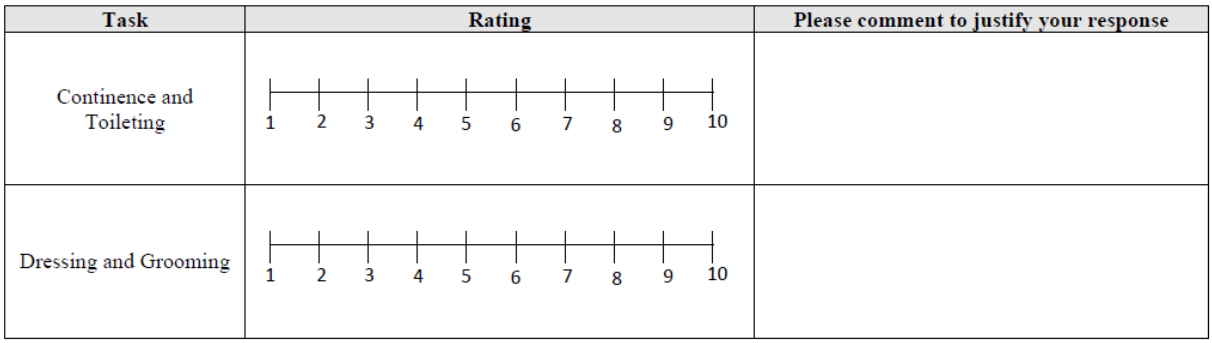
If you have any questions or need clarification, please do not hesitate to ask.

The questionnaire was composed of three separate sections, one section for each of the three definitions of importance used: task urgency, quality of care, and quality of life (see Figure 9 for an example of the Delphi questionnaire and Appendix E for a sample of the questionnaire). The HCAs were instructed to complete each section in its entirety before advancing to the next section in an effort to minimize direct comparisons between the sections. For each section, HCAs were instructed to rank the importance of each of the 31 tasks using a 10-point Likert scale (1 = less important and 10 = highly important). For example, for the “task urgency” definition of

importance, a task was highly important (score=10) if the task must occur within a narrow, set period of time and must take immediate priority. The task was considered important because it needed to be done immediately, regardless of what other task(s) the HCA may be doing at the time. A task may be considered as moderately important (score=5) if there was a wider period of time during which they must be completed (e.g., at some point during your shift as long as they are completed before you leave for the day, regardless of the other tasks you may have to do as well). A task may be considered as less important (score=1) if the task had no time constraints in which it must be completed (e.g., if the task is not completed during the day shift, it is acceptable for it to be completed during the subsequent shift).

Participants were also asked to provide comments to justify/explain their score. HCAs were also asked to suggest any other potential tasks that may have not been included in the original taxonomy, based on their expertise.

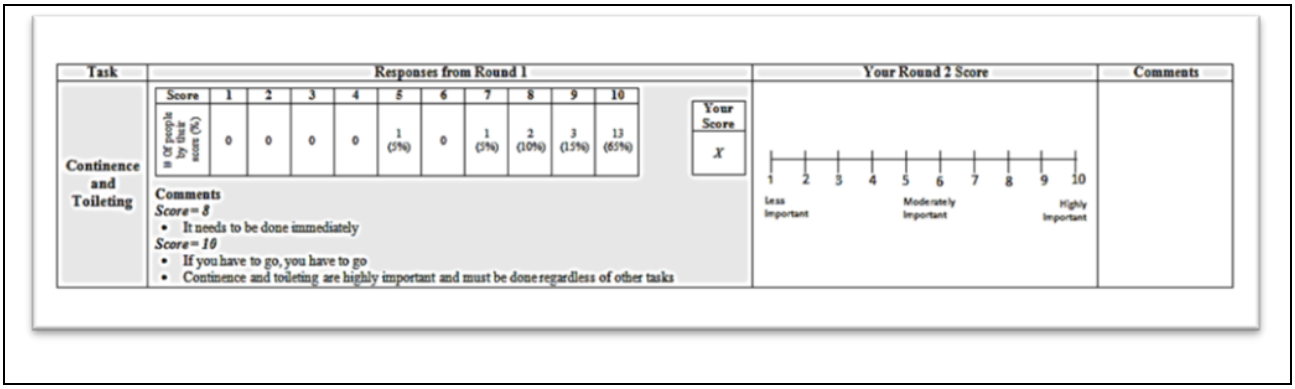
**Figure 9: Example of Round 1 Delphi Questionnaire**




Frequencies of response options (highly, moderately, not important) were determined using Microsoft Excel 2010. A second questionnaire was developed for the next stage of the Delphi process to gain consensus amongst the HCA participants. Round 2 of the Delphi questionnaire consisted of the initial 31 tasks and same three sections (task urgency, quality of

care, and quality of life), and included a breakdown of how the sample scored each task within each section (for each score on the Likert scale, the number and percentage of HCAs that chose that score were displayed). HCAs were able to see how other participants scored each task, were shown their own personal score from Round 1 of the questionnaire, and were provided with the anonymous comments for each task from the first round. An example of the Round Two Delphi survey is provided in Figure 10.

**Figure 10: Example of Round 2 Delphi Questionnaire**




The second round of the questionnaire was completed in the same manner as the first. HCA participants were scheduled a time during paid working hours (between the hours of 2 PM and 3:30 PM) to complete the questionnaire in a small group setting (2-5 HCAs). The principal investigator was on site and present during the completion of the questionnaire to provide clarification to any questions the HCAs had. The principal investigator provided oral instructions as to how to complete the second round of the questionnaire and how to interpret the results presented from Round 1. These instructions were provided to the HCAs in hard copy format in the form of a cover letter attached to each questionnaire. The principal investigator used this cover letter as a script to ensure the instructions given to each group of HCAs were consistent (shown in Figure 11).

**Figure 11: Round 2 Delphi Questionnaire "Script"**

**Delphi Questionnaire – Round 2 Instructions**

Thank you for your participation and responses in Round 1 of the Delphi survey.

The purpose of this study is to gain a better understanding of the tasks that health care aides are responsible for in a personal care home environment and to better understand how health care aides perceive the importance of these tasks.

**Instructions:**

1. For each task, review other peoples' scores and compare this to your own score from Round 1 which is provided for you.

2. Review any written comments to help you understand the rationale for other peoples' scores.

3. Using this information, decide if you wish to edit your personal Round 1 score (it is you choice if you would like to change your score or not) and provide a written rationale (explanation) that would help others understand your decision.

**How to Interpret the Results:**

***EXAMPLE – Continence and Toileting***

***13 (65%)*** of people provided a score of ***10*** for ***task urgency*** – meaning that they felt that addressing this task in a timely fashion was highly important or most urgent.

*Please note, all tasks have been included in the survey again, irrespective of the level of agreement or not.*

### *3.5.2 Determining Consensus*

Following the completion of both rounds of the questionnaire, the results were analyzed and frequencies were determined using Microsoft Excel 2010. In order to aid analysis, the Likert scale rankings were grouped. Ways to group Likert-scale rankings (for example, into less important, moderately important, and highly important) and to define consensus vary widely in

the Delphi literature (Boulkedid et al. 2011; Esmaily et al. 2008; Field et al. 2015; Flores et al. 2014; Valentijn et al. 2015). For example, Debra Field and colleagues (2015) collapsed a 5-point Likert scale into three sub-groups of agree, disagree, and neutral and defined consensus as ≥80% agreement while another study utilized a 3-point Likert scale and defined consensus as ≥70% agreement (Flores et al. 2014). For the purposes of this study, the Likert scale rankings were categorized as follows: 1-3 as less important; 4-7 as moderately important; and 8-10 as highly important (based on Valentijn et al. 2015).

For Rounds 1 and 2 of the Delphi questionnaire, the number and percentage of responses was tabulated using the Likert scale groupings for each of the three key definitions used to examine importance: task urgency, quality of care, and quality of life. Measures of central tendency (mean and median) were also calculated. Finally, each of the 31 scores received an overall Delphi score (based on whether consensus was reached or not and the Likert grouping) and rank, discussed below.

Consensus was defined as ≥80.0 percent of HCAs' ratings were within the same category (that is, 1-3, 4-7, or 8-10) as the observed median. The Delphi score of "high" indicates the pre-determined criteria for consensus was reached for the task and the majority of HCA participants rated the task as highly important. The Delphi score of "moderate" indicates the pre-determined criteria for consensus was reach for the task and the majority of HCA participants rated the task as moderately important and the Delphi score of "less" indicates that the pre-determined criteria for consensus was reach and the majority of HCA participants rated the task as less important. Finally, the Delphi score of "undecided" indicates that the pre-determined criteria for consensus were not reached for highly important, moderately important, or less important.

The 31 tasks were also ranked ordered based on their dispersion of scores and measures of central tendency to determine their relative importance based on the HCAs' responses. Regardless of which domain the task belonged to, tasks were rank ordered first on mean score (highest to lowest). If two or more tasks had the same mean score, dispersion of scores was then used (most agreement to least agreement), and if there was still a tie, the median score (highest to lowest) was utilized to rank order. An average rank for each of the three domains (medical care tasks, social care tasks, and indirect tasks) was also calculated. The individual rankings within each domain were summed and then divided by the total number of individual tasks within the same domain. This was repeated for each of the three definitions of importance.

## 3.6 Ethical Approval

Ethical approval for this study was obtained from the Health Research Ethics Board (HREB) on the University of Manitoba Bannatyne Campus (Appendix F) and the Misericordia Health Centre Research Review Committee (Appendix G). The Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS 2: CORE) was completed September 7, 2012 (Appendix H) and is a requirement for all researchers at the University of Manitoba conducting research that involves human participants. Research access was granted by the Misericordia Health Centre's Research Review Committee (Appendix G). To ensure all information collected during the study was kept private, participants were given a unique study ID. All data were stored on a password protect computer and/or in a locking filing cabinet in a locked room. To further ensure confidentiality, all data will be destroyed following the completion of the study, once sufficient time has been allowed for publishing and the dissemination of research findings.

# CHAPTER 4: RESULTS

Results of this research are presented according to research phase. Phase One of the study was used to content-validate the list of tasks HCAs are responsible for in NHs and to refine the definitions of task importance. The findings of this phase were used in the Delphi Questionnaire (Phase Two), conducted to classify and rank tasks according to HCA-perceived importance of a) the urgency by which the task needs to be completed and b) the impact that completing this tasks has on both quality of care and quality of life of the resident.

## 4.1 PHASE 1 –DEVELOPMENT OF A COMPREHENSIVE LIST OF TASKS

### *4.1.1 DESCRIPTION OF THE STUDY PARTICIPANTS*

Phase 1 focus group participants (n = 16) ranged in age from 22 –60 years of age, with an average age of 46 years (SD = 11.8 years). Participants had, on average, 13.4 years of experience as HCAs (SD = 8.6 years), and worked at MP specifically between 1 – 17 years, or on average, 11.4 years (SD = 6.8) (Table 2).

**Table 2: HCA Focus Group Participant Demographics**

| (n = 16) | Mean | Standard Deviation | Range |
|---|---|---|---|
| **Age** | 46.0 years of age | 11.8 years | 22.0-60.0 years of age |
| **Length of time as HCA** | 13.4 years | 8.6 years | 2.0 years – 33.0 years |
| **Length of Time Employed at MP** | 11.4 years | 6.8 years | 1.0 year – 17.0 years |

### *4.1.2 Focus Groups to Content-Validate list of Tasks*

The first series of focus groups (N=4) conducted during week one of this study were used to refine and content-validate the list of tasks health care aides are responsible for in the NH environment. The initial list of tasks (developed through a comprehensive literature review and discussions with key decision-makers in the long-term care environment) consisted of 21 individual tasks divided into 9 categories: personal care, assistance with eating, social care, helping with recreational activities, transporting, care planning, personal time, paper work, and other duties as assigned (Figure 12).

**Figure 12: Draft list of HCA tasks to be revised and content-validated**

Personal Care
- Continence and toileting
- Dressing and grooming
- Non-daily activities (e.g., bathing, nail care)
- Oral care
- Preparing the resident for sleep
- Repositioning the resident

Assistance with eating
- Breakfast
- Lunch
- Snacks

Social Care
- One-to-one with residents
- Groups of residents
- With family member(s) of resident(s)

Helping with recreational activities/events (e.g., bingo, teas, linen folding, religious services, etc.)
- Participating in the activity
- Supervising the activity

Transporting
- To and from _____

Care Planning
- Formal (e.g., in meetings – HCA meetings, inter-professional meetings, care planning, rounds, family conferences, educational sessions)
- Informal

Personal time (e.g., breaks, socializing with other HCAs, colleagues)

Paperwork (e.g., verbal reporting, written charting, flow sheets, ADL sheets, daily check sheets, communication with charge nurse, etc.)

Other duties as assigned

Building on this initial list of tasks, through the series of iterative focus groups, health care aides self-identified 31 separate tasks categorized into 9 broad categories. All task categories remained the same with the exception of "other duties as assigned" which was renamed "unit-based tasks" (see Figure 13). In the category of personal care, HCAs removed "non-daily activities" as several HCAs noted they did not like this phrase stating that it "just didn't sound right" (HCA participant). "Bathing" and "nail care" became two independent tasks, but remained in the category of "personal care." HCAs stated that while each resident may not receive a bath or nail care on a daily basis, the HCAs are responsible for completing these tasks every shift with select

residents. The tasks of skin care and exercise/ range of motion were also added. Preparing a resident for sleep was revised to preparing a resident for afternoon nap. “Sleep is different than afternoon nap” (HCA participant) and the HCAs must do different things to prepare a resident for a nap versus for sleep in the evening. Under the category of assistance with eating, HCAs added the phrase “assisting with” to breakfast, lunch, and snacks and added the task of preparing snacks at non-designated snack times to the category. Focus group participants increased the specificity of the transportation category by identifying two tasks: transporting the resident (to and from appointments, x-rays, etc.) and transporting a specimen collected from a resident. “Other duties as assigned” was renamed “Unit Based tasks” and seven tasks were included in this category: restocking supplies; cleaning equipment; answering call bells; hourly checks on residents; housekeeping; making residents’ beds; and laundry. The remaining categories and tasks remained unchanged.

## Figure 13: Content-validated list of tasks through HCA focus groups

**Personal Care**
- Continence and toileting
- Dressing and grooming
- Bathing
- Nail care
- Oral care
- Skin care
- Preparing the resident for afternoon nap
- Turning/Repositioning the resident (either in the bed or moving from bed to a chair, etc.)
- Exercise/Range of motion tasks

**Assisting with eating (including handing out meal trays, feeding residents, cleaning the dining area, etc.)**
- Assisting with breakfast
- Assisting with lunch
- Assisting with snacks
- Preparing snacks for residents at non-designated snack/meal times

**Social care**
- one-to-one with a resident
- with a group of residents
- with family member(s) of resident(s)

**Helping with recreational activities (Sunday Mass, bingo, teas, linen folding, special celebrations, etc.)**
- Participating in the activity
- Observing/supervising the activity

**Transporting**
- The resident (e.g., to and from x-rays, ultrasounds, CT Scans, doctor's appointments, dentist appointments, hair appointments, etc.)
- specimen collected from a resident to the lab

**Care planning**
- Formal care planning (e.g., in meetings – HCA meetings, inter-professional meetings, care planning, rounds, family conferences, in-services/mandatory educational sessions, daily meetings, etc.)
- Informal (e.g., conversations with colleagues, family members of residents, etc.

**Paper work** (e.g., verbal reporting, written charting, flow sheets, ADL sheets, daily check sheets, communication with charge nurse, etc.)

**Unit based tasks**
- Restocking supplies
- Cleaning equipment
- Answering Call Bells
- Hourly Checks on residents (or as often as necessary)
- Housekeeping (e.g., tidying residents' rooms, assisting housekeeping staff, etc.)
- Making residents' beds
- Laundry (taking laundry to designated area for laundering, putting away cleaned laundry, removing soiled clothing/linens, etc.)

**Personal time** (e.g., breaks)

Much of the ensuing discussion during the focus groups focused on feelings of being rushed and not having sufficient time to spend with residents. As the HCAs discussed the types of tasks they were responsible for, many began sharing their thoughts and feelings regarding their typical day

and work environment. Many HCAs commented that many residents now require a higher level of care than in the past, yet staffing levels have remain unchanged. One HCA commented "to do really proper care, probably need another couple people, don't have time really as we're always in such a rush. I mean, we always get it done. Our care is really great here but if we only had a little more time…" Another HCA participant shared that they feel rushed while assisting residents with eating, explaining that "we're rushing to make sure that everyone is fed and it takes away from their experience of eating so and then some people eat so slow that maybe sometimes they can't get fed as full as they want to because of time constraints."

When asked to elaborate on tasks related to social care of the residents, many HCAs again provided many stories related to time constraints. Regarding social care one-to-one with a resident, one HCA said "that doesn't happen, scratch that. Unless the person has a one-to-one or is at risk at hurting other residents." Many HCAs agreed that spending time with residents is difficult due to the other tasks they are responsible for. "If there's spare time, I will go and sit with them but there is not enough stimulation for the residents and not enough time" shared another HCA. Finally, another HCA compared how it used to be fifteen years ago with the following story:

> "It wasn't like this all the time. I remember fifteen years ago when this place opened, mostly half of the people were independent, physically, could go to bed themselves and get up themselves. Right now, I remember it was only me and the nurse on evenings. We had time after supper to put the tables together, put a nice cloth out, the nurse would bake some, do an extra snack and we had time to sit, reading poems, reading books. But now, there is no time. Everyone needs full care. You used to do so many extra things. Now, it's so sad."

### *4.1.3 Focus Groups to Verify Definitions of Importance to be used in Delphi Questionnaire*

From the second series of focus groups, HCAs modified the original definitions of importance, and demonstrated that they were able to successfully differentiate between these three definitions of importance provided: task urgency, quality of care, and quality of life (refer to Section 3.3.1, Figure 7 for preliminary definitions). These definitions were refined minimally through an iterative process (Figure 14). As examples, HCAs recommended that the original heading of "time management" be revised to "task urgency." The layout of all three definitions was also revised to be presented in a clearer and more concise manner. For example, HCAs did not like instructions and examples to be provided in one long paragraph. Rather, they preferred a separate line defining highly important, moderately important, and less important with the corresponding Likert scale score. The quality of care definition was simplified to make the definition easier to interpret. The quality of life definition remained the same.

**Figure 14: Refined Definitions of Importance to be used in the Delphi Questionnaire**

**Task Urgency**

The ***relative importance*** of the task to time management (i.e., there is a time constraint – the task must be completed within a certain timeframe.) using the explanation below for guidance:

**Highly Important (10):** If the task must occur within a narrow, set period of time and must take immediate priority. The task is important because it needs to be done immediately, regardless of what other task(s) you may be doing at the time.

**Moderately Important (5):** Tasks that are important, but have a wider period of time during which they must be completed (e.g., at some point during your shift as long as they are completed before you leave for the day, regardless of the other tasks you may have to do as well).

**Less Important (1):** Tasks that have no time constraints in which they must be completed (e.g., if the task is not completed during your shift, it is acceptable for the next shift to complete it).

**Quality of Care**

Relates to your ability to provide highly effective and safe care to the residents to ensure their overall health and well-being (a good care environment).

**Highly important (10)**: the task is important because it greatly impacts the resident's safety and overall health and well-being.

**Moderately important (5)**: the task is important, but it only moderately impacts the resident's safety and overall health and well-being.

**Less important (1)**: the task has little or no impact on the resident's safety and overall health and well-being.

**Quality of Life**

**QUALITY OF LIFE:** relates to the personal care home resident's ability to live at their highest physical, mental, emotional, and social potential including things like autonomy (being able to make their own choices), dignity, individuality, comfort, well-being and security, relationships and meaningful social activity.

**Highly important (10)**: the task is important because it greatly impacts the resident's ***quality of life.***

**Moderately important (5)**: the task is important, but it only moderately impacts the resident's ***quality of life***.

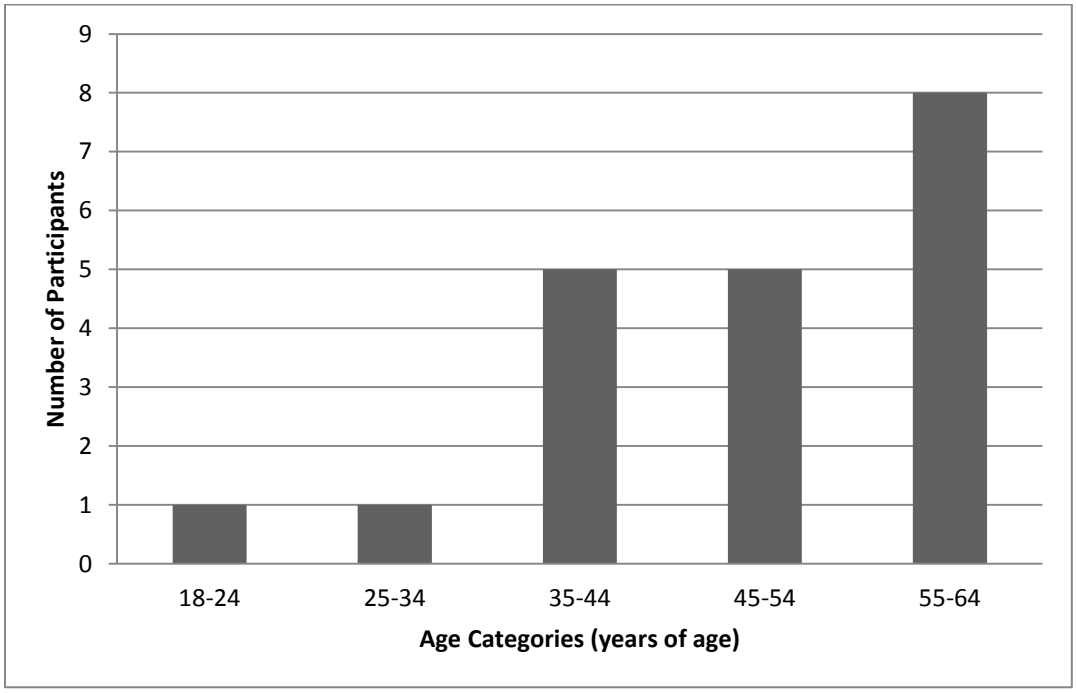
**Less important (1)**: the task has little or no impact on the resident's ***quality of life***.

## 4.2 Phase Two Delphi Questionnaire

### *4.2.1 Description of Study Participants*

In total, 20 HCAs participated in the first round of the Delphi Survey. Female HCAs accounted for 85.0 percent (n = 17) of participants while male HCAs accounted for 15.0 percent (n = 3). All HCAs received their training in Manitoba. The majority of participants (65.0 percent) regularly worked the day shift, while 10.0 percent normally worked the evening shift and 5.0 percent normally worked the night shift. The remaining 20.0 percent of participants indicated that the shift they work varies. The majority (65.0 percent) of participants worked full-time and 35.0 percent of participants worked part-time. A small number of participants (n = 3) indicated they regularly worked at another personal care home, in addition to Misericordia Place. Overall, eight HCAs (40.0 percent of participants) were between 55-64 years of age, one (5.0 percent) participant was between 18-24 years of age, one (5.0 percent) participant was between 25-34 years of age, five (25.0 percent) participants were between 35-44 years of age, and five (25.0 percent) participants were between 45-54 years of age (Figure 15).

**Figure 15: Age Composition of HCA Participants**




Participants had, on average, 12.2 years of experience as HCAs (SD = 8.6) and this ranged from 1.8 – 28.0 years, and worked at Misericordia Place specifically between 1.3 – 28.0 years, or on average, 10.4 years (SD = 6.8) (Table 3).

**Table 3: Phase 2 Health Care Aide Participant Experience**

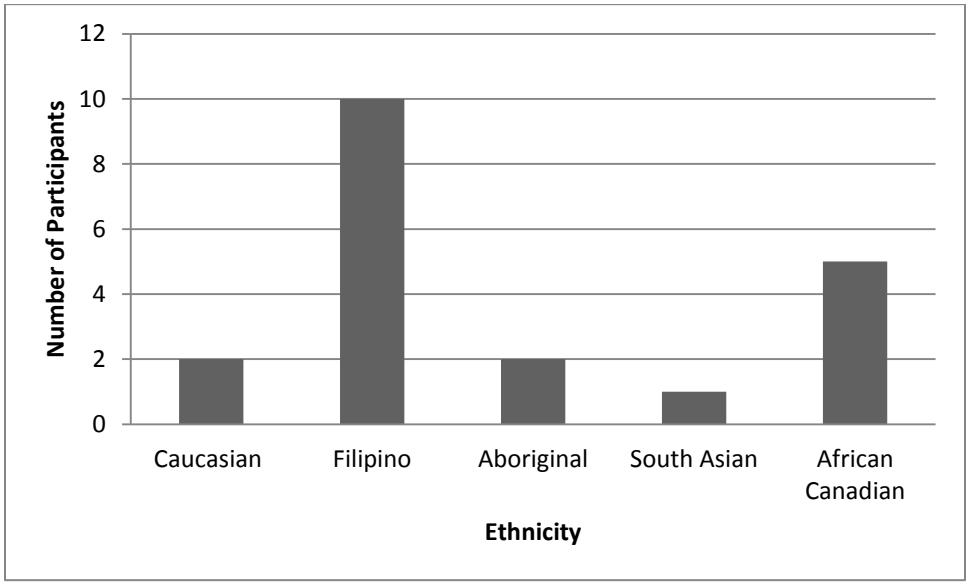
| | Mean (n = 20) | Standard Deviation (n = 20) | Range (n = 20) |
|---|---|---|---|
| **Length of time as HCA** | **12.2 years** | **8.6 years** | **1.8 years – 28.0 years** |
| **Length of time Employed at MP** | **10.4 years** | **6.8 years** | **1.3 years – 28.0 years** |

Fifty percent (n=10) of participants self-identified as Filipino, 25.0 percent (n=5) as African Canadian, 10.0 percent (n=2) as Caucasian, 10.0 percent (n=2) as Aboriginal, and 5.0 percent (n=1) as South Asian. The sample in this study was demographically similar to samples of other

US and Canadian-based studies (Estabrooks et al. 2014; Knopp-Sihota et al. 2015; Paraprofessional Healthcare Institute 2011) which examined the role of HCAs.

Due to attrition (i.e., retirement, sick leave and resignation), 17 HCAs participated in Round 2 of the Delphi questionnaire.

**Figure 16: Ethnicity of HCA Participants**




Results of the first round of the Delphi questionnaire showed much consensus in terms of tasks scored as highly important. HCAs were unable to reach consensus on tasks scored lower (i.e., moderately or less important). During round 1, HCAs were given the option to add any tasks they felt were missing from the questionnaire. No additional tasks were added. When presented with Round 2 of the Delphi questionnaire, minimal improvements in level of agreement were seen. Therefore, the Delphi questionnaire ended after two rounds based on an analysis of results and discussion with my thesis committee.

### *4.2.2 Results of Round 1 Delphi Questionnaire By Definition of Importance*

#### 4.2.2.1 Task Urgency

From the perspective of task urgency, all but one task (paperwork) selected as highly important were from the medical domain. These tasks included: answering call bells; continence and toileting; assisting with breakfast; skin care; dressing and grooming, oral care; assisting with lunch; hourly checks on residents; and turning/repositioning residents. In each domain, participants did not consistently select any tasks as being less important, but rather were undecided about the importance of these remaining tasks. A disproportionate number ( nearly two-thirds) of all medical tasks were deemed to be highly important, as compared to no social tasks and only one of eleven indirect tasks.

**Table 4: Summary of Tasks Scored Highly Important and Undecided for the Task Urgency Definition of Importance by Domain – Round 1**

| Domain | Tasks scored as Highly Important and consensus reached n (%) | Undecided - Tasks in which consensus was not reached n (%) | Total Tasks in Domain n (%) |
|---|---|---|---|
| **Medical Care Tasks** | 9 (60) | 6 (40) | 15 (100) |
| **Social Care Tasks** | 0 | 5 (100) | 5 (100) |
| **Indirect Tasks** | 1 (9.1) | 10 (90.9) | 11 (100) |

Table 5 provides selected examples of how tasks were ranked (complete results can be found in Appendix I). Answering call bells (a task in the medical care domain) had a mean score of 9.5, a median of 10, and 100.0 percent of participants scored it as highly important. Based on this, it was scored high and ranked first in being a highly important task from a task urgency perspective. Bathing, also of the medical care tasks domain, had a mean score of 8.65, a median of 9.5, and 75.0 percent of participants scored it as highly important. Although the task of bathing did not meet the pre-determined criteria for consensus and was scored as undecided, it

was ranked as ninth, overall. One HCA participant commented bathing was “highly important and must be done on day scheduled”. Providing one-to-one social care with a resident was also scored undecided and was ranked thirtieth overall with a mean score of 5.95, a median score of 6, and only 25.0 percent of participants scoring it as highly important. This was justified by multiple comments of “not enough time” (HCA participants).

**Table 5: Selected examples of Delphi Scores and ranks for the Task Urgency definition of Importance after Round 1**

| | Measures of Central Tendency | | Dispersion of Scores n (%) | | | | |
|---|---|---|---|---|---|---|---|
| **Task** | **Mean** | **Median** | **Highly important (8-10)** | **Moderately important (4-7)** | **Less important (1-3)** | **Delphi score (rank)** | **Select Comments** |
| **Medical Care Tasks** | | | | | | | |
| Answering call bells | 9.5 | 10 | 20 (100) | 0 | 0 | High (1) | None provided |
| Bathing | 8.65 | 9.5 | 15 (75) | 5 (25) | 0 | Undecided (9) | "Highly important, must be done on day scheduled" |
| **Social Care Tasks** | | | | | | | |
| One-to-one with a resident | 5.95 | 6 | 5 (25) | 12 (60) | 3 (15) | Undecided (30) | "not enough time" |
| **Indirect** | | | | | | | |
| Paperwork | 9.05 | 9.5 | 18 (90) | 2 (10) | 0 | High (5) | "it is important and needs to be done" |

#### 4.2.2.2 Quality of Care

From the perspective of quality of care, all but one task (paperwork) selected as highly important were from the medical domain (Table 6). These tasks included: answering call bells; continence and toileting; assisting with breakfast; skin care; dressing and grooming, oral care; assisting with lunch; hourly checks on residents; turning/repositioning residents, and bathing. In each domain, participants did not consistently select any tasks as being less important, but rather were undecided about the importance of these remaining tasks. A disproportionate number (two-thirds) of all medical tasks were deemed to be highly important, as compared to no social tasks and only one indirect task.

**Table 6: Summary of Tasks Scored Highly Important and Undecided for the Quality of Care Definition of Importance by Domain – Round 1**

| Domain | Tasks scored as Highly Important and consensus reached n (%) | Undecided - Tasks in which consensus was not reached n (%) | Total Tasks in Domain n (%) |
|---|---|---|---|
| **Medical Care Tasks** | 10 (66.7) | 5 (33.3) | 15 (100) |
| **Social Care Tasks** | 0 | 5 (100) | 5 (100) |
| **Indirect Tasks** | 1 (9.1) | 10 (90.9) | 11 (100) |

Table 7 (below) provides several selected examples of how tasks were ranked for the quality of care definition (see Appendix I for complete results). For Round 1 of the Delphi Questionnaire, answering call bells was ranked first with a mean of 9.5, median score of 10 and 100.0 percent of all participants scoring it as highly important. Assisting with snacks (medical domain) was an example of one task in which the pre-determined criteria for consensus was not reach during round 1 with only 75.0 percent of HCAs scoring it as highly important. Social care one-to-one (social care domain) with a resident had a mean score of 7.12 and median score of 7

during Round 1, with 45.0 percent of HCAs scoring it as highly important and 55.0 percent scoring it as moderately important. Similar to task urgency, comments on the Delphi questionnaire reflected a lack of time to focus on one-to-one conversations with residents. One HCA participant commented “it would be good if there were enough time. Some resident really need it.” Finally, the task of paperwork (indirect tasks domain) was ranked as ninth overall, with a mean score of 8.9, median score of 9.5 and 85.0 percent of HCA participants scoring it as highly important.

**Table 7: Selected examples of Delphi scores and ranks for the Quality of Care definition of Importance after Round 1**

| | Measures of Central Tendency | | Dispersion of Scores n (%) | | | | |
|---|---|---|---|---|---|---|---|
| **Task** | **Mean** | **Median** | **Highly important (8-10)** | **Moderately important (4-7)** | **Less important (1-3)** | **Delphi score (rank)** | **Select Comment** |
| **Medical Care Tasks** | | | | | | | |
| Answering call bells | 9.5 | 10 | 20 (100) | 0 | 0 | High (1) | None provided. |
| Assisting with snacks | 8.4 | 8.5 | 15 (75) | 5 (25) | 0 | Undecided (13) | None provided. |
| **Social Care Tasks** | | | | | | | |
| One-to-one with a resident | 7.12 | 7 | 9 (45) | 11 (55) | 0 | Undecided (25) | "It will be good if there was enough time, some of the residents need it" |
| **Indirect** | | | | | | | |
| Paperwork | 8.9 | 9.5 | 17 (85) | 3 (15) | 0 | High (9) | None provided. |

#### 4.2.2.3 Quality of Life

From the perspective of quality of life, all but two tasks (paperwork and personal time) selected as highly important were from the medical domain. These tasks included: answering call bells; continence and toileting; assisting with breakfast; skin care; dressing and grooming, oral care; assisting with lunch; hourly checks on residents; and bathing. In each domain, participants did not consistently select any tasks as being less important, but rather were undecided about the importance of these remaining tasks. A disproportionate number (60.0 percent) of all medical tasks were deemed to be highly important, as compared to no social tasks and 18.2 percent of indirect tasks.

**Table 8: Summary of Tasks Scored Highly Important and Undecided for the Quality of Life Definition of Importance by Domain – Round 1**

| Domain | Tasks scored as Highly Important and consensus reached n (%) | Undecided - Tasks in which consensus was not reached n (%) | Total Tasks in Domain n (%) |
|---|---|---|---|
| **Medical Care Tasks** | 9 (60) | 6 (40) | 15 (100) |
| **Social Care Tasks** | 0 | 5 (100) | 5 (100) |
| **Indirect Tasks** | 2 (18.2) | 9 (81.8) | 11 (35.5) |

Providing selected examples in Table 9 below, for the quality of life definition of importance, tasks in the medical care domain, such as oral care and skin care were scored as highly important and met the pre-determined criteria for consensus. Both oral care and skin care had median scores of 10 and 95.0 percent of HCA participants scored both tasks as highly important. The indirect domain task of paperwork was ranked ninth overall. Finally, one-to-one social care with a resident did not meet the pre-determined criteria of consensus (similar to the results of task urgency and quality of care). Also similar to the other two definitions of importance, HCA

participants commented that it is done “if we have enough time” and “it is very important to have conversations with a resident but time won’t permit.” This task ranked twentieth overall in round 1 (complete results in Appendix I).

## Table 9: Selected examples of Delphi scores and ranks for the Quality of Life definition of Importance after Round 1

| | Measures of Central Tendency | | Dispersion of Scores n (%) | | | | |
|---|---|---|---|---|---|---|---|
| **Task** | **Mean** | **Median** | **Highly important (8-10)** | **Moderately important (4-7)** | **Less important (1-3)** | **Delphi score (rank)** | **Select Comments** |
| **Medical Care Tasks** | | | | | | | |
| Oral care | 9.4 | 10 | 19 (95) | 1 (5) | 0 | High (3) | "very important" |
| Skin care | 9.2 | 10 | 19 (95) | 1 (5) | 0 | High (6) | "very important to check skin every shift" |
| **Social Care Tasks** | | | | | | | |
| One-to-one with a resident | 7.65 | 8 | 12 (60) | 8 (40) | 0 | Undecided (20) | "if we have enough time" |
| **Indirect** | | | | | | | |
| Paperwork | 8.85 | 9.5 | 17 (85) | 3 (15) | 0 | High (9) | "very important" |

### *4.2.3 Results of Round 2 Delphi Questionnaire by Definitions of Importance*

Minimal changes occurred between Rounds one and two. For the task urgency definition of importance, two additional tasks met the pre-determined criteria for consensus in Round 2 of the Delphi questionnaire (Table 10). These tasks included bathing (medical care domain) and personal time (indirect task domain). The tasks ranked as the top 10 were all within the medical domain, with the exception of one task (paperwork), which was in the indirect task domain.

**Table 10: Summary of Tasks Scored Highly Important and Undecided for the Task Urgency Definition of Importance by Domain – Round 2**

| Domain | Tasks scored as Highly Important and consensus reached n (%) | Undecided - Tasks in which consensus was not reached n (%) | Total Tasks in domain n (%) |
|---|---|---|---|
| **Medical Care Tasks** | 10 (66.7) | 5 (33.3) | 15 (100) |
| **Social Care Tasks** | 0 | 5 (100) | 5 (100) |
| **Indirect Tasks** | 2 (18.2) | 9 (81.8) | 11 (100) |

Only one additional task met the pre-determined criteria for consensus during Round 2 of the Delphi Questionnaire for Quality of Care (Table 11). This task was assisting with snacks (medical care domain). As in Round 1, no tasks in the social care domain (consisting of 5 tasks) met the criteria for consensus nor were ranked as highly important.

**Table 11: Summary of Tasks Scored Highly Important and Undecided for the Quality of Care Definition of Importance by Domain – Round 2**

| Domain | Tasks scored as Highly Important and consensus reached n (%) | Undecided - Tasks in which consensus was not reached n (%) | Total Tasks in Domain n (%) |
|---|---|---|---|
| **Medical Care Tasks** | 11 (73.3) | 4 (26.7) | 15 (100) |
| **Social Care Tasks** | 0 | 5 (100) | 5 (100) |
| **Indirect Tasks** | 1 (9.1) | 10 (90.9) | 11 (100) |

Similar results were seen for the Quality of Life definition of importance during Round two of the Delphi Questionnaire. A total of 14 out of the 31 tasks (45.2 percent of all tasks) met the criteria for consensus and were classified as highly important (Table 12). The additional tasks that met the pre-determined criteria for consensus included assisting with snacks and turning/repositioning the resident (medical care domain) and formal care planning (indirect task domain).

**Table 12: Summary of Tasks Scored Highly Importance and Undecided for the Quality of Life Definition of Importance by Domain – Round 2**

| Domain | Tasks scored as Highly Important and consensus reached n (%) | Undecided - Tasks in which consensus was not reached n (%) | Total Tasks in Domain n (%) |
|---|---|---|---|
| **Medical Care Tasks** | 11 (73.3) | 4 (26.7) | 15 (100) |
| **Social Care Tasks** | 0 | 5 (100) | 5 (100) |
| **Indirect Tasks** | 3 (27.3) | 8 (72.7) | 11 (100) |

### *4.2.4 Average Ranking – Round 2*

Minimal changes occurred between Round 1 and Round 2 results of the Delphi Questionnaire. Therefore, only the results of Round 2 are presented in this section. As can be seen in Table 13 for Round 2 of the Delphi Questionnaire, all tasks that met the pre-determined

criteria for consensus and were ranked as highly important fall within two domains: medical care tasks and indirect tasks; no tasks met the criteria for consensus in the social care domain.

Across all three definitions of importance, the two most important tasks (ranked as either 1 or 2) are "answering call bells" and "continence and toileting." Answering call bells ranked as the most important task for task urgency and ranked second for both quality of care and quality of life. Continence and toileting ranked second for task urgency and first for both quality of care and quality of life.

For the remainder of the tasks, there was some fluctuation in terms of the individual rankings of each task between the definitions of importance (which can be seen in Table 13) but the tasks which were ranked as most important were consistent.

To provide several examples for round 2 results as can be seen in Table 13, assisting with breakfast ranked third for task urgency and ranked slightly lower for both quality of care (eighth) and quality of life (tenth). Skin care ranked fourth for task urgency, sixth for quality of care and fifth for quality of life. Ranked fifth for task urgency was dressing and grooming which ranked fourth for quality of care and seventh for quality of life. Oral care ranked seventh for task urgency but was ranked third for quality of care and quality of life. Paperwork consistently ranked lower, from seventh for task urgency to tenth for quality of care and ninth for quality of life. Assisting with lunch ranked eight for both task urgency and quality of life but ranked slightly higher (fifth) for quality of care. Hourly checks on residents was tied with turning/repositioning residents for ninth place for task urgency, ranked ninth for quality of care, and eleventh for quality of life, while turning/repositioning resident was ranked eleventh for quality of care and did not met the predetermined criteria for consensus for quality of life.

Bathing was ranked tenth for task urgency, seventh for quality of care, and fourth for quality of life. Finally, personal time for the HCAs was ranked as eleventh for task urgency and twelfth for quality of life and did not met the predetermined criteria for consensus for quality of care.

**Table 13: Comparing the 31 tasks and their rankings across the three definitions of importance: Task Urgency, Quality of Care, and Quality of Life - Round 2 Results**

| Domain | Task | Task Urgency | Quality of Care | Quality of Life |
|---|---|---|---|---|
| | | **Delphi Result (Rank)** | **Delphi Result (Rank)** | **Delphi Result (Rank)** |
| **Medical** | *Average Rank* | ***10.27*** | ***10.47*** | ***10.93*** |
| | Answering Call Bells | **High (1)** | **High (2)** | **High (2)** |
| | Continence and Toileting | **High (2)** | **High (1)** | **High (1)** |
| | Assisting with breakfast | **High (3)** | **High (8)** | **High (10)** |
| | Skin Care | **High (4)** | **High (6)** | **High (5)** |
| | Dressing and Grooming | **High (5)** | **High (4)** | **High (7)** |
| | Oral Care | **High (6)** | **High (3)** | **High (3)** |
| | Assisting with lunch | **High (8)** | **High (5)** | **High (8)** |
| | Hourly checks on residents | **High (9.5)** | **High (9)** | **High (11)** |
| | Turning/repositioning the resident | **High (9.5)** | **High (11)** | **High (14)** |
| | Bathing | **High (10)** | **High (7)** | **High (4)** |
| | Transporting a resident | Undecided (13) | Undecided (18) | Undecided (16) |
| | Assisting with snacks | Undecided (15) | **High (13)** | **High (13)** |
| | Preparing resident for afternoon nap | Undecided (19) | Undecided (19) | Undecided (22) |
| | Exercise/Range of Motion Activities | Undecided (22) | Undecided (25) | Undecided (19) |
| | Nail Care | Undecided (27) | Undecided (26) | Undecided (29) |
| **Social** | ***Average Rank*** | ***24.6*** | ***26.6*** | ***24.5*** |
| | Supervising recreational activities | Undecided (20) | Undecided (24) | Undecided (25.5) |
| | Participating in recreational activities | Undecided (21) | Undecided (20) | Undecided (20) |
| | Social care with a group of residents | Undecided (24) | Undecided (28) | Undecided (26) |
| | Social care one-to-one with residents | Undecided (28) | Undecided (30) | Undecided (21) |
| | Social care with family member(s) of resident(s) | Undecided (30) | Undecided (31) | Undecided (30) |
| **Indirect** | ***Average Rank*** | ***18*** | ***18.73*** | ***18.59*** |
| | Paperwork | **High (7)** | **High (10)** | **High (9)** |
| | Personal Time | **High (11)** | Undecided (14) | **High (12)** |
| | Formal Care planning | Undecided (12) | Undecided (15) | **High (6)** |
| | Transporting a specimen collected from a resident | Undecided (14) | Undecided (16) | Undecided (15) |
| | Making residents' beds | Undecided (16) | Undecided (12) | Undecided (17) |
| | Cleaning equipment | Undecided (17) | Undecided (17) | Undecided (18) |
| | Housekeeping | Undecided (18) | Undecided (22) | Undecided (24) |
| | Laundry | Undecided (23) | Undecided (23) | Undecided (28) |
| | Preparing snacks at non-designated snack times | Undecided (25) | Undecided (21) | Undecided (23) |
| | Restocking supplies | Undecided (26) | Undecided (27) | Undecided (25.5) |
| | Informal care planning | Undecided (29) | Undecided (29) | Undecided (27) |

Collectively therefore, the Delphi results from this research indicate that HCAs were very clear on what tasks were most important. However, they were less clear about which tasks could be classified as moderately and less important (i.e., none of the tasks met the pre-determined consensus criteria for moderately important or less important). During round 2 of the Delphi Questionnaire, consensus was not reached on 19 tasks (61.3 percent) for the first two definitions of importance (task urgency and quality of care) and 17 tasks (54.8 percent) for the third definition used in the last section of the Delphi questionnaire (quality of life).

# CHAPTER 5: DISCUSSION & NEXT STEPS

## 5.1 GENERAL DISCUSSION AND CHAPTER OVERVIEW

The purpose of this study was to understand with greater clarity the care tasks that HCAs are responsible for in the NH environment, and to also understand which of these tasks HCAs felt are most important. This research is unique in several ways. First, this study refined and content-validated a comprehensive list of the tasks that HCAs are responsible for in the NH setting. Second, this study created a modified framework to help classify the HCA tasks into one of three domains deemed important: medical care tasks; social care tasks; and indirect tasks (i.e., the taxonomy). Third, this study is one of the first studies to get HCAs' perspectives on the relative importance of tasks. Study results demonstrate that HCAs disproportionately chose medical care tasks as most important, regardless of the definition of importance used.

This chapter discusses the findings of the research as they relate to the specific research hypotheses posed, as well as the current related literature. Policy implications and care practice outcomes of this study are discussed. Last, potential limitations are reviewed and discussed in relation to potential future studies.

## 5.2 Responses to Study Hypotheses

Specific responses to each research hypotheses are provided in the following text.

1) Health care aides will be able to identify and reach consensus on a comprehensive list of tasks that they complete in a nursing home setting during the day shift.

During Phase 1 of this study, HCAs identified and content-validated a list of 31 individual tasks specific to their role in the NH environment, confirming the original hypothesis. The tasks were grouped into nine categories (personal care, assisting with eating, social care, helping with recreational activities, transporting, care planning, paper work, unit based tasks, and personal time) to better facilitate discussions with HCAs and to help organize the tasks initially. To the best of my knowledge, this study is the first to provide a detailed list of HCA tasks in the NH setting, this is generated, in part, from HCAs. The list was then content-validated through discussions with HCAs and key stakeholders in the field of long-term care, and through an extensive review of the academic literature. The individual 31 tasks were then organized into the three domains (medical care tasks, social care tasks, and indirect tasks) of the taxonomy.

2) Health care aides will be able to reach consensus on the relative importance of the tasks they perform, as it pertains to task urgency, and for affecting the quality of care and quality of life of residents.

HCAs were able to reach consensus on the tasks that are most important from their perspective as it relates to task urgency, quality of care, and quality of life. However, HCAs were unable to reach consensus on which tasks they perceived to be moderately important and less important.

The individual tasks that HCAs reached consensus on and scored as highly important, irrespective of definition of importance, included: answering call bells, continence and toileting, skin care, assisting with breakfast, dressing and grooming, oral care, assisting with lunch, hourly checks on the residents, bathing, turning or repositioning the resident, paperwork, formal care planning, and personal time. For example, from the perspective of all three definitions of importance during Round One of the Delphi Questionnaire, 100.0 percent of HCAs agreed that answering call bells was highly important. The majority of tasks in which consensus was reached were from the medical care domain. However, HCAs did not reach consensus on the importance of all medical care tasks. For example, non-essential medical care tasks, such as exercise/range of motion activities, nail care, preparing a resident for afternoon nap, assisting with snacks, and transporting the resident were all undecided. For example, from the perspective of task urgency, 50 percent of HCAs scored the task of nail as highly important, 40 percent of HCAs scored it as moderately important, and 10 percent of HCAs scored nail care as less important.

HCAs were unable to reach consensus on tasks that they perceived as moderately important and less important. Irrespective of definition of importance, consensus was consistently not reached on the same tasks. These tasks included, for example: supervising recreational activities, participating in recreational activities, social care one-to-one with a resident, social care with a group of residents, social care with family member(s) of resident(s), preparing snacks at non-designated snack times, informal care planning, making residents' beds, cleaning equipment, laundry, and housekeeping. From the perspective of task urgency, for example, one-quarter of HCAs felt social care one-to-one with a resident was highly important, while 60.0 percent scored this task as moderately important and 15.0 percent scored it as less important. From the perspective of quality of care, 45.0 percent of HCAs felt this same task was

highly important and 55.0 percent of HCAs felt that it was moderately important. Similar results were seen from the perspective of quality of life as 60.0 percent of HCAs scored social care one-to-one with a resident as highly important and 40.0 percent of HCAS scored it as moderately important.

3) Of all tasks routinely performed by HCAs, those classified as being medical in nature will be ranked as most important, specifically when considering the task's urgency and quality of care of residents. Tasks classified as social in nature are hypothesized to be ranked as less important in terms of task urgency and quality of care but are hypothesized to be ranked as more important in terms of quality of life.

Tasks classified as medical in nature were ranked as highly important, specifically according to health care aide perceived importance of task urgency and quality of care. These tasks were also ranked as highly important from the perspective of quality of life of the resident. The medical care tasks ranked as most important were: continence and toileting, answering call bells, assisting with breakfast, skin care, dressing and grooming, oral care, assisting with lunch, and bathing. Consistently, across all three definitions of importance, these medical care tasks were ranked in the top 10 most important tasks.

Irrespective of definition of importance, the rank order of the tasks varied slightly. For example, answering call bells and continence and toileting were consistently ranked as either first or second most important. Skin care was ranked fourth most important overall from the perspective of task urgency, fifth most important overall from the perspective of quality of life and sixth, overall, from the perspective of quality of care. The rankings of other medical care tasks that HCAs indicated were highly important also only varied slightly. The task of hourly

checks on residents was ranked in the top ten most important tasks for task urgency and quality of care but was ranked eleventh overall for quality of life. Turning/Repositioning the resident was ranked in the top ten for task urgency (ninth) but was ranked slightly lower in terms of quality of care (eleventh) and quality of life (fourteenth).

However, not all medical care tasks were ranked as most important. The medical care tasks HCAs were unable to reach consensus on were also ranked lower. For example, nail care was consistently ranked in the bottom five, irrespective of definition of importance. In terms of task urgency, nail care was ranked twenty-seventh overall, twenty-sixth overall for quality of care, and twenty-ninth overall for quality of life. The task of exercise/range of motion was also consistently ranked near the bottom (i.e. as least important) for all three definitions of importance (twenty-second for task urgency, twenty-fifth for quality of care, and nineteenth for quality of life).

Tasks classified as social in nature were ranked as less important in terms of task urgency and quality of care. Examples of these tasks include: social care one-to-one with a resident (ranked twenty-eighth in terms of task urgency and thirtieth in terms of quality of care) and participating in recreational activities with residents (ranked twenty-first according to task urgency and twentieth according to quality of care). These tasks were also consistently ranked in the bottom half of the 31 tasks, with lower scores of importance.

In addition, two tasks classified as indirect (paperwork and formal care planning) were also ranked most important, which was not originally hypothesized. Paperwork was ranked in the top ten of all tasks, irrespective of definition of importance. Formal care planning was ranked

sixth overall in terms of quality of life of the resident but was not deemed highly important in terms of task urgency or quality of care.

Finally, social care tasks were not ranked as most important in terms of quality of life, contradicting the original study hypothesis. HCAs did not select these types of tasks as being important to the quality of life of the resident. Social care tasks were consistently ranked as less important across all three definitions of importance. HCAs were also unable to reach consensus on the level of importance of these tasks. Across all three definitions of importance, for example, social care with family member(s) of resident(s) was ranked second last or last of the 31 tasks. Social care with a group of residents was ranked twenty-fourth overall in terms of task urgency, twenty-eight overall in terms of quality of care, and twenty-sixty overall in terms of quality of life. These tasks were consistently ranked in the bottom third across all three definitions of importance.

In summary, HCAs viewed certain medical care tasks as most important, consistently reaching consensus, irrespective of definition of importance. Social care tasks, however, were ranked as less important and HCAs were unable to reach consensus on their importance. These study results can be discussed in comparison to existing academic literature to better understand why this may be. How these study results may affect future policy decisions in this increasingly complex care environment will also be discussed.

## 5.3 Study Results in Comparison to Existing Academic Literature

Nursing home residents are more frail and vulnerable than in the past (Doupe et al. 2011b). Many depend on front line care providers, such as HCAs, for the majority of their physical and psychosocial care needs (Estabrooks et al. 2014). Residents require help with not only the

activities of daily living, such as toileting, dressing and grooming, bathing, and assistance with eating (medical care tasks); but also with social relationships and companionship (social care tasks). How HCAs view the importance of these different types of tasks is important to consider and may affect how care is provided to NH residents.

The results of this study clearly demonstrate the task-oriented nature of HCAs. Tasks deemed most important by HCAs were those tasks associated with the basic, biological care of residents. For example, answering call bells was consistently deemed one of the most important tasks, irrespective of definition of importance. While this makes sense from a task urgency point of view, the HCAs also associated answering call bells with high quality of care and high quality of life for the residents. Paperwork was also consistently scored as important and ranked in the top ten most important tasks for all three definitions of importance. The completion of paperwork ensures consistency and continuity of care for the resident, ensuring pertinent information is document and shared. However, HCAs also perceived paperwork as one of the most important tasks in terms of quality of life of the resident. This is very indicative of the task-oriented nature of NHs as several HCAs commented that paperwork "must be done" and is a task that "must be completed every shift, cannot be missed" (HCA participants).

NHs traditionally have  a culture of task-based care where frontline caregivers focus on providing physical care, such as assistance with personal care or activities of daily living (e.g., bathing, toileting, dressing, eating) (Mallidou et al. 2013; Wiersma 2012). This type of care environment focuses on time and completing tasks within certain timeframes (Wiersma 2012). While research has been conducted examining the benefits of resident-centred (patient-centered) care environments (Canadian Healthcare Association 2004; Gnaedinger 2003), an emphasis is clearly still being placed on task-oriented care (Brownie & Nancarrow 2013; Canadian

Healthcare Association 2004; Flesner 2009; Gnaedinger 2003; Kane 2001; Sherwin & Winsby 2010; Swagerty et al. 2005). Previous studies have found that HCAs spend the majority (52.0 percent) of their time on providing personal care (Mallidou et al. 2013) and significantly less time addressing the psychosocial care needs of residents (Mallidou et al. 2013; Munyisia et al. 2011).

The results of this study also demonstrate the medicalized nature of care. The majority of tasks in which HCAs were unable to reach consensus were social in nature. These tasks were also consistently ranked in the bottom third of all tasks. Several medical care tasks were also ranked lower and were undecided in terms of importance (nail care, exercise and range of motion activities, preparing a resident for afternoon nap; and transporting a resident). These medical care tasks are not seen as essential and are not related to the immediate biological care needs of the resident like continence and toileting, and assisting with eating. The predominant focus on the medical care needs of residents and task completion can mean other tasks deemed as less important may be rushed or missed. These tasks were also found to be commonly missed in previous studies. According to Knopp-Sihota et al. (2015), tasks such as assisting with mobility (similar to exercise/range of motion activities in the present study) were missed by 51.0 percent of HCAs during their previous shift, nail care (35.0 percent), and preparing residents for sleep (11.3 percent). In the present study, these tasks were ranked near or in the bottom third for all three definitions of importance (i.e., as less important).

A western Canadian study utilizing data from the Translating Research in Elder Care research programme, found that 86.0 percent of HCAs felt rushed and due to a lack of time, three-quarters of HCAs indicated that they had left at least one care task undone during their last shift (Knopp-Sihota et al. 2015). The task most frequently left undone by 52.0 percent of HCAs

was talking with residents, a psychosocial care need (defined as part of the social care domain in the present study).

Numerous other studies have examined rushed (Thompson et al. 2008) and missed care in the NH (Kalisch et al. 2009; Kalisch et al. 2012; Knopp-Sihota et al. 2015; Mallidou et al. 2013; McDaniel et al. 2013) and acute care environments (Ausserhofer et al. 2014; Ball et al. 2014). Rushed or missed care has been related to inadequate staffing levels, poor use of existing resources and insufficient time (Ball et al. 2014; Kalisch et al. 2009). Rushed and missed care has also been associated with adverse patient or resident outcomes, such as increased mortality, pressure ulcers, falls, medication errors, and nosocomial infections (Ausserhofer et al. 2014; Ball et al. 2014). Consistently, these studies have found that the tasks most commonly rushed or left undone are aspects of psychosocial care. In the present study, HCAs were unable to reach consensus on how important social care tasks, such as talking with a resident or participating in a recreational activity with a resident (or group of residents), were. Social care tasks were also ranked lower, irrespective of the definition of importance used. Comments provided by HCAs during focus groups and the Delphi questionnaire indicate that HCAs do, however, recognize the importance of social care.

While a full qualitative analysis of the focus group discussions was not conducted, the main themes identified were related to a time and busyness. HCAs consistently cited a lack of time and overall busyness as the reasoning behind lower importance rankings for social care tasks during Focus Groups and on the Delphi Questionnaire. For example, regarding social care one-to-one with a resident, one HCA wrote “if we had the time… definitely… oh definitely.” Many comments on both rounds of the Delphi questionnaire echoed a lack of time for providing social care, such as “if only we had more time” and “there is not enough time for this.”

During focus groups, when discussing social care tasks, one HCA commented "if there was time, I would sit down and mostly talk to them [residents] because I find most of them are lonely and if I just sit there, they know that someone is there. And they start to get agitated and the reason why is because there is no one to talk to and they start to think they are going to die alone." Similar comments were made during all focus groups where all respondents cited time as the main issue with being able to provide social care. The HCAs all agreed it was important, but as another HCA said "we never have time. By the time I finish putting someone to bed, someone else wants to go to the toilet. It's like a cycle that keeps going round and round. You don't really have the time." These comments seem to reflect that participants scored tasks according to what they actually did, not what they think is ideally most important.

As the selected comments show, HCAs continue to wrestle with the issue of time, which affects how they perceive the importance of the tasks they are responsible for. Despite HCAs recognizing the importance of social care in their verbal and written comments, and numerous studies which highlight the importance of social care and social supports for residents within NHs (Bowers 2001; Carpenter 2002; Drageset et al. 2009), HCAs maintained a task-oriented approach to care.

## 5.4 Policy Implications and Care Practice Outcomes

NHs are designed to provide care for individuals who can no longer safely care for themselves in the community in a "home-like" atmosphere (Misericordia Health Centre, n.d.), not an acute care environment. However, the results of this study show there is a mismatch between this and what HCAs perceive as most important.

Irrespective of the definition of importance used, HCAs in this study consistently scored and ranked medical care tasks as most important. Any extraneous medical care tasks or social care tasks were ranked lower in terms of importance. While HCAs indicated through comments during focus groups and the Delphi questionnaire that they recognized the importance of social care, they felt there was not adequate time to focus on social care. This indicates there is a disconnect between what HCAs recognize as important (through verbal and written comments) and the tasks they scored most important based on the work they do on a daily basis (Delphi Questionnaire). Future work needs to be dedicated towards addressing this disconnect.

Is it feasible to ask care providers to focus more on providing social care or will the answer remain that there simply is not enough time? How much can be addressed with current staffing levels? Manitoba's current staffing level of 3.6 hours of care per resident day is below the recommended levels of 4.1 – 4.55 hours per resident day found in the literature (Centers for Medicare & Medicaid Services 2001; Harrington et al. 2000a). Are increased staffing levels necessary to address this issue? Outside of a couple studies in the United States (Centres for Medicare & Medicaid Services 2001; Harrington et al. 2000a), there is currently no literature to guide us on proper staffing levels.

Social care tasks are commonly rushed or missed (Kalisch et al. 2009; Kalisch et al. 2012; Knopp-Sihota et al. 2015; Mallidou et al. 2013; McDaniel et al. 2013; Thompson et al. 2008) and considered as less important because staff indicate they do not have the time to address both the physical care needs and psychosocial care needs of residents. Are additional HCAs needed to allow adequate time to focus on social care? Are these tasks that someone else could be doing? A different contingent of staff may be needed that would focus solely on social care tasks. Different (or additional) activities that focus primarily on psychosocial care needs of residents may be necessary as well. This would then allow HCAs to focus primarily on tasks categorized in the medical care and indirect domains.

It is also important to consider the increasing complexity of care of NH residents and how this may exacerbate the task-oriented environment of NHs. NHs are increasingly complex care environments and the psychosocial needs of residents can be easily overlooked if staff are focusing on physical or medical care needs (Ball et al. 2014; Mallidou et al. 2013; McDaniel et al. 2013; Simmons et al. 2013).

Individuals are entering NHs are more advanced ages and with multiple co-morbidities (Estabrooks et al. 2013), including dementia. In 2008, 480,600 Canadians had dementia and by 2038, this number is projected to rise to 1.125 million Canadians (Alzheimer Society of Canada 2010). Presently, one in 40 Canadians aged 65-74 years old and one in three Canadians aged 85 years and older have age-related dementia (Canadian Institutes for Health Research 2010) and dementia affects 40.9 – 70.8 percent of Canadian NH residents (Hirdes et al. 2011). Other significant co-morbidities include heart failure, chronic obstructive pulmonary disorder (COPD) and/or emphysema. One study of 30 NHs across Western Canada utilizing TREC research data (Estabrooks et al. 2013), found that 66.0 percent of Manitoban NH residents were diagnosed

with Alzheimer's or other dementia, 42.9 percent of residents required extensive physical assistance, and 58.1 percent were frequently incontinent (bladder). Over one-third (38.8 percent) of residents in Manitoba NHs also showed responsive behaviours considered aggressive (verbally/physically abusive, socially inappropriate, and/or resisting care) (Estabrooks et al. 2013).

With increasingly complex care, HCAs in a previous study limited social interactions due to heavy workloads (Mallidou et al. 2013). Adequate time to provide care is critical and has been associated with decreased rates of pressure ulcers and urinary tract infections and increased health care cost savings (Castle 2008; Schnelle et al. 2004; Spilsbury et al. 2011).

Lack of time is partly due to staff levels (Hyer et al. 2011). However, there is also a significant association between unit-level organizational context and care that is rushed or missed (Knopp-Sihota et al. 2015). Contextual factors that influence evidence-based practice and how care is provided in NHs include appropriate resources, culture, leadership, and organizational support (Cammer et al. 2013; Estabrooks et al. 2015). In order to provide resident-centered care for example, the practice must fit with the culture of not only the health care system, but also the individual NH. One study conducted in Saskatchewan, Canada found that a conflict exists in NH in terms of what a NH is supposed to be (Cammer et al. 2013). While NH facilities' philosophies often involve providing care in a "homelike" atmosphere, NHs are institutions. Staff must try to embrace the philosophy of "homelike" but still must follow guidelines and legislation for providing care within NHs (Cammer et al. 2013). Daily operations mandated by NH leadership, provincial policies, and occupational health must also be adhered to. This can create conflict or tension. The Saskatchewan study found that staff focused on

organizational routines to manage heavy workloads which, at times, affected the provision of resident-centered care (Cammer et al. 2013).

Leadership within a NH also affects care provided by staff (Rycroft-Malone 2008). Leaders, at all levels (front-line care providers, managers, and executive), can affect how evidence-based practice is embraced within a NH. Effective leaders have the ability to not only support staff but also influence the use of evidence-based practice within their facility (Rycroft-Malone 2008).

This research demonstrates that HCAs are still predominately task-oriented and the medicalization of care within NHs is evident. Current staffing levels may need to be re-evaluated in terms of the increasing complexity of care of NH residents. The unit-level organizational context and leadership strategies within NHs also need to be taken into consideration when considering policy implications and care practice outcomes, particularly the focus on resident-centred care.

## 5.5 Potential Limitations

There are several limitations of this study. One study limitation is that a convenience sample of HCAs was employed. The study was also based on only one NH within the WRHA. Therefore, the results are not generalizable to all HCAs and apply only to the sample itself.

In addition, some tasks within the taxonomy may be facility specific. For example, the task of transporting a specimen to the lab may be specific to the facility in which this study was conducted. Misericordia Place is connected via a walkway to the Misericordia Health Centre, a hospital with its own lab.

Despite efforts to present each of the three definitions of importance in separate sections of the Delphi questionnaire, HCAs' responses in one section may have affected subsequent responses. The HCAs may not have been able to successfully score the tasks on the definitions of importance presented, particularly quality of care and quality of life, without taking into account time. Rather than scoring the tasks based on how important each was to quality of life, for example, they may have focused more on the tasks that they feel they have the time to focus on.

Finally, the relative importance of the tasks was based on HCAs' self-reported scores via the Delphi technique. Measurement error may be produced if the HCA respondents did not answer truthfully or misunderstood any of the questions, or by instability of opinions or attitudes (Singleton and Straits 2010). Further research is necessary to address these limitations and further validate the findings of this study.

## 5.6 Future Studies

This study was conducted on a relatively small, convenience sample of HCAs in the Winnipeg health region. Therefore, further research is necessary for several reasons. First, it is necessary to ensure that the taxonomy is all-encompassing in terms of tasks. Further studies are necessary with larger sample sizes of HCAs across multiple health regions and jurisdictions.

Second, despite setting up three different definitions of importance, the definitions may not have been considered separately in the Delphi questionnaire. How HCAs responded in one section may have affected how they scored the tasks in the subsequent sections. For example, irrespective of what they were asked, how much did HCAs still consider time when scoring the importance of tasks from quality of care and quality of life perspectives? Therefore, confirmatory

analysis is necessary. Presenting the questions in a different manner may be required, for example, not using a Likert scale. One example of a different format is shown in Figure 17.

**Figure 17: Alternate format for Delphi Questionnaire**

| | | How often during a typical shift do you do this task? | | |
|---|---|---|---|---|
| | | **Almost Never** | **Sometimes** | **Most of the Time** |
| How important is the task to the Quality of Life of the Resident? | **Highly Important** | | | |
| | **Moderately Important** | | | |
| | **Less Important** | | | |

Third, it is equally important to also ensure that the perceived importance of the tasks HCAs are reporting accurately reflect the work they are doing. The tasks are ranked based on the perceived importance of HCAs. However, as earlier studies have found, care tasks may be rushed or missed entirely and appropriate times may not be spent on certain tasks. For example, the present study found HCAs consistently ranked oral care in the top ten most important tasks, yet other literature indicates that oral care is commonly rushed or left undone (Chalmers et al. 1998; Coleman and Watson 2006; Knopp-Sihota et al. 2015; MacEntee, Thorne and Kazanjian 1999; Reed et al. 2006). This result may reflect the importance placed on oral care at the study site, Misericordia Place. However, studies looking at the importance of oral care for residents in NHs have found that despite HCAs rating is as important, similar to the results of the present study; a sufficient amount of time is not spent on providing oral care in practice (Chalmers et al. 1998).

Therefore, it is important to compare the rankings with observational research to see if the tasks ranked as most important are the tasks HCAs spend the most time on. The HCAs may believe that a task is extremely important, yet they may only spend a minimal amount of time completing that task each shift. Tasks scored as less important, such as social care tasks, may be entwined with other tasks and unknowingly performed a greater amount of time than originally thought. Would the amount of time spent on tasks correlate with what it most important?

Finally, future studies are necessary to take into consideration the residents' points of view. This study can be replicated with residents and family members/caregivers of residents. First, additional sets of tasks may be missing that are important to residents but were never mentioned by HCAs. Second, residents may believe that different tasks are most important as compared to the tasks HCAs felt were most important. A comparative analysis of the different viewpoints could be conducted. Future policy and care practice changes should take into consideration the perceived importance of the tasks from both the residents and the care providers' perspectives.

## 5.7 Summary and Conclusion

A comprehensive list of HCA tasks was refined and content-validated through focus group discussions. Following an extensive literature review and consultation with an expert in the field of long-term care, several existing frameworks were amended to create a taxonomy used to classify the HCA tasks into three domains: medical care tasks; social care tasks; and indirect tasks. Utilizing the Delphi technique, HCAs reached consensus on which tasks they perceived to be most important using three definitions of importance: task urgency, quality of care and quality of life.

Irrespective of the definition of importance, tasks classified as medical care tasks were consistently scored and ranked as most important. HCAs were unable to reach consensus on the importance of many tasks, particularly social care tasks. Social care tasks ranked lowest across all three definitions of importance.

The results clearly indicate there is a disconnect between what is seen as most important in the academic literature (resident-centered care) and what HCAs perceive is most important based on the work they do during a typical day shift (medical care tasks). Conflict also existed between how HCAs scored the importance of tasks based on the amount of time they felt they had to complete them and how they expressed the importance of certain tasks through verbal and written comments, if time was not an issue. Future policies need to focus on resolving these disconnects and conflicts to address the importance of psychosocial care within the NH environment. Staffing levels may have to be re-evaluated due to the increasing complexity of care required in NHs. Contextual factors, such as leadership within NHs, may also have to be addressed.

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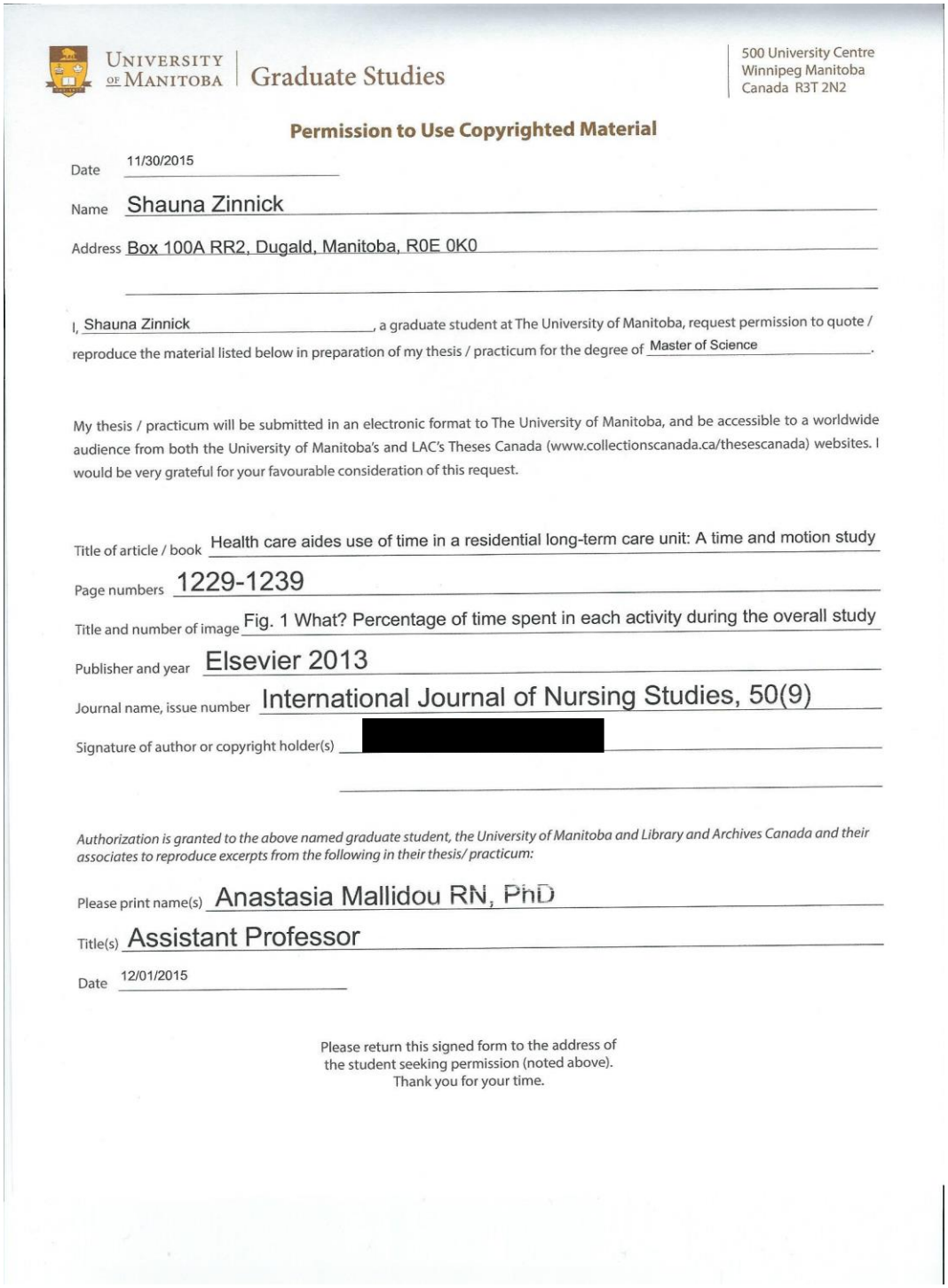
# APPENDIX A: PERMISSION TO USE COPYRIGHTED MATERIAL



UNIVERSITY OF MANITOBA | Graduate Studies

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Title of article / book Health care aides use of time in a residential long-term care unit: A time and motion study

Page numbers 1229-1239

Title and number of image Fig. 1 What? Percentage of time spent in each activity during the overall study

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## APPENDIX B: LETTER OF SUPPORT FROM DIRECTOR OF CARE, PATTY JOHNSON, MISERICORDIA HEALTH CENTRE

MISERICORDIA
Health Centre
The future of care

99 Cornish Avenue
Winnipeg, Manitoba
R3C 1A2, Canada

ph 204.774.6531
www.misericordia.mb.ca

CARING • RESPECT • TRUST

March 4, 2015

Dear Health Care Aide,

I have been approached by Shauna Zinnick regarding her proposed study entitled, "Developing a Taxonomy of Health Care Aides Tasks in a Personal Care Home," which has received approval from Misericordia Health Centre's Research Review Committee and Senior Leadership Team to be conducted at Misericordia Place.

Shauna is a Master's student in the Department of Community Health Sciences at the University of Manitoba. She has asked if I would help recruit Health Care Aides to be involved in her study. A letter from Shauna is attached that describes her research in more detail, and also provides directions should you wish to be involved in this research.

Please note that your decision to participate or not participate in this research will in no way affect your employment at our personal care home.

Thank you in advance for considering this request and please feel free to contact me [redacted] if you have any further questions.

Sincerely,

[redacted]

Patty Johnson
Director, Long Term Care Programs
Misericordia Health Centre
[redacted]

# APPENDIX C: RECRUITMENT LETTER TO HEALTH CARE AIDES FOR PHASES 1 & 2 OF STUDY

UNIVERSITY OF MANITOBA | Faculty of Health Sciences
Department of Community Health Sciences

Community Health Sciences
S113 Medical Services Building
750 Bannatyne Avenue
Winnipeg, MB R3E 0W3
Phone: (204) 789-3714
Fax: (204) 789-3905
E-mail: chs_dept@umanitoba.ca

**Project Title:** Developing a Taxonomy of Health Care Aide Tasks in a Personal Care Home
**Researcher:** Shauna Zinnick, BA (Honours); [redacted]
**Advisor:** Dr. Malcolm Doupe; [redacted]

Dear Health Care Aide,

I am a Master's student in the Department of Community Health Sciences at the University of Manitoba, and I am currently working on my thesis entitled, "Developing a Taxonomy of Health Care Aides Tasks in a Personal Care Home." **The purpose of this research is to gain a better understanding of the types of tasks that health care aides are responsible for in a personal care home setting and to initially describe patterns of care.**

As a health care aide at a personal care home, I am writing this letter to ask if you would participate in my research. If so, you will be asked to participate in two focus groups that would take place at approximately 2 PM during a scheduled day shift to categorize a comprehensive list of all tasks that health care aides are responsible for in a personal care home setting during a day shift.

You will also be asked to consider participating in two additional phases of this research. In Phase 2 of this study, you will be asked to be directly observed by myself during a scheduled day shift to document the amount of time allocated to the tasks that you complete during a day shift, to determine your ability to accurately self-report the amount of time you spent on certain tasks during the observational period, and to initially describe patterns of care. In Phase 3, you will be asked to complete three rounds of a survey categorizing the tasks that health care aides are responsible for in the personal care home setting. The completion of the surveys will take place in a group setting on three separate occasions prior to the completion of a day shift that you are scheduled to work (i.e., during paid working hours).

This study has received approval from the University of Manitoba Health Research Ethics Board. Enrollment is voluntary and I will provide you with a summary of my findings at the conclusion of the research.

As a thank you for participating in this research study, you will receive a $10 Tim Horton's gift card for each phase of the study that you participate in.

If you are interested in participating and/or have questions regarding this research, please contact me by phone/text [redacted] by **March 16, 2015**. Thank you for your kind consideration.

Sincerely,

[redacted]
Shauna Zinnick

Version 2: January 5, 2015

# APPENDIX D: RECRUITMENT LETTER TO HEALTH CARE AIDES FOR PHASE 2 – DELPHI QUESTIONNAIRE

UNIVERSITY OF MANITOBA | Faculty of Health Sciences
Department of Community Health Sciences

Community Health Sciences
S113 Medical Services Building
750 Bannatyne Avenue
Winnipeg, MB R3E 0W3
Phone: (204) 789-3714
Fax: (204) 789-3905
E-mail: chs_dept@umanitoba.ca

**Project Title:** Developing a Taxonomy of Health Care Aide Tasks in a Personal Care Home
**Researcher:** Shauna Zinnick, BA (Honours); [redacted]
**Advisor:** Dr. Malcolm Doupe; [redacted]

Dear Health Care Aide,

I am a Master's student in the Department of Community Health Sciences at the University of Manitoba, and I am currently working on my thesis entitled, "Developing a Taxonomy of Health Care Aides Tasks in Personal Care Homes." **The purpose of this research is to gain a better understanding of the types of tasks that health care aides are responsible for in a personal care home setting.**

As a health care aide (HCA) at a personal care home (PCH), I am writing this letter to ask if you would participate in my research. If so, you will be asked to complete three rounds of a survey categorizing the tasks that HCAs are responsible for in the PCH setting. The completion of the surveys will take place in a group setting on three separate occasions prior to the completion of a day shift that you are scheduled to work (i.e., during paid working hours).

This study has received approval from the University of Manitoba Health Research Ethics Board. Enrollment is voluntary and I will provide you with a summary of my findings at the conclusion of the research.

If you are interested in participating and/or have questions regarding this research, please contact me by phone/text [redacted] by **April 3, 2015**. Thank you for your kind consideration.

Sincerely,

Shauna Zinnick

Version 2: January 5, 2015

# APPENDIX E: DELPHI QUESTIONNAIRE – ROUND ONE

**ROUND ONE DELPHI SURVEY**

***Section 1 – Background Information***

Please fill in the following information about yourself:

What is your sex? (Please select one box) ☐ Male ☐ Female

What is your age? (Please select one box)

☐ 18-24 years old ☐ 25-34 years old ☐ 35-44 years old ☐ 45-54 years old ☐ 55-64 years old ☐ 65 years or older

Please specify your Ethnic Origin (or Race) from the following list (you may select more than one box):

☐ White ☐ Chinese ☐ South Asian (e.g., East Indian, Sri Lankan, etc.)
☐ Filipino ☐ Latin American ☐ Southeast Asian (e.g., Vietnamese, Cambodian, etc.)
☐ West Asian (e.g., Iranian, Afghan, etc.) ☐ African Canadian
☐ Aboriginal (e.g., North American Indian, Métis, or Inuit) ☐ Another Group? Please Specify: _____

Survey Identification Number: _____

Where did you receive your training to be a Health Care Aide? (Please select one box)

☐ In Manitoba ☐ In a province or territory other than Manitoba, but within Canada
☐ Outside of Canada ☐ No Training

How long have you been a Health Care Aide? _____ year(s) _____ month(s)

How long have you been employed at Misericordia Place? _____ years(s) _____ month(s)

Which shift do you normally work at Misericordia Place (i.e., which shift have you worked the most in the past month)? (Please select one box)

☐ Day Shift ☐ Evening Shift ☐ Night Shift ☐ Varies

Are you full-time or part-time at Misericordia Place? ☐ Full-time ☐ Part-time

Do you also work at another Personal Care Home in addition to Misericordia Place as a Health Care Aide? ☐ Yes ☐ No

Version Date: April 20, 2015 Page 2 of 20

**Section 2 – Task Urgency & Importance**

For each of the tasks listed below, please **circle** the number on a scale of 1 to 10 which best represents the relative importance of the task during a typical ***day shift*** (between 7AM – 3:30 PM) from an **URGENCY** perspective (i.e., there is a time constraint – the task must be completed within a certain timeframe) and provide comments to justify your response. Use the explanation below for guidance:

**Highly Important (10):** If the task must occur within a narrow, set period of time and must take immediate priority. The task is important because it needs to be done immediately, regardless of what other task(s) you may be doing at the time.

**Moderately Important (5):** Tasks that are important, but have a wider period of time during which they must be completed (e.g., at some point during your shift as long as they are completed before you leave for the day, regardless of the other tasks you may have to do as well).

**Less Important (1):** Tasks that have no time constraints in which they must be completed (e.g., if the task is not completed during your shift, it is acceptable for the next shift to complete it).

| Task | Rating | Comments |
|---|---|---|
| Continence and Toileting | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Dressing and Grooming | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Bathing | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Nail Care | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Oral Care | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |



| Task | Rating | Comments |
|---|---|---|
| Social care one-to-one with a resident (e.g., having a conversation with a resident, playing a game of cards, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Social care with a group of residents (e.g., having a conversation, playing a game of cards, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Social care with family member(s) of resident(s) (e.g., having a conversation, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Participating in an organized recreational activity (e.g., Sunday Mass, bingo, teas, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Supervising a recreational activity (e.g., Sunday Mass, bingo, teas, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Transporting the resident (e.g., to and from doctor/dentist appointments, x-rays, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Transporting a specimen collected from a resident to the lab | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Formal care planning (e.g., in meetings, family care conferences, daily meetings, education sessions, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |



| Task | Rating | Comments |
|---|---|---|
| Skin Care | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Preparing the resident for afternoon nap | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Turning/Repositioning the resident (e.g., in bed, moving from bed to chair, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Exercise/Range of motion activities | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Assisting with breakfast (including handing out meal trays, feeding the residents, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Assisting with lunch (including handing out the meal trays, feeding the residents, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Assisting with snacks (including handing out snacks, feeding the residents, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Preparing snacks for residents at non-designated snack/meal times | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |



| Task | Rating | Comments |
|---|---|---|
| Informal care planning (e.g., conversations with colleagues, family members, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Paper work (e.g., verbal reporting, written charting, flow sheets, ADL sheets, daily check sheets, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Restocking supplies | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Cleaning equipment | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Answering call bells | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Hourly checks on residents (or as often as necessary) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Housekeeping (e.g., tidying the residents' rooms) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Making residents' beds | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |

| Task | Rating | Comments |
|---|---|---|
| Laundry (e.g., putting away cleaned laundry, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Personal time (e.g., breaks) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |

**Please proceed to the next section on page 8**

**Section 3 – Quality of Care & Importance**

For each of the tasks listed below, please **circle** the number on a scale of 1 to 10 which best represents the relative importance of the task during a typical ***day shift*** (between 7AM – 3:30 PM) to providing residents high **QUALITY OF CARE** (a good care environment), **regardless of time** (e.g., if time were not an issue) and provide comments to justify your response. Use the explanation below for guidance:

**QUALITY OF CARE**: relates to your ability to provide highly effective and safe care to the residents to ensure their overall health and well-being.

**Highly important (10)**: the task is important because it greatly impacts the resident's safety and overall health and well-being.

**Moderately important (5)**: the task is important, but it only moderately impacts the resident's safety and overall health and well-being.

**Less important (1)**: the task has little or no impact on the resident's safety and overall health and well-being.

| Task | Rating | Comments |
|---|---|---|
| Continence and Toileting | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Dressing and Grooming | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Bathing | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Nail Care | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Oral Care | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |



| Task | Rating | Comments |
|---|---|---|
| Skin Care | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Preparing the resident for afternoon nap | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Turning/Repositioning the resident (e.g., in bed, moving from bed to chair, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Exercise/Range of motion activities | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Assisting with breakfast (including handing out meal trays, feeding the residents, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Assisting with lunch (including handing out the meal trays, feeding the residents, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Assisting with snacks (including handing out snacks, feeding the residents, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Preparing snacks for residents at non-designated snack/meal times | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |



| Task | Rating | Comments |
|---|---|---|
| Social care one-to-one with a resident (e.g., having a conversation with a resident, playing a game of cards, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Social care with a group of residents (e.g., having a conversation, playing a game of cards, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Social care with family member(s) of resident(s) (e.g., having a conversation, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Participating in an organized recreational activity (e.g., Sunday Mass, bingo, teas, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Supervising a recreational activity (e.g., Sunday Mass, bingo, teas, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Transporting the resident (e.g., to and from doctor/dentist appointments, x-rays, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Transporting a specimen collected from a resident to the lab | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Formal care planning (e.g., in meetings, family care conferences, daily meetings, education sessions, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |

| Task | Rating | Comments |
|---|---|---|
| Informal care planning (e.g., conversations with colleagues, family members, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Paper work (e.g., verbal reporting, written charting, flow sheets, ADL sheets, daily check sheets, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Restocking supplies | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Cleaning equipment | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Answering call bells | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Hourly checks on residents (or as often as necessary) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Housekeeping (e.g., tidying the residents' rooms) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Making residents' beds | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |



| Task | Rating | Comments |
|---|---|---|
| Laundry (e.g., putting away cleaned laundry, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Personal time (e.g., breaks) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |

**Please proceed to the next section on page 13**



**Section 4 – Quality of Life & Importance**

For each of the tasks listed below, please **circle** the number on a scale of 1 to 10 which best represents the relative importance of the task during a typical ***day shift*** (between 7AM – 3:30 PM) to providing residents high **QUALITY OF LIFE**, **regardless of time** (e.g., if time were not an issue) and provide comments to justify your response. Use the explanation below for guidance:

**QUALITY OF LIFE**: relates to the personal care home resident's ability to live at their highest physical, mental, emotional, and social potential including things like autonomy (being able to make their own choices), dignity, individuality, comfort, well-being and security, relationships and meaningful social activity.

**Highly important (10)**: the task is important because it greatly impacts the resident's ***quality of life.***

**Moderately important (5)**: the task is important, but it only moderately impacts the resident's ***quality of life.***

**Less important (1)**: the task has little or no impact on the resident's ***quality of life.***

| Task | Rating | Comments |
|---|---|---|
| Continence and Toileting | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Dressing and Grooming | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Bathing | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Nail Care | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Oral Care | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |



| Task | Rating | Comments |
|---|---|---|
| Skin Care | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Preparing the resident for afternoon nap | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Turning/Repositioning the resident (e.g., in bed, moving from bed to chair, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Exercise/Range of motion activities | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Assisting with breakfast (including handing out meal trays, feeding the residents, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Assisting with lunch (including handing out the meal trays, feeding the residents, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Assisting with snacks (including handing out snacks, feeding the residents, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Preparing snacks for residents at non-designated snack/meal times | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |

| Task | Rating | Comments |
|---|---|---|
| Social care one-to-one with a resident (e.g., having a conversation with a resident, playing a game of cards, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Social care with a group of residents (e.g., having a conversation, playing a game of cards, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Social care with family member(s) of resident(s) (e.g., having a conversation, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Participating in an organized recreational activity (e.g., Sunday Mass, bingo, teas, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Supervising a recreational activity (e.g., Sunday Mass, bingo, teas, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Transporting the resident (e.g., to and from doctor/dentist appointments, x-rays, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Transporting a specimen collected from a resident to the lab | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Formal care planning (e.g., in meetings, family care conferences, daily meetings, education sessions, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |



| Task | Rating | Comments |
|---|---|---|
| Informal care planning (e.g., conversations with colleagues, family members, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Paper work (e.g., verbal reporting, written charting, flow sheets, ADL sheets, daily check sheets, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Restocking supplies | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Cleaning equipment | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Answering call bells | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Hourly checks on residents (or as often as necessary) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Housekeeping (e.g., tidying the residents' rooms) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Making residents' beds | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |



| Task | Rating | Comments |
|---|---|---|
| Laundry (e.g., putting away cleaned laundry, etc.) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |
| Personal time (e.g., breaks) | 1 2 3 4 5 6 7 8 9 10 (Less Important – Highly Important) | |

**You have reached the end of the survey. Thank you for participating!**

# APPENDIX F: ETHICS APPROVAL FROM THE HEALTH RESEARCH ETHICS BOARD (HREB) OF THE UNIVERSITY OF MANITOBA

UNIVERSITY OF MANITOBA | BANNATYNE CAMPUS
Research Ethics Board

P126 - 770 Bannatyne Avenue
Winnipeg, Manitoba
Canada R3E 0W3
Telephone 204-789-3255
Fax 204-789-3414

## HEALTH RESEARCH ETHICS BOARD (HREB)
## CERTIFICATE OF FINAL APPROVAL FOR NEW STUDIES
Delegated Review

| PRINCIPAL INVESTIGATOR: | INSTITUTION/DEPARTMENT: | ETHICS #: |
|---|---|---|
| Ms. S. Zinnick | UofM/Community Health Sciences | H2014:209 |
| **APPROVAL DATE:** July 3, 2014 | **EXPIRY DATE:** July 3, 2015 | |
| **STUDENT PRINCIPAL INVESTIGATOR SUPERVISOR (If applicable):** | | |

| PROTOCOL NUMBER: | PROJECT OR PROTOCOL TITLE; |
|---|---|
| NA | Developing a Taxonomy of Health Care Aide Tasks in a Personal Care Home |
| **SPONSORING AGENCIES AND/OR COORDINATING GROUPS:** Manitoba Health Research Council (MHRC) | |

| Submission Date of Investigator Documents: | HREB Receipt Date of Documents: |
|---|---|
| July 2 and July 3, 2014 | July 2, 2014 |

**THE FOLLOWING ARE APPROVED FOR USE:**

| Document Name | Version(if applicable) | Date |
|---|---|---|
| **Protocol:** | | |
| Protocol | | July 2, 2014 |
| **Consent and Assent Form(s):** | | |
| Research Participant Information and Consent Form for Phase 1-3 | | July 3, 2014 |
| Research Participant Information and Consent Form for Phase 2 Delphi Survey | | July 3, 2014 |
| **Other:** | | |
| Appendices 1-5 and 8-12 | | July 2, 2014 |

**CERTIFICATION**
The above named research study/project has been reviewed in a ***delegated manner*** by the University of Manitoba (UM) Health Research Board (HREB) and was found to be acceptable on ethical grounds for research involving human participants. The study/project and documents listed above was granted final approval by the Chair or Acting Chair, UM HREB.

**HREB ATTESTATION**
The University of Manitoba (UM) Research Board (HREB) is organized and operates according to Health Canada/ICH Good Clinical Practices, Tri-Council Policy Statement 2, and the applicable laws and regulations of Manitoba. In respect to clinical trials, the HREB complies with the membership requirements for Research Ethics Boards defined in Division 5 of the Food and Drug Regulations of Canada and carries out its functions in a manner consistent with Good Clinical Practices.

**QUALITY ASSURANCE**
The University of Manitoba Research Quality Management Office may request to review research documentation from this research study/project to demonstrate compliance with this approved protocol and the University of Manitoba Policy on the Ethics of Research Involving Humans.

## APPENDIX G: ETHICS APPROVAL FROM THE MISERICORDIA HEALTH CENTRE RESEARCH REVIEW COMMITTEE

99 Cornish Avenue
Winnipeg, Manitoba
R3C 1A2, Canada

TEL 204.774.6581
www.misericordia.mb.ca

CARING • RESPECT • TRUST

February 25, 2015

Shauna Zinnick
[redacted]

Dear Shauna,

**RE: DEVELOPING A TAXONOMY OF HEALTH CARE AIDE TASKS IN PERSONAL CARE HOMES**

This letter is sent to you in response to your request for approval of the above-mentioned Research Proposal.

We wish to inform you that your proposal has been approved by the Misericordia Research Review Committee and Misericordia Health Centre. In providing this approval, the committee stipulated it would require a written update at six months and upon the conclusion of the project.

Enclosed is a signed Personal Health Information Act (PHIA) of Manitoba Agreement for Access to Personal Health Information for Research Purposes form, which provides consent to commence your research project.

Sincerely,

Karen McCormac, Chair, Research Review Committee

## APPENDIX H: TRI-COUNCIL POLICY STATEMENT: ETHICAL CONDUCT FOR RESEARCH INVOLVING HUMANS COURSE ON RESEARCH ETHICS (TCPS 2: CORE)

PANEL ON RESEARCH ETHICS
*Navigating the ethics of human research*

TCPS 2: CORE

*Certificate of Completion*

*This document certifies that*

**Shauna Zinnick**

*has completed the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS 2: CORE)*

Date of Issue: **7 September, 2012**

# APPENDIX I: COMPLETE ROUND 1 DELPHI RESULTS

## Appendix Table 1: Round One Delphi Scores and Ranks for the Task Urgency Definition of Importance

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| **Medical** | Answering call bells | 9.5 | 10 | 20 (100) | 0 | 0 | High (1) | ● "very necessary" |
| | Continence & Toileting | 9.25 | 10 | 18 (90) | 2 (10) | 0 | High (2.5) | ● "It needs to be done immediately"<br>● "Highly important and must be done regardless of other tasks"<br>● "to prevent skin breakdown"<br>"Important if resident wants to go to the toilet, they can be aggressive if you don't take them" |
| | Assisting with breakfast | 8.8 | 9 | 17 (85) | 3 (15) | 0 | High (8) | ● "very important to be in dining room to hand out trays and to assist with feeding" |
| | Skin Care | 9.1 | 10 | 17 (85) | 3 (15) | 0 | High (3) | |
| | Dressing & Grooming | 8.95 | 9.5 | 17 (85) | 3 (15) | 0 | High (7) | ● "it needs to be done immediately"<br>● "also highly important, it is our first task of the day to get residents ready for their day" |
| | Oral Care | 9.1 | 9.5 | 17 (85) | 3 (15) | 0 | High (4) | ● "because after each meal it's good to brush the dentures"<br>● "needs to be done immediately" |
| | Assisting with lunch | 8.95 | 9 | 19 (95) | 1 (5) | 0 | High (6) | None provided. |
| | Hourly checks on residents | 9.25 | 10 | 18 (90) | 2 (10) | 0 | High (2.5) | ● "this is really important; we don't want something happening"<br>● "we need to ensure all residents |

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| | | | | | | | | are safe" |
| | Turning/ repositioning the resident | 8.5 | 9 | 16 (80) | 4 (20) | 0 | High (10) | ● "highly important to always reposition residents who cannot move themselves" |
| | Bathing | 8.65 | 9.5 | 15 (75) | 5 (25) | 0 | Undecided (9) | ● "some people cannot wait – they need their bath right away"<br>● "highly important, must be done on the day scheduled" |
| | Transporting a resident | 7.95 | 8.5 | 14 (70) | 6 (30) | 0 | Undecided (13) | ● "it is important' |
| | Assisting with Snacks | 7.85 | 8 | 13 (65) | 7 (35) | 0 | Undecided (14) | ● "important for residents who did not have a good breakfast or lunch" |
| | Preparing resident for afternoon nap | 7.55 | 7.5 | 10 (50) | 10 (50) | 0 | Undecided (18) | ● "if the resident has a routine of napping in the afternoon, it's important to keep them on task"<br>● "very few want their nap in the afternoon" |
| | Exercise/ Range of Motion Activities | 7.05 | 7 | 9 (45) | 11 (55) | 0 | Undecided (22) | ● "most of the residents have O.T. to do exercises with them" |
| | Nail Care | 7.05 | 7 | 10 (50) | 8 (40) | 2 (10) | Undecided (24) | ● "because the other shift can do it too if they have time and we don't"<br>● "acceptable for the next shift to complete"<br>● "nail care is moderately important – can be done sometimes during the day before end of shift" |

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| **Social** | Supervising Recreational Activities | 7.05 | 8 | 12 (60) | 5 (25) | 3 (15) | Undecided (21) | ● "if we are scheduled to supervise, it is manageable"<br>● "if there is time" |
| | Participating in Recreational Activities | 7.3 | 8 | 11 (55) | 8 (40) | 1 (5) | Undecided (20) | ● "if there is time" |
| | Social care with a group of residents | 6.15 | 6 | 6 (30) | 11 (55) | 3 (15) | Undecided (27) | ● "not enough time"<br>● "this is important but HCAs don't have time" |
| | Social care one-to-one with a resident | 5.95 | 6 | 5 (25) | 12 (60) | 3 (15) | Undecided (30) | ● "not enough time"<br>● "we are busy and there are more important things to be done"<br>● "…there isn't always times to have one-to-one with residents"<br>● "we usually do not have time" |
| | Social care with family member(s) of resident(s) | 6.1 | 6 | 5 (25) | 13 (65) | 2 (10) | Undecided (28) | ● "not enough time to socialize with family members"<br>● "…we are busy and there are more important things to do" |

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| **Indirect Tasks** | Paperwork | 9.05 | 9.5 | 18 (90) | 2 (10) | 0 | High (5) | ● "it is important charting and needs to be done" |
| | Personal Time | 8.1 | 9 | 14 (70) | 6 (30) | 0 | Undecided (11) | ● " sometimes you just have to leave the ward and go for a walk" ● "after hard work, you need rest" |
| | Formal care planning | 8.05 | 8.5 | 14 (70) | 5 (25) | 1 (5) | Undecided (12) | ● "important because the WRHA says we must do it once every 3 months" |
| | Transporting a specimen collected from a resident | 7.8 | 8 | 13 (65) | 7 (35) | 0 | Undecided (16) | None provided. |
| | Beds | 7.8 | 8.5 | 11 (55) | 8 (40) | 1 (5) | Undecided (17) | ● "has to be done, time permitting" |
| | Cleaning equipment | 7.85 | 9 | 12 (60) | 7 (35) | 1 (5) | Undecided (15) | ● "any shift can clean equipment, especially evening shift – more time" ● "obviously needs to be done by somebody" |
| | Housekeeping | 7.35 | 7.5 | 10 (50) | 10 (50) | 0 | Undecided (19) | ● "mostly done by housekeeping staff but sometimes we help out if we have time" |
| | Laundry | 6.3 | 6 | 8 (40) | 10 (50) | 2 (10) | Undecided (26) | ● "It depends on when the laundry is returned" ● "soiled laundry right away" |
| | Preparing snacks at non-designated snack times | 6.85 | 7 | 7 (35) | 12 (60) | 2 (5) | Undecided (25) | ● "we try and always have an afternoon snack but it doesn't always happen at the same time every day |
| | Restocking supplies | 7.05 | 7.5 | 10 (50) | 8 (40) | 2 (10) | Undecided (23) | ● "any shift can re-stock supplies" ● "if we have time, we can do it" |

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| | Informal care planning | 6 | 5.5 | 4 (20) | 15 (75) | 1 (5) | Undecided (29) | None provided. |

## Appendix Table 2: Round One Delphi Scores and Ranks for the Quality of Care Definition of Importance

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| **Medical** | Continence & Toileting | 9.55 | 10 | 19 (95) | 1 (5) | 0 | High (1) | None provided. |
| | Answering call bells | 9.5 | 10 | 20 (100) | 0 | 0 | High (2) | None provided. |
| | Oral Care | 9.5 | 10 | 19 (95) | 1 (5) | 0 | High (3) | ● "very important" |
| | Dressing & Grooming | 9.1 | 10 | 18 (90) | 2 (10) | 0 | High (7) | ● "they have to look nice" |
| | Assisting with lunch | 9 | 9 | 18 (90) | 2 (10) | 0 | High (8) | None provided. |
| | Skin Care | 9.25 | 10 | 18 (90) | 2 (10) | 0 | High (4) | None provided. |
| | Bathing | 8.9 | 10 | 16 (80) | 4 (20) | 0 | High (10) | ● "needs to be done" |
| | Assisting with breakfast | 9.1 | 9 | 19 (95) | 1 (5) | 0 | High (6) | None provided. |
| | Hourly checks on residents | 9.2 | 10 | 18 (90) | 2 (10) | 0 | High (5) | ● "It is important, hourly checks, it might be a fall" |
| | Turning/ repositioning the resident | 8.85 | 10 | 16 (80) | 4 (20) | 0 | High (11) | ● "important for skin breakdown" |
| | Assisting with Snacks | 8.4 | 8.5 | 15 (75) | 5 (25) | 0 | Undecided (13) | ● "because most residents are in bed" |
| | Transporting a resident | 8.05 | 8.5 | 14 (70) | 6 (30) | 0 | Undecided (16) | ● "if it's in the building we can manage by dropping them off and coming back when they are done" |
| | Preparing resident for afternoon nap | 7.8 | 8 | 11 (55) | 9 (45) | 0 | Undecided (20) | ● "they can miss a nap once in a while" |

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| | Nail Care | 7.2 | 6.5 | 9 (45) | 11 (55) | 0 | Undecided (23) | ● "can be done another day" |
| | Exercise/ Range of Motion Activities | 7.2 | 7.5 | 10 (50) | 10 (50) | 0 | Undecided (24) | ● "It's best to be done by physio because some of them are very stiff" |

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| **Social** | Participating in Recreational Activities | 7.85 | 9 | 12 (60) | 8 (40) | 0 | Undecided (19) | ● "someone assigned to do it by the recreation coordinator" |
| | Supervising recreation | 7.35 | 8 | 11 (55) | 8 (40) | 1 (5) | Undecided (22) | None provided. |
| | Social care with a group of residents | 6.95 | 6.5 | 9 (45) | 11 (55) | 0 | Undecided (28) | ● "not enough time" |
| | Social care one-to-one with a resident | 7.12 | 7 | 9 (45) | 11 (55) | 0 | Undecided (25) | ● "It will be good if there were enough time. Some of the residents really need it." |
| | Social care with family member(s) of resident(s) | 6.7 | 7 | 8 (40) | 12 (60) | 0 | Undecided (29) | ● "not enough time"<br>● "some family members don't even want to talk to us and others you don't see for months or a year" |

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| **Indirect Tasks** | Paperwork | 8.9 | 9.5 | 17 (85) | 3 (15) | 0 | High (9) | ● "Important" |
| | Beds | 8.4 | 9 | 15 (75) | 5 (25) | 0 | Undecided (12) | None provided. |
| | Personal Time | 7.95 | 9 | 15 (75) | 3 (15) | 2 (10) | Undecided (17) | None provided. |
| | Formal care planning | 7.9 | 9 | 13 (65) | 7 (35) | 0 | Undecided (18) | None provided. |
| | Transporting a specimen collected from a resident | 8.15 | 9 | 13 (65) | 7 (35) | 0 | Undecided (15) | None provided. |
| | Cleaning equipment | 8.25 | 9 | 13 (65) | 7 (35) | 0 | Undecided (14) | ● "this is done every shift" |
| | Preparing snacks at non-designated snack times | 7.45 | 7 | 9 (45) | 11 (55) | 0 | Undecided (21.5) | ● "would work fine if you had time" |
| | Housekeeping | 7.45 | 7 | 9 (45) | 11 (55) | 0 | Undecided (21.5) | ● "housekeeping staff does the cleaning and we sometimes help" |
| | Laundry | 7 | 6.5 | 9 (45) | 11 (55) | 0 | Undecided (27) | ● "done by laundry staff" |
| | Restocking supplies | 7.1 | 8 | 11 (55) | 7 (35) | 2 (10) | Undecided (26) | ● "night staff can do the supplies" ● "mostly done by night staff" |
| | Informal care planning | 6.55 | 7 | 9 (45) | 9 (45) | 2 (10) | Undecided (30) | None provided. |

## Appendix Table 3: Round One Delphi Scores and Ranks for the Quality of Life Definition of Importance

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| **Medical** | Continence & Toileting | 9.75 | 10 | 20 (100) | 0 | 0 | High (1) | ● "It is highly important, sometimes residents going to be agitated" |
| | Answering call bells | 9.55 | 10 | 20 (100) | 0 | 0 | High (2) | ● "Important, we don't know what is going to happen" ● "Answering call |

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| | | | | | | | | bells the main important thing for residents" |
| | Oral Care | 9.4 | 10 | 19 (95) | 1 (5) | 0 | High (3) | ● "very important"<br>● "we do oral care after each meal" |
| | Bathing | 9.3 | 10 | 17 (85) | 3 (15) | 0 | High (5) | ● "very important" |
| | Skin Care | 9.2 | 10 | 19 (95) | 1 (5) | 0 | High (6) | ● "very important to check skin every shift"<br>● "to prevent skin sores" |
| | Dressing & Grooming | 9.3 | 10 | 19 (95) | 1 (5) | 0 | High (4) | None provided. |
| | Assisting with lunch | 8.9 | 9 | 17 (85) | 3 (15) | 0 | High (8) | None provided. |
| | Assisting with breakfast | 8.85 | 9 | 17 (85) | 2 (10) | 1 (5) | High (10) | None provided. |
| | Hourly checks on residents | 9.15 | 10 | 18 (90) | 2 (10) | 0 | High (7) | ● "this is important, preventing falls"<br>● "we prevent skin breaking" |
| | Assisting with Snacks | 8.35 | 9 | 14 (70) | 6 (30) | 0 | Undecided (13) | None provided. |
| | Turning/ repositioning the resident | 8.6 | 9.5 | 15 (75) | 5 (25) | 0 | Undecided (12) | ● "it is very important, it is preventing skin breaking"<br>● "highly recommended to do the positioning of residents to avoid getting pressure sores" |
| | Transporting a resident | 8.2 | 9 | 15 (75) | 5 (25) | 0 | Undecided (14) | ● "Sometimes, the family can do that" |
| | Exercise/ Range of Motion Activities | 7.8 | 8.5 | 12 (60) | 8 (40) | 0 | Undecided (18.5) | ● "Residents need to do their exercises so they can get strong and not get stiff" |
| | Preparing resident for afternoon nap | 7.7 | 7 | 9 (45) | 11 (55) | 0 | Undecided (19) | ● "others, they want to attend activities and don't want to sleep" |
| | Nail Care | 7.25 | 6.5 | 9 (45) | 11 (55) | 0 | Undecided (26) | ● "if nails are long, it will harm them and us" |

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| **Social** | Participating in Recreational Activities | 7.6 | 8.5 | 11 (55) | 9 (45) | 0 | Undecided (21) | ● "It is very important to take residents to Sunday Mass so they can remember. It helps that there is Mass to attend to help them be a part of it." |
| | Social care one-to-one with a resident | 7.65 | 8 | 12 (60) | 8 (40) | 0 | Undecided (20) | ● "if we have enough time"<br>● "it is very important to have conversation with the resident but time won't permit"<br>● "they need someone to talk to" |
| | Supervising recreation | 7.3 | 7.5 | 10 (50) | 10 (50) | 0 | Undecided (25) | None provided. |
| | Social care with a group of residents | 7.55 | 8 | 11 (55) | 9 (45) | 0 | Undecided (23) | ● "if we have enough time" |
| | Social care with family member(s) of resident(s) | 6.8 | 7 | 9 (45) | 10 (50) | 1 (5) | Undecided (30) | ● "If you have some questions about their relatives" |

| Taxonomy | | Measures of Central Tendency | | Dispersion of Scores n (%) | | | Delphi Score (Rank) | Select Participant Comments |
|---|---|---|---|---|---|---|---|---|
| | Task | Mean | Median | Highly important (8-10) | Moderately Important (4-7) | Less Important (1-3) | | |
| **Indirect Tasks** | Formal care planning | 8.65 | 9.5 | 15 (75) | 5 (25) | 0 | Undecided (11) | ● "important"<br>● "It is very important to meet the family on their conferences so that they will know any changes of the residents" |
| | Paperwork | 8.85 | 9.5 | 17 (85) | 3 (15) | 0 | High (9) | ● "very important" |
| | Personal Time | 8.15 | 9 | 16 (80) | 2 (10) | 2 (10) | High (15) | None provided. |
| | Transporting a specimen collected from a resident | 8.15 | 9 | 14 (70) | 6 (30) | 0 | Undecided (16) | None provided. |
| | Beds | 8.15 | 9 | 13 (65) | 7 (35) | 0 | Undecided (17) | None provided. |
| | Cleaning equipment | 7.55 | 8 | 12 (60) | 8 (40) | 0 | Undecided (22) | ● "we try to keep up with cleaning on each shift" |
| | Preparing snacks at non-designated snack times | 7.8 | 8.5 | 12 (60) | 8 (40) | 0 | Undecided (18.5) | None provided. |
| | Housekeeping | 7.35 | 8 | 11 (55) | 9 (45) | 0 | Undecided (24) | None provided. |
| | Restocking supplies | 6.9 | 7.5 | 10 (50) | 9 (45) | 1 (5) | Undecided (28) | ● "It can be done by the night shift; if we need supplies during the day, we can re-stock" |
| | Informal care planning | 6.85 | 8 | 11 (55) | 7 (35) | 2 (10) | Undecided (29) | None provided. |
| | Laundry | 7 | 8 | 11 (55) | 8 (40) | 1 (5) | Undecided (27) | None provided. |