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HIP FRACTURE CARE IN RURAL SOUTHWESTERN ONTARIO AN ETHNOGRAPHIC STUDY OF PATIENT TRANSITIONS AND PHYSIOTHERAPY HANDOFFS

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**HIP FRACTURE CARE IN RURAL SOUTHWESTERN ONTARIO:
AN ETHNOGRAPHIC STUDY OF PATIENT TRANSITIONS
AND PHYSIOTHERAPY HANDOFFS**

(Spine Title: Physiotherapy Handoffs in Rural Hip Fracture Care)

(Thesis Format: Monograph)

By

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Graduate Program in Health and Rehabilitation Sciences

Field of Health and Aging

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science

School of Graduate and Postdoctoral Studies
The University of Western Ontario
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HIP FRACTURE CARE IN RURAL SOUTHWESTERN ONTARIO:

AN ETHNOGRAPHIC STUDY OF PATIENT TRANSITIONS

AND PHYSIOTHERAPY HANDOFFS

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Chair of Examining Board

Abstract and Keywords

Patients with hip fracture transition through several care environments during recovery. The purpose of this study was to examine information exchange by physiotherapists during care handoffs of patients with hip fracture. Using an ethnographic approach, 11 patients with hip fracture and their networks of family caregivers (n=8) and health care providers (n=24) were recruited in a rural community of southwestern Ontario. Patients were followed from acute care through each post-acute care setting. Data sources included semi-structured interviews, observations and document review. An inductive analytic approach was used. Findings revealed that handoffs were challenged when information transfer was untimely. Family caregivers experienced challenges in obtaining information required to facilitate the handoff. Major implications included: appropriate methods to facilitate information exchange by physiotherapists in various rural settings need to be identified; and health system practices which ensure patients and family caregivers receive adequate information at care handoffs need to be developed.

Keywords: care transitions, care handoffs, continuity of care, qualitative research, ethnographic approach, physiotherapy

Co-Authorship Statement

The written material in this thesis is the original work of the author. Helen Johnson participated in all aspects of the work, including reviewing the literature, managing the project, collecting and analyzing data, and will be preparing a manuscript for submission to a peer-reviewed journal. The larger study, of which this one was a part, was conceived by the InfoRehab Team, headed by Dr. Paul Stolee, University of Waterloo.

Dr. Bert Chesworth, Dr. Dorothy Forbes and Dr. Mary Egan served in an advisory and editorial capacity throughout the study and writing of this thesis.

Dedication

This work is dedicated to my family. First, to my awesome husband of 29 years, Gary Johnson, who is my best encourager in all my endeavours. Your support to embark on this journey and patience throughout my times away from home has been truly appreciated. Second, to our threewonderful children, Karin, Eric and Mikael, who have grown into mature and thoughtful adults. At the start of my program, all four of us were students, which they embraced with delight and enthusiasm. Finally, to my parents, Eino and Silja Huotari, who gave me the best start in life, which I appreciate more and more with age.

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the data analysis and commiserating with each other in the writing up. I have enjoyed working with you and wish you all the best in your future endeavours.

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List of Abbreviations

CCAC	= Community Care Access Centre
FCG	= Family Caregiver
HCA	= Health care aide
LHIN	= Local Health Integration Network
LTC	= Long term care
MSK	= Musculoskeletal
OT	= Occupational Therapist
Pt	= Patient
PT	= Physiotherapist / Physical Therapist
RAI-HC	= Resident Assessment Instrument - Home Care [form]
RH	= Retirement home
RN	= Registered Nurse
RPN	= Registered Practical Nurse

PREFACE

The work described in this thesis was situated within a larger pan-Canadian research project entitled: InfoRehab: Enhancing MSK Rehabilitation through Better Use of Health Information (Stolee, 2009)¹. This program of research undertook to study the transfer of health information as patients with hip fracture were transitioned across the continuum of care. In the larger project, data were collected from three sites: one in British Columbia and two in Ontario. This thesis used data from the rural Ontario site.

¹Stolee, P. (2009). InfoRehab: Enhancing MSK Rehabilitation through Better Use of Health Information, CIHR Emerging Team Grant, Applied Health Services and Policy Research, No. 190378.

1 INTRODUCTION

In the context of our aging population, hip fractures are a significant and increasing health problem and they contribute to growing pressures in our health care system (Leslie et al., 2009). Patients with hip fracture typically experience transitions through several care environments during the course of their recovery, at which time their care is handed off to various health care professionals in other settings. Older adults typically have multiple chronic conditions or co-morbidities, which contribute to increasing complexity of care. Hospital lengths of stay are becoming shorter, and many patients are discharged in a weak condition with loss of function, dependence in activities of daily living, and ongoing rehabilitative care needs.

Rehabilitation crosses the care continuum in our health care system.

Rehabilitation professionals, including physiotherapists, are intimately involved in the care of patients with hip fracture across the care environments they traverse.

Physiotherapy care handoffs associated with patient transitions between settings have not received much attention. In particular, physiotherapy care handoffs in rural settings, which tend to have fewer health care resources (Forbes & Hawranik, in press), and higher proportions of elderly people (Dandy & Bollman, 2008), have not been subject to research studies, as seen in the following review of relevant literature.

1.1 Literature review

The growing elderly population, the epidemiology of hip fracture, and care transitions made by elderly patients across the continuum of care are discussed below. In addition, the concepts of handoffs and continuity of care are reviewed. The literature reviewed was identified through a search of several databases, including PubMed,

Scopus, CINAHL and Google Scholar, using the search terms: transitions, continuity of care, handoffs, handovers, elderly, hip fracture. The search was limited to papers published since 2000, and in the English language. Relevant papers included prior to 2000 were retrieved from the bibliographies of selected papers.

1.1.1 Demographics of aging in Canada

It is common knowledge that the Canadian population is aging. Current data show that, as of July 2009, seniors aged 65 and older comprised 13.9% of Canada's population, a record high (Statistics Canada, 2009). This percentage is projected to grow close to 25%, or close to 9 million seniors by 2030, as the last of the baby boom cohort turns 65 (Statistics Canada, 2005). The greatest percentage increase is expected in those over age 85; in fact, their numbers will quadruple (Sinha, et al., 2009). Further, centenarians currently number an estimated 6000, a sharp increase from 3400 in 2001. By 2030 it is estimated that Canada will have over 15,000 centenarians (Statistics Canada, 2009). While many seniors are healthy, large numbers, particularly among the oldest old (aged 85+) have multiple, chronic health conditions and require the use of substantial health resources. Wolff et al. (2002) found that 82% of aged U.S. Medicare beneficiaries had one or more chronic conditions, with the prevalence increasing with age from 74% of those aged 65 to 69 years to 88% of those aged 85 years and older. Inpatient hospital admissions increased with the number of chronic conditions. Further, nearly 2/3 of elderly beneficiaries with two or more chronic conditions accounted for 95% of Medicare expenditures, and individuals with four or more chronic illnesses had a 99% probability of being hospitalized in one year (Wolff, et al. 2002). Among conditions requiring

hospitalization of older adults, hip fracture is one of the most serious (Morris & Zuckerman, 2002).

1.1.2 Epidemiology of hip fractures in Canada

Recent data has shown that age-adjusted hip fracture rates have been declining in Canada, as well as several other countries (Leslie et al., 2009). However, the same authors warn that due to the changing population structure, the absolute number of hip fractures continues to increase in Canada, exerting serious effects on the health care system (Leslie et al., 2009). In 2005-2006 there were approximately 28,200 hip fracture hospitalizations in Canada (CIHI, 2007), which calculates to roughly 77 per day, or one every 18 minutes. Nine of 10 patients are over 65 years of age (Morris & Zuckerman, 2002), and the largest proportion of patients with hip fracture is aged 75 years or older (Wells et al., 2003). Hip fracture rarely occurs without co-morbidity (Marengoni et al., 2009), and these impact significantly on survival and recovery. Seven percent of patients with hip fracture in 2005-2006 died within 30 days of hospital admission, and studies have shown between 28 and 35% die within 12 months (CIHI, 2007).

Significant health care costs are associated with hip fractures. A landmark Ontario study by Wiktorowicz et al. (2001) placed the average one year cost of care at \$26, 527, and noted that costs varied significantly by discharge destination (\$21,385 for patients discharged to community compared to \$44,156 for those transferred to long term care). Total annual health care costs were estimated at \$650 million, and were predicted to rise with the aging population. Important elements of these costs were rehabilitation, home care services, re-hospitalization, and informal care by family caregivers (Wiktorowicz et

al., 2001). Review of these elements highlights some of the transitions in care settings experienced by hip fracture patients during recovery.

1.1.3 Care transitions

Vulnerable elderly patients are most at risk from poor care quality during care transitions. Consequently, a body of research has developed around concepts of patient care across transitions, or transitional care. Naylor (2002) described *transitional care* as a term encompassing “a broad range of services and environments designed to promote the safe and timely transfer of patients from one level of care to another (e.g. acute to subacute), or from one type of setting to another (e.g. hospital to home)” (p. 128). In a review of 94 studies from 1985 to 2001 on care transitions of elderly patients, Naylor (2002) found high rates of poor outcomes, including high rates of re-hospitalization, and significant unmet needs. Breakdowns in communication and differing expectations between patients, families and health care providers often left families with substantial information needs, and inadequate access to services. Brooten and colleagues (1988) developed The Transitional Care Model, a model of care delivery utilizing transitional care nurses (advanced practice nurses), to provide follow up care to patients after early discharge from hospital to home. In over two decades of research, Naylor and colleagues (1999, 2004, 2009) adapted the model to follow elderly patients during acute care episodes in hospital through to the discharge home. Their work has yielded significant improvement in clinical outcomes including reduced readmission rates, fewer hospital days and reduced health care costs.

Coleman and Boult (2003) defined transitional care as “a set of actions designed to ensure the coordination and continuity of health care as patients transfer between

different locations or different levels of care in the same location” (p. 556). Transitional care may encompass hospitals, post-acute care settings, patients’ homes, primary and specialty care practices, as well as assisted living or long term care facilities (Coleman & Boulton, 2003). Studies by Coleman and others have documented adverse consequences for elderly patients due to poor transfer of information across care transitions (Coleman & Boulton, 2003; Chugh, et al., 2009). Similar to the work of Naylor, Coleman and colleagues pioneered The Care Transitions Intervention, which employs tools to improve cross-site communication and a nurse “transition coach” (again, an advance practice nurse) to guide patients across care transitions (Coleman et al., 2004). Coleman et al. (2005) furthered evaluative work in this field by developing the Care Transitions Measure.

Accordingly, a *care transition* as defined by Coleman (2003) involves the *physical transfer of a patient* to a different location for care, either within a health care facility (e.g. hospital), to another health care institution (e.g. rehabilitation hospital, retirement home, long term care facility) or home with care providers in the community (family physician, home care services) and forms the basis of discussion of transitions in this thesis. To decrease the risk of adverse outcomes at or following transitions, patients require an element of continuity in their care.

1.1.4 Continuity of care

Continuity refers to “the organized, coordinated and steady passage of individuals through the various elements in a system of care and services” (Hébert, et. al., 2003, p. 1). In Canada, components of the health care system evolved around the care of persons with acute illness. However, increasingly, Canada’s aging population is coping with a growing burden of chronic disease (Sinha et al., 2009). The delivery of services needed to support

frail older persons with multiple co-morbidities lies with many agencies, jurisdictions and providers. Services are not well coordinated to take all needs into account. "No single institution or agency has both clinical and fiscal responsibility, being ultimately responsible and accountable for the care of frail older Canadians" (Hogan, et. al. 2002). Weinberg et al. (2007) studied coordination and continuity of care for post-surgical orthopaedic patients across multiple settings, and also described a system "in which no one provider is accountable for coordination of care across the continuum" (p. 22).

Continuity of care is a concept which crosses both organizational boundaries, as well as those of health care professional disciplines (Haggerty et al., 2003). Haggerty et al. (2003) described two core elements of continuity: care of an individual patient, and care delivery over time. Further, they identified three types of continuity: 1) informational continuity - the use of information from past events and personal circumstances to make current care appropriate for a person; 2) management continuity - a consistent and logical approach to managing health conditions that is responsive to the changing needs of a patient; and 3) relational continuity – an ongoing therapeutic relationship between a patient and their health care providers. The emphasis on each type of continuity differs depending on the type and setting of care (Haggerty et al., 2003).

Holland and Harris (2007) undertook to clarify the concepts of discharge planning, transitional care, coordination of care and continuity of care, and developed a conceptual framework positioning these concepts within the context of health care outcomes. Continuity of care (informational, relational and management, as per Haggerty et al., 2003) was defined as an outcome on its own, but was also seen as a potential predictor of other outcomes such as hospital readmission, and patient satisfaction with

care. Discharge planning was seen as a process, a set of interventions bounded by an episode of admission and discharge from a specific care setting, such as a hospital. Transitional care was also described as a process, but one which spanned several care settings (Holland & Harris, 2007).

Frail elderly patients with a hip fracture, usually with multiple morbidities, experience a number of transitions through various levels of care during the process to recovery. Their journey usually begins with presentation to the emergency room via ambulance, assessment and admission to hospital, followed by successive transfer to surgery, an acute care ward and a discharge destination appropriate for their level of care needs. At each transition, care responsibilities pass off to various health care professionals in other settings or less formally to the patient and family members in the community. A United States national consensus conference on improving the continuum of care for patients with hip fracture concluded that "all parties involved in hip fracture care must reconsider their roles vis-à-vis a coordinated continuum of care approach" and further, that "any health care provider involved in the care of a patient with hip fracture should have all pertinent information concerning the patient" (Morris & Zuckerman, 2002, p. 674). While mention was also made that health care practitioners require education on the psychosocial needs of the patient and family throughout the treatment episode following fracture, no reference was made to the involvement of informal caregivers in information transfer during care transitions. The act of transferring information at the time of patient transition, presumably with the intent of ensuring care continuity, is referred to as the "*handoff*".

1.1.5 Handoffs

The American Joint Commission on Accreditation of Healthcare Organizations (JCAHO) defines the primary objectives for handoffs as follows: “The primary objective of a *handoff* is to provide accurate information about [a patient’s] care, treatment and services, current condition and any recent or anticipated changes.” Further, it is stated “the information communicated during a handoff must be accurate in order to meet safety goals” (Patterson, 2010, p.53).

Much research on care handoffs through multiple care environments has taken place in the United States after the JCAHO mandated transitions be included in National Safety Goals (2005). Physician and nursing handoffs occur daily in hospitals as patients are moved from one unit to another, are cared for from one shift to another, or discharged from hospitals to home care. Arora et al., (2009) noted that one academic teaching hospital reported over 4000 handoffs occurring daily, totalling 1.6 million per year, and that executing handoffs is a core competency for hospital physicians.

Kriplani et al. (2007), systematically reviewed literature on handoffs between hospital-based and primary care physicians, and characterized handoffs as the passing of the “baton of responsibility for patient care” (p. 839), concluding that this must happen with confidence and certainty to ensure that important information is not lost during patient transitions. Apker et al. (2010) portray handoffs as the “glue that holds the health care continuum together” for patients having numerous health care providers during hospital admission, care and discharge (p. 161). Serious adverse events are described due to inadequate handoffs, such as medication errors and delays in diagnosis and treatment (Apker et al., 2010; Patterson et al., 2010). These are frequently linked to inadequate

communication, busy clinical workloads, and lack of quiet space free from distractions or interruptions. Arora and colleagues (2008, 2009) developed specific program, verbal and content recommendations for hospitalist handoffs, and noted that the literature supports face to face handoffs supported by the use of a structured template to guide information exchange. Many studies on nursing handoffs also support a verbal exchange supplemented with written information to improve the transfer of patient information (Arora, 2009).

Riesenberg, Leitzsch and Cunningham (2010) conducted a systematic review of nursing handoff literature. While they outline both barriers and strategies for effective handoffs described in a wide number of studies, they conclude that very little empirical evidence exists to date on what constitutes effective nursing handoff practices (Riesenberg, Leitzsch, & Cunningham, 2010). The issues identified included communication barriers, lack of standardized forms, time constraints and high complexity of cases and caseloads.

One technique that has been studied and applied widely in nursing practice is the SBAR method – Situation, Background, Assessment and Recommendation, adapted from the aviation industry (SBAR Technique for Communication: A Situational Briefing Model, 2005). This method of handoff has been implemented in high risk settings, such as intensive care units and emergency departments, and primarily in nursing-physician communication scenarios (Haig et al., 2006; Leonard et al., 2004). Medication reconciliation programs and electronic health record technology are other recent tools being deployed during handoffs in attempts to reduce loss of information as patients make transitions (Helleso, Lorensen & Sorensen, 2004; Hughes & Clancy, 2007).

Coleman (2003) acknowledged the multiple providers in multiple settings involved in the care of frail older patients with hip fracture, and that in each case a successful 'handoff' of care between professionals across settings is critical to achievement of optimal outcomes. Cohen and Hilligoss (2010), in a review of care handoffs in hospitals, observed that there has not been a consistent definition of the term *handoff* in the literature, and that this contributes to uncertainty about the scope of activities which should or should not be encompassed by this term. The working definition used in their extensive review was: "the exchange between health professionals of information about a patient accompanying either a transfer of control over, or of responsibility for, the patient" (Cohen & Hilligoss, 2010, p. 2). Cohen and Hilligoss' definition serves the purpose of this thesis, although all of the papers in the review related to physician and nursing care handoffs.

1.2 Gaps in the literature and study rationale

In the research cited above, the focus has been on physician and nursing care handoffs. Handoffs by rehabilitation professionals have been given little attention by researchers to date. One study (Benham-Hutchins & Effken, 2010) addressed multi-professional patterns of communication during handoffs in hospitals, but no rehabilitation care providers were included in their sample. One group in Canada (Andreoli et al., 2010; Velji et al., 2008) has implemented the SBAR technique for communication within rehabilitation teams; however, this was for specific patient care issues of fall prevention and management, not for handoffs of rehabilitative care.

Additionally, in the physician and nursing handoff literature, most studies of patient transitions and care handoffs occurred within one care setting, namely unit to unit

in hospitals. Accreditation Canada has recognized the importance of effective communication and information transfer at transition points as critical to patient safety, and outlines required organizational practices which must be in place to minimize risk. Importantly, these guidelines now extend to sending information to other settings outside the organization (ROP Handbook, 2010). Tests for compliance include requirements for mechanisms to be in place for timely transfer of information (such as transfer forms and checklists), demonstration of staff awareness of mechanisms used to transfer information, and documented evidence that timely transfer of information occurs.

Along with numerous co-morbidities requiring accurate information exchange, patients with hip fracture have ongoing rehabilitative needs which cross the care continuum. The majority of patients experience limitations in mobility and declines in functional status in the aftermath of hip fracture (Bentler et al., 2009), and the probability of needing help in activities of daily living (especially bathing and dressing) has been found to be up to eight times higher than in non-injured seniors (Carrière, 2007). In attempts to maximize their functional outcomes, hip fracture patients are typically referred for ongoing rehabilitative services upon hospital discharge to home care and sometimes on to outpatient care. Each of these care transitions involves a handoff of rehabilitative care, most commonly, physiotherapy. Specific circumstances and challenges related to information transfer across care settings for rehabilitation providers have not been identified. Few studies have attempted to determine what actually occurs at transition points, or where coordination problems occur across the continuum (Weinberg et al., 2007). In addition, the impacts of care handoffs on patients and family caregivers as they prepare to assume their roles in care have not been examined.

Given the dearth of information on handoffs in rehabilitation care, as well as across care settings, this study aimed to gain an understanding of the information needs of physiotherapists, patients with a hip fracture, and their family caregivers across the continuum of care. As persons with hip fracture make transitions between services and their care needs change, timely and accurate communication of patient and clinical information across settings is crucial.

1.2.1 Purpose and Research Questions

This study was designed to explore the exchange of information regarding patients with hip fracture, in their journey through the rural health care system in real time. Specifically, the purpose of this study was to explore information transfer and information exchange occurring through care handoffs being executed by physiotherapists across the care continuum. The research questions were: 1) What information do physiotherapists *see as important* to managing a hip fracture and sharing with others in order to optimize care for patients at points of transfer across the continuum of care? 2) What information do physiotherapists *actually exchange* across health care settings? 3) What are the *challenges* to exchanging information through care handoffs to optimize rehabilitative care for frail elderly patients during points of transfer across the continuum of care? Ultimately the key concept of interest became “how does information exchange by physiotherapists contribute to the patient and family experience of continuity of care across settings”, a question that includes informational and management aspects of continuity of care.

2 STUDY APPROACH AND METHODOLOGY

2.1 Study approach

As mentioned in the preface, the current study was part of a larger study of health information transfer across the continuum of care for seniors who had fractured a hip, namely, Inforehab: Enhancing MSK Rehabilitation through Better Use of Health Information (Stolee, 2009)¹. In the larger project, data were collected from three sites: one in British Columbia and two in Ontario. These sites focused on different health care contexts, including large urban, mixed smaller urban and rural, and rural. In order to study practices in their everyday, real life settings, a qualitative, ethnographic approach was chosen for InfoRehab. Qualitative methodologies are suitable for exploring behaviours, attitudes and interactions of groups of people. Ethnographic approaches allow researchers to explore and examine environments in action through “being there” (Murchison, 2010, p.12). Witnessing interactions firsthand allows one to explore dynamics and gain in-depth understandings of the health care environment (Brewer, 2000). A key strength of ethnographic study is the ability to “illuminate locally relevant understandings and ways of operating” (Murchison, 2010, p. 12).

2.1.1 Research paradigm

The research paradigm throughout the planning, fieldwork and data analysis was shaped by relativist ontology (Guba & Lincoln, 1994; Findlay, 2006). Patients come to rehabilitative care with a common diagnosis of hip fracture, however, their varied ages, pre-fracture lifestyle, level of functioning, home situation, socioeconomic status, co-

¹ Stolee, P. (2009). Inforehab: Enhancing MSK Rehabilitation through Better Use of Health Information, CIHR Emerging Team Grant, Applied Health Services and Policy Research, No. 190378.

morbid health conditions, and treatment trajectories yield a range of multiple realities of their situations. Family caregivers come from a range of backgrounds and experience, contributing more variation to each patient's experience across the episode of care following a hip fracture. Similarly, health care providers hold a range of clinical experience, and they function in a variety of care environments and service situations.

The study was guided by interpretivist-constructivist epistemology (Ponterotto, 2005). In this view, the multiple realities of the research participants are conceived through interactions with the investigator, with the goal of understanding their "lived experiences". With an ethnographic approach in particular, the researcher can function as a "participant-observer" (Murchison, 2010, p. 13), allowing not only observation, but the experiencing of events, interactions and conversations in action. Deep reflection, through "interactive researcher-participant dialogue" uncovers deeper meanings, and generates data jointly co-constructed by the researcher and participants (Ponterotto, 2005, p. 129). Throughout the study, the researcher was keenly aware of her active role and its influence on the data being generated.

As a physiotherapist with expertise in geriatric care, the primary researcher brought both insider and outsider perspectives to the study. Being an insider with respect to the health care context, and specifically to rehabilitative care, offered advantages of familiarity with the various care settings and a level of comfort in approaching and interviewing participants. Living and working in a more urban locale than the community under study provided some aspects of outsider perspective. By engaging in ongoing reflexivity (Findlay, 2006), the influence of various preconceptions, opinions and ideas of the researcher were recorded and reflected upon throughout the study. Reflective

journaling and analytic memos informed the iterative process of data collection and data analysis, and facilitated the interpretation and construction of findings.

2.1.2 Enhancing quality of the study

To promote trustworthiness of the findings, criteria described by Guba and Lincoln (1985) were applied to the study design: credibility, dependability, confirmability and transferability. Credibility entailed peer debriefing, where the research process was described to the large group of InfoRehab co-investigators and students through research group meetings. In addition, interpretation of findings was reviewed with a group of “disinterested peers” via lab group meetings. As noted by Lofland et al. (2006) an important advantage of team-based research is that individual fieldworkers have colleagues who both share interest in the settings and individuals under study, and are actively involved in the research. This was one of the strengths of the larger InfoRehab study. Dependability involved the use of triangulation of data from the various sources (i.e. observation, interviews and document review) in corroborating interpretations during data analysis (Mays & Pope, 2000). The use of an audit trail, which was kept throughout all phases of the study, assisted with confirmability, or the ability of others to follow the process of decision making during data collection and interpretation. Transferability was facilitated through thick description of the findings with the aim of enabling those interested in transferring findings to other contexts to determine through their reading whether the concepts are similar enough to make such a transfer.

2.2 Methodology

2.2.1 Ethnographic approach

In order to explore and follow the transfer and exchange of information regarding patients with hip fracture, in their journey through the health care system in real time, an ethnographic approach was chosen. Ethnographic approaches applied to health care provide a way of accessing beliefs and practices in the context in which they occur, facilitating understanding of the behaviours of patients and health care providers (Savage, 2000). Observation “in the field” is fundamental to the ethnographic approach (Richardson, 2006). Interviews allow one to further explore the thinking and reasoning of participants in order to more closely interpret and describe interactions and behaviours observed in the field. In-depth interviews help to capture detail of participants’ perspectives and experience (Richardson, 2006).

Documents and other artifacts collected from the field can serve to enhance the completeness of the data.

2.2.2 Study site

The current study came from the part of the larger study that was carried out in a rural health care setting in southwestern Ontario. One third of seniors in our population reside in predominantly rural regions with proportions of seniors increasing as the distance from urban centres increases (Danby & Bollman, 2008). There are also known inequities of health care services in the urban-rural continuum (Sibley & Weiner, 2011) and increasing questions about how rural communities will be able to meet the challenges of providing care to increasing numbers of vulnerable elderly with limited pools of health care professionals (Skinner, Rosenberg, Lovell et al, 2008).

The rural site was a post-health care restructuring merger of two acute care hospitals. The larger maintained 60 acute care beds. The smaller hospital operated 16 acute care beds. Three linked components were incorporated into the focused study design: 1) in-depth, semi-structured, audio-tape recorded interviews with patients, family caregivers and health care providers at admission and discharge points of various care settings; 2) participant observations of interactions between and among patients, family caregivers and health care providers before, during and after the interviews that were entered into electronic field notes; and 3) documents received by patients and family caregivers, as well as those deemed relevant for admission or discharge by health care providers, were copied for a document review.

Members of the Rehabilitation Services Department at the larger 60-bed hospital served as study collaborators and made the initial contact with potential participants. Patients interested in participating in the study signed a "consent to contact" form (Appendix A), that was forwarded by secure fax to the researchers. Participants were then contacted by members of the research team and an in-person meeting was arranged, during which a letter of information (Appendix B) and in-depth explanation of the study were provided. Participants who signed the consent to participate form (Appendix C) were enrolled in the study. Family members and health care providers were recruited in two ways: a) through initial contact with study site collaborators or b) following patient transfers to other care settings, through direct contact by the researchers.

Inclusion criteria for patients with a hip fracture were: over age 65 and currently admitted to an acute care ward post-hip fracture surgery. Patients with cognitive impairment who could not give informed consent could be included, provided their next

of kin / power of attorney for personal care provided consent. Family caregivers were included if they were identified as providing care to the patient. Health care providers were included if they were involved in the patient's circle of care. An additional criterion for all participants was that they were able to participate in interviews in English.

2.2.3 Participants

Between December 2009 and January 2011, 11 patients (8 female and 3 male) were recruited following hip fracture surgery at the 60-bed acute care hospital. Purposive sampling was used in order to generate a sample consisting of study participants with a variety of pre-morbid situations and care complexity (e.g. absence of spouse, cognitive impairment, and multiple co-morbidities) and diverse probable care trajectories, to maximize the variety of care settings to which care was being handed off. The average age of the patient sample was 80.3 years. The patients came from several different home settings: seven lived in a detached dwelling, three of these lived alone, and the remainder lived with a spouse or son / daughter as caregiver. Four patients were in an assisted living / retirement home environment prior to experiencing their hip fracture. Along with the 11 patient participants, 8 family caregivers (2 spouses and 6 sons/daughters) were recruited. Their average age was 57.5 years.

Twenty-four health care providers from a variety of health care settings participated in the study. These included health care aides / registered practical nurses (N=4), registered nurses (N=7), physical and occupational therapists (N=10), physicians / orthopaedic surgeons (N=3). For the most part, these individuals had a great deal of experience working in the rural health care environment, an average of 20.4 years. A number of health care providers were interviewed as key informants, as they were not

directly working with any particular patient. They provided an overall picture of general policies and procedures for the admission, discharge and overall care of hip fracture patients within the study site hospital. Not all therapy providers were interviewed for all patients in all settings, however, due to the rural nature of our setting, some physiotherapy providers cared for and discussed more than one patient.

2.2.4 Data collection

Semi-structured interviews were completed with patients, and members of their care network (family caregivers and health care providers), at each care setting of the recovery journey. Patients and some other participants were thus interviewed on more than one occasion. In the ideal situation, interviews were initiated in the acute care setting. However, a number of patients were transferred to subsequent care settings before all interviews could be completed. In these cases, some interviews took place retrospectively, and in other cases, data collection commenced at the next post-acute care setting.

Interviews followed an informal interview guide (Appendix D) that also allowed for further probes or queries depending on directions taken by interviewees. Interview times varied from 25 to 45 minutes, with most lasting about 35 minutes. The majority of interviews took place face to face, with a few completed by telephone. A total of 58 interviews were completed, consisting of 21 patient interviews, 11 family caregiver and 26 health care provider interviews. Interviews were recorded and transcribed verbatim by the researchers, with some assistance from a paid transcriptionist in order to keep up with the volume of data. Interview transcripts were de-identified and all participants were assigned pseudonyms to maintain confidentiality.

In addition to interviews, observation periods occurred during visits to the study site hospital for participant recruitment, attendance at the team rounds, as well as during the formal interviews, for a total of 65 hours. During some of these periods, the research team observed patients undergoing routine care, receiving or being transported for meals, participating in physiotherapy sessions, as well as actually being discharged home. In addition, while reviewing health records at the nursing station, researchers were able to unobtrusively observe informal communication amongst health care providers on the unit, during telephone, as well as informal "hallway" conversations between various health care providers. During these periods of observation, researchers gained a sense of the general "milieu" and camaraderie amongst the workers in the various facilities.

Field notes were completed for all episodes of interviews and observation periods, immediately following, or as soon after as was feasible, using a field note guide (Appendix E). Some periods of observation took place separately from interviews, such as attending rounds, specifically attending to observe a patient being discharged, or while reviewing patient charts on the unit. Field notes provided ongoing recordings of experiences and observations from the various study environments. Additionally, analytic memos and notes were kept to document emerging ideas and reflections, to inform early data analysis and provide further direction as the study unfolded.

To provide a further source of pertinent data, documents relevant to patient care and transfers between each care setting were collected. These included both blank forms applicable to care of hip fracture patients, participant health records, patient education information, and policy documents. A total of 286 pages of health care record documents, and 15 pages of information transfer policy documents and forms were retrieved. A 32-

page patient education booklet entitled “My Guide to Total Hip Replacement” in use at the rural hospital was also obtained. These documents were scanned and utilized in a content analysis in the document review phase of the study. In addition, they provided a means of triangulation during data analysis, i.e., verification and checking through multiple sources of data (Lofland, et al., 2006).

2.2.5 Data analysis

Transcribed interviews, observation field notes and relevant documents, were entered into a qualitative data management program, NVivo 8, (QSR International, 2008). The primary data source for analysis of physiotherapy handoffs were a data subset of eight physiotherapy (and one physiotherapy aide) interviews, one occupational therapist interview, and two orthopaedic surgeons interviews along with physiotherapy specific handoff documentation. All interview transcripts were examined for references to physiotherapy. Pertinent references to physiotherapy care made by other health care providers, patients and family caregivers, or found in health care documentation, were also incorporated into the data analysis.

The inductive, data-based analytic approach was informed by the guidelines of Lofland et al. (2006), as well as Graneheim and Lundman (2004). The *unit of analysis* (Graneheim & Lundman, 2004) was the physiotherapy care handoff. Interview transcripts, field notes and documents were read through three times “to obtain a sense of the whole” (Graneheim & Lundman, 2004, p.108). Following this, sources were inspected line by line, and data were condensed and structured into initial meaning units and categories. These initial units were reviewed by the team of four researchers to ensure consistency of understanding. Following this, a process of focused coding further

developed the initial codes into more elaborated interpretations. Through this process, the “flow of reality captured” (Lofland, 2006, p.203), in the field notes, interview transcripts and documents were organized into conceptual themes and evolved into the framework presented in the findings. During the course of the fieldwork and data analysis, researchers also kept memos, where emerging ideas and their interconnections were stored and reviewed with the team. Code memos, theoretical memos and operational / procedural memos (Lofland, 2006) all contributed to the processes of coding and making sense of the data.

2.2.6 Ethical Considerations

Ethical approval for this project was granted by The University of Western Ontario Health Sciences Research Ethics Board (Appendix F). To ensure confidentiality, all participants were given pseudonyms, and all identifying information was removed from transcripts, field notes and health care documents.

3 FINDINGS

Considerable quantities of rich data were accumulated from fieldwork and retrieval of documents during the course of the study. These findings are presented first with a description of the rural study environment, specifically related to rehabilitation services for patients with hip fracture. This is followed by an illustration of the various care trajectories through which the patient participants with a hip fracture travelled, and the associated physiotherapy care handoffs that were observed. The categories and themes revealed in the data are then presented as they relate to the key research questions around handoffs made by physiotherapists.

3.1 The study environment

As noted earlier, the main study site consisted of two rural hospitals (60 beds and 16 beds) which were amalgamated following health system restructuring; together the two sites serve a population of 78,000. The patient care units featured some interesting aspects of context. The acute care unit where study patients were first recruited (larger 60-bed rural hospital) provided services to two very different patient populations. These were obstetrical patients (i.e. labour and delivery and care of newborn babies), along with patients requiring general medicine and surgical care consisting of primarily an elderly patient population. These diverse services and patient populations situated on one unit were a noticeable reminder that we were in a rural hospital setting, as illustrated in one of the interviews taking place in an office on the unit:

I: I hear a baby crying.

P: Nobody was in to deliver as far as I know.

I: Maybe it's visiting.

P: That's true too.

The other rural acute care unit (smaller 16-bed rural hospital) was notable for its small size of sixteen beds. The staff physiotherapist's time was divided between inpatient and outpatient care, which occasionally brought unique challenges, as illustrated in a conversation with the administrator of Rehabilitation Services:

"Yes and if it's busy, like there was 10 admissions over the weekend (laughs) so it went from 2 to 10 [patients]... it's more of a challenge because sometimes you increase your out-patients, when you are not busy, it's a small unit ... then all of a sudden you have to start cancelling because in-patients take priority."

In the year prior to the start of the study, some important administrative changes had taken place at the study site [organization] reflecting the economic pressures in the health care system and having significant impact on the rehabilitation services. During interviews and observations it was learned that the hospital had been subject to a Ontario Ministry of Health and Long Term Care financial audit in the year prior to our study, the result of which required the administration to generate a substantial amount of savings in the budget. Following a lengthy period of discussions and negotiations, a decision had been made to close the fourth floor acute care unit of the larger hospital. This unit had provided a sub-acute, rehabilitative type of care for primarily elderly patients with stroke and hip fracture.

Following the interview, we spoke a bit further off tape about the rehab unit which used to be on the fourth floor; The doctor expressed regret that it had been closed and stated that ... had "fought against it" and further explained that it occurred because of a financial audit of the hospital, that two million in savings had to be found, and "that was ½ million" in closing the fourth floor...

(field note: conversation with a physician,)

The closure resulted in the downsizing of staff, including rehabilitation personnel, in which the Manager of Rehabilitation Services had played a lead role, as noted in this interview:

A: ... we didn't have the rehab designation and were not funded for rehab ... so we couldn't afford to keep it.

H: ... so you were quite involved in all the decision-making?

A: Yes, I was not a popular person, I was head of the team who closed the floor

H: ... that must have been difficult for you

A: realizing that staffing cuts for a whole bunch of departments including my own

H: your own staff?

A: yes, that was hard ... and it's money. You know, we couldn't balance, we were under an audit. So what do you close...?

Other staff also spoke about their perspectives of the impact of “losing” this unit where patients with hip fracture had previously been provided with post-acute care, without an alternative unit being available for this type of rehabilitative care:

“so I think ... [the] only thing that I have ever thought would be helpful would be that if there was a place for people to go where they could do this rehab, now with the 4th floor here at the hospital that's what happened, the clients would go up there ... there was a gym and physios ... it was mostly stroke and fractures, and you know that worked and its gone ... even though everyone saw the value of that kind of health care and the hospital chose to close it.”

(RN)

A geriatric musculoskeletal rehabilitation unit was located in a major urban health centre only a half-hour drive away, however, this unit was not perceived to be available to this rural patient population:

H: So there is a ... unit at [urban hospital] for geriatric musculoskeletal rehab...

S: No beds.

H: ... it's not really been an option for patients from here?

S: There's never a bed.

(surgeon)

Additional acute care beds were closed during the study time-frame. The 60-bed hospital was reduced to 54 beds, resulting in concerns with availability of beds for patients with hip fracture waiting to be admitted from the emergency department as noted in this interview with a hospital physician:

MD: ... once the admission orders, history and physical is completed, the patient proceeds hopefully to a bed on the floor, if there is a bed available.

H: Is it happening often that there might be a delay in finding beds?

MD: More so than there used to be. They closed a bunch of beds in July, once they did that, they created a problem that we see in every hospital, which is people sitting in the emerg department.

H: Yeah, I know they closed the fourth floor, I think it was the summer before ... so were there more beds closed in July? I don't think we knew that.

MD: Yeah, I think six beds in total.

The hospital staff was working in conjunction with the Ontario Bone and Joint Health Network (BJHN) (www.boneandjointhealthnetwork.ca) to implement the Provincial Model of Care. This new model of care was developed in 2008 to improve access to surgery, rehabilitation and increase the number of patients with hip fracture returning home to the community. As of December 2010, the website reported that 75% of acute care hospitals in Ontario had "gone live" with the new model, including 38 of 54 acute care hospitals that provide orthopaedic surgery. Execution of this initiative at the study site hospital arose during an interview with the administrator of Rehabilitation Services, indicating that care model implementation was somewhat disadvantaged when not accompanied by additional dedicated funding for services in rural settings:

H: So ... are there all the resources in the more rural communities to implement the pathway the way they were able to implement in Toronto?

A: No, no. We do not have those services, we don't have the ...

H: ... they had ... geriatricians,

A: we don't have that, and we don't have the pain specialists that they want, or have access to, no, we can implement part [of] the pathway as best as

we can in the rural, that's how it's structured ... the same as the hip and knee pathway for the total joints, you know, we don't ... have all these specialists, and so it's always, the pathway is always as your hospital is able to[implement it].

The availability of resources and rehabilitation care settings was reflected in the care trajectories travelled by the patients recruited into the study, as discussed further below.

3.2 Patient care trajectories

Patients travelled a variety of care trajectories, as summarized in Table 1. The simplest trajectory was hospital admission through the emergency department with hip fracture from home, followed by surgical repair and recuperation in hospital and return to the pre-admission home setting. A more complex care trajectory after arrival at the rural hospital emergency department included transfer to an urban academic health centre for surgery, followed by a return to home hospital with a subsequent transfer to initial retirement home setting. Patient D had the most complex of trajectories, including initial presentation from retirement home to another small rural hospital for x-rays four days after fall, transfer to the study site hospital for surgery, transfer to a respite bed in a long term care facility, return to study hospital for surgical revision due to non-union of fracture, and ultimately resigning their retirement home accommodation and becoming a permanent resident of the long term care facility. Patients in the sample had an average acute care hospital length of stay of 23.4 days, with a minimum and maximum of 9 and 60 days, respectively. One patient (A) died during the course of the study.

Table 1. Patient Care Trajectories

A	Home → rural hospital 1 → rural hospital 2 → deceased
B	Home → rural hospital 1 → RH (Short Stay) → Home (without CCAC)
C	Home → rural hospital 1 → LTC → Home (without CCAC)
D	RH → rural hospital 3 → rural hospital 1 → LTC (respite) → rural hospital 1 → LTC (permanent)
E	Home → urban hospital → rural hospital 1 → Home (CCAC) → outpatient PT
F	Home → rural hospital 1 → Home (with CCAC)
G	Home → rural hospital 1 → LTC (permanent)
H	RH → rural hospital 1 → urban hospital → rural hospital 1 → RH (with CCAC)
I	Home → rural hospital 1 → LTC (permanent)
J	Home → rural hospital 1 → Home (with CCAC) → outpatient PT
L	Home → rural hospital 1 → Home (with CCAC) → outpatient PT

PT handoffs are depicted by →

Note: "Home" = independent living situation; "RH" = retirement home / assisted living setting, "LTC" = long term care facility; CCAC = Community Care Access Centre (home care services)
 Rural hospital 1 = larger hospital; rural hospital 2 = smaller hospital;
 rural hospital 3 = small hospital in another community;
 urban hospital = large academic health care centre

Patients were followed across 17 physiotherapy handoffs. All patients had handoffs of physiotherapy care during the first transition from the surgical acute care hospital to the second care setting: four to home care physiotherapy, and others to therapy services at another hospital, retirement home, or long term care home. Four of the patients had a second physiotherapy handoff, three from home care to outpatient physiotherapy, and patient D upon return to long term care following revision surgery. Patient E experienced three physiotherapy handoffs. Patients B and C were anticipated to have therapy handoffs upon return home, but these were not observed to occur. Researchers were unable to ascertain the reasons why these two patients did not receive

home care physiotherapy referrals. Five of the patients had transitions across Local Health Integration Network (LHIN) boundaries. This was of interest as each LHIN has its own Community Care Access Centre (CCAC) administration, staffing and service policies, making handoffs somewhat more complex.

The following sections will outline findings about how the patients' journeys through care transitions interfaced with the flow of information about them in this rural setting. Along with this, how the physiotherapists gathered the information they needed, used the information, and prepared information for the handoff of care to the next setting are presented, framed by the research questions. Because the majority of physiotherapy handoffs occurred from acute care to a second care setting, the findings are somewhat more heavily weighted to information exchange within and out of the acute care setting. As issues are highlighted in the findings, some of the impact on patients, families and physiotherapy care providers are also discussed.

3.3 Information important for physiotherapists in hip fracture care

Research question #1: What information did physiotherapists see as important to managing a hip fracture and sharing with others in order to optimize care transitions for the patient at points of transfer across the continuum of care?

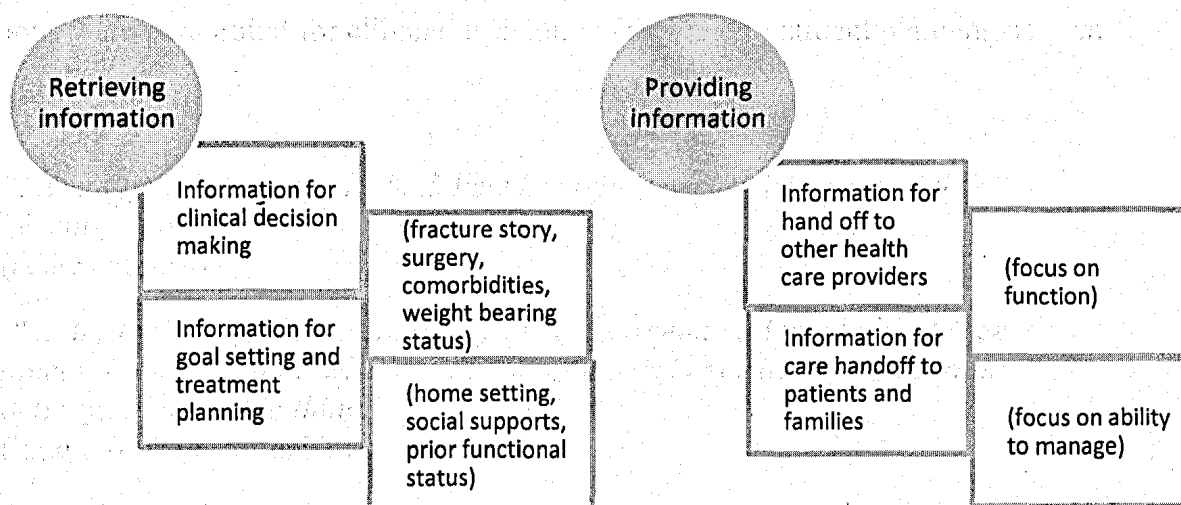
While patients were not recruited into the study until after the surgical repair of their hip fracture, one can follow the story commencing from the time of fracture through reading the documentation in the health care record. In addition, patients were asked to describe how their fracture occurred and to describe their journey to hospital during their initial interviews.

Health care documentation after fracture was begun by the paramedics who responded to the emergency call. Relevant medical information was transferred into the hospital record from the paramedic notes at the time of presentation at the emergency room, by both emergency room physicians and nursing staff attending to the patient. Each subsequent consultant, such as the orthopaedic surgeon, anaesthesiologist, internal medicine consultant, built on the information found already in the record.

Physiotherapists were typically not consulted to care for the patient until a referral was written in post-surgical orders, which, in effect constituted a care handoff from the surgeon. Therapists then also copied the fracture documentation and other pertinent information from the record. The same phrases appeared, often word for word, in various health care providers' notes.

The most important aspects of information needs discussed by physiotherapists fell into two main categories, regardless of care setting: ***Retrieving Information and Providing Information***. Two subcategories of retrieving information were: information needed by physiotherapists for clinical decision making and information needed for goal setting. Providing information entailed information perceived by the physiotherapists as required by other members of the health care team, and information perceived by the physiotherapists as required by the patient and family caregivers. These categories are depicted in Figure 1 and discussed in further detail below.

Figure 1. Aspects of information important to physiotherapists in managing a patient with hip fracture



3.3.1 Retrieving information

Information for clinical decision making

Initial information needs described by physiotherapists upon receiving a referral for a post-surgical patient with hip fracture involved knowing about the patient's current and premorbid health history, and any other co-morbid conditions that might impact on rehabilitative care:

"Yeah. and it depends on which health conditions we're talking about so if there's heart conditions, obviously that's important for treatment, and things like arthritis, so that if I know that patient's knee is sore, that I know, ok they've had arthritis for a while so that's probably why it's sore."
(acute care PT)

"Oh, we ... go through the history, uh, the present complaint and illness, the past or previous medical history, the medications that they are on, the investigations and follow up appointments they have in the future ... factors that could affect the treatment like vision, hearing, language, memory, cardiovascular, respiratory, um ... is there any other additional ... complications in the hospital ..."
(home care PT)

In addition, knowing the mechanism of injury, type of fracture, the surgical procedure undertaken for its repair, and the prescribed weight bearing status or other post-surgical precautions were paramount for clinical decision making and treatment planning as seen here:

"...what type of surgery she had, how her injury occurred ... her weight bearing status ..."

(acute care PT)

"... try to find any documentation from the surgeon ... I would like to see precautions. You know, whether it be weight bearing or avoiding a certain activity,...that's a big thing."

(long term care home PT)

Several therapists further elaborated on the reasons that knowing the post-surgical weight bearing status, or other restrictions from the surgeon, were perceived as important at various stages of patients' trajectories, such as being able to appropriately progress the patients' rehabilitative treatment:

"... when it's a fracture surgery, the big thing is the weight bearing status. That tells me what I can progress her to ... it's quite variable with fractured hips, and mainly dependent on the client. If they're an elderly, very osteoporotic, they're going to have more limited weight bearing status. You know, depending what they're doing to fixate the joint as well, sometimes the surgeon will leave it partial weight or 50% for the first six weeks; occasionally I get weight bearing as tolerated which means we can progress to a cane. So it is variable, but its more, you know as I say, dependent on client, surgeon, surgery, type of thing."

(home care PT)

Physiotherapists in the acute care setting described being at a particular disadvantage when caring for hip fracture patients who arrived from long term care homes, where little or no information was received upon admission to hospital:

PT: ... a lot of times I find the most difficult aspect is if they're being transferred from the nursing home, sometimes they didn't get a transfer note, so we don't know how they were being transferred at the nursing home, whether they were using ...

H: If they were ambulatory ...

PT: If they were even ambulatory you know if they were taking steps, or if they were using a lift ... that's very frustrating when I don't really know how they were before.

(acute care PT)

Information needed for goal setting in rehabilitation

Knowing about the patients' home environment and social supports was important for setting appropriate goals for physiotherapy treatment. Social history referred to marital status, living situation, and family supports. These aspects were sometimes found in the health care records, but often were obtained from patient and family interviews that took place as part of the physiotherapy assessment and treatment sessions.

Acute care providers were particularly concerned about multi-level homes with stairs, as well as whether patients had been receiving help from family or other sources prior to their injury:

"... her social history where she comes from, do they have stairs in the house ..." (acute care PT)

"... their social history, who they live with, what type of housing they lived in, if they were having any supports coming into the house previously..."

(acute care PT)

Physiotherapists working with patients in the immediate post-surgical period were also interested in patients' prior mobility status and usual levels of activity prior to the hip fracture in order to set appropriate post-operative rehabilitation goals, and execute treatment plans:

"...how were they before when they were walking, I mean before they came into the hospital..."

(acute care PT)

PT: ...that information is very important to us, to see what their pre-admission status was.

H: Yes, for how they got around, or ...?

PT: yes,

H: their walking ability?

PT: yes.

(acute care PT)

Planning discharge and care handoffs from the acute care setting and deciding appropriate objectives of the rehabilitation program also required input from patients and families, particularly with respect to the family's ability to assist the patient in the immediate post-discharge period at home:

" ... so family helps ... again like I said, so how capable they are of handling the situation, can um, change what the goals are..."

(acute care PT)

Specifically, the ability of the family to "*handle the situation*" arose in a number of conversations with health care providers. This typically referred to deciding on the appropriateness of handing off care to family caregivers of patients who would require physical assistance with transfers, ambulation, and other activities of daily living for some time following discharge home. In fact, if the family were deemed not able to "*manage*" then the discharge goal might change to long term care placement rather than aiming for return home. This aspect of clinical decision making also seemed to be related to the unavailability of an inpatient rehabilitation unit discussed above, and the theme of providing information to the health care team, discussed further below.

Information on social supports and home situation also affected setting of goals and planning of rehabilitation treatment by home care therapists with clients who had returned home from hospital and were receiving home care physiotherapy services following the handoff from acute care:

"... the social history a little bit ... what the client concerns and goals are..."

(home care PT)

Additionally, for therapists working in the home care setting, information on the CCAC service plan, service priority level, number of therapy visits, and contact information for the client and family members were important at receipt of the handoff. As well as influencing the setting of therapy goals, these aspects determined the time-frames within which home care therapy services were required to be delivered, allowed home care therapists to schedule the home visits, and involve family members if possible, in the home rehabilitation program. This information was not received from other physiotherapists at the time of their handoff, but was rather compiled by the CCAC hospital case manager.

"... things such as what [geographic] area her case manager [covered] ... contact people ... priority for the client, meaning how soon they should be seen, it'll have service plan on it."

"And with the fractured hips it's variable, depends on the client. Certainly elderly is more, usually its anywhere four to six [visits], over six weeks to two months, is an average."
(home care PT)

3.3.2 Providing Information

Information for other members of the health care team

The role of information provision by physiotherapists during the post-operative rehabilitation, discharge planning and team communication was explored during interviews with physiotherapists, other health care providers, as well as patients and families.

Functional mobility is the primary focus

Physiotherapists in acute care described functional mobility, and the patients' progress in this regard, as the primary focus of discharge summaries prepared for handoffs to the next setting, for patients going to home care or long term care settings:

H: Ok so if someone is leaving from here and they're going to have home care therapy, will you do a discharge summary yourself for that home therapist?

PT: Yeah, and it's generally, depending on where they're going, so if they're going home, I would um, more just make it a ... more handwritten, of what they can do, what we've been doing, um and what they, what they're able to do, um, what we've been working on, what they would benefit from and what I've been working on with them...

(acute care PT)

The Community Care Case Manager in the acute care hospital was responsible for arranging home care services for patients returning home. In addition, she assisted families to locate temporary respite or long term care placements for patients unable to return to their previous living situation following the acute care stay. In order to carry out this role, she spoke of her reliance on information about patients' functional status provided by physiotherapists in the health care record:

H: So what's the most important information that you need from the chart when you're setting up the respite bed ...?

RN: ... its functional information ... as well as the social, um, functionally the physio report, the occupational therapy report, and the surgeon's history.

Other nursing staff also described physicians and surgeons as heavily reliant on rehabilitation providers, especially information provided by physiotherapists, in decisions regarding discharge destination for the patients:

"We're expecting him to go home, hopefully by early next week I hope. We're just waiting for physical therapy I think. The doctors really rely on their judgment about discharging these patients ... The joints [patients with joint replacement surgery], he always says when they're surgically done it's up to physio when they go home, so...

(RN clinical leader)

Interestingly, physicians also expressed a reliance and confidence on information provided by physiotherapists in their own handoff of the patient's care to physicians in other care settings:

H: So thinking about people being prepared for discharge then, can you walk me through what you do, when their discharge is happening, and their destination is decided, what kind of information do you look after transferring to the next setting, it would be like a handoff from you as a physician to the next physician?

*MD: Yeah, well we have to fill out the CCAC form, so that's part of the information transfer, usually we try to make sure the discharge summary is handed over to the next physician; but most of the information is really nurse to nurse, I think that that is where we expect that the information is going to be transferred to the next facility, and physio usually does a discharge note as well, so I think between the two of them, they sort of get the bulk of information to the next facility.
(hospital physician)*

For transfers to long term care settings, even if the patient was not going to receive ongoing physiotherapy, physiotherapists expressed a responsibility to communicate information about the patient's functional mobility to assist nursing staff in caring for the patient:

" um, but when it comes to going to the facility that they're going to, I write a discharge note for the physiotherapist, and also if I know that there's not going to be direct physiotherapy, if there's nursing or something like that, I always um write a note about how they can transfer, um, whether they can walk to the bathroom, how much assistance they need, things like that, so the nursing or whoever is actually taking care of them, know what they're able to do ..."
(acute care PT)

Information for patients and families

In providing information to patients and families, physiotherapists focused on the patient's progress in improving function with therapy, and helping families anticipate equipment and care needs at home (or the next care setting). On occasions where information exchange with families was face to face, there was more clarity than when family members were unavailable to visit the hospital during regular work hours. This interview with a family caregiver revealed the confusion and stressful consequences

which occurred when caregivers were not able to interact directly with the physiotherapist:

L: ...because he was doing very little, and then eventually he said physio had come up ... it was later on that I did call physio and said what is happening with him ... how much is he being assisted with, and how much can he do?

H: ... so you called for information?

L: Yes, I did ...to be sure what and how he could move, you know, they recommended that he needed to have the pillow between his legs to move, to keep the legs moving in unison ... But I don't know whether any precaution was really advised as far as the amount of flexion or anything ... because it sounded like he would be able to lift and bend his knees you know as an exercise, but not by very much because the muscle and the incision needed to heal first too.

H: ... and how, when you made the phone call, did you get ...

L: To some degree, yes, I was enlightened a little bit more then ...

In some instances, family caregivers were advised of equipment necessary for the patient on transition to respite care in a long term care setting. However, certain details were missed when the caregiver attending the family meeting was not the same caregiver who was arranging for the equipment, with resultant stress and confusion:

"And then, because I wasn't there, and I don't think I got the message until Thursday night, that she had to have a walker and a wheelchair, a stationary walker or whatever you call them, that she couldn't come to [the long term care home] before she got it, that was kind of a confusion that there are two people trying to do the same thing at once, which was annoying when I would have thought that kind of thing would have been facilitated in between the hospitals and here ... I knew that mom needed a walker and a wheelchair but I didn't realize that it had to be here (emphasis) before she would be able to be admitted. That was the detail."
(family caregiver)

On other occasions, health care providers may have not recommended certain equipment, but family members, having more knowledge about the patients prior functioning in the home, were able to realize equipment needs which facilitated the patient's care. This example pertained to the use of a beside commode chair for an 88 year old patient:

Patient: That one lady said ... I didn't need a commode

Family caregiver: That was the CCAC lady

Patient: Oh my I certainly did!

Family caregiver: And she doesn't understand you well enough to know ...

she's up 3-4 times a night, she also takes a sleeping pill and for her to manoeuvre with a walker to the bathroom was just a little unsafe ...

Along with exploring information that physiotherapists *said* was important in

their care of patients with hip fracture, this study sought to understand information which was *actually exchanged* or transferred as patients made transitions to subsequent care settings utilizing ethnographic observation and collection of relevant documents.

Findings related to observed information flow are discussed further below.

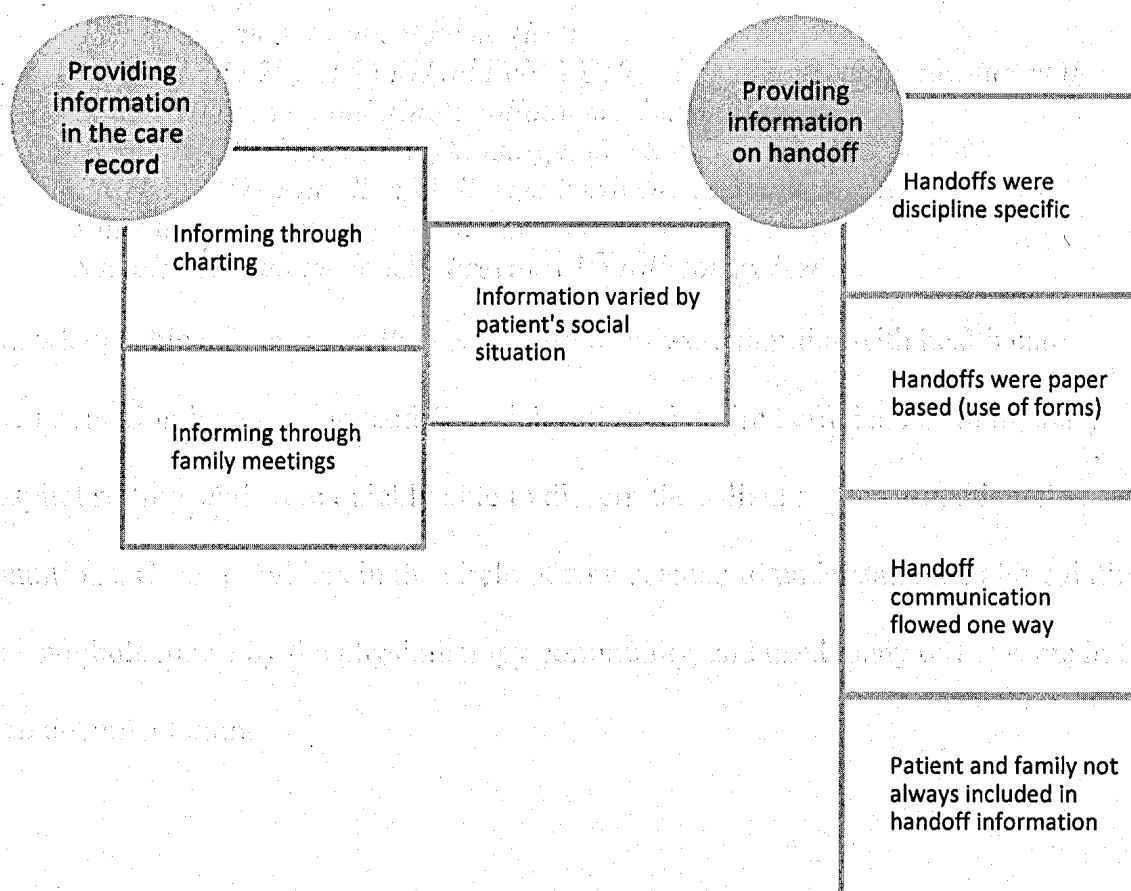
3.4 Actual information exchange at handoffs

Research question #2: What information do physiotherapists actually exchange across health care settings?

A large number of documents were collected through the course of the study. Of these 286 were health care record documents and 12 were blank templates or forms generally in use in the care of hip fracture patients in various facilities. In addition, three were patient and family educational materials, or documents which supported the care of hip fracture patients, and three were documents related to policies and procedures related to information exchange. Interestingly, the acute care site underwent the process of hospital accreditation (Accreditation Canada) during the course of the study. The mechanisms in place for compliance with the Required Organizational Practice (ROP) # 7: Information Transfer, were outlined in a one page document, and appeared to be heavily weighted toward physician and nursing communication (Appendix G). Rehabilitation staff had their own departmental policies and mechanisms for information transfer when patients were being discharged.

Health care documents displayed the actual transfer of information which occurred as patients made transitions to new care settings. Inspecting the structure, content and language of documents demonstrated informational elements which had been deemed important. Additionally, documents illustrated the methods of information gathering and subsequent transfer, or *how* the actual handoff of information took place. The review of documents in addition to interview questions and observations of actual information exchanged revealed several consistent findings, which fell into the overarching categories of providing information in the care record [to the health care team] and providing information on handoff [to the next care setting], displayed in Figure 2.

Figure 2. Information actually exchanged by physiotherapists



3.4.1 Providing information in the care record

Informing through charting

Information initially documented by acute care physiotherapists later became their source of information at time of handoff. After retrieving information from a variety of sources, usually, a handwritten note entitled "Physio Initial Ax [assessment]" was written in the progress notes section of the chart. These were structured in the form typical of medical notes, and covered the information indicated to be important as discussed above: patient profile (age, sex, previous home setting), history of present illness (fracture history), surgical procedure and weight bearing status gleaned from the orders, past medical history (co-morbidities) and social history (home situation, family supports). Notations were typically brief and concise, and made expeditious use of medical short forms and symbols, typical of most hospital health records as seen here for one patient:

PP: 91♀ from retirement home (RH)
HPI: # L hip 2° fall @ RH on Feb. 26/10 – did not present to hospital until Mar. 2/10 (was ambulating c̄ rollator walker until then)
*Sx: L hip ORIF Mar. 5/10 Dr. (surgeon) *Toe-Touch WB**
PMHx: CAD, a-fib, R hip#, R knee hardware removal, GERD, squamous cell carcinoma L neck
Social: Lives alone @ RH. Previous I c̄ rollator walker

Knowledgeable clinicians on the health care team were familiar with health care documentation language or "code", which reflected desired efficiencies in the busy hospital setting, and were quickly able to discern the salient aspects of patients' conditions. Other providers in the circle of care seemed to understand the abbreviations and symbols in use by the physiotherapy community, and used many of the same in their own documentation.

Information varied by patients' social situation

Through reviewing the health records of patient participants, some differences were apparent in the perceived importance of information regarding the social situation and home environment, depending upon whether the patient lived at home in the community or had come from a care facility. In the example of the patient above, no mention was made of family supports or layout of the home, presumably because retirement homes are perceived to be supportive care environments, and health care providers assumed fewer concerns at time of discharge. In contrast as seen below, this patient had lived independently in the community, and specific mention was made of his family, home layout, and stairs:

PP: 78 ♂ from home

HPI: Fell from 6' ladder & landed on L hip. Sustained L hip #.

*Sx: L hip bipolar hemiarthroplasty. *WBAT**

PMHx: hypertension, arthritis

Social: Lives w/ wife in house. Previously I w/ mobility.

2 step access. 1- level inside.

This was interpreted to be reflective of the anticipation of different therapy goals and their impacts on discharge planning for patients returning to independent living rather than assisted living environments. Interestingly, the patient in the first example functioned independently in the retirement home setting prior to her hip fracture, and had three daughters, all of whom lived some distance away. Because of her post-operative limited weight bearing status (toe touch weight bearing for six weeks), significant concerns did arise in her ability to function in her previous home setting, and following a family meeting, the decision was made to discharge her to an alternate destination (respite bed in a long term care home setting).

Informing through family meetings

The physiotherapist provided integral information during the process of planning the discharge destination in a family meeting, including his or her clinical opinion suggesting the choice of discharge destination, as was seen documented in the health care record by the RN (CCAC Case Manager):

March 10, 2010, 0830 Family conference c̄ niece Lucy, dtr Mary, RN(Clinical Leader), (Physio) and myself [CCAC Case Manager] (Physiotherapist) reports that Abbey requires constant verbal cueing for toe-touch weight bearing to walk c̄ std walker x 10 m. She requires 1 assist to make all transfers safe. (Physiotherapist) recommends LTCH [long term care home] level of care.

(Occupational therapist) OT report read to group and relayed her final verbal opinion, recommending LTCH level of care.

(Clinical Leader) RN reports that she requires transfers, toileting and assist c̄ all ADL's [activities of daily living] and needs planned care in d/c [discharge] setting.

(Family members) convey that client has verbalized that she will decline LTCH bed as she wishes to return to retirement home.

While this patient was initially very reluctant to move to a long term care home, even temporarily, she ultimately acquiesced after learning that staff at her previous retirement home setting reported they would not be able to meet her increased care needs during her prescribed period of restricted weight bearing.

Two of the male patients were discharged home to the care of their spouses. Through their cases, it was learned that family meetings were only held when the staff were recommending discharge destinations other than home, if the patient had cognitive impairment, or when they felt the patient was going home at perceived risk of adverse outcomes. As noted previously, in one case, his wife was unable to visit the hospital during the day, and thus interact with the patient's physiotherapy providers during business hours. While the patient was cognitively very capable, his spouse reported feeling quite uninformed about his discharge plans and his care needs at home:

*H: ... And so you didn't really have a family meeting to plan coming home?
L: Not at all. The only time we had any kind of family meeting, was the day he was coming home, because I called the CCAC ... and I said look I don't know what's going on, or what is really allowed or expected or where we're at here, because nobody's spoken to us at all...NOTHING.*

Once discharge destinations were determined, physiotherapists prepared information to hand off care to the next care setting, including home or another facility, as discussed below.

3.4.2 Providing information on handoff

In following patients across their care trajectories, observation and document review demonstrated that the exchange of information at the time of care handoffs was discipline specific, paper-based, and primarily unidirectional.

Handoffs were discipline specific

Information transfer during care handoffs occurred specifically by discipline. Physicians handed over medical care, nurses handed over nursing care and physiotherapists handed over physiotherapy care of the client to the new setting. Each health care provider utilized their own documents or forms to transfer information they felt was pertinent for the next care provider to know. This being said, cross-referencing about other health care providers' care was seen in the various documents, i.e. nursing forms and physician notes often commented that physiotherapy involvement was ongoing, and sometimes noted the weight bearing status.

Several physiotherapists indicated the usefulness of receiving discipline-specific information from their colleague in the prior care setting.

And I think that's the most useful information, because it comes from a physiotherapist who also knows what information is important to me, so they sum up that information which makes it a lot easier for me to get that picture [of the patient].

(acute care PT)

I really like the physio discharge note. I find I read that the most, it gives me the most pertinent information ...

(home care PT)

Handoffs were paper-based

Physiotherapists in the regional urban, academic teaching hospital developed a number of structured forms to facilitate their documentation in the health care record. An examination of these forms confirmed that the initial information needs for clinical decision making discussed above were key aspects (such as patient profile, type of surgery, past medical history and social supports) and were incorporated at the top of the forms, implying that this information was gathered first. The information later in the form relied on the initial information for context. Physiotherapists at the rural hospital aligned their forms for discharge documentation closely to that seen at the urban teaching hospital. Examples of these forms are found in Appendix H.

Patients were not aware of what information the physiotherapist had received, or how the communication about them had occurred when they commenced therapy in their new care setting:

H: ... so from [the hospital] to come to home care, the therapists hand off your physiotherapy from the hospital to the home care therapist. So how did you feel that hand off went?

E: It went good, I don't know whether ... the physiotherapist probably didn't have much communication with the hospital out here, but just they have their own thing, anyway I think so. And they did a good job, so.

H: Yeah, so they might not have direct communication like by phone ...but they might have had something written ...

E: I think by paper, yeah, written forms,

H: She seemed to know why you needed therapy, what had happened to you?

E: Yeah, she's not the one that was at the hospital ... I follow her directions now ...

(patient)

Handoffs from home care to outpatient care were less reliant on standardized forms, but rather entailed handwritten notes, detailing current function and the outstanding problems or goals which required ongoing physiotherapy treatment. One home care physiotherapist remarked that recent new policies were being implemented to encourage information transfer to outpatient settings, and that she appreciated the benefits she could provide to the receiving therapist:

R: Yes, we have a form for ... outpatients, which I need to start to collecting and start working on, because it really makes a lot of difference ... for these cases where there was a fracture, and a they were a long [time in] community care ... just to give the outpatient an idea would definitely be beneficial for them, and to the client as well, so that everybody's on the same track, as to how the client's progress right from the start to the end. No, so that's definitely something that I should be cooperating in my practice, is to just make a note of all the progress she's made, and where she started off, and if there is any specifics to certain conditions that could be put on...

H: And other things in the home that are a challenge, or you know, give them that perspective of the home environment that the patient's coming from when they go to outpatients.

R: Yeah.

Handoff information flowed one way

Movement of information was primarily unidirectional, from sending (discharge) health care provider to receiving health care provider. There was no space on the standard physiotherapy discharge forms to provide contact information for the receiving therapist to contact in case of questions or need to clarify information. Contact numbers were not observed on discharge forms, and this was interpreted that no contact would be required, as typically the discharge note concluded with statements indicating the patient had either

been transferred from their care setting: *"PLAN: t/f [transfer] to Home Hospital"* (in the case of transfers between the two sites of the rural hospital), or that the patient was discharged, and no longer under the care of inpatient physiotherapy services, which inferred the patient was no longer under the clinical responsibility or accountability of the writer, or the hospital's rehabilitation services:

"PLAN: Pt. [patient] is d/c [discharged] from inpatient physio."

"Pt. ready to be D/C back to RH [retirement home]"

PLAN: D/C from in-pt [in-patient] PT services."

However, an interview with one of the acute care physiotherapists indicated willingness for two-way communication with the recipient of the discharge note, if necessary, and reported that in fact this has occurred on occasions in the past, presumably with contact numbers provided:

"... um, and I always just at the bottom [of the discharge summary], tell them that if they have any questions or concerns to give me a call."

"And that's happened before, a few times ... it was a ... patient who was still on feather weight bearing, I'm sure was a total hip, and [the nurse] was just concerned whether they're still on feather weight bearing ... but even though I still wrote it in the progress note, they just wanted to call to confirm that..."

Patients and families were not always included directly in the information exchange at handoffs.

Physiotherapists were aware that families were included in the handoff of care, as noted above in their consideration of families' abilities to "handle the situation" in discharge planning. However, while there may have been some verbal instruction, demonstration of exercise or transfer techniques during the hospitalization, this did not necessarily occur in every case, particularly when families were not able to visit during regular business hours. There also did not

always appear to be a direct flow of paper-based information for patients and family caregivers to take home for reference purposes. This was illustrated in the case of one of the male patients, during an interview with his family caregiver (spouse):

J: ...were you given any forms or a booklet about surgery or was everything face to face contact?

W: no booklet but the people that were in the next bed got a booklet because they were scheduled for surgery ... so I borrowed their booklet, took it home and copied it ... I didn't know about how he was supposed to bend and not bend.

J: ... Was the booklet helpful for you?

W: yeah ...we still have it here

The family caregiver became aware of a resource in possession of another patient in her husband's room, (a booklet entitled "My Guide to Total Hip Replacement") which is routinely provided for patients undergoing elective total hip arthroplasty, and undertook her own initiative to copy it for their use. Fortunately, this resource was appropriate, as the hip fracture surgical repair for patient L was a bipolar hemiarthroplasty, and he was subject to the same precautions and exercises outlined in the booklet. Brief discussion with the acute care physiotherapist occurred on a later occasion, and indicated it was not common practice to provide these booklets to hip fracture patients, even those with hemiarthroplasty, as patients undergoing elective arthroplasty typically received these booklets during pre-operative clinic appointments.

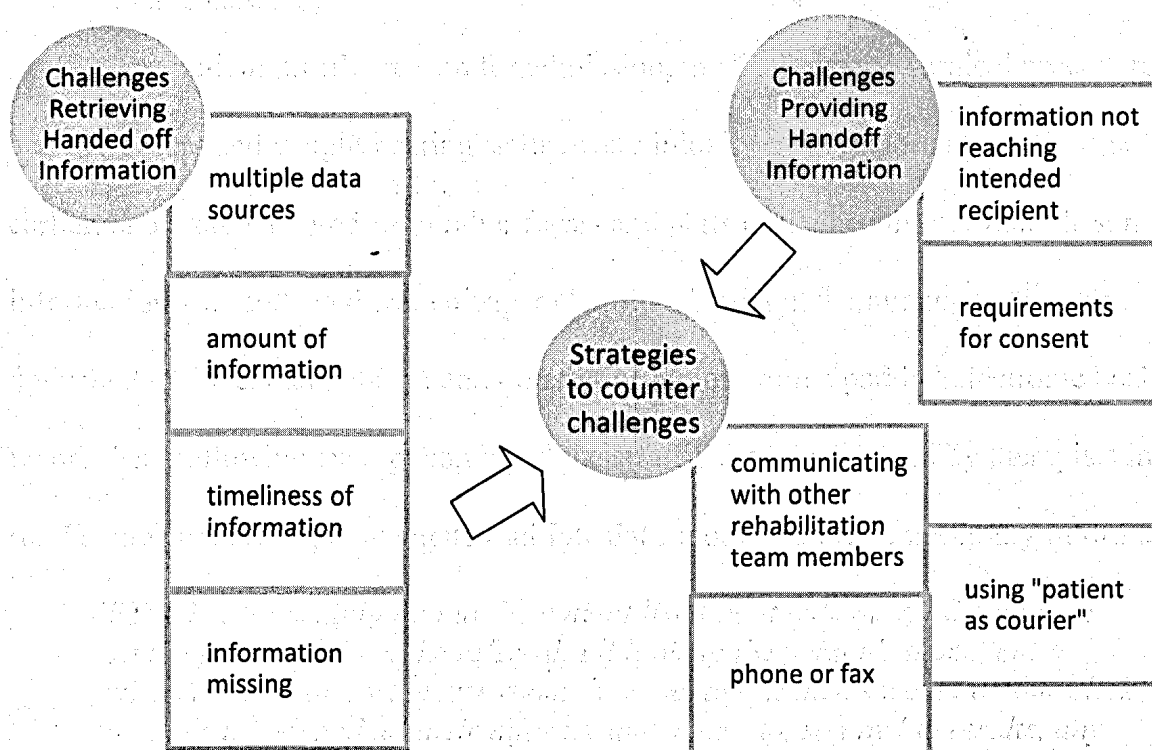
In addition to the document review, speaking with health care providers, and observing the transfer of information as patients were handed off to subsequent care settings, illustrated some overall challenges to information exchange for patients making care transitions. Some of these challenges are discussed in the next section.

3.5 Challenges of information exchange at handoffs

Research question # 3: What are the challenges to exchanging information through care handoffs to optimize rehabilitative care for frail elderly patients during points of transfer across the continuum of care?

Several challenges to information exchange emerged consistently across settings. These again fit into the categories of retrieving information and providing information. Challenges for physiotherapists in retrieving needed information included searching multiple data sources to locate information, the amount of information, timeliness of receipt of information and missing information. Challenges in providing information included information prepared for handoff by one setting not reaching the intended recipient at the next setting, and requirements for consent (both consent for treatment, and consent for sharing of information). Physiotherapists responded to these challenges in a variety of ways, such as using telephone and fax, using the patient as "courier" of notes and communicating with other rehabilitation team members, as depicted in Figure 3, and discussed further below.

Figure 3. Challenges encountered in information exchange during care handoffs.



3.5.1 Challenges retrieving handed off information

Multiple data sources

Physiotherapists in acute care had to navigate a number of data sources to retrieve important information. These data sources included electronic health records, paper hospital charts, patients, family and sometimes other health care providers. As noted previously, they were initially reliant upon information already documented in the patient's health care record as they commenced their involvement with the patient following surgery:

" ... Um, we received a referral through Cerner [the electronic record system] ... so we would go up to the floor, we look over her chart first ... look over things such as what type of surgery she had, how her injury occurred, her profile, her weight bearing status, um, her social history

where she comes from, and so we review the chart, ... and then ... we would go see the patient."

(acute care PT)

The patient profile, reason for admission, medical history, surgical procedure, activity orders and weight bearing status, were initially most important, as discussed earlier, and were gathered from other forms and parts of the health care record. Some information was collected from a paper chart in a binder at the nursing station, as described in the excerpt above, and other information from a parallel electronic health record. The following excerpt conveyed the strategies typically used by therapists in the rural acute care setting to navigate multiple data sources to locate necessary information:

PT: Ok ... so usually I go to the patient list, and it tells me all the patients on the floors. So I get the referral, I'll look up the person's name, um, wherever they are, whatever room they are, and... then I would double click on their name, and all their information comes up, so any lab results, any x-rays, any operative reports, any consultations from the doctors that are dictated, are usually on here. So I will, before I see the patients, um, look to see if there's a history and a consultation, because that gives me background information on the patient ...

H: Ok, so what we've gathered, is that the two charts [paper and electronic] are being used concurrently, in parallel somehow...

PT: Yes, I wish they would print them off and put them in the patient's green chart, but they don't always.

H: Ok, great. So in your mind, there is more information on the electronic health record?

PT: There is, yes, um, because in the progress notes on the patient's chart, it's mainly just what's been happening that day on the patient, whereas if I want a history on the patient, you know, where they came from, how they injured themselves, um, their past medical history, all that is usually in the history and physical, which is ... always online, and seldomly I would say, they print it off and put it in the chart.

(acute care PT)

To find information on postoperative weight bearing status, physiotherapists would have to locate the surgeon's orders in the health care record. Physiotherapists and other health care providers were thus required to be knowledgeable about the organization of the health care record in order to find information necessary for the care

of their patient. A surgeon indicated reliance on the physician orders section to provide instructions to the health care team:

H: So what's the best way to communicate with the patient and the family and the healthcare team around all those issues? [weight bearing status]

MD: Well you write it in the chart ... so the physiotherapy you write either non-weight bearing, feather weight bearing, 50% or full weight bearing and then people should get their instruction from that. Nursing would get their instruction from that and physiotherapy and you tell the patient as well. Depends on their memory too whether that's effective or not.

Finally, specific information on the home situation, prior mobility status and activity level were gathered from the patient or family caregivers, if not already available in the electronic or paper charts.

"... firstly I look through the chart and get as much information as I can from there, and then I go through from the patient, and if it's difficult to get information from the patient, then I go to the family ... um and then that's about the order that I usually get it."

(acute care PT)

Amount of information

Besides having to sort through multiple sources of data, some physiotherapists remarked on having to sift through large amounts of information to find the information that would be important to their specific care of the patient with hip fracture:

"I think the biggest challenge is that there's a lot of information ... and it's just, it's just at times difficult to sort through what's exactly important for me to have at this moment, when I'm going to treat this patient. I find that one of the strengths is when a physiotherapist clearly tells me this is what happened, this is what they've been dealing with, this is what they can do, this is what they can't do, and then I have that picture, it's like for physiotherapy specific, I know exactly what they can and can't do."

(acute care PT)

Observations during this particular conversation indicated to the researcher that large amounts of information seemed to impede efficiency in managing the time pressures of a busy caseload.

In contrast however, another therapist seemed to have the opposite opinion about the amount of information involved in working with a frail elderly patient with hip fracture:

"... um, I don't think there can ever be too much information, a lot of times there's too little information I would say"
(acute care PT)

Home care therapists discussed the inconvenience of large amounts of information being received in separate batches at separate times, and via separate methods:

PT: Well certainly, uh, electronically works well, right now we get some electronically and some faxed. And it would be nice to have it you know, kind of all one way, and it would be nice to have all the information come all at once, instead of, get part of the referral, then you get additional information, and so you can get two or three different batches of information rather than it all come at the same time.

"Um, with every referral, uh, there's separate batches of information. The referral itself has the demographics on it, um, it'll have things such as what area her case manager, it'll have some past diagnoses, it'll have contact people, it'll have priority for the client, meaning how soon they should be seen, it'll have service plan on it. That's all generated on the CCAC system. And then we're also faxed any specific information from the hospital, which would occur if there was any specific doctor's referral, physio discharge notes, that type of thing."
(home care PT)

Timeliness of information

Information did not always "flow" as quickly as the patient did through the continuum of care, and physiotherapists occasionally were faced with situations of beginning assessment and treatment with a patient without receiving any information related to the hand off.

"I think that usually we do get the information that we need, my only thing would be, sometimes the timeliness ... Particularly the client who goes home end of the week / weekend, and then I see them right away the beginning of the week, like the therapist hasn't had time to do it. You know, so I've seen the client once or twice and then I get the note. You can still carry on, but the more information you have ahead of time, the better."
(home care PT)

"Sometimes we miss it, because it comes up to two weeks after they've already come here, and so it's past when we've been looking for it."

(long term care PT)

Information missing

Even worse than untimely receipt of information, on some occasions handoff information was found to be missing all together. The most common element of missing information which was significant to physiotherapists' care was a patient's current weight bearing status. One home care physiotherapist occasionally found herself missing this information following handoffs from acute care. She expressed the challenges of trying to have elderly patients recall important information, and failing this, tracking information down from the referring surgeon:

"Um, well ... some of the case managers are good in, you know, ... making sure that the restrictions are written down, but um, sometimes they are missed, so it's usually then to the client you ask, and sometimes the client is not able to tell you, "I don't know what the surgeon said, I have no clue". Because they are usually sedated when they're in the hospital, they don't capture all the information, so trying to get that information, and then trying to get back to the surgeon to understand ... but it does happen sometimes."

Missing information on weight bearing status had potential implications for delay in the progression of the patient's rehabilitation in a timely manner, as illustrated by another home care PT:

"If I'm not sure of the weight bearing status, I'll keep it to partial. I would never progress them to a cane if I was not sure it was weight bearing as tolerated."

And similarly, on transitions from home care to outpatient physiotherapy, weight bearing status as well as other information was not always handed off efficiently, creating an information gap, as noted by an outpatient PT:

"Occasionally we do need to track down weight bearing orders or restriction orders ... often at home care there may not be a good transition of information from home care to us. Sometimes we get it and sometimes we don't, it's hit and miss. And with somebody who can tell you, it doesn't create a gap, but sometimes people who are even ... high functioning, can have big gaps in their memory, especially around something as traumatic as that. Um, so that can be a gap."

3.5.2 Challenges providing handoff information

Information didn't always reach intended recipient

On some occasions, physiotherapists in home care and long term care were observed not to have received a discharge summary prepared by the acute care therapist, even though discharge forms had been observed to be sent, or documentation indicated "PT discharge note to follow". At one long term care facility the researcher had been able to retrieve the document from the health care record at the care facility, and the therapist was asked if she had received the summary during the interview:

PT: ... because we didn't get anything. I went and searched it out.

H: And how about the summary from the physiotherapist?

PT: No.

Discussing this later with the sender of the information, revealed a perceived lack of control over the success of the handoff:

H: And then so, this is what I have become interested in, is you've done your handoff ... and a very nice job, lots of information, but on their end, they're saying, 'we don't get anything, we have to try and track it'...

PT: I usually always try to have a discharge summary for wherever they're going because I know it's nice for me to get one, and so I want to kind of pass along that favour too, so, when I write one, I usually give it to... the clerk to send with them in their stack of papers, after that I don't know what happens to it, whether the person receiving all the papers just doesn't hand it to the actual therapist there, or what actually happens with it I don't know ... I wouldn't have time to follow up and make sure they have it in their hand or anything like that, I just hope that they get it.

On one of the occasions of missing information, it was observed that the patient had been transferred while the acute care therapist was away on a sick day. On these occasions, there may not always have been an opportunity for the therapist to track the patient's chart down from health records to complete discharge documentation after the fact.

Requirements for consent

The topic of consent arose in a number of interviews as well as observation periods. Hospital staff in general discussed the practice of requiring patients to provide consent for the exchange of information with new care settings:

"And if um we're here and it's our patient we usually obtain that patient's consent and um before you can fax information back and forth you know we will obtain their consent and sometimes we'll get a written consent from the patient to be able to do that."

(acute care RPN)

The Clinical Leader (RN) spoke of her responsibility to acquire the patients' consent in order to make a referral for the CCAC hospital case manager [to arrange for home care services or provide assistance with respite or long term care placements]:

"... getting all the [patient or family] signatures so that CCAC can contact them..."

Other care settings, for example a long term care home, required consent for the patient to be referred to the physiotherapy service which was contracted to provide care at the facility:

This brought us to touch on their service – [company name], their company has a contract with this long term care home, as well as some others including a home in [town]. Thus they are not employees of [the long term care home], but they come in to provide therapy services. This causes them to require a signed consent from the resident in order to see them. Usually this consent is included in the paperwork signed by residents and families on the day of admission, but occasionally / often there are delays in receipt

of this consent, and subsequent delays in the resident's receiving rehabilitation services. They note that residents and families are usually upset at this, but that "we can't see them until we get the consent".
(field note – long term care PT interview)

The patient in this context was aware of the delay in service but not the reason for it. She remarked on her experience of waiting, while watching her roommate undertake therapy:

A: I'm not getting any therapy yet,

H: Still not?

A: ... I guess the therapist will tell me about what exercises I should do, and then will probably say I'll see you next week ...

H: So you're waiting for therapy still, then?

A: Well the lady in the bed beside me, she's taking therapy and she tells me what she does, because she's broken both legs, and so she just you know does this with her toes and I guess I'm supposed to raise my leg as far as it will go, and then, I think that I could make that up myself, what to do.

Her family caregiver expressed concern, but also did not seem to have any understanding of reasons for delay in the continuity of her mother's physiotherapy program:

H: ... And so have you been looking for information on the therapy at all?

HC: I had assumed that it would just follow right along promptly, because I thought that they liked to get people moving right away, not that ...well about the first thing they said to me is: 'you've got to tell your mum not to get out of bed without somebody with her', so it wasn't like I had to worry about mum not moving around ... because mum was the opposite, so it's just that if there's supposed to be something that she's supposed to do that would benefit her and she doesn't know about it, and she's not getting it done, because apparently there seems to be some lag in this physiotherapist, but you'd think there'd be some back up if she's away.

Home care therapists discussed their practices of obtaining patient consent upon initiating therapy in the home setting. This entailed both consent for treatment, as well as consent for release of information:

"... before we go through the assessment we have a consent form that the client signs for us, according to the policies and procedures, and we have another form that the client signs, which is the release of information, which would be either to the case manager or the family physician, or their family or friends, and if they are ok to involve this team for exchange of information, the client signs it for us."

(home care PT)

3.5.3 Strategies to counter challenges

Physiotherapists dealt with information gaps following handoffs in a variety of ways, and described some advantages and disadvantages typically encountered, depending on the strategy employed. Methods available for therapists to retrieve information were also variable by care setting.

Information sharing / communication amongst rehab team members in home care or outpatient settings

Sometimes the care setting was a barrier to effective communication amongst other health care providers. Home care environments were not as conducive to team functioning for collaborative care, as discussed by a home care physiotherapist:

"... I think the only other thing, as far as communication, it's hard if there's other service providers in a client's home, it's hard for us to communicate with each other. In a hospital setting, you know, sometimes the nurse is right there, the physio is right there. It's not so much the case, like if the OT is seeing a client, I try to you know, leave them a message, saying I'm in there as well, do you see anything, or any concerns, but often, you know, you never, unless you want to do a joint visit, you're not there at the same time. It's just hard, information between people, it's just hard to communicate and share."

Therapists indicated having left voice mail messages, or notes for other providers in the home, in attempting to discuss problem solving on certain issues. However, the diverse schedules and lengthy travel distances of the rural setting often precluded actually making joint visits with patients.

On the other hand, if patients were seen in the outpatient department at the rural acute care hospital, missing information or questions about the patient were more easily answered due to the close proximity of the previous care providers.

"... Because we, um, a lot of the orthopaedic surgery is done here, it's very easy for us to just ask the inpatient therapist. So what was so and so doing in hospital, or what was their weight bearing status, so we have that

advantage ... you don't necessarily have with somebody coming from another facility.
(outpatient PT)

Using telephone or fax to retrieve information

Therapists in long term care or home care settings typically spoke about having to call or fax a busy surgeon's office to answer questions on missing weight bearing orders or other surgical precautions. A long term care home PT discussed the difficulties of reaching a surgeon's office by telephone:

" ... sometimes I will call the office, but I don't always get a response back, when I call the actual surgeon's office. Sometimes I do after a few phone calls, um, but generally if I call to speak to somebody, I have to leave a message, and I won't hear anything back."

Faxing was commonly reported as more efficient than reliance on phone calls, in particular for those working in home care, as described here:

PT: Uh, it depends on the surgeon. Um, some of the ones in the county, I can call, and talk to the nurse, and she provides the information. The ones in [urban centre], what they prefer, is fax them something with the question, the secretary will show the surgeon, he'll put a comment on it, and fax it back.

H: Right, and that's fairly timely then for you?

PT: That one, the timeliest I've ever seen, it came back in one day. The phone calls can sometimes be not so timely.

(home care PT)

Interestingly, therapists in all settings seemed to believe it most efficient to contact the surgeon's office rather than trying to locate the previous therapist to retrieve needed information:

H: ... and then they call the surgeon's office to try and get information, rather than try and call the previous therapist.

PT: No, I usually, I'd say very rarely if any, I would ever get in contact with another therapist.

(acute care PT)

Using "patient as courier"

Patients were often found to be a reliable mode of delivery of notes to surgeons with questions, as well as handoff documentation, particularly from home care to outpatient care:

"And I got an update from the home care therapist, was forwarded to me ... the patient ... had that with her when she arrived. That's the normal mode we would get it, although it's possible it might have been forwarded to us by home care but usually it comes to us with the patient."

(outpatient PT)

H: And that being would you ... send something to the surgeon?

PT: I find that the most effective ... I will do a note to say this is our program, this is what we think, I would appreciate any suggestions ... Then I get a response back.

H: ... something on paper, with the patient, at the time and that's the most efficient with the surgeon ...

PT: Yes, he can write something and send it back with the patient.

PTA: and then we usually get it right away. And if a family member is going with them they usually bring it right back to us.

H: So especially if there's been restricted weight bearing, getting something back to say it's ok now to do something more.

(long term care PT, and PT aide)

"... And then they always have an upcoming appointment with the doctor at which time I send a written note, and then if I have any specific questions, put it on that, and then the client brings it back to me, so I have a written type thing right there."

(home care PT)

However, on some occasions, using the patient as courier also had its drawbacks, despite the best of intentions. One home care PT spoke about patients forgetting to take her notes to the physician appointment, and the resultant inconvenience to her care of the patient:

J: Now that letter that you send back with clients, do clients ever forget to take it?

PT: Of course they do ... In that case sometimes they bring a little slip from the doctor and then we're ok ... Sometimes even that is forgotten and then we have to hunt the doctor.

Overall, the rich descriptions and observations obtained through the ethnographic approach illustrated aspects of physiotherapy care handoffs in which information transfer was adequate, as well as areas where gaps in information flow continued to occur, with subsequent impacts on patients and families. Additionally, several aspects of the health care system context factored in to handoff practices and successful information transfer for patients making care transitions. The implications of these findings related to the key concept of interest “how does information exchange by physiotherapists contribute to the patient and family experience of continuity of care across settings” are discussed in the following section.

4 DISCUSSION

The aim of this thesis was to explore the exchange of information by physiotherapists regarding patients with hip fracture, in their journey through the rural health care system in real time. Information perceived to be important to physiotherapists to care for patients with hip fracture, and the process of handing off to the next care provider were examined through focused research questions. Patients' and family caregivers' perspectives on continuity of quality care following handoffs were also of specific interest. The ethnographic approach, with in-depth interviews, observations in the field, and review of pertinent documents, allowed a unique opportunity to follow patients in real-time in their rehabilitation journey.

4.1 General discussion

This final chapter will first consider the findings related to the research questions: 1) what information was important to physiotherapists, patients and families in rehabilitation following hip fracture, 2) what processes and challenges of care handoffs were undertaken by physiotherapists in a rural health care context, and 3) how did patients and their families perceive concepts of continuity of quality care? The global picture of information exchange within the health care system and specifically during care transitions is then described. This chapter will also reflect on credibility, limitations of the study, and explore reflexive considerations on how the author's experience as a health care provider contributed to and influenced the study. Finally, this chapter concludes with a discussion on: a) how this study contributes to physiotherapy education and practice, b) potential health system considerations that would enhance continuity of care for the elderly, and c) future research directions.

4.1.1 Information important to physiotherapists during handoffs

Physiotherapists in the various care settings explored during this study reported similar information needs in the care of an elderly patient post hip fracture, and following care handoffs, as might be expected. These aspects of information were primarily directly related to the routine clinical responsibilities of physiotherapists, involving therapeutic decision making, goal setting and treatment planning. In acute care, decisions around discharge destination resulted in an emphasis on the patients' functional abilities. As a result, in both the retrieving of information, and providing information to others, weight bearing status, functional mobility, home situation and availability of family supports were most important. In addition, physiotherapists acknowledged the importance of past health history as vital information in initiating as well as handing off care. Several authors (Wells et al. 2003, Marengoni, 2009) have noted that patients with hip fracture typically have multiple co-morbid health conditions, which increases the complexity of their care.

4.1.2 Processes and challenges of physiotherapists' handoffs

Handoffs displayed a discipline-specific pattern of information transfer. When the patient was transferred to the next care setting, all of the health care providers, including physiotherapists, prepared their own selected information (which they felt pertinent for the health care providers located in the next care setting to know) in order to hand off the care of the patient. The transfer of information occurred primarily through the use of paper based forms created especially for this purpose. Forms were either handwritten, computer generated (such as the CCAC RAI-HC [Resident Assessment Instrument – Home Care] form), or transcribed dictations. In addition, paper charts were in use along

with electronic health records, in a parallel system, both at the acute care hospital settings, in home care, and some long term care homes. Physiotherapists had to look in many different areas, in the paper charts and in sections of the electronic records, to find the information that they required to care for the patient at each point in time. Because health care providers transferred only selected information from patient charts onto specified transfer forms or discharge summaries, opportunities were created for gaps in information to occur. These information gaps observed during the study were consistent with the types of unmet needs found by Naylor (2002) and Coleman and colleagues (2002) discussed in the review of literature. Some of these gaps included differing expectations between patients, family caregivers and health care providers, and lack of preparation to assume the caregiver role upon hospital discharge.

4.1.3 Patient and family perspectives on continuity

When information gaps occurred, physiotherapists would often first turn to the patient and family in order to resolve their questions. In the acute care setting, if patients' functional abilities were deemed insufficient, or the family support was considered inadequate to sustain discharge to home, families were formally called in to discuss alternate care settings. However, for patients where it was decided they would be returning home, and subsequently the balance of care responsibilities would be transferred to family caregivers, no formal family meetings were held. In these cases, it was assumed that patients and families had the ability to "manage". That is, that they were able to help the patient with mobility-related issues such as transfers and bearing and movement restrictions. Families in our study were primarily informed of equipment which would be needed at home. Coleman (2003) observed that "the patient and

caregiver are the only common thread between sites of care” and thereby inherit the added responsibility of coordinating their care transitions, however often do not have the necessary skills and confidence to do so (p. 550). Chugh et al. (2009) similarly observed that shorter lengths of hospital stays and increased acuity contribute to increasingly complex discharge instructions and higher expectations on patients and families to perform challenging self care. Time and resources dedicated to patient and family caregiver preparation for discharge has not noticeably changed, and no standardized approaches to assuring patients and families adequately comprehend discharge instructions are in place (Chugh et al., 2009). This study likewise revealed that family caregivers were not always included fully in an exchange of information to prepare them to assume and coordinate care. When caregivers were unable to attend the hospital or home during the patients’ physiotherapy treatment sessions, they often missed learning important information. The lack of a formal process to ensure patients and families were provided information important to their recovery was apparent.

4.2 Global perspective of information exchange

Through the ethnographic field experience, several overarching concepts related to information exchange in the rural health care system emerged, which reflected the context within which the physiotherapy handoffs took place, and subsequent impacts on patients, families, and health care providers. These concepts included the persistence of silos of care, and lack of accountability across the system. In addition, when care handoffs did not go as smoothly as planned, consequences occurred for physiotherapists, patients and families, as predicted from the review of literature.

4.2.1 Silos of care persist

As patients made transitions and physiotherapists handed off care to various care settings, the reality of discrete silos of care emerged. While the home became another healthcare setting for patients discharged by into the community, information was not routinely or formally transferred to the main workers in this setting (i.e., the patient and family). In essence then “home care” became a further silo potentially isolated from “home”. This was also further evidenced through separate health records in each setting, and the need for consent at each new care setting.

Health care records

Through observation and document review, it was evident that there was not one patient care record which travelled with the patient from one care setting to another. Each care facility and institution, including the hospital, CCAC or long term care centre, kept their own patient care record, typically a paper “chart” in a binder. While electronic health records were emerging (and forms of technology were in use in each setting to greater or lesser degrees) many of the electronic systems did not “speak to each other”, meaning that sites with one form of electronic record could not access electronic records from the previous setting. As a result, all health care providers, including physiotherapists, had no other recourse than to continue to rely on the paper-based communication discussed above. Consequently, the paper chart at each setting contained a combination of information, from which physiotherapists would need to formulate the patient’s story in efforts to provide care with some essence of continuity for the patient.

Need for consent

The topic of consent arose in a number of interviews as well as observation periods, and further supported the concept of silos of care. The ongoing requirements for obtaining consent, both for treatment, and sharing of information, connoted separate circles of care as the patient moves through the health care system, rather than one overarching system of care. It seemed as if patients were viewed as a different person in each agency, rather than one person going through a process of care in a continuous system. Repeated requests to sign consent forms, as well as the delays in referral and / or treatment contributed to patient and family perceptions of less than ideal management and relational continuity as per Haggerty et al. (2003).

4.2.2 Lack of accountability across care settings

The concept of separate circles of care within discrete care silos was further reinforced by the perceptions of some physiotherapists who felt they were either unable or not required to follow up once the patient left their care setting. This was somewhat related to interpretations of the Personal Health Information Protection Act (2004), which refers to a "circle of care" without an explicit definition of the term. As the roles and responsibilities of physiotherapists were confined within each health care setting, the physiotherapy handoffs reflected accountability only within their perceived mandate, which was generally to the physiotherapist in the next health care setting. Indeed, it was apparent that the only practitioners truly following the patients' progress of recovery across settings were the orthopaedic surgeons. Surgical follow up seemed to be primarily related to monitoring of surgical outcome and mobility status, more so than for the overall functioning of the patient. Thus, no one care provider appeared to be accountable

fully for the patients' needs across the entire episode of care following hip fracture. This finding mirrored the conclusions of Weinberg (2007) who also described a system where no one provider was accountable through the continuum of care of surgical patients.

4.2.3 Inadequate handoffs have consequences

Consequences for physiotherapists

Missing information can clearly result in inefficiencies of care. When health care providers spend time having to "hunt the doctor", and tracking down needed information, such as current weight bearing status, time is taken away from patient care and the benefits of early mobility may not be realized. Paine and Millman (2009) noted that just as inpatient care providers require physician orders to treat and deliver care, likewise home care providers require comprehensive handoffs with clear directions in order to maximize the time that home care staff can spend with patients. However, suggested best practices for handoffs as outlined by Arora (2009) (to utilize two modes of communication, including face to face interaction supported by documents on standardized templates) are impractical when the sending and receiving care settings are separated by significant distances in rural settings. Yet, with only one mode of communication in use to hand off care in this rural setting (paper based documents flowing one way), health care providers had little or no feedback informing them if their handoff was missing information.

Consequences for patients and family caregivers

Ineffective handoffs, due to issues of consent, or incomplete information exchange, had implications for patients and families in their experience of continuity of care. One of the most alarming illustrations of consequences was one participant who

resided in a long term care facility and was following the exercises of her roommate. This was because therapy had not begun due to the physiotherapist not having received consent, of which the family was unaware. Similarly, family caregivers who were found to have taken and photocopied education booklets from their roommates in hospital, demonstrated how eager patients and families are for information they need to support the patient's recovery following discharge. Weinberg et al. (2007) observed that patients and families who perceive poor care coordination may experience confusion and later non-compliance, which could lead to poor outcomes when successful rehabilitation is reliant on patient cooperation. Coleman (2003) and others (e.g., Naylor, 2004; Snow et al., 2009) have also noted that patients and family caregivers express significant anxiety during care transitions. Feelings of anxiety may result from a lack of understanding and preparation for their self-care role, confusion due to conflicting advice, and even "a sense of abandonment attributable to the inability to contact an appropriate health care practitioner for guidance" (Snow, et al., 2009, p. 356).

4.3 Discussion of Reflexivity

As discussed in chapter 1, this study was shaped by interpretivist-constructivist ontology and epistemology. While the patients came to rehabilitative care with a common diagnosis of hip fracture, and some had similar treatment trajectories, their varied ages, pre-fracture lifestyles, levels of functioning, home situations, socioeconomic status, and co-morbid health conditions, presented a range of multiple realities of their situations. The ideas of successful continuity of care and rehabilitation are inherently tied to particular values, previous experiences, social situations and current understandings of the individuals affected, their families, and their care providers. The knowledge gained in

this study emerged through, and was shaped by, dialogue between the researcher and participants. The participants were viewed as the experts in the meanings they made of the hip fracture experience and rehabilitation process. As the researcher, I became the author of the stories and perspectives provided by the participants.

I was frequently aware of my own perspectives as a health care provider during my dialogue with patients and families. As a physiotherapist with many years of expertise in rehabilitation and geriatric care, I have participated in care handoffs for many patients in a wide variety of care settings. I came to recognize that during all my years of practice, while often taking the time to forward information to a colleague as a patient was discharged to another setting, I had not been actually conscious of the formal term "handoff". I could not recall being taught about handoffs during my physiotherapy education, but rather learning how to complete discharge documentation during clinical practicum placements. My practice in this area was primarily informed by policy and procedure of each work environment, as well as professional regulatory obligations of the College of Physiotherapists of Ontario. I also came to reflect on a number of occasions where I could recall that I may not have completed an adequate handoff, and sometimes no handoff at all.

In addition, because of my past involvement as a Manager of Geriatric Services as well as a home care physiotherapist, I carried personal experience of seeing rehabilitation services being increasingly eroded and shortened as our health care system responds to growing pressures and rising costs of caring for an aging population. I recognized that hospital lengths of stay are increasingly shorter, and access to inpatient rehabilitation or home care services is becoming increasingly limited. As a result, I have come to believe

that elderly patients increasingly may be prevented from reaching their true potential through rehabilitation. By engaging in ongoing reflexivity, my biases were acknowledged, and were found at times to surface during the dialogue with participants. Through reflective journaling and analytic memos, the influences of these past experiences in constructing the study findings were recorded and reflected upon throughout the study with my research team.

As a clear example, while the study unfolded, I began to recognize that I was initially viewing the story unfolding through the eyes of a physiotherapy clinician. I could easily relate to the inconvenience of having to track down a physician for weight bearing orders, or having to search multiple areas of paper and electronic charts for necessary information. However, later in the study, through deeper reflection and discussion with the study team, I began to appreciate other serious implications arising out of the care transitions under study, such as seeing patients left waiting for resumption of their physiotherapy program. Larger system issues began to come to mind, such as clinicians seeing family members as “unavailable”, when viewed from a family’s perspective, the physiotherapist was actually unavailable to the family. This was part of my own evolution from experienced physiotherapy clinician to novice researcher through the course of the study.

4.4 Credibility

To promote trustworthiness of the findings from this study, criteria described by Guba and Lincoln (1994) were applied: credibility, dependability, confirmability and transferability. Through peer debriefing, the research process was reviewed and discussed among the large group of InfoRehab co-investigators and students in research group

meetings, and “disinterested peers” via lab group meetings. Peer debriefing facilitated the review of interpretations and constructions being created from the data. Dependability involved the use of triangulation of data from the various sources as noted. The use of an audit trail, which was kept throughout all phases of the study, assisted with confirmability. Facilitation of transferability was sought through thick description of the findings with the aim of enabling those interested in transferring findings to other contexts to determine whether the concepts are similar enough to make such a transfer. A focus on these criteria throughout the study enhanced the quality of the study and ensured that the findings were trustworthy.

4.5 Strengths and Limitations of the study

The large study sample, wide variety of patients and health care providers recruited, and volume of rich data generated were significant strengths of this study. The author participated in the majority of interviews, observations, transcription of recordings, and collection of documents, and thus was deeply immersed in the research context and the data at all stages of the study. This allowed for knowledgeable and credible interpretations of the study findings.

Limitations included the inability to interview a health care provider and/or family caregiver for each patient in each setting. In particular, it would have been advantageous to have been able to recruit a primary care practitioner for one or two of the patients to gain their perspective. In addition, recruitment of distance caregivers could have provided further rich data related to care transitions in this rural context. If additional time were available, further in-depth interviews with physiotherapists around the usefulness of

handoff documentation received, and practices involving family caregivers in handoff communications could have been further explored.

4.6 Contributions to Care Handoffs and Future Directions

A great deal of research has been undertaken on care handoffs in view of patient safety, the majority of which has focused on physician and nursing handoffs. This study provides several unique perspectives. First, by taking a specific focus on care handoffs by physiotherapists, several important issues in the continuity of care of patients with hip fracture were illustrated. Physiotherapists in one rural care setting did not always have a full understanding of the information needs of the care providers in the next setting. Continuity of care was challenged when information was not received in a timely manner, if wrong information was received, or no information was received. Effective methods to facilitate the understanding of the information needed by care providers in various rural settings need to be identified in future research. Suitable methods of handoff which ensure information is received, including those which consider the evolving role of electronic health records, should be incorporated in future studies.

Second, this study provides some insight into the impacts of inadequate information exchange at care handoffs from the perspectives of patients and families in a rural health care environment. Importantly, when families were not available to connect directly with physiotherapists in the acute care setting during business hours, there seemed to be an assumed deficit on the part of the family. When the family was not “at the right place at the right time” from the perspective of the physiotherapist, there was a shift of responsibility to the family to track down information needed by them to assume their care responsibilities. It was evident that formal care providers perceived that “the

family has to get its act together” rather feeling that as formal care providers they had an obligation to ensure families were included in the information exchange. Cameron and Gignac (2008) have begun to address the information needs of family caregivers in the area of stroke care. Similarly to patients with hip fracture, the balance of care shifts from professional health care providers to family caregivers when patients with stroke are discharged home. A conceptual framework “Timing it Right” was developed, outlining the changing needs of education and support of family caregivers as patients’ transition across the continuum of care (Cameron & Gignac, 2007). The information needs of family caregivers of patients with hip fracture are an important area of further study.

Finally, the observation of primarily a one-way flow of information demonstrated that handoffs were seen by physiotherapists, to a certain extent, as a function of ending a patient’s care episode, rather than communicating important information. This pattern of communication was acknowledged by Lee and Garvin (2003) to be pervasive throughout health care practices, with resultant significant limitations to effectiveness. They advocate that “researchers and practitioners move beyond traditional *information transfer* (based on a one-way monologue) toward a more useful and appropriate notion of *information exchange* (based on a two-way dialogue)” (Lee & Garvin, 2003, p. 449), both in health policy making, as well as patient / provider encounters. In transitioning elderly patients across various health care settings, the concept of a two-way exchange of information at the time of handoff presents further challenges in a rural context, and enlightens the important role of communication with the patient and their family caregivers.

4.7 Implications for Policy, Education and Practice

“Ethnographic accounts can be a rich source of insight into the lives of a group of people, but they can only portray life as it is, not how it should be” (Richardson, 2006, p.88). The findings from this study illustrate implications for health system policy, as well as for education of students and physiotherapy clinical practice.

4.7.1 Accreditation policies and care handoffs

In the area of health system policy, this study shows that there is a need to review and expand accreditation policies and required organizational practices in the area of information transfer. Hospital accreditation programs in Canada have recognized the importance of information transfer at the time of patient care transitions, by instituting new Required Organizational Practices (ROP's). However, these ROP's mandate only to show evidence of policies in place, that staff are aware of the policies, and that there is documented evidence of timely information transfer. The latter requirement is fulfilled simply by keeping a copy of the discharge documentation in the patient's chart at the last care setting. While this is an important initiative, this could be viewed as only a vital first step in the process of improving patient safety during care transitions. This study shows that other important considerations for appropriate information transfer include the content of the information, and information needed by the patient and family. Also, with the standards structured around the concept of one-way information transfer rather than two-way information exchange, as discussed above, their impact remains less than ideal. Moreover, these accreditation standards apply only to the hospital discharge transition, and no standards exist which apply across the continuum of care.

4.7.2 Physiotherapy education and practice

Physiotherapy education in Canada has evolved recently to a two year post-graduate qualification. As a result, students have much to learn in an accelerated curriculum, from theoretical principles of physiotherapy assessment and treatment in a variety of clinical areas, to documentation, professional practice regulations and functioning of the health care system overall. Practical observation and execution of physiotherapy documentation and care handoffs occur in clinical practicum placements and will be strongly influenced by specific organizational practices. This study raises questions about the education of physiotherapy students in executing care handoffs in the current health care system context. Chugh et al., (2009) observed that specific training of health care professionals in providing clear and concise discharge instructions to patients is minimal in the United States. In addition, this study shows that in-depth interviews with physiotherapists around the usefulness of handoff documentation received, and their actual practices involving patient and family caregivers in handoff communications should be explored further.

4.8 Conclusion

When a significant health care crisis occurs, such as a hip fracture, people enter into the health care system via an acute care setting. There is then a general perception of an orderly continuum of care by which patients “flow” through the system. This flow takes place as patients make transitions through various settings of care, providing information to subsequent care settings through a handoff process. However, as this study shows, the portrayal of people as entities moving down an assembly line with simply one-way transfers of information is inadequate at best.

Patients with hip fracture (typically over age 75 and with multiple morbidities) are an ideal model to explore the experience of growing numbers of frail elderly moving through the health care system. This study has demonstrated that assuming there is a single assembly line, or care continuum, is insufficient. The range of possible care trajectories through which patients may travel are so variable that a "one size fits all" one-way model of information transfer is ineffective. This one-way flow model of information transfer does not allow for information to be individualized to the needs of the next care providers. Further, this assembly line model does not allow for adequate information exchange with patients and families in order for them to resume their primary caregiver role once patients return to their communities.

Exploring and understanding how physiotherapists attempted to ensure continuity of rehabilitative care through care handoffs of patients with hip fracture was a key objective throughout the study. It was evident that attempts were directed towards both informational and management continuity (Haggerty et al., 2003). While a number of standardized approaches were in place (such as specific transfer forms and templates for discharge summaries) and many consistent elements reached subsequent care settings, significant instances of information gaps were identified. These gaps had potentially serious consequences on health care providers and patients. Much previous work in this area has focused on implementation of new care providers to work in transitional care roles, and span the boundaries of various silos in the system (Naylor, 2004, Coleman et al., 2006). Whether use of these models would be sustainable in the Canadian context is a key question. They may generate savings through reduced re-hospitalizations, or reduction of other adverse events. However, since Canada already has a shortage of

health care providers with specialized geriatric expertise to engage in these practice models the oral methods for transferring information may not be possible. Incorporation of two-way communication or other innovative solutions into evolving electronic health record systems may allow both cost containment and better information exchange. It is clear that patients and families also have important roles during care transitions.

Developing policies and practices which ensure that health care providers, such as physiotherapists, are available to family caregivers to engage in appropriate and effective communication at the time of care transitions should also be examined.

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APPENDIX A



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Consent to be Contacted Form

InfoRehab: Enhancing MSK Rehabilitation Through Better Use of Health Information

Principal Investigator:

Dr. Bert M. Chesworth, School of Physical Therapy,
The University of Western Ontario

I agree to provide my name and phone number to Ms. Helen Johnson, a research staff member who will contact me to further explain the project and discuss my participation.

Name of potential participant (Print)

Phone number

Signature of potential participant

Date

Name of legally authorized representative (Print) (If appropriate)

Signature of legally authorized representative
(If appropriate)

Date

Name of person obtaining consent (Print)

Signature of person obtaining consent

Date



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APPENDIX B

Letter of Information for Patient With a Hip Fracture

InfoRehab: Enhancing MSK Rehabilitation Through Better Use of Health Information

You are being invited to participate in a research study to identify how hip fracture patients, their families and care providers participate in and experience the exchange of health care information when moving across health care settings. Health care transitions from one care setting (e.g. a hospital) to another (e.g. a home) are common when someone fractures his or her hip.

Despite the frequency of transitions between and within healthcare settings, little is known about how to ensure that the right personal health information is collected and made easily available, *and* interpretable, for those who need it as a patient is transferred from one healthcare setting to another. The results from this study will be used as part of a larger scale study that aims to improve the quality of life for persons with musculoskeletal (MSK) disorders through the better use of available personal health information. The purpose of this letter is to provide you with the information you require to make an informed decision about participating in this research.

We are asking you to take part because we wish to find out what information is the most important to hip fracture patients, families, health care providers and health administrators and/or managers to optimize recovery from a hip fracture.

We are giving this letter of information only to persons who are being treated for a hip fracture at either site of the _____ or _____.² If the above situation does not apply to you, we ask that you not volunteer to take part in the study. This study will require 32 people.

The study is being conducted by Dr. Bert Chesworth, who works at the School of Physical Therapy at the University of Western Ontario. He will supervise the study along with co-investigator Dr. Dorothy Forbes, who works at The School of Nursing at the University of Western Ontario. Collaborators on this project include the administration of the _____ and _____, Manager of Rehabilitation Services for the _____, and _____, Senior In-Patient Occupational Therapist at the _____.

² Blank spaces indicate de-identification for this thesis document

If you agree to participate in this project, you will be contacted by _____ or one of her clinical staff members at _____, who has been providing you care, or _____ or one of her clinical staff members at _____ who has been providing you care. These persons will introduce you to Ms. Helen Johnson, a research staff member who will help with data collection for this project. Ms. Johnson will arrange a convenient time to visit you at the health care facility where you are receiving care or at your home to conduct an interview with you.

You will be interviewed at discharge from acute care, and at admission to and discharge from every subsequent health care setting you are transferred to after surgery. You will also be interviewed at admission to home care and 4-6 weeks later.

If you consent to being a study participant, we will collect the following information, some of which may be obtained from your medical chart at _____ or at _____³: your Year of Birth, gender, Country of Origin, City of residence, Relationship to the person receiving care (i.e. experiencing the hip fracture), living arrangements with the care recipient (i.e. living with or without), dwelling type (house, apartment, condo). We will also collect your first and last name, your address and your phone number so that we can arrange visits with you to conduct the interviews and also make reminder phone calls to you about these visits.

In the interview we will ask you background information about your hip fracture injury, previous fracture history and mental health status. We will ask you about your understanding of your trajectory of care that resulted from this hip fracture injury. We will ask you about your perception of the admission process, details of the information exchange during admission, how family members and the patient are involved in this process and similar questions about the discharge process. We will also ask for your opinions of the strengths and challenges of sharing information between health care settings and you and your family members or friends and ask for suggestions on how to improve the flow of information between these health care settings and patients and their family members or friends.

The interviews will be done in the health care facility where you are currently receiving care, or at your home, and will take approximately 60-90 minutes of your time. These interviews will be recorded on audio tape and transcribed verbatim. The audio tape recordings and the transcription of these recordings will not include your name. They will contain a study ID number that can be linked to your name on a Master List that is stored in a secure and separate location from the tape recording.

There are no known risks to you in participating in this project.

³ Blank spaces indicate de-identification for this thesis document

There will be no personal benefit to you. However, your participation will help health care providers determine the most important health information needs that are required to improve the quality of life for persons with a hip fracture as they transition through healthcare settings during their recovery from surgery. Upon request, a written summary of the results will be mailed to you once the study is complete.

Your participation in this project will not involve any additional costs to you, and you will not receive compensation for your participation.

Your confidentiality will be respected. Your first and last name and your address and phone number will be taken off-site when necessary so that we can arrange the visits for the interviews and a reminder phone call about the interview visits. This information will always be kept in a locked briefcase, a locked car and a locked cabinet when kept at Ms. Johnson's home. This information will have no other information associated with it and it will not have any interview results associated with it. No information that discloses your identity will be released or published, without your explicit consent to the disclosure. All records will be given a code number to be used on all data collection forms. All of the information collected will be kept in locked filing cabinets. After the study has been completed and the data have been verified, your name and contact information will be deleted from the files and the remaining de-identified information will be kept indefinitely.

The Research Ethics Board at the University of Western Ontario may contact you directly to ask about your participation in the study. If the results of the study are published, your name will not be used and no information that discloses your identity will be released or published without your explicit consent to the disclosure.

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your future care. You do not waive any legal rights by signing the consent form.

If you agree to participate in this project, please sign the attached consent form, complete the contact information requested and return it to the person who gave this letter to you.

You may keep this letter of information. A copy of your signed consent form will be made for you. If you have any questions about this study, please contact Dr. Bert Chesworth at _____, extension _____

If you have any questions about your rights as a research participant or the conduct of the study you may contact The Office of Research Ethics at (519) 661-3036 or by email at ethics@uwo.ca.

Primary Investigator

Bert M. Chesworth

BA, BScPT, MCISc, PhD

Assistant Professor

Department of Physical Therapy

University of Western Ontario

London, Ontario

I warrant that the content of this document is true and correct to the best of my knowledge and belief and that I am not aware of any material which has been omitted which would make the content of this document false or misleading.

Signature of Investigator

Signature of Sponsor

Name of Agency (to be filled in by sponsor) (Printed Name)

Signature of Agency (to be filled in by sponsor) (Printed Name)

Name of Agency (to be filled in by sponsor) (Printed Name)

Signature of Agency (to be filled in by sponsor) (Printed Name)

APPENDIX C



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CONSENT FORM

InfoRehab: Enhancing MSK Rehabilitation Through Better Use Of Health Information

Principal Investigator:

Dr. Bert M. Chesworth, School of Physical Therapy, The University of Western Ontario.

I have read the Letter of Information, have had the nature of the study explained to me and I have agreed to participate. All questions have been answered to my satisfaction.

Name of participant (Print)

Signature of participant

Date

Name of legally authorized representative (Print) (If appropriate)

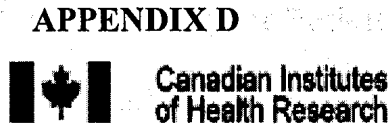
Signature of legally authorized representative
(If appropriate)

Date

Name of person obtaining consent (Print)

Signature of person obtaining consent

Date



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Interview Guide for Patients

*(**Ensure the study ID is recorded with the interview.)*

Study ID: _____

Name: _____

Age: _____

Remove this top page and shred after recording the study participant(s) on the Master List and entering the study ID number(s) on page 2 below.

1. How many times have you been hospitalized in the last 12 months?

2. How many times have you been hospitalized in the last 6 months?

3. How many times have you been hospitalized in the last 3 months?

4. How many times have you been hospitalized in the last 1 month?

5. How many times have you been hospitalized in the last 2 weeks?

6. How many times have you been hospitalized in the last 7 days?

7. How many times have you been hospitalized in the last 24 hours? Have you ever been hospitalized in the last 24 hours?

8. How many times have you been hospitalized in the last 12 hours?

9. How many times have you been hospitalized in the last 6 hours? How many times have you been hospitalized in the last 3 hours?

10. How many times have you been hospitalized in the last 1 hour?

Interview Guide for Patients

Background Information about Patient

Study ID: _____

Year of Birth: _____

Sex: _____

Country of Origin: _____

City: _____

Relationship to person - family caregiver (interviewed for study): _____

Living Arrangements (with family caregiver, or without): _____

Dwelling Type (house, apartment, condo): _____

Background Information about Care recipient

When did you fracture your hip?

How did you fracture your hip?

Was this your first hip fracture?

Was this your first fracture? Have you ever broken any other bones / had any other fractures?

Have you been having any help from your family / friends at home?

What has your friend/relative done to assist you? What kinds of help have you been receiving?

How long have you been receiving help?

Determining the Trajectory of Care

I want to know more about the various places that you received care since you fractured your hip. To begin with, can you name/tell me the various hospitals that you have been at since fracturing your hip? So starting with..... (get participant to name each care setting if possible – draw it if it helps)

(Probe for length of time at each place)

(** at _____ this will 'not' be applicable in acute care because the patient had surgery here. At _____⁴ this will be applicable on initial admission because the patient was transferred from a surgical setting)

Exploring each Care Setting in the Trajectory

The following questions will be asked about admission and discharge (where applicable) at each of the following care settings: emergency; acute; sub acute/rehab; and long term care.

Admission

.....can you walk me through what happened when you were admitted to _____? Should we ask about from the time the ambulance arrived and then the admission?

When you arrived on the unit, who did you speak to about your care?

Did you receive any information about your care? What did they talk to you about when you arrived?

What kinds/types of information did you receive about your care?

How was this information provided? (probe: paper forms, face to face meeting with a health care provider, telephone conversation with a health care provider)

What information about your hip fracture status, are you using 'right now' to help you care for your health and recovery as best as you can?

What information about your hip fracture status, do you see as 'critical for you to know right now' to help you care for your health and recovery as best as you can? What information about your hip fracture status, did you actually receive from health care providers to help you care for your hip fracture before/after moving from the previous care setting?

⁴ Blank spaces indicate de-identification for this thesis document

Did anyone talk to you about your care or your needs when you arrived?

Did you receive information about your own needs while at _____⁵?

Were there times while you were on the unit when you needed to know something about your care? OR can you think of an example during the time you were on the unit/in this setting when you needed to know something about your care?

How did you go about finding this out? Who did you talk to?

(Were there things that made it easier to find out the information you needed?)

(Were there things that made it difficult to find out the information you needed?)

In thinking about the time you spent at _____ hospital, did you feel involved in decisions about the care you received?

Discharge

Can you walk me through what happened when you were discharged from _____?

Before you left _____, who did you speak to about your care?

Did you receive any information about your care prior to leaving? What kind of information did you receive about your care before your discharge?

How was this information provided? (Probe: paper forms, face to face meeting with a health care provider, telephone conversation with a health care provider)

Did anyone talk to you about your own needs before you left?

Before you left the unit, did someone explain the types of care you would need at home?

Did someone talk to you about any services you might receive once home?

In the days leading up to discharge, when you had a question about your care, how did you go about finding an answer? OR Can you think of an example during the days leading up to discharge when you needed to know something about your care?

(Probe for more than one example)

How did you go about finding the answer?

⁵ Blank spaces indicate de-identification for this thesis document

In general, did you feel like you had a say in what happened to you while you were at _____⁶?

Yes/No

Tell me more about that?

Were you involved in the decision to go to rehab/home/long term care?

If so, how? Tell me more about that....

Home with and without Home Care (for those receiving home support – these may not apply)

How did you find out you would have home care once discharged from.....?

Did anyone from the home care agency come and speak with you and/or your family caregiver once you were discharged?

What kinds/types of information did you receive about your care once you arrived home?

Who provided this information?

How was this information provided? (probe: paper forms, face to face meeting with a health care provider, telephone conversation with a health care provider)

When you had/have a question about your care, how do you go about finding an answer?

Did anyone talk to you about your own needs when you got home?

Were any services offered to you to help you care for yourself or a spouse/friend/relative who needed help? If yes, what are they?

Were any services offered to you to help you care for yourself? If yes, what are they?

How would you cope without home support?

When you first got home from _____, did you need help with walking or with your exercises? If yes, how did you do this?

What did you find difficult about doing your exercises? Or walking / transfers / mobility – what about stairs?

⁶ Blank spaces indicate de-identification for this thesis document

What help did you need to be able to do your exercise?

Did your family caregiver (friend/relative) accompany you to your appointment with the orthopedic surgeon? Tell me more about that?

Exploring Current Situation

Describe a typical day in your life now that you have been home for.....?

What are the top 3 information needs that you have 'right now' regarding your care? (probes: what is it that you really need to know about your care right now)

If you need/needed to know something about your care right now, how do you/would you go about finding this out? (probes: who would you contact?)

Do you have any concerns about continuing to care for your care at home? If yes, what are they?

Have you talked to anyone about these concerns? If so, who have you talked to?

Does anyone else assist you or your friend/relative? If yes, who, and what do they do?

Why do they provide the care to you? (explore relationship with care recipient)

Study specific questions (**these may have been covered by this point in the interview – please ensure these questions have been addressed):

Concluding Questions

What do you think are the most important facilitators to exchanging information between health care providers and patients like yourself?

What do you think are the most important barriers to exchanging information between health care providers and patients like yourself?

How do you think the use and exchange of patient information can be enhanced between health care providers and patients like yourself, when patients like you transfer from one health care setting to another?

Is there anything else that you feel is important for us to know to understand your experiences?

APPENDIX E



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Interview Field Notes

Participant Code:

Interview Date:

Starting Time:

Ending Time:

Location of interview:

Technical Problems (e.g., timing of interview, tape recorder):

People present:

Pre - interview goals for interview:

Description of environment:

Content of Interview (e.g., use key words, topics, focus, words or phrases that stand out):

Researcher's impressions (e.g., discomfort of participant with certain topics, emotional responses to people, events or objects):

Nonverbal behavior (e.g., tone of voice, posture, facial expression, eye movements, forcefulness of speech, body movements, and hand gestures):

Analysis: (e.g., researcher's questions, tentative hunches, trends in data and emerging patterns, insights, interpretations, beginning analysis, working hypotheses):

Additional Notes:

Adapted from: Morse, J. & Field, P.A. (1995)

APPENDIX F



Office of Research Ethics

The University of Western Ontario
 Room 4180 Support Services Building, London, ON, Canada N6A 5C1
 Telephone: (519) 661-3036 Fax: (519) 850-2466 Email: ethics@uwo.ca
 Website: www.uwo.ca/research/ethics

Use of Human Subjects - Ethics Approval Notice

Principal Investigator: Dr. B.M. Chesworth

Review Number: 16334E

Review Level: Expedited

Review Date: July 22, 2009

Protocol Title: InfoRehab: Enhancing MSK Rehabilitation through Better Use of Health Information

Department and Institution: Physical Therapy, University of Western Ontario

Sponsor: CIHR-CANADIAN INSTITUTE OF HEALTH RESEARCH

Ethics Approval Date: July 29, 2009

Expiry Date: December 31, 2010

Documents Reviewed and Approved: UWO Protocol, Letter of Information (patient with hip fracture), Letter of Information (caregiver), Letter of Information (health care provider), Consent.

Documents Received for Information:

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving Human Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced study on the approval date noted above. The membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the HSREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of monitor, telephone number). Expedited review of minor change(s) in ongoing studies will be considered. Subjects must receive a copy of the signed information/consent documentation.

Investigators must promptly also report to the HSREB:

- changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- all adverse and unexpected experiences or events that are both serious and unexpected;
- new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to this office for approval.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the HSREB.

Chair of HSREB: Dr. Joseph Gilbert

Ethics Officer to Contact for Further Information			
<input type="checkbox"/> Janice Sutherland (jsuther@uwo.ca)	<input type="checkbox"/> Elizabeth Wambolt (ewambolt@uwo.ca)	<input checked="" type="checkbox"/> Grace Kelly (grace.kelly@uwo.ca)	<input type="checkbox"/> Denise Grafton (dgrafton@uwo.ca)

This is an official document. Please retain the original in your files.

cc: ORE File

APPENDIX G

ROP # 7 Information Transfer

The team transfers information effectively among providers at transition points.

TESTS FOR COMPLIANCE	WHAT DOES THE ⁷ DO?
<p>The team uses mechanisms for timely transfer of information at transition points (e.g. transfer forms, checklists) that result in proper information transfer.</p>	<ul style="list-style-type: none"> ● Current policy is in effect and utilized by staff ● All staff who admit patients ● Internal transfer policy and SBAR ● There are dictated reports sent to the referring doctor and to the family doctors. Copies are kept on the patient's chart ● Transfers from one care unit to another using 1:1 and SBAR ● LHIN wide patient access and flow initiative – for urgent/emergent transfers and repatriation uses same forms t throughout LHIN ● CCAC case manager part of care team
<p>Staff is aware of the organizational mechanisms used to transfer information.</p>	<ul style="list-style-type: none"> ● All nursing staff involved with unit to unit transfers and use SBAR ● Ward clerks & staff in ER and 1& 2 south aware of inter-facility transfer forms ● Discharge summary completed by nurse – follow-up appts listed
<p>There is documented evidence that timely transfer of information has occurred.</p>	<ul style="list-style-type: none"> ● Copies of all forms stay on patients chart

⁷ Blank spaces indicate de-identification for this thesis document

PATIENT TRANSFER AND/OR DISCHARGE FORM COMPLETION – [HOSPITAL NAME] - PROCEDURE
PAGE 1

[Redacted]	[Hospital Name] Site	<input checked="" type="checkbox"/>	Policy Procedure Standard	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Manual
	Site	<input type="checkbox"/>	Medical Directive	<input type="checkbox"/>	NURSING
Subject: Patient Transfer and/or Discharge Form Completion – [Hospital Name] - Procedure					
Date Issued: 07-09		Issued by:		Approved by: Director Patient Care	
Date Reviewed:					
Date Revised:					
Cross Reference: (include other documents reflecting similar subjects)					
Internet site and path Home – Nursing					

PURPOSE:

To ensure that all patients have an accurate form completed at time of transfer / discharge.

One of the following forms must be used:

- a) Patient Transfer Record Discharge Home Summary
- b) Patient Transfer Record – Internal Transfers
- c) Patient Transfer Record – External Transfers

PROCEDURE:

1. Affix patient identification label to form.
2. Print all required information
3. Sign and date at bottom
4. **“Discharge Home Summary”**
 - Be specific with completing medication section. Identify next dose date and time and doses left for the day.
 - Copy once completed
 - Original copy to patient; copy of both sides to chart
5. **“Transfer Record” - Internal**
 - Complete form
 - Completed form to be kept with patient record
6. **“Transfer Record” - External**
 - Copy once completed
 - Original with patient for transfer; copy to chart.

Internet site and path Home – Nursing [Hospital Name]

This is a paper copy. Most up to date copy is available on [Hospital Name] Intranet Site.

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APPENDIX H



HOSPITAL PHYSIOTHERAPY DISCHARGE SUMMARY

DATE: _____

PATIENT PROFILE / HOSPITAL COURSE: _____

SURGERY: _____

WEIGHTBEARING STATUS: WBAT NWB 50% WB FeWB Protected WB Other _____

PRECAUTIONS / LIMITATIONS: _____

MEDICAL HISTORY: _____

SOCIAL HISTORY: lives alone with support by _____ house apartment other _____

SUBJECTIVE: _____

CARDIORESPIRATORY: _____

NEUROLOGICAL: _____

MUSCULOSKELETAL: ROM: WNL STRENGTH: WNL See ROM/Strength chart

(R) STRENGTH	(L)	MUSCLE / JOINT	(R) ROM	(L)

BALANCE:
Sitting: _____
Standing: _____

BERG BALANCE SCALE SCORE: _____ /56

TIMED UP AND GO (TUG) SCORE: _____

MOBILITY: Level Key: I = Independent S = Supervision A = Assist (x1 or x2) U = Unable N/T = Not Tested

ACTIVITY	LEVEL	COMMENTS	AMBULATION Level:
Bed Mobility			Distance:
Supine ↔ Sit			Gait Aid: <input type="checkbox"/> None <input type="checkbox"/> Crutches <input type="checkbox"/> Standard Walker <input type="checkbox"/> Cane <input type="checkbox"/> Rollator Walker <input type="checkbox"/> 2 Wheeled Walker <input type="checkbox"/> 4 Wheeled Walker
Sit ↔ Stand			
Bed ↔ Chair			
Stairs Railing: <input type="checkbox"/> L <input type="checkbox"/> R			Pattern:

OTHER:

TREATMENT: bed mobility positioning transfers gait education stairs balance education _____
 DB + C endurance training PROM strengthening exercises bed exercises _____
 other: _____

ANALYSIS / FUTURE GOALS: _____

PLAN: _____

SIGNATURE: _____

Note: blank spaces indicate de-identification for this thesis document