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## **Factors That Influence the Decision-Making of an Integrated Rehabilitation Team When Choosing a Post-Hospital Discharge Destination For Survivors of Stroke**

Jessie M. Johnson  
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# Edith Cowan University

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Factors That Influence the Decision-Making  
of an Integrated Rehabilitation Team When  
Choosing a Post-Hospital Discharge Destination  
For Survivors of Stroke

A Dissertation Submitted in Partial Fulfillment of the  
Requirements for the Degree of  
Doctor of Philosophy

In the Faculty of Health, Engineering and Science

In the School of Nursing and Midwifery

by

Jessie Johnson

RN, BScN, MN

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## **Declaration**

I hereby declare this dissertation is my own work and effort and that it has not been submitted anywhere else for any award. Where other sources of information have been used, they have been acknowledged.

## **Abstract**

Stroke is one of the more disabling conditions which may result in the inability for survivors to care for themselves independently. Stroke survivors benefit most when they receive early onset assessment, treatment, and rehabilitation. Increasingly, stroke care in Canadian hospitals relies on an interdisciplinary rehabilitation team approach to provide immediate rehabilitation services and to make decisions about discharge destination for stroke survivors. Currently, there is little research on how interdisciplinary rehabilitation teams decide upon rehabilitation placements for stroke survivors or how individuals on the team, stroke survivors, or their families participate in and contribute to this decision. This research studied the culture of the interdisciplinary rehabilitation team to understand the specific client, clinical, and family situations considered by team members and how that information was communicated and evaluated by them during their decision-making.

To address the research question, the researcher undertook an ethnographic study of a health care team on a stroke unit of a Canadian hospital. Based on observations of the interdisciplinary rehabilitation team and interviews with team members, the study found that decisions about post-hospital discharge destination were conditioned by variables related to the social, economic, and policy context; interactions among members of the team; and the condition of stroke survivors or their families and their ability and willingness to contribute to home care.

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## Glossary of Terms

Abbreviation	Explanation
BC	British Columbia
CAC	Community Access Coordinator
CCU	Convalescent Care Unit
EFP	External Facility Provider
FIM	Functional Independence Measure
IRT	Interdisciplinary Rehabilitation Team
LTC	Long Term Facility
OT	Occupational Therapist
P	Physiatrist
PCC	Patient Care Coordinator
PT	Physical Therapist
RLP	Registered Licenced Practitioner
RN	Registered Nurse
Rehabs	Patients waiting for stroke unit beds currently housed in other parts of the hospital
SLP	Speech Language Pathologist
SW	Social Worker
USD	United States Dollars

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# **Chapter One**

## **Introduction**

*A journey of a thousand miles begins with a single step.*

*Confucius (translated by Legge, 1971)*

### **1.1 Background**

Stroke is a serious disease with serious consequences for the survivors, their families, and health care systems. Typically, recovery from stroke involves a fairly short period of intensive medical intervention followed by a much longer period of rehabilitation that may last many years. Many variables affect the quality of rehabilitation services and the health outcomes, but the decision of where to place the survivor after medical treatment in a hospital has a huge impact on the entire process that follows. The discharge destination for rehabilitation after a stroke has been shown to influence the degree of rehabilitation for individual stroke survivors; the longer and more comprehensive the rehabilitation after hospitalisation, the greater the recovery (Fitzpatrick & Dawber, 2008). Stroke survivors who are discharged to their homes (“the community”) and receive continued rehabilitation have been shown to have a better quality of life, less risk of readmission to hospital, and less chance of premature death than those who are discharged without a continued plan of care (Fitzpatrick et al., 2008). Those who cannot be discharged to a home or community setting and are placed in a long-term care facility also benefit from ongoing rehabilitation (Gagnon, Nadeau & Tam, 2005). Whatever the destination, stroke survivors must be placed in the environment where they can receive the rehabilitation services of most benefit.

The research literature indicates that ensuring the best-fit discharge destination for the stroke survivor is necessary for optimal rehabilitation outcome (Gagnon, Nadeau, & Tam, 2005). However, there is little research available that specifically examines what factors are considered by those who plan for the stroke survivor's placement after hospitalization. As a consequence of identifying this gap in the literature, the purpose of this research was to explore and describe the decision-making process of an interdisciplinary rehabilitation team when deciding on the discharge destination for first-time stroke survivors following acute care hospitalization. Specifically, the research examined the criteria used by different members of the rehabilitation team when making their decision, how each member weighed various assessment factors or data about the patient, how the team arrived at a decision regarding placement, how the team involved the patient and their significant others in the decision-making process, and how the decisions were assessed once made.

**1.1.1 Prevalence and impact of stroke in Canada.** The seriousness of stroke in the short and long-term cannot be underestimated. According to the British Columbia Stroke Strategy (BCSS, 2010), stroke is a major health issue worldwide. The World Health Organization (2012) has reported heart disease and stroke are the leading cause of death in adults over the age of 60 years. After the age of 55 years the risk of stroke doubles every 10 years. Of those who experience a stroke: 15% die, 10% recover completely, 25% recover with a minor impairment, 40% will be left with moderate to severe impairment, and 10% are so severely disabled they require long-term care (Heart & Stroke Foundation, 2012). In Canada, 50,000 strokes occur each year. Literature suggests that at least half of Canadian stroke patients need some form of ongoing

rehabilitation annually which equates to stroke costing the Canadian economy \$3.6 billion a year (Heart & Stroke Foundation, 2013).

Stroke is also the leading cause of acquired long-term disability in adults in British Columbia (BC) (see Table 1). The Heart & Stroke Foundation (2012) reports that 4,526 patients in the province experienced a stroke in 2010 that was severe enough to require hospitalization. Of these patients, 36% died within a year following their stroke, making the disease the third leading cause of death in the province. The majority of stroke victims who survive their attack remain affected by neurological disabilities and require some form of long-term care, placing a significant personal responsibility on caregivers and an economic burden on the health care system.

	Ischaemic	Haemorrhagic	Combined
Hospitalized stroke cases	4,240	992	5,233
Acute care days	105,825	28,665	134,490
Long-term care facility days	332,894	63,614	396,508
Deaths in hospital	1,074	377	1,451
Life years lost	35,536	9,442	44,978

**Table 1: Select hospital statistics regarding stroke care in British Columbia, by type of stroke. (British Columbia Stroke Strategy, 2010).**

There are two types of stroke: haemorrhagic and ischaemic. Haemorrhagic stroke occurs when a small, diseased artery within the brain bursts, allowing blood to leak into the brain tissue, depriving parts of it of oxygen (Potter & Perry, 2014). This bleeding is irreversible and, depending on the location and size of the mass of blood, can be life threatening. The other type of stroke, ischaemic, is more common and arises from a blockage in the blood supply to a part of the brain produced by a blood clot (Heart & Stroke Foundation, 2012). Patients with ischaemic stroke will often be given thrombolytic medicine to dissolve the clot to prevent further damage. According to the Heart and Stroke Foundation (2012) ischaemic stroke makes up to 85% of the majority



of strokes, while haemorrhagic stroke accounts for the other 15%. Patients with ischaemic stroke often have less neurological deterioration. This research focused on the discharge destination of patients who survived both types of stroke, with the understanding the majority of these will have survived an ischaemic stroke.

**1.1.2 Stroke services in BC hospitals.** Before 2010, assessment and treatment of stroke patients in Canada generally took place in a hospital intensive care unit. When they were medically stable, patients were moved either to a medical or surgical unit where they received rehabilitation along with other patients diagnosed with other body system illnesses (BCSS, 2010). Stroke survivors were not assessed by a rehabilitation team until well after the original insult (stroke), indicating that rehabilitation was not regarded at that time as particularly important for the stroke survivor's full recovery. Rehabilitation was not seen as integral to the best possible recovery for the stroke survivor and commencing rehabilitation recovery was seen as a secondary consideration to simply surviving the initial insult. The discharge destination for stroke survivors at that time was predominantly to long-term care facilities, and survivors who did go home were not always provided with ongoing rehabilitation services (BCSS, 2010).

Care for stroke survivors in BC has, until recently, been poorly organized, affecting patients negatively and increasing costs to the BC health care system (BCSS, 2010). BC was not the only province in Canada to experience this problem. In 2010, following a national plan introduced seven years earlier by the Heart and Stroke Foundation of Canada and the Canadian Stroke Network; health authorities in BC developed a Provincial Stroke Action Plan to address shortcomings in stroke care (BCSS, 2010). One goal of the Action Plan was to provide quick assessment, as the sooner the stroke patient is assessed and begins rehabilitation, the better the patient

outcome (BCSS, 2010). To accomplish this goal, the Action Plan recommended the development of, or expansion of, dedicated stroke units where stroke patients were placed in one area of the hospital for treatment by staff with specific clinical specialty knowledge and skills in the care of people who had sustained a stroke. Stroke units in other developed countries were known to enhance the success of the stroke survivor because they provide for quick assessment and early initiation of rehabilitation (Putman, DeWitt, Beyens, & Dejaeger, 2007). By placing patients together as a cohort on a dedicated unit, it has been demonstrated it is possible to provide care using an integrated rehabilitation team (IRT) approach that decreases the length of hospitalization and the incidence of hospital death, strengthens and supports patient outcomes, and provides for continued support in the community (BCSS, 2010). Interdisciplinary teams have been shown to improve survivor rehabilitation success in other settings by providing better care, particularly when these teams and other experts work cohesively and collectively (Headrick, Wilcock & Batalden, 1998; Grumbach & Bodenheimer, 2004; McDonaugh, 2005). According to Rubenfeld and Scheffer (2010), IRTs can lead to better patient outcome, reduced hospital costs, and reduced time spent in the hospital, possibly because these teams “prime” the brain for recovery (Teasell, Foley, Salter, & Jutai, 2008, p. 576). Stroke units support the decision-making ability of the IRT to choose a discharge destination (Putnam, DeWitt, Beyens, & Dejaeger, 2007), early access to a stroke unit and an IRT “represents good stroke care in Canada” (Teasell et al., 2008, p. 2).

Aside from the 24 hour nursing care, from Nurses with the appropriate neurological knowledge and skills, the new stroke units introduced into BC hospitals are staffed eight hours a day, seven days a week, with a team of rehabilitation specialists

who are responsible to evaluate and manage the stroke victim during hospitalization. They provide immediate rehabilitative service for stroke survivors, specialized ongoing care, and emergency services for the duration of the stroke survivor's stay in hospital (Acello, 2006). Regardless of the type of stroke, each patient in BC admitted to a stroke unit is immediately and continuously assessed and evaluated by an IRT which, consciously or not, follows certain patterns of decision-making which consider the unique needs of each stroke survivor, including their socio-economic and cultural community (Gagnon, Nadeau, & Tam, 2005). As soon as the patient is admitted, the IRT assesses the patient, proposes a plan of rehabilitation assessment, and facilitates management strategies and discharge planning (BCSS, 2010). This assessment and planning is ongoing for the duration of the patient's stay in the stroke unit and may be altered as the patient progresses or the community situation they anticipate returning to, changes. Members of the integrated rehabilitation team pool their knowledge and experience to make decisions relating to care, including the crucial choice of discharge destination for the best rehabilitation outcome (Behm & Gray, 2012).

**1.1.3 IRT decision-making.** Choosing the best discharge destination is no simple matter, as numerous factors affect the decision made by the IRT. The most immediate are often the patient's current functional status (e.g., including their ability to ambulate without support), prognosis regarding future disabilities that may interfere with daily activities, the presence of social support, and the possibility of changes in future residence (Meijer, Limbeek, Kriek, Ihnenfeldt, Vermeulin & de Haan, 2004). The IRT may also consider and consult with the patient's spouse (if they have one), any family members or significant others who may be able to lend support, as well as other health professionals who may have been involved in the survivor's pre-stroke life. Stroke

may not be the only medical condition a survivor has and the impact of multiple co-morbidities must be considered in the decision-making process. Of greatest concern is if the stroke survivor experiences neurological cognitive deficits which hinder the ability for self-care and also hinder their capacity to recognise their changed physical capacity (Meijer et al., 2004).

Other factors the IRT will consider are socio-demographic or socio-economic issues such as access to care, cultural identity, family structure, language abilities, communication, income, lifestyle, type of home, and motivation. Even aspects of the health care system, including institutional policies, must be considered carefully. As part of a comprehensive stroke care strategy, an IRT must consider these and more when deciding whether to discharge to the community (i.e. the patient's home), an assisted living facility, or a long-term care facility for rehabilitation.

The nature of health care provision in BC also affects the discharge decision. Health care in the province is delivered mainly through a public system of universal care jointly funded and administered by provincial and federal (national) governments. The Canada Health Act (1984) requires public insurance plans to provide the general public with medically necessary services, including hospitals and long-term care facilities, without additional cost to the individual. Medicare, as it is known, is designed to ensure all residents have reasonable access to medically necessary hospital and physician services on an insured, pre-paid basis (Canada Health Act, 1984). Consequently, decisions made by an IRT in British Columbia must be consistent with both provincial and national health policies.

One aspect of these policies that impacts the decisions of an IRT is the availability of space in publicly funded long-term care facilities. Simply put, beds in government

facilities, or beds purchased by governments in private facilities (which may require an additional cost to patients), are limited and do not keep pace with demand (Janson, Murphy, Rehnby & Boudreau, 2009). Currently, these facilities have an average waitlist of twelve months, so stroke survivors who are to be admitted to these facilities will remain in a public hospital until a bed is available in a private facility, creating severe bed shortages (bed block) in public hospitals even in ward beds not specifically for stroke survivors or directly in stroke units.

Care facilities sometimes have restrictive admission criteria, such as age limits and standards of patient independence, or they may be located far from the patient's home, perhaps in another province. Government policy at both federal and provincial levels regarding long-term care facilities has not to date resulted in provision of beds adequate to meet the growing demand of an ageing population. The increasing cost and shortage of rehabilitation facilities, has the possible impact of discharging stroke survivors to the community, which is not always appropriate due to the absence of caregivers, the ergonomics of the dwelling, or the incapacities of the stroke survivor.

IRT decision-making is a complex process, yet it is pivotal to the success of rehabilitative medicine. The team aspect of the decision-making adds to the complexity, since decisions necessarily require a broad knowledge base and an array of expertise and skills that cannot be found in one person. Only by combining resources from each participant can an optimum outcome for a particular patient be achieved (Neuman, Gutenbrunner, Failka-Moser, Christodoulou, Varela & Guistini, ..., 2010) whether for stroke patients, as noted above, or for patients with myriad other disorders who face a long period of chronic care (The Cochrane Collaboration, 2013).

The composition of the IRT is thus another consideration in successful decision-making. To succeed, teams must include members who provide different but complementary knowledge, skills, and aptitudes, and mutual respect for the other team members (Neuman et al., 2009). IRT members must be proficient in their areas of expertise, able to share their expertise and knowledge with the group in a common language, and willing to reach consensus on patient goals that are achievable and measurable (Neuman et al., 2009).

In summary, the prevalence of stroke survivors is growing rapidly through the advancement of medical knowledge and improved understanding of the need for timely intervention. This increase in survivability of stroke has resulted in an increased cost which puts pressure on health care spending. Consequently, it is crucial that governments and hospital administrators devise ways to reduce spending if health care quality is to remain high and universally accessible. Various studies have shown that an IRT approach can decrease costs associated with stroke survivors in hospital, as well as enhancing rehabilitation by ensuring the best discharge fit and this in turn results in decreased health care costs in the community. What has not been studied to date is how the IRT chooses the discharge destination for stroke survivors and how team members consider various factors and parameters relevant to the decision, including patient characteristics, family concerns, availability of care facilities, hospital policy, and the dynamics of the team itself.

## **1.2 The Present Study**

Given the seriousness of stroke and the importance of choosing an appropriate discharge destination, the effectiveness of the IRT is of great concern to health care providers, patients, and their families, especially because this is a new concept in BC. If

it is possible to understand better how IRTs choose a discharge destination—how they identify and evaluate important variables and decide which option is best — then it is possible to identify best practices and work toward greater effectiveness of the IRT both in terms of successful patient outcomes and economical use of resources.

How IRTs choose a discharge destination is currently unknown. At this time, few studies explore the nature of that team decision and the cultural content or communication process that contributes to the decisions about where a first time stroke survivor will begin rehabilitation. A review of the literature has not located any research specifically on how decisions are made regarding rehabilitation placements for stroke survivors or how different members of the interdisciplinary rehabilitative team, stroke survivors, and their significant others participate in this decision.

A few existing studies explore aspects of the decision-making process, but take a somewhat different perspective. For example, Jette, Grover & Keck (2003) conducted a study on decision-making processes carried out by therapists when deciding on discharge destination. The study included interviews of physiotherapists and occupational therapists about their placement decisions for patients in an acute care hospital, however the study included only one interview with each participant and did not record the actual process of the participants' decision-making and the interactions between the team members themselves. Nonetheless, this grounded theory study produced a model that may be used by clinicians as a guide to decision-making. In another study Potthoff, Kane, and Franco (1997) investigated rehabilitation team decision-making and consequently, showed that members of decision-making teams who have little or no experience may feel unsure of themselves and not contribute fully to the decision-making process, and consequently may not be as invested as other, more

experienced team members. This study did not, however, investigate the process of decision-making itself. Other studies that consider decision-making in health care situations have not been specific to stroke survivors and have been retrospective in nature. A methodological limitation of such retrospective studies is that, in these latter studies, "...people tend to take much for granted in recalling their decisions and they will often present retrospective decisions as entirely natural" (Paterson & Thorne, 2001, p. 337).

Consequently, little is understood about which of the many possible factors used in placement decisions are considered most important in a stroke patient rehabilitation placement assessment and how individual assessments are perceived and negotiated among team members to arrive at a consensus on decision-making. Thus, this study intended to address these methodological deficiencies in the literature.

**1.2.1 Purpose.** The purpose of this study was to explore the interactions of an IRT responsible for making discharge decisions and to describe the process of negotiation within the team when choosing a discharge destination following acute care hospitalisation. These interactions are described in this study as the 'culture'; of the IRT; that is, culture in this sense focuses on interactions among a specific group of people, not only their verbal interactions, but also the physical and psychosocial interactions. The research examined the criteria and interactions used by different members of the rehabilitation team when making their decision, how each member weighed various assessment factors or data about the patient, how the team arrived at a decision regarding placement, how the team involved the patient and their significant others in the decision-making process, and how the decisions were assessed once made.



In this particular case, the IRT consisted of a physiatrist; physical, occupational, and speech language therapists; nurses; social workers; and a discharge planner.

The aim of the research for this dissertation was to determine:

*what factors impact on the capacity of interdisciplinary rehabilitation team members during their decision-making process to choose the stroke survivor's post hospital discharge destination from a British Columbia hospital stroke unit?*

The research questions addressed by this dissertation include:

1. Are there factors associated with hospital policy, social and economic context, and geographical distribution of the British Columbia and Canadian health care system which affect the decision-making processes of the IRT regarding discharge destination?
2. How the decision-making model, composition, and way in which members interact, affects the deliberations and final decision the hospital IRT uses to determine a stroke survivor's discharge destination following care in a British Columbia hospital stroke unit?
3. What specific patient, clinical, and family factors are considered and evaluated by team members in determining the most appropriate discharge destination for a stroke survivor?

**1.2.2 Perspective.** It is important at this point to note the particular perspective of the researcher who conducted this study. Coming from a nursing background, the researcher worked within the neurological rehabilitation setting for many years; first as a clinical nurse, then later as a nurse educator. Having worked with many of the

individual healthcare professionals who now make up the interdisciplinary rehabilitation team (IRT) the researcher had both a working relationship with these clinicians and a personal professional opinion (bias) about the way in which previous systems had worked poorly to determine the discharge destinations of stroke survivors, as well as how well these decisions were made. The personal beliefs, values and attitudes encumbant in this level of clinical experience within the field of study cannot be excluded from the way in which the researcher entered the study environment and the way in which the data was interpreted.

It is vital for this study to acknowledge those preconceptions early in order to acknowledge them so any impact these biases may have on the findings may also be acknowledged. For this reason appropriate steps were taken to ensure the authenticity of the analysis of the data.

The capacity to undertake the study cannot exclude the familiarity and level of comfort the members of the IRT reported with the non-participant observer (the researcher) and for this reason the election of the researcher to not participate has been upheld as the most appropriate avenue through which to observe the team. To engage with the team as (potentially) the nurse member would have resulted in a requirement to measure the impact of that single nurse's opinion on the other team members. Remaining as an observer only allowed for the interactions to be observed without having to remove any impact or bias a participant observer contributed to the findings.

**1.2.3 Significance.** This research will be one of the first studies to contribute to the currently limited knowledge by explicating the factors considered by members of an interdisciplinary rehabilitation team and their negotiations to determine the placement of stroke patients following discharge. Specifically, the research findings will

contribute to an understanding of the decision-making process to assist administrators, practitioners, and students in the health professions to make appropriate discharge placement decisions for stroke survivors. Upon completion, this research may contribute to health care in several important ways.

Firstly, this research may contribute to better health outcomes for stroke survivors as it examines a process that has been previously reported to be superior to other forms of decision-making in settings other than stroke rehabilitation. Knowing how an IRT functions is the first step in improving evidenced-based clinical practice for stroke unit teams. Health care teams more generally may benefit from the findings of this research if they apply the lessons learned from this experience. The research findings may help to identify options to change an existing decision-making process or to provide guidance for interdisciplinary teams facing an ill-defined process of patient assessment, determination of need, and referral to services. A more objective and evidence-based assessment tool may result from the findings of this and other similar research.

Secondly, educators in the health professions may be able to incorporate these research findings into undergraduate and post-graduate education programs to prepare practitioners to make efficacious decisions that consider the varied perspectives of team members and of the patient and their significant others.

Finally it is proposed this research may contribute to the efficiency of the health care system. Since IRT decisions have been shown to reduce demands on the health care system both within hospitals and after discharge, this research may lead to a reduction in the demands on health care resources. As the population ages and the number of stroke survivors rises, the cost of rehabilitation service is set to increase. By ensuring that placement decisions are made wisely the first time, IRTs can reduce

resource expenditure. This research then provides a major contribution to the discussion on best health care practices within the limits of available resources.

### **1.3 Summary**

Stroke is a serious illness that usually requires a long period of rehabilitation. The decision of where to place a stroke survivor for this lengthy treatment is important not only to the health outcome of the patient (and the family) but also to the economic viability of the health care system. Recently, integrated rehabilitation teams have become increasingly responsible for the discharge destination decision since earlier research suggests that these teams generally make better decisions. Although placement decisions have been studied by several researchers to date, we really do not know how teams of practitioners negotiate a complex array of variables to arrive at their decisions. The existing research tends to focus on identifying positive and negative predictors which influence discharge destination, and overlooks the decision-making process itself. This research seeks to address this lack of knowledge through an ethnographic study of an interdisciplinary research team negotiating discharge placement decisions for stroke survivors. At stake are improvements to IRTs, better health outcomes for stroke survivors and other rehabilitation patients, and improved efficiency for the health care system. In order to position the reader to the findings of this study, a review of relevant literature is provided along with a description of the research methodology utilised in the research. The findings from the data are presented in thematic groupings which are closely aligned with the original questions relating to the setting, team and patient-related factors and how these impact the decision-making of the interdisciplinary team. Finally a discussion of these findings, implications for clinical practice, and suggestions for further research is presented.

## **Chapter Two**

### **Literature Review**

*There is nothing we cannot live down, rise above, and overcome.*

*Ella Wheeler Wilcox*

#### **2.1 Introduction**

The purpose of this chapter is to review what is known about the various influences on the decisions made by an integrated rehabilitation team, starting with broad policies that govern health care in Canada. The nature of Canada's "universal" public health care system affects many aspects of an IRT, from allocation of resources and the existence of hospital stroke units to the administration of drugs and the availability of care facilities. As such, this system is the first component the literature review has examined. Following on from the whole healthcare system, the chapter reviews the nature of the IRT itself and considers the literature on team dynamics such as cohesion and mutual respect, leadership style, attitudes of team members, culture, and professional identity. As each team can adopt one of several patterns of decision-making, literature relating to the three options (paternalistic, consumerist, and shared) was also reviewed. Finally, the characteristics of the patients and their families play a crucial role in IRT decisions. A review of the literature on various personal and family factors (e.g. age, gender, functional independence, marital status, family support) is provided in this chapter. Taken together, this literature provides important background to the present study which asks how various factors affect decisions made by members of an interdisciplinary rehabilitation team when choosing a discharge destination for a

stroke survivor. Before presenting the literature in these four areas, the chapter briefly outlines the criteria that guided its selection.

## **2.2 Search Strategy**

Using key words derived from literature previously known to the researcher (such as “interdisciplinary team,” “decision-making,” and “stroke”), data bases were searched to identify salient literature and to assist in the development of an instrument to guide the interviews. The researcher used the data bases CINAHL, Sage, Science Direct, JSTOR and PudMed for publications dated 2005-2013 in the fields of health, clinical, and social sciences. This time period was used to ensure the most current research literature in the subject area. However, seminal articles on stroke management, rehabilitation, and interdisciplinary teams published earlier are also included in this review.

Literature reviewed for this research included research articles using both qualitative and quantitative research methods. These articles presented studies on decision-making, stroke etiology and treatment, and the use of interdisciplinary rehabilitation teams in caring for patients recovering from stroke and other illnesses. Articles excluded were those that did not pertain to the subject area or concentrated mainly on the assessment of the stroke patient and not particularly on the decision for discharge destination for a stroke survivor. Overall, 162 articles were identified using the above detailed key word search; of these, 110 were included in an abstract review based on the relevance of the article title. Of all the 110 research articles reviewed, 63 were included in this research based on the relevance of the study or article to the research question to be addressed by this dissertation.

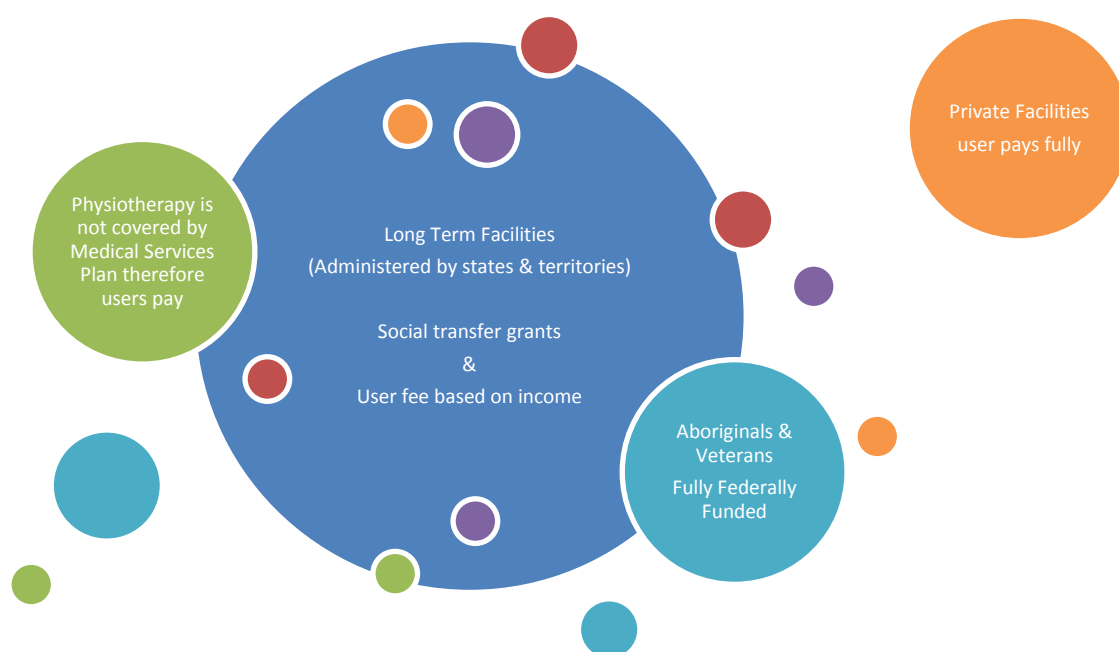
## **2.3 Health Policy and Funding in Canada**

Canada is a federated state, with powers and responsibilities divided between the individual provincial and territorial governments and the federal government. The provinces hold the burden of responsibility to provide health care and other social services, although the Canadian government initiated a national program of tax-supported “universal public health care” in 1966. National legislation was renewed with the Canada Health Act in 1985. Provinces like British Columbia organize health care provision independently, but the federal government mandates some degree of inter-provincial transferability and provides resources to the provinces for health care through cash and tax transfers according to certain criteria, the details of which are often debated. Citizens who meet eligibility criteria are not required to pay for their medical services at point of delivery, while physicians, laboratories, hospitals, and other medical service providers bill the provincial governments on a fee-for-service basis. Thus, the Canadian “system” includes considerable private health care provision despite public funding.

### **2.3.1 Government policies that affect decision about stroke patient discharge.**

The various health care policies enacted by provinces and, to a certain extent, the nation, affect what services are actually provided. Currently in British Columbia the Medical Service Plan (MSP) covers medically necessary services by a physician, including patient care and diagnostic tests, although patients do pay a monthly premium based on family size. Services not covered by MSP include chiropractic, physiotherapy, and preventative assistance, which may present a problem for a stroke survivor who requires further rehabilitation but cannot obtain it in the hospital funded by MSP. In this case, the survivor would have to pay for private services if they are available. Long-

term care is not publicly funded under the Canada Health Act but is governed solely by the provinces and territories. The provincial and territorial health authorities administer the facilities and deliver services and programming on behalf of the elderly (Organization for Economic Co-operation & Development, 2011). Long-term care is financed by social transfer grants and requires user-fees based on income level. The federal government, however, provides long-term care to veterans and aboriginal citizens. Those persons wishing to reside in private facilities are solely responsible for payment.



**Figure 1: Funding sources for stroke survivor post-hospital care facilities (Developed for this study).**

Government policy governing care for stroke survivors is, however, quite new. Prior to the federal stroke initiative of 2000, there were no specific policies at all for stroke treatment; like anyone else, stroke survivors were admitted to the hospital from the emergency department to any available bed in the hospital. There was no clear policy for the use of stroke-specific medications; this remained a matter for physician



judgment. The federal stroke initiative of 2000 introduced the “Pathways to Stroke Care” policy which provided a coordinated approach to stroke care. That policy provided guidance on patient presentation to the emergency department to receive acute stroke-specific management; whether to provide palliative care or transfer to an in-house stroke unit; the scope of inpatient and outpatient rehabilitation; the role of secondary prevention clinics; and ongoing assessment (The Canadian Stroke Strategy's Transition of Care Model, July 2012).

**2.3.2 Hospital policies that affect decisions about stroke patients.** The hospital context plays a significant role in how stroke is treated, and thus will affect where the decision about where the stroke survivor goes after hospitalisation. Patients admitted to a hospital are subject to the institution’s procedures, traditions, written policies, legal statutes, routines, and more. Hospitals may adopt the federal policies or develop their own. Of particular significance for this discussion is the hospital’s policy on early stroke assessment, administration of medications, and the provision of beds in the hospital where the research took place.

**2.3.2.1 The significance of quick admissions and early assessment.** According to Kalra and Langhorne (2007), many stroke survivors benefit when they receive specialized stroke care as soon as possible. Before arriving at a hospital, stroke patients benefit from quick recognition of symptoms, effective emergency response, optimal pre-hospital assessment, and rapid transport to the most appropriate hospital. Once at the hospital, time lost in the admission process may result in further brain damage, making prompt admission procedures essential for both pre-hospital and emergency departments (BCSS, 2010). According to the National Heart, Lung, and Blood Institute (2013), receiving prompt treatment reduces disability following a stroke. As a patient’s

prognosis is affected by early assessment, the hospital's admission and assessment policies can shape the decision of an IRT. For example, hospitals can implement the "stroke pathway procedure" to provide a quick, clear, and efficient outline of exactly what care each stroke survivor should receive during his stay at the hospital. The procedure also allows for early notification of the IRT so it may intervene immediately for assessment.

Hospital policy can also facilitate or hinder the use of appropriate assessments in that hospitals can choose whether to provide comprehensive assessments and adopt them as policy. Kalra and Langhorne (2007) suggest that comprehensive stroke-specific assessments are associated with better outcomes, especially assessments for swallowing and aspiration, early detection of infections, maintenance of hydration and nutrition, early ambulation, and specific goals for functioning and communication with patients and their families. The recommendations made by Kalra and Langhorne were based on extrapolating the impact of interdisciplinary teams from other specialities, on to the stroke survivor and their experience of a poorly structured approach to care. The observations made by Kalra and Langhorne in 2007 echo the precepts made by Fung (2004). Stroke survivors who receive "comprehensive and intensive rehabilitation immediately as a result of stroke will have a better chance of returning back to the community" (Fung, 2004, p. 4). Being able to examine the costs (not only to the health care system, but to the survivor's and their families) would truly be the only way to measure the impact of the change from an unstructured approach to stroke rehabilitation, against the new, integrated stroke rehabilitation team approach.

One common hospital policy which affects stroke survivors is the use of the Functional Independence Measure (FIM), a popular tool used first upon admission that

documents a patient's abilities which then guide various decisions about treatment and discharge to other destinations (Mauthe, Haat, Hayn, & Krall, 1996; Nguyen, Page, Aggarwal, & Henke, 2007; McKenna, Tooth, Strong, & Ottenbacher, 2000). Quick and accurate use of the FIM sets a reliable baseline for an IRT. Hospitals can choose whether to provide these comprehensive assessments and adopt them as policy. Without their objective use, patients may present differently to an IRT and to different members of this team and thus influence decisions regarding discharge destination. Other assessment tools can also be used, however the FIM's reliability and validity has been well studied in stroke assessment and thus its use has been accepted as policy in many Canadian hospitals, guiding the nurses in their care and enabling the IRT to observe gains in the rehabilitative progress of the stroke survivor.

**2.3.2.2 Administration of medication.** One particular medical response crucial for someone suffering an ischaemic stroke is the immediate provision of the blood clot thinning protein tissue plasminogen activator, or tPA (BCSS, 2010). Hospitals set policy regulating how and when to use tPA, which can greatly affect the patient's prognosis. Clinical trials have shown tPA is highly effective when administered within 4.5 hours following a stroke as it decreases the chance of further brain damage and thus decreases mortality and dependency for post-stroke rehabilitation (Demchuk & Bal, 2012). In Canada, if the patient is not seen in the emergency department within this time they will not receive tPA and risk reducing their chances for full rehabilitation recovery. Use of this medication after the recommended time of 4.5 hours has been shown to have limited improved outcome for patients (Demchuk & Bal, 2012). Unfortunately, delay in treatment can also result from patients failing to recognise the signs of a stroke or choosing to ignore them, or living in a rural area far from a well-

stocked hospital. However, hospitals can be more or less aggressive with their use of tPA, depending on available medical staff. The BC Stroke Strategy (2010) estimates that in 2009/2010 only 5-10% of patients with a first time ischaemic stroke arrived at a hospital early enough to be clinically eligible for tPA, although this number is above previous annual rates. The data upon which this estimation is made is unclear from the Stroke Strategy documents and may relate to a lack of robust reporting of this information or limited data collection tools relating to stroke management. In order to improve these estimations, clarity is required around the data collection method(s) and tools.

As a consequence, hospital policies that facilitate the use of tPA affect the decisions of the IRT. Not only are health outcomes for patients improved, but the costs of rehabilitation are reduced. According to the British Columbia Stroke Strategy (2010), for every 1,000 patients who receive tPA there will be 100 fewer patients dependent on post-stroke care, reducing the costs for stroke survivors by almost \$4000 over a lifetime, reducing the length of stay in the hospital, and decreasing the rate of readmission or recurrence following discharge from the hospital.

**2.3.2.3 Availability of space in the hospital.** Finally, hospital policy has an impact on a very basic feature of acute care: the availability of a bed for each patient. The Canadian health care system, like the Australian public health system, has continuous pressure to provide beds in the acute care areas within the hospital for patients seen in the emergency department. To minimize patient time in emergency departments, referrals to rehabilitation are made as promptly as possible (Teasell, Meyer, Foley, Salter & Willems, 2009). Typically, patients seen in the emergency department and diagnosed with a stroke are immediately admitted into an acute care bed

elsewhere in the hospital, preferably in the stroke unit if there is one, for treatment by a specialised team. However, if no beds are available, patients may wait in the emergency department or on some other ward until the ideal location becomes available. Ward and unit managers across the hospital meet weekly to discuss how to free up stroke beds so no one has to wait in a bed where they are not receiving specialty neurological care, elsewhere in the hospital. Hospitals may move a stroke survivor to a “flex bed” to make room for an acute stroke survivor waiting in the emergency department or may discharge stable patients home with ongoing care provided at outpatient clinics. Emergency Room physicians are similarly required to recognize those who can be treated in an outpatient clinic and not admit them to a bed on a ward. Currently there is no evidence to demonstrate or describe these hospital processes in British Columbia, Canada. The paucity of evidence indicates these have not been described at all or at least not in any manner which warrants publication. Clear understanding of such processes is vital in order to map the pathways of patients, not just those who have survived stroke. Without such process mapping, clarity around funding for each step of their care cannot be accurately measured as the steps are not described, nor are the processes to achieve those steps. Lack of lasting and valide measurement requires estimates for health funding and budgets may therefore be under (or over) estimated which in turn impacts on the capacity of service providers to deliver the end-user the level of health care they deserve (and expect).

Additionally, lack of clarity around services as a result of poor process mapping may result in duplication of services. This review of evidence relating to the path patients take through the hospital has identified an opportunity for Canadian healthcare governance to examine this paucity of evidence for the basis of service provision.

While on wards or the Emergency Room, stroke survivors are provided minimal rehabilitation and although the IRT is aware of their presence within the hospital, they are only able to visit them on a daily basis as their patient load within the stroke unit allows. This most often is suboptimal to the stroke survivor's needs.

One recent policy in a BC health region calls for the early discharge of seniors back home with the support of outpatient teams (Interior Health Authority, 2013). This concern to provide bed space for patients can influence the discharge decisions made by the IRT.

**2.3.3 Stroke care units.** Of all policies that impact the care and treatment of a stroke patient, the decision to provide a stroke care unit and an integrated rehabilitation team is probably the most important. In Canada, these decisions grew out of a proposal by the Heart and Stroke Foundation in 2003 to create dedicated stroke units in hospitals. Whilst the proposal was made in principle, the provinces had to develop their own strategies and implement the recommendations needed if the hospital in particular wished to set up a dedicated stroke unit. Provincial stroke strategies were developed in Ontario, Alberta, Nova Scotia and British Columbia during the past decade. The purpose of these strategies was to integrate stroke units with available services on a dedicated unit within hospitals and to provide immediate rehabilitative response to stroke survivors. In addition to the usual, continual nursing care, these stroke units are staffed with a full complement of rehabilitation team members eight hours a day, five days a week, and one physiotherapist on the weekends. The dedicated stroke team provides specialised ongoing care, including the provision of emergency and rehabilitation services for the duration of the stroke survivor's stay (Acello, 2006).

Before the provision of stroke units, stroke survivors were placed throughout the hospital for acute care, and only later seen by a physiotherapist and possibly an occupational therapist. The result was long hospital stays for the stroke survivor and a decision for discharge destination based mainly on the preference of the physician (Gagnon, Nadeau, & Tam, 2005). With dedicated stroke units, stroke survivors are now treated by teams dedicated to a range of health needs and personal preferences (Langhorne & Duncan, 2001). The result has been a marked decline in the disability and mortality of a stroke survivor, up to 30% regardless of age, gender, or severity of stroke (British Columbia Stroke Strategy, 2010). As noted previously the data upon which this statement is made is unclear from the Stroke Strategy documents and may relate to a lack of robust reporting of this information or limited data collection tools relating to stroke management. It is possible there are other factors such as an improvement in transporting to hospitals able to offer interventions, or improvements in lifestyle options after stroke, which may have impacted on the disability and mortality and severity of stroke. Without considering (or at least articulating which) factors are taken into consideration when making these statements, the reliability of such statements is questionable as is the generalisability of the findings of such reports.

According to a study by Duncan, Zorowitz, Bates, and Choi (2005, p. 2) stroke survivors who were not admitted directly onto a dedicated stroke unit received care that was “not well coordinated”. As much as this study underpins much of the changes implemented in Canada there is little mention made in the article about the method or tools used to collect the evidence to substantiate the validity or transferability of their observations.

**2.3.4 Hospital stroke discharge policy that influence decisions.** Not only do hospitals have specific protocols to admit all stroke survivors, but they also have protocols and policies that guide how and when to discharge the survivor. For example, the stroke pathways mentioned earlier outline which tests are to be ordered for a stroke survivor and how they are to be administered, including those on which a discharge decision is based. Ideally, the IRT makes the decision on discharge destination based on a consideration of a range of variables and not simply on hospital policy, but timing is sometimes set by administrators considering the availability of beds and hospital revenue.

Administrative pressures are most likely to bear on decisions to discharge patients to long-term care facilities. Stroke survivors awaiting discharge to a long-term care (LTC) facility receive minimal rehabilitation on the stroke unit until a bed becomes available within a facility, which can take up to six months. Once a decision has been made to discharge a patient to an LTC facility, the stroke survivor is responsible for paying a monthly fee for their acute care bed until the time of discharge (Health Link BC, 2013). On occasion this has resulted in families abandoning the stroke survivor if they are unwilling or unable to pay the cost of health care while the patient waits for an LTC bed. At those times when the beds in the hospital are full, administrators exert pressure on medical staff to release or transfer patients. In the case of stroke survivors, staff may feel obligated to discharge a stroke survivor home before the patient is ready since stroke survivors who are to return home may take only three months to be medically fit yet still be able to benefit from rehabilitation (BCSS, 2010).

Administrative policies to move patients out of the hospital as soon as possible are particularly influential on inexperienced decision-makers (Oyeyemi & Sedenu, 2010).



Another discharge policy that affects IRT decisions is the use of a measurement tool such as the Functional Independence Measure (FIM) mentioned earlier. The FIM is used not only to assess patients upon admission to hospital but also, perhaps more significantly, to determine when a patient can be discharged and to what destination. The 18 items on the FIM assess a patient's degree of disability and burden of care. Thirteen items define disability in motor function and five define disability in cognitive functions in the areas of self-care, sphincter control, transfers, locomotion, and social cognition (Uniform Data Systems, 2012). Each of the 18 items is rated on a 7-level ordinal scale, with 1 representing total assistance and 7 representing complete independence. The sum of the item scores describes the severity of an individual's disability and reflects the amount of assistance required for an individual to complete daily activities. Based on initial FIM scores at time of admission, the team will establish functional goals for the patient to show discharge readiness. These goals set a baseline for the patient's progress chart so the team of specialists is able to measure whether the patient has achieved some degree of rehabilitation. These goals are a measure to work toward for the stroke survivor and along with the FIM aide the IRT to determine a discharge destination for the stroke survivor. Other tools to measure rehabilitation outcomes are available, but the FIM is the most widely used in the area of rehabilitation.

**2.3.5 Stroke discharge options.** The organization and provision of health care in British Columbia has created a fixed range of discharge options that an IRT can consider. Stroke survivors are discharged from hospital to either the community (usually the patient's home), an assisted living facility (ALF), or a long-term care (LTC) facility for rehabilitation. Between hospital and placement in either an ALF or LTC,

some stroke survivors are housed in short stay facilities. The length of time an individual may be accommodated in a short stay facility ranges depending upon the funding the facility receives, however none exceeded 90 days for the catchment area associated with this study.

According to Acello (2006), for every 100 stroke survivors who receive dedicated care by the interdisciplinary rehabilitation team, five may be discharged home and function independently. Those stroke survivors who are discharged back home will require support from family and caregivers depending on their immediate needs. They will also benefit from continued rehabilitation services on an outpatient basis.

Other stroke survivors may be discharged to an Assisted Living Facility, described by Law (2012) as a form of housing in which apartment-like dwelling is combined with hospitality such as meals and light housekeeping, and certain prescribed services such as assistance with daily living activities, storage and administration of medication, food preparation and intake monitoring, and sometimes intense physical rehabilitation. Finally, a stroke survivor may be discharged to a long-term care facility, or LTC, which provides a range of direct services for each resident, and this may or may not include rehabilitation. Kumlien and Axelsson (2002) report that at least 40% of all stroke survivors require support to carry out activities of daily living; of those, 10% may require placement in a long-term care facility.

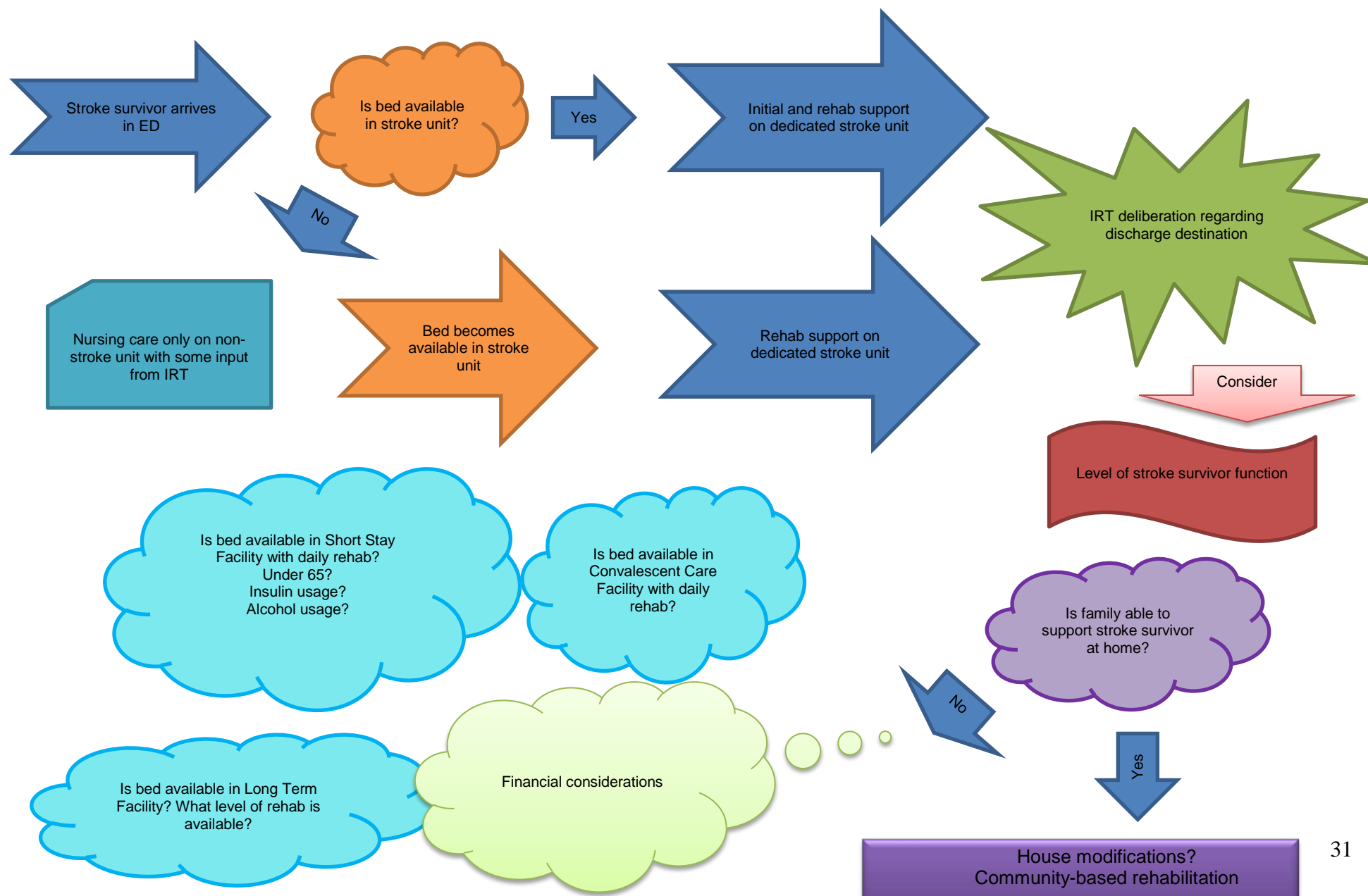
The physical and mental condition of the stroke survivor and his or her social circumstances greatly affect which option an IRT might choose (Jorgensen, Kammersgaard, & Houth, Nakayama, Raaschou, Larsen & Olsen 2000), as does the pre-stroke situation (for example a person who was single before their stroke may have no primary carer to be considered in their post-stroke destination). Additionally, whilst

sending stroke survivors back to their former towns may be the preference so they may maintain relationships and social supports, this may not be possible depending upon their financial situation or the level of care available in the community they came from. Canada, like Australia and tracts of the United States, has large rural areas with limited healthcare supports.

Care facilities also have their own policies which provide clear and firm guidelines for admission. Policy in BC states that admission to any long-term care facility should be avoided at all cost unless all other avenues have been exhausted. Currently there is no consistency in relation to government policy framing the level of rehabilitation services to be provided at short or long term facilities and this relates primarily to these facilities being privately run.

In Australia Commonwealth-funded aged care services are provided to older people who are in need of supported accommodation and personal or nursing care. There are also a small number of younger people with disabilities living in Commonwealth-funded residential aged care services. The Aged Care (Living Longer Living Better) Act 2013 articulates the minimum expectation of government funded services; however like the Canadian situation, in Australia this policy does not cover rehabilitation services (Federal Government, 2014).

The rehabilitation team must consider the advantages and limitation of each destination carefully, balancing the technical support available with the emotional impact of the environment to come to a decision with regards to discharge destination for all stroke survivors.



**Figure 2: Relationship between funding and bed availability (Developed by this study).**

## **2.4 Interdisciplinary Rehabilitation Teams**

Members of an IRT work within the broad institutional policies mentioned above, but they also work with the context of their team. As the IRT plays such an important role in the decision-making process, the coordination of its unique functions, member characteristics, and environment is vital to create an effective decision (Grumbach & Bodenheimer, 2004). Research into health care teamwork began in the 1940's with a strong social focus on chronicity, and evolved to consider collaboration between the patient and the physician in the 1960s and 1970s (Cummings, 1978). In the last two decades, research on teamwork has focused on the inclusion of all stake holders. Research has examined the traits of an effective team, but little of it covers teams in health care and none in the speciality area of neurological rehabilitation (Booth & Hewison, 2002). Although the body of literature that articulates general factors considered by health care teams is growing, few studies explore how aspects of the multi- or interdisciplinary team influence decisions regarding rehabilitation placements for stroke survivors, or how different stakeholders contribute to this decision.

Although Pratt and Patel (2008) decry the dearth of literature showing the benefits of teams, other research generally confirms the team approach can be very successful, with benefit to the patient greater when experts work together than when a single professional makes a decision (Headrick, Wilcox, & Betalden, 1998; McDonough, 2005). Complex medical problems can require the insights of a range of specialists, such as physiotherapists, occupational therapists, nurses, and physiatrists (Periyakoil, 2008). (A physiatrist, known as a consultant rehabilitation physician elsewhere, is a physician who specializes in rehabilitation.) However, the team must function

cohesively, as a whole; maintaining the integrity of an IRT can be difficult if members do not share a common goal to choose the best discharge destination for the stroke survivor (Grumbach, et al., 2004).

Good teamwork takes time and effort. To investigate teamwork in practice, researchers have explored the characteristics of effective and ineffective teams, and have tried to identify the essential activities for a team to optimize its effectiveness. The following analysis of the literature will outline research insights in the areas of team dynamics such as cohesion and mutual respect, team leadership, attitude, and professional difference.

**2.4.1 Team dynamics.** An effective team has members who cooperate rather than compete with one another, and put the interests of the patient first. Broadbeck, Kerchreiter, Majzisch, and Schulz-Hardt (2007) suggest that groups tend to focus on the negotiations among members. Often, individuals prefer one outcome to another, tend to advocate for their preferences, and use information in a way that builds support for their position (Maxson, et al., 2011). According to Baker (2010) not all team members will respect or value group decisions, especially if the decisions are not congruent with their own. Behm, et al., (2012) suggest team members may negotiate back and forth in order to substantiate their point of view. For IRTs to be effective in making decisions for the stroke survivor, members must remain aware of their team membership, be familiar and comfortable with collaboration, be able to present their various expertise, and formulate a care plan congruent with each other's that specifies goals to ensure optimal recovery for the patient (Salas, Sims & Burke, 2005; Salas, Rosen, & DiazGranados, 2010). According to Nancarrow et al., (2013), when organizations use team members to their

full potential and promote a climate for cooperative team work, the results are usually positive.

Team cooperation also considers the extent to which the patient is included in the deliberations. IRT decision-making is not always centred on the patient, owing to the diverse and often complex strategies used by team members to work together and the time required to determine which strategy to use, and when (Broaden & Leaviss, 2000). Suddick and Souza (2006), in an exploratory qualitative study outlining therapists' experience and perceptions of team work in neurological rehabilitation, noted the team members studied had different perceptions of the patient's participation in the decision-making. The authors concluded the ability of patients to understand their situation helped determine whether they were included in negotiations, although there were times when the patient was excluded despite possessing the capacity for full engagement because, as team members stated, too much time was spent in team meetings explaining the complexities of the various rehabilitation strategies. According to Grumbach and Bodenheimer (2004) and Headrick, Wilcox, and Betalden (1998), an effective health care team must have clear goals outlined in the decision-making process, and the team must primarily be concerned about the patient rather than team members' individual prestige or status.

**2.4.2 Team leadership.** An effective team has an effective leader. To maintain a team that functions at a high level, leaders must possess particular abilities and have some knowledge of all aspects of their members' roles (Salas et al., 2010). Team leaders must foster mutual respect, allow each team member to have an opinion, provide opportunities for each individual to contribute, and be able synthesize the diverse knowledge presented. According to Zaccaro, Rittman, and Marks (2001), more than

one leader may be present in any team, and as team members gain experience they may take on more of a leadership role. However, one person typically retains a central role of leadership to ensure a collaborative atmosphere, team cohesiveness, and the resources and support that ensure success (Cordery & Wall, 1985; Hackman, 1986; Druskat & Wheeler, 2003). Good leadership can help unite a team. Conversely, several factors can interfere with team cohesion. Member attitude is one of them (Reuben, Levy-Storms, Yee, Cole, & Waite, 2004).

The evidence relating to team leadership is provided through subjective data from qualitative studies. The capacity to examine finite factors or qualities which individuals or organisations consider to be “good” qualities in terms of leadership, will always remain subjective depending upon the perspective upon which these qualities are based.

**2.4.3 Attitudes of team members.** Given that IRTs consist of individuals with differing backgrounds working together on behalf of the stroke survivor, team members must work cooperatively and cohesively, respect and value each other, and unite to choose the best discharge destination of the stroke survivor (Cashman, Reidy, Cody, & Lemay, 2004; Pethybridge, 2004; Mickim and Rodgers, 2000b). Attitude is thus vital; poor attitudes can prevent interdisciplinary teams from becoming cohesive (Reuben et al., 2004). Different perspectives on roles, competition over areas of authority, and the perception that physicians automatically have a leadership role on teams leave some members feeling less important (Leipzig, Hyer, Wallenstein, Vezina, & Fairchills, 2002). In a survey of 337 individuals from 59 professional teams, Thylefors, Persson, and Hellstrom (2005) saw a clear link between members perceptions of how the team should operate (their attitudes) and the actual performance of the team. Even clinical experience influences attitude. According to research by Oyeyemi and Sedenu (2010),



health care clinicians with little or no experience in decision-making may not use the resources necessary to promote optimum recovery for stroke survivors and may be more responsive to institutional policies. Other personal idiosyncrasies, like cultural beliefs or a preference for formal or informal meetings, can also influence the decision-making process (Broaden et al., 2000).

Once again, these studies relate to subjective perception and are therefore qualitative in nature. This means whilst the findings are interesting and may have some application in another qualitative study, it is extremely hard to generalise them to any other setting.

**2.4.2 Culture.** Culture is another element that can alter how teams work together and make decisions. Culture is often considered to include the knowledge, beliefs, behaviours, language, and rituals that characterize a group of people. Culture can encompass people in a wide geographical area (e.g. citizens of a country), or, as sub-cultures, people in a small, cohesive group (e.g. members of a badminton club). A team member's knowledge of a patient's particular culture may change the decision-making outcome for that person (Keighley, 2011). In any given situation, decisions informed by the values of one culture may be quite different from decisions informed by the values of another, with the result that judgments and decisions may differ among individual team members if they do not share the same cultural histories (Briley, 2007). Team members may make decisions completely unaware of considerations relevant in cultures or societies other than their own, and may find themselves in debate or disagreement with other team members or patients who have different cultural sensibilities (Noble, Sander, & Obenshain, 2000). An ethnographic study by Geertz (2000) focused on the "unspoken" words of a particular culture and their importance to

decision-making. Briley (2007) asserted that European-Americans were highly influenced by "positive consequences" of decision-making while Asians seemed influenced by "negative consequences" (p.1). The authors concluded that Asians were more apt to "compromise, seek moderation, or to postpone decisions if it is possible" (p. 1). Clearly, cultural differences among team members and the patient can affect the nature of the decision-making process and its outcome.

**2.4.5 Professional identity.** Members of the IRT each belong to different professional sub-cultures with different knowledge, practices, language, and power. Merging these sub-cultures is also important for team effectiveness; differences among professionals sometimes prevent interdisciplinary teams from becoming cohesive (Reuben, et al., 2004). Professional practice denotes a sense of ethics, specialized and esoteric knowledge, and the freedom and ability to make decisions autonomously (Southon & Braithwaite, 2000). As the different professions act and maintain themselves as autonomous groups (described by Beattie, 1995) as a form of tribalism), they differ from one another in various ways. Practitioners have been schooled to think independently and in isolation within each of their particular areas of expertise (Fitzpatrick, et al., 1996; Howkins & Ewan, 1999; Mann, et al., 2005). Since IRTs require a cooperative, interdisciplinary approach to address complex patient needs, hospital policies should be in place that discourage professionals from working in isolation and help them to realign to their new role (Skills for Health, 2006). A study by

Baxter and Brumfitt (2008) noted differences in perceived role distinctions between rehabilitation workers and medical workers, as well as different perceptions amongst staff about their professions and their role as a team member. This study further suggests that team size and consistent contact among team members were

crucial for establishing team cohesiveness, rather than leaving the group as a collection of separate professional identities.

## **2.5 Decision-Making Models**

Health care providers faced with complex decisions tend to adopt one of several possible approaches, or models, that influence how they proceed. Decision-making models in health care have taken many shapes over the last 40 years largely because of the “patient empowerment movement,” a subset of the human and consumer rights movements of the 1960s and early 1970s. Today good health is considered to be patient-centred.

Decision-making in the past was typically done by the physician without the involvement of the patient, however, as chronic illness grew to include more patients and their caregivers who valued and demanded patient-centred health care, participatory models of decision-making have emerged (Charles, et al., 1997). In the case of stroke and the operation of the IRT, this means that team members must consult with stroke survivors and their families.

Elements of the older, paternalistic model of decision-making do remain in health care, and variations of shared decision-making can be found. Figure 3 illustrates the three decision-making models identified in the health care literature: Paternalistic, Consumerist, and Shared.

Paternalistic Model	Consumerist Model	Shared Model
<ul style="list-style-type: none"> <li>• Physician directed</li> <li>• Physician makes choice</li> </ul>	<ul style="list-style-type: none"> <li>• Physician gives information</li> <li>• Patient expected to make choice</li> </ul>	<ul style="list-style-type: none"> <li>• Reciprocal for physician &amp; patient</li> <li>• Physician &amp; patient make choice together</li> </ul>

**Figure 3: Three decision-making models used in health care delivery**

(Jette, Grover & Kreck, 2003).

**2.5.1 Paternalistic medical decision-making model.** Until the early 1970s, medical decision-making had been dictated by the physician with the expectation of acceptance by the patient (Wheeler, Szymanski, Black, & Nelson, 2011). Generally, paternalistic medical decision-making has been grounded in the "Hippocratic ideal of the physician as the gate keeper of the patient's medical well-being, and resembles the way a mother might make decisions for her young child" (Sandman & Munthe, 2009, p 7). This process fails to consider the patient's perspective, but was acceptable as long as there was benefit to the patient. The paternalistic model asserts that patients are unaware of the pathology of their disease condition and options for treatment, so they look to the physician for expert advice.

Despite a decline in popularity, some health care providers still follow this model, although without realizing it. For example, Griffith and Tengenah (2013) examined nurses who thought they were assisting patients using a shared decision-making approach, however, surveys of their patients indicated otherwise. The authors

also cited a 2007 health care commission that referred to diabetes patients who claimed they were not consulted about goals to manage the condition.

Paternalistic decision-making is not acceptable in the early part of the 21<sup>st</sup> century today as many patients expect to participate in decisions about their own health care needs (Redsell & Buck, 2009). Moreover, consumer advocates for patient-centred care have long argued that patients should have an active role in their health-related decisions and suggest this can be achieved using a shared decision-making model (Grol, Elwyn, Edwards, Kinnersly 2000). Failure to include patients who have the capacity for autonomous decision-making may even breach consent laws resulting in criminal tort charges of assault, battery, or false imprisonment (Kerridge, Lowe, & Stewart, 2009). Some degree of paternalism may be warranted if the patient has decreased cognition or has been involved in an emergency (Charles, Gafini, & Whelan, 1997). This is particularly relevant to this study as some stroke survivors have very limited capacity to make decisions and some have reduced cognisance of this limited capacity, thus strategies must be considered and implemented for each stroke survivor on an individualised basis.

**2.5.2 Consumerist model.** Another model of decision-making that appears more consultative is the consumerist or information-giving model, which postulates uni-directional information sharing from health professionals to patients. Once patients have been given all the necessary information, they are left on their own to make the decision (Redsell, et al., 2009). The central problem with the information giving model is the assumption that everyone has the same capacity for understanding the information and will make the right choice based on that information (Redsell, et al., 2009). This assumption of capacity does not consider the complexity of the decision-making process

or the ability of patients to understand the information based on their level of education, socio-economic status, or, in the current case, post-stroke cognitive score.

**2.5.3 Shared decision-making model.** Evidence suggests that most patients prefer a shared decision-making model involving both themselves and their physician, although many choose a passive role and allow other health professionals to make the final decisions (Orsino, Cameron, Seidl, & Mendelssohn & Stewart, 2003; Deber, Kratchmer, Urowitz & Sharpe 2007). Charles, et al. (1997) suggest that shared decision-making has four elements: the process involves more than one person; information is shared equally; each participant starts to formulate an agreed upon plan; and once a consensus is reached the plan is implemented.

Decision-making using the shared model may pose a problem for the physician and the patient if they do not consider each other to have equal power over the decision (Redsell, et al., 2009). Grol et al., (2000), after exploring physicians' views on decision-making, identified barriers to sharing decisions with patients such as lack of information and a reluctance to share data, as well as difficulty ensuring appropriate timing for shared decisions.

Nurses are in a good position to adopt a shared decision-making approach with their patients by involving them in choices about their direct care (Griffith, et al., 2013). Families also want to be involved in the direct treatment choices for their loved one, providing a significant impetus for physicians to involve an interdisciplinary team in the rehabilitation of the family member (Whitmer, Hughs, Hurst, & Young, 2005). However, investigators have concluded that physicians do not communicate effectively (Whitmer, et al., 2005). The reasons for this poor communication are varied and many, depending upon the environment in which the communication is occurring and the

participants in the communication. Whitmer, et al., (2005) suggest key to ensuring communication is well received requires both parties to be speaking in the same language (this includes limiting the use of [healthcare] jargon) and pitching the conversation at a level of agreed education so both parties are able to understand what the other is saying and hearing. Other factors include the level of stress or distress one or both parties may be experiencing, which reduces the capacity to be considerate of each other's experience. Once again, this concept is particularly relevant for the stroke survivor, their family and loved ones, and the Interdisciplinary Rehabilitation Team. Expectations, education, experience and stress/distress are all factors which may impact on the perception of the communication between individuals determining the discharge destination of a stroke survivor. How this may translate into action is currently poorly articulated in the literature surrounding stroke management.

Although these three models of decision-making are identified in the health care literature, they do not consider a range of other factors related to decision-making for the first time stroke survivor working with an IRT. In this situation, many health professionals are involved—the physician, nurses, physiotherapists, and other professionals in allied health specialties work with the patient and their significant others. Still, it is imperative that an IRT follow a model of medical decision-making that is appropriate for the person and their family. The accumulated evidence suggests the shared decision-making models work best for an interdisciplinary team because the stroke survivor, family members, and caregivers are all involved in the decision-making, and patient outcomes are better (Redsell, et al., 2009).

## **2.6 Patient and Family Factors that Affect Discharge Decision-Making**

The characteristics of patients themselves weigh heavily in decisions about discharge destination. The IRT sets forth rehabilitation goals for the stroke survivor as a way to gauge how well stroke survivors will be able to navigate their home environment. These goals include walking, exercise programs, being able to dress independently with or with the help of an aide, mobilizing in and out of vehicles, eating and kitchen assessments to see if a strokes survivor is able to think through usual household tasks. For example, stroke survivors who possess more negative than positive predictors for rehabilitation gain, particularly incontinence, neurological impairment, and poor mobility, are more likely to be discharged to a long-term care facility without intense rehabilitation therapy in the hospital stroke unit; positive predictors, in contrast, may include youthfulness, good gait status, and the presence of committed caregivers (Nguyen, 2007).

It should be noted that functional recovery is rarely the only personal variable determining discharge destination (Frank, Conzelmann, & Engelter, 2010). The survivor's age, motivation, and socio-economic status also play a role. Full recovery to pre-stroke function is often not achieved, so contextual factors are important if the survivor is to return to a prior living situation. Marital status, pre-stroke arrangements, family support, age and gender of caregiver, culture, and social support play a significant role in a stroke survivor's success; those discharged into a supportive environment improve much better than those without support (Nguyen, et al., 2007).



**2.6.1 The influence of incontinence and neurological impairment.** Although the Functional Independence Measure (FIM) assesses 18 items, the presence of urinary incontinence, confusion, and poor mobility have been identified as more likely associated with a negative outcome for discharge home (Myint, Vowler, Redmayne & Fulcher, 2008). These conditions did not need to be severe, as their mere presence indicated that home placement was inappropriate as they would increase the burden of caregiving on family members (Myint, et al., 2008).

Urinary incontinence is common amongst stroke survivors and is usually associated with high mortality and disability. This is partly because people with strokes have other physical deficits which prevent them from safely ambulating to the bathroom without assistance. A fall when attempting to ambulate without assistance may result in further injuries such as a fractured neck of femur. Mortality from fractured neck of femur is typically reported between 20 and 35%, depending upon comorbidities (Goldacre, Roberts, & Yates, 2002). Some stroke survivors who suffer from urinary incontinence will begin to regain bladder control within a few weeks (Brittain, Peet, & Castelden, 1998), thus it is necessary to provide sufficient time to determine if they have permanent incontinence before choosing if this impacts on their discharge destination.

Stroke survivors may demonstrate varying degrees of cognition which may require close supervision (Mitchell, 2009). Up to 65% of stroke survivors demonstrate new onset or deteriorating cognitive impairments after stroke, which may have an effect on functional recovery during rehabilitation (Donovan, Kendall, Heaton, Sooyeon, Velozo, & Duncan, 2008). The ensuing behavioural changes may lead caregivers or family members to become “overwhelmed and confused by the behaviour” (Mitchel,

2009, p. 421). Consequently, when cognitive impairment is present the IRT often makes a placement decision for a long-term care facility. When home discharge is chosen, occupational therapists can help by informing family members of the results of cognitive testing, and by providing specific information about the stroke survivor's behavior. Mitchell (2009) notes that varying degrees of educational support should be provided to family members of stroke survivors at an appropriate level, which may mean presenting small amounts of information over a long period of time and organizing an educational support team.

Mobility is a central concern when assessing the level of care the stroke survivor may need. In one study, families of stroke survivors stated they were willing to provide continuous care, including bathing and toileting, but did not have the strength to provide mobility support. Family members stated that if the stroke survivors themselves were able to help with transferring, standing, or even walking a few steps, care delivery would be easier and they would support the decision to discharge the stroke survivor home (Lutz, 2004).

The evidence discussed in this section is based on quantitative data collection for which the method and tools have been well described in the articles. This makes these findings easily replicatable and therefore generalisable across multiple sites. This evidence is robust and is therefore valid to apply in any setting where there are stroke survivors.

**2.6.2 The influence of the stroke survivor's age.** Within Canada, stroke occurs primarily in adults between the ages of 65-80 years (Heart & Stroke Foundation Statistics, 2012). The prevalence of stroke and the stroke related mortality rate increases with age. Qualitative studies have shown that stroke recovery continues even

after rehabilitation for functional gain is finished, which means that stroke survivors will all, sooner or later, be elderly (Young, Murray & Foster, 2003).

Stroke in the elderly often leads to increased length of hospital stay, decisions to discharge to long-term care facilities, and death (Marini, Marini, Totaro, Frederica, De Santis, Ciancerelli, Baldassaree, & Carolei 2001; Nedeltchev, deMaur, Georgiadis, Arnold, Casa, & Mattle, 2005). A study by Nguyen, Page, Aggarwal, and Henke (2007) found that elderly persons suffering from a stroke were usually female and had comorbid conditions such as dementia, cancer, and heart disease. The study also indicated these elderly women were more dependent on some form of care before their stroke. Age has a significant impact on the discharge decision-making for the stroke survivor but it should not be assumed that younger survivors lack obstacles. Although evidence suggests that people younger than 65 years fare better following a stroke, the disease still creates an overwhelming struggle for the individual ( Marini et al., 2001; Nedeltchev, et al., 2004).

**2.6.3 Motivation.** Motivation is an important variable which is often considered by rehabilitation health care providers and is measured by the FIM. If a stroke survivor is motivated to work on his or her rehabilitation program, the result is often positive (Maclean, Pound, Wolf & Rudd 2002). Many health care professionals believe that motivation is crucial in determining functional outcomes of stroke rehabilitation (Becker & Kaufman, 1995). Many studies show positive relationships between motivation and outcome of rehabilitation (Friedrich, et al., 1998; Grahn, et al., 2000; Maclean, et al., 2002). However, less is known about what constitutes motivation and what factors may influence it (Maclean & Pound, 2000; Maclean, et al., 2002).

Clinical compliance (following directives of therapists) is necessary to increase physical function. Typically, health care team members consider a stroke survivor's compliance with physical therapy, interest in discharge, and general demeanour to determine whether they are motivated or unmotivated (Maclean et al., 2002). This assessment is flawed, however, as it does not consider other factors that may induce motivation, such as environmental conditions, the survivor's views of rehabilitation, the presence of social support, requirements of the rehabilitation process, the relationship with the therapist, and the stroke survivor's views of recovery in general (Holmqvist & vonKoch, 2001; MacLean, et al., 2002). In a study by Resnick (1996) which looked at patients who were deemed unmotivated by the rehabilitation team, the patients were found to consider themselves highly motivated. However, the patients indicated they were unaware of the necessity of the rehabilitation goals, suggesting they would have benefited immensely from a little teaching from each of the team members involved in their care.

**2.6.4 The influence of the stroke survivor's socio-economic status.** Socio-economic factors related to stroke are often discussed in scholarly literature, which consistently show that the incidence of stroke is higher in depressed socio-economic populations (Galbardes, Smith, & Lynch, 2006). Low education levels and a lifetime of low socio-economic status increase the risk of a stroke later on in adulthood (Galbardes, et al., 2006). Socio-economic status also accounts for inequalities in the long-term provision of care for stroke survivors. In the United States, stroke survivors with higher socio-economic status are much more likely to receive rehabilitation following hospitalisation compared to their counterparts with lower socio-economic status. Similarly, poorer countries have a higher incidence of stroke and poorer outcomes than

wealthier countries. IRTs when considering placement destinations for stroke survivors must consider the affluence of the patient and develop effective stroke interventions strategies appropriate for all, including those of low socio-economic status (Addo, Keerthi, Mohan, Crichton, Sheldenkar, Chen, Wolfe, & McKevitt, 2012).

**2.6.5 The influence of pre-stroke living arrangements.** One of the factors in determining a discharge decision following a stroke is the appropriateness of the stroke survivor's pre-stroke living arrangements, specifically the home. Before a discharge back to the community is approved, the home must be safe, comfortable, and easily navigated by the stroke survivor, providing support with or without the use of adaptive equipment (Lannin, Clemson, McClusky, Lin, Cameron, & Barras, 2007). One of the roles of the IRT is to assess the home and how the survivor may function within it, and provide necessary equipment to support a life with as much normalcy as possible (Lannin et al., 2007).

**2.6.6 The importance of family support.** In most cases, the evidence suggests decision to discharge home (community) is affected by caregiver availability and the capabilities and characteristics of the caregiver (Jorgensen, Kaamersgaard, & Houth, 2000; Meijer, Limbeck, Krek, Innenfeld, Vermuelen & deHaan, 2004). Even with strong support, however, many stroke survivors will experience limitations (Ostwald, Davis, Hersch, Kelly, & Godwin, 2008). Once the stroke survivor is home, the reality of the new situation becomes apparent to family members who have to learn new ways of caring for the survivor while adjusting to changing relationships (Coombs, 2008). Most stroke survivors expect life to continue as usual before their stroke, but quality of life may remain poor even if the stroke survivor has good functional recovery. This is particularly the case for the elderly as they struggle to maintain as much independence

as possible (Doolittle, 1988; Dowsell, Lawler, Dowsell, Young, Forster, & Hearn, 2000). Stroke survivors may have feelings of helplessness and hopelessness (Ellis-Hill & Horn 2000; Roman, 2006). It takes a monumental amount of effort by the survivor and their families to achieve prior life goals and to maintain an optimistic outlook (Banks, 2004; Kvigne, et al., 2004).

Family or home support is considered “informal” care, and includes unpaid caregivers such as family, friends, church members, and neighbours. In contrast, formal or paid care includes services provided by the local health authority or private aids and nurses (Lutz, 2004). When informal caregivers are used, the IRT must consider availability, proximity to the stroke survivor, the closeness of the relationship, and the nature of the responsibilities. The IRT also considers how the care providers perceive their capabilities to provide necessary care, their level of commitment, and the type of care required.

Although support from family members contributes to a more probable chance of a positive outcome, caring for a person at home following a stroke requires a long-term commitment by family members that is fraught with stressors (Kwakkel, Linderman, & Kollen, 2004; Palmer & Glass, 2003). Stroke greatly affects the emotional and socio-economic status of survivors and their families, creating a family dilemma due to the strain it may place on family members (Palmer & Glass, 2003; Viser-Meily, Post, Gorter, Berlekom, & Lindeman, 2006). The social network of the family may change suddenly as family members find themselves thrust into a time-consuming caregiving role with little or no warning (Smith, Lawrence, Kerr, Langhorne, & Lees, 2004). Viser-Meily et al., (2006) found that children between the ages of 4-18 experienced negative changes in behaviour once a parent had suffered a stroke, a direct result of the

transitional shift and strain perceived by the caregiving spouse. Adult children who lived away from home may experience changes to the relationship they had with a parent (Fraser, 1999; Secrest, 2000). Similarly, adult children who become caregivers may also face a greater strain as they move from caring for their own children to caring for a parent (McCullugh, et al., 2004). Not surprisingly, the research into the situation of home caregivers has been considerable (Smith et al., 2004).

As some 80% of stroke survivors live at home a year after the stroke, and more than a third of these depend on an informal caregiver, health care workers suggest the emphasis in stroke rehabilitation should shift from an emphasis on patients alone to an emphasis that includes both patient and caregiver (McCullough, et al., 2005). For example, family members need to be aware of support groups so they can network and receive support from other individuals with similar, prior experiences (Mitchell, 2009). Caring for a stroke survivor is fraught with many challenges which puts a strain on the caregiver and his or her health (Lui, Lee, Greenwood, & Ross, 2011; Simon, Kumar, & Kendrick, 2008). Examples of these challenges include but are not limited to stress, increased burden and decreased quality of life for the caregiver (Greenwood, et al., 2009). Research has shown that a stroke survivor's rehabilitative progress is far greater if the caregiver is vested in the care and remains physically and psychologically healthy (Playford, Siegert, Levack, & Freeman, 2009).

**2.6.7 The significance of marital status.** The probability that an IRT would choose home discharge was significantly higher if patients were married before their stroke. A study by Nguyen, Page, Aggarwall, and Henke (2007) identified marital status as the most important social determinant in discharge destination. Couples may, however, feel myriad mixed emotions as they change roles in the relationship. In the

case of working couples with two incomes, unequal relationships may take shape when they become a single income family, potentially creating marital conflict and stress (Anderson et al., 1995; McCullugh, et al., 2004). Stroke survivors and other family members may experience a change in their self-identity, intimacy, and social roles (Brown, 2001; Thompson & Ryan, 2009). A couple that was formerly active socially may find they are housebound during the rehabilitative process (Smith, et al., 2004).

**2.6.8 The influence of caregiver age.** The age of the caregiver also plays an important role in discharge destination, regardless of gender. Wongvatunyu and Porter (2008) found that parents of younger stroke survivors made the transition to caregiver with ease, whereas a spouse of a stroke survivor experienced difficulty moving into the caregiving role. Smith, Gignac, and Cameron (2008) compared and contrasted caregivers' age in relation to the caregiving role and found that younger caregivers readily identified the need for information and training support while the older caregiver did not. Younger caregivers were also more likely to balk at the health care system, while the older caregiver recognized the importance of keeping a positive attitude when providing care for a stroke survivor. This may in part be due to the fact the younger caregivers needed their significant other home to aid in the maintenance and management of the household.

**2.6.9 The influence of caregiver gender.** Research into long-term health care has been dominated by female caregivers, which is not surprising as women comprise the majority of those who provide both formal and informal support, however, males are increasingly recognized for their role in caregiving for a spouse (Cecil, Parahoo, Thompson, McCaughan, Power, & Campbell, 2010). Some studies which have compared male and female caregivers have noted similarities and differences in their



approaches, and the impact it has on each individual. For example, a female caregiver may be more nurturing than a male and priorities for care may be different. Although gender is an important variable, it cannot be considered outside the relationship each person has to their respective spouses (Cecil et al., 2010). Although females and males provide care and support for the stroke survivor in similar situations, females have a higher rate of depression and see the new role of caregiver as a burden. In contrast, males may perceive their role as a source of strength within the family and seem to make the transition to the new caregiving role with relative ease (Bucki, Spitz, & Baumann, 2012).

**2.6.10 Cultural influences on discharge decisions.** Since decision-making practices vary from one culture to the next, as noted earlier, health care teams facing life-altering decisions must clearly understand different cultural values if they work in culturally diverse societies (Haskins & Hinton, 2009). This is particularly true in North America, where populations are growing increasingly diverse. According to the United States of America Census Bureau (2008), more than one-fifth of the American population by the year 2030 will be older than 65 years. By 2042, only a minority of the population will have ethno-cultural origins in Europe. Similarly, according to Census Canada (2011) more than 80% of the population growth by the year 2031 will be the result of immigration. If these forecasts hold true, both Canada and the United States in the future will exhibit greater cultural diversity which will affect how health care decisions will be made. For example, the western tradition requires informed consent from individuals for most decisions (Davies & Wax, 1996). In contrast, Canadian aboriginal cultures, which are growing rapidly, require the entire family participate in decisions. Because of the many cultural variables at play in one's life, it

is overly simplistic to make assumptions based solely on the stroke survivor's place of birth (Shen, Cordato, Chan, and Kokkinos et al., 2005).

According to Shen et al., (2005), cultural variables such as religion, family structure and size, and beliefs about health, illness, and care for loved ones affect attitudes toward people with major disabilities. These attitudes can then influence family structures. Some cultural groups have families with very close relationship ties, such as Buddhists who believe their family life is influenced by culture and religious beliefs as described in their sacred texts (Narayan, 2010). Confucian and Buddhist people believe caring for the elderly, whether frail or healthy, is a family responsibility (Lee, 2004). Even food preferences for the ill or infirm can be heavily influenced by culture. For example, some cultures consider the consumption of fresh vegetables and herbs from the garden to be particularly healthy, and see no value in consuming an entree that contains frozen vegetables (Shanmugasundaram & O'Conner, 2009). Some cultures have a great need for privacy and would prefer caregivers to be of the same sex as the patient (Shanmugasundaram & O'Conner, 2009).

One element of culture, language, can have a particularly powerful influence on family identity. A cross-sectional study by Nguyen et al. (2007) found that immigrants with poor English language skills were more likely to be discharged home after stroke compared to English speaking persons. The researchers attributed this to higher marriage rates among non-English speaking immigrants within their native linguistic communities, which shared similar cultural values. Immigrant groups to Canada appear more likely to care for their loved ones at home because of their poor English language skills and cultural segregation, forming a stronger family unit than those participating in the dominant Canadian language and culture (Nguyen, et al., 2007). Of course, having

a support network which includes a spouse and other family members enables an IRT to make a discharge decision to a home setting more easily.

**2.6.11 The influence of social support on discharge decisions.** Given the prevalence of stroke and its long-term effects, both the survivor and the caregiver benefit tremendously from community supports. These should be well established before or upon discharge from the hospital, and their presence or absence can influence a discharge destination decision.

For the stroke survivor, poor quality social support and activity restrictions were associated with overall dissatisfaction for the stroke survivor (Simon et al., 1995). Similarly, O'Mahoney, et al. (1997) mentioned that stroke survivors were not well informed about the disease and what services may be available post discharge. For the caregiver, social supports provide tools to deal with everyday situations, a diversion from daily routines, and a release from stress. They can also allow a spouse to return to paid work. Caregivers felt they received ample information about what a stroke was technically but did not feel prepared for other aspects of the caregiving role necessary to support the stroke survivor while in the community (Simon, et al., 2008). As it is nearly impossible to consider all possibilities when preparing a discharge plan for stroke survivors and their caregivers, support services are vital when dealing with the unexpected but inevitable events that have a direct impact on both the stroke survivor's rehabilitative process and the caregiver's level of stress (Ski & O'Connell, 2007). Both can be mitigated by a large and effective social support network that includes professional services and advice, home support services, and social and recreational opportunities.

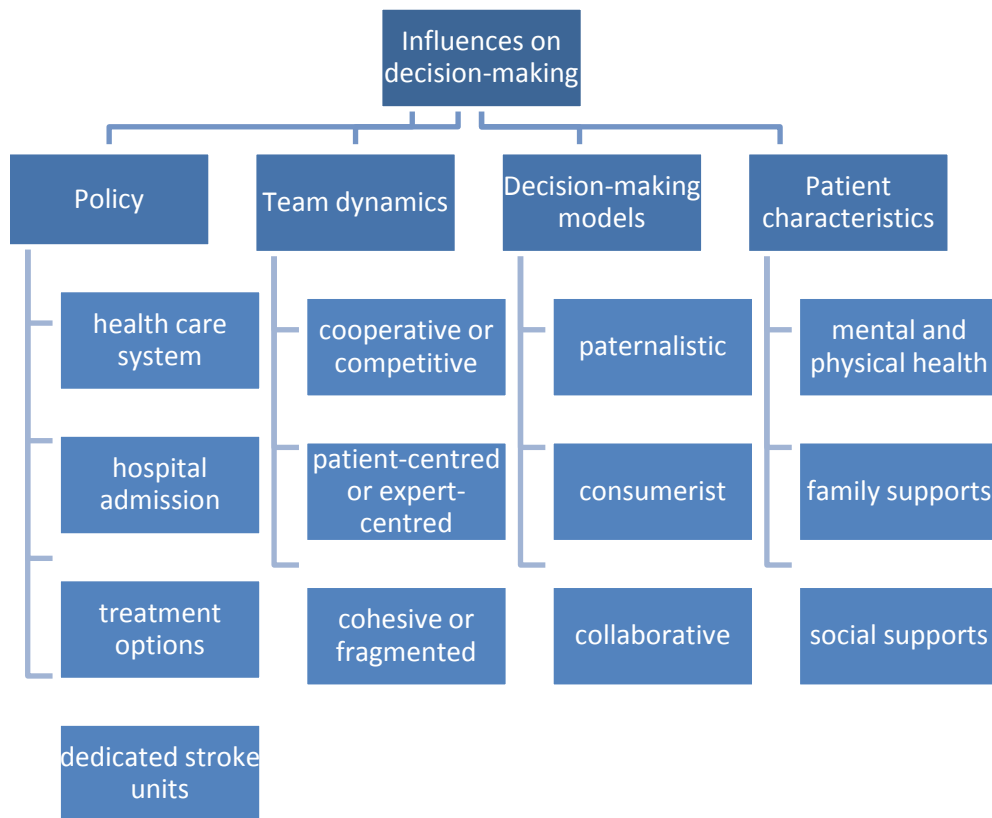
Caregiver stress can also be reduced through such interventions as counselling to improve problem solving skills and to enable the caregiver to deal with problems as they arise (Visser-Meily, et al., 2005). As depression, stress, and anxiety occur early in the caregiving relationship, it should be assessed as soon as possible (Greenwood, MacKenzie, Cloud & Wilson 2009). If caregivers are not supported in their role, families will eventually need to receive outside support such as engaging a private provider to assist with the burden of care (Simon, Kumar, & Kendrick, 2008). IRTs when making discharge destination decisions might want to consider whether the caregiver has access to such supports as counseling and respite care in order to support their new role as caregiver.

## **2.7 Summary**

The decision to place a stroke survivor in a home, assisted living facility, or long-term care facility after hospitalisation involves a range of social, institutional, and personal variables. In the context of British Columbia, national and provincial health care policies shape the available health care services, while hospitals set protocols for admission, treatment, and discharge. The data upon which these policies and recommendations is however, poorly described in the actual policy documents and underpinning journal articles cited within the documents, as are the methods and tools for collecting and collating these data.

The medical and rehabilitation teams entrusted to make decisions operate according to the dynamics of their own sub-cultures, guided by one of several decision-making models. Within this policy context the team considers the nature of patients' mental and physical health, and their family and social supports. Figure 4 provides a visual summary of the variables identified in the health care literature that influence the

decisions made by health care teams when making discharge decisions for or with their patients.



**Figure 4 : Variables that influence the discharge destination choice of an integrated rehabilitation team (Developed for this study).**

The literature also suggests best practices for stroke treatment. Policies that provide for fast assessment and medical attention are obviously of great importance. The provision of dedicated stroke units within hospitals also appears vital to rehabilitation, as are policies that allow patients to remain there for as much time as is necessary. The integrated rehabilitation teams that operate on these units must be cohesive, cooperative teams with a mix of experts who focus on best patient outcome, not their own personal advancement. It is also vital for stroke survivors to have adequate rehabilitation resources in whatever post-stroke destination is chosen although this was not assessed in the present research.

What is missing from the literature, however, is any sense of what the best practices may be for team decision-making when choosing the discharge destination. Although placement decisions have been studied by several researchers who have generated this list of influential variables, how integrated rehabilitation teams arrive at their decisions is not present in the literature. Early research identifies positive and negative predictors that influence discharge destination decisions, but does not examine the process of decision-making itself. It is unclear from the literature which of these factors a stroke integrated rehabilitation team (IRT) actually consider when planning for the stroke survivor's placement after hospitalisation. More specifically, the criteria used by different members of the IRT, how each member weighs various assessment factors or data about the patient, how the team arrives at a decision regarding placement, how the team involves patients and their significant others in the decision-making process, and how decisions are assessed once made, are all lacking from current literature relating to the management of stroke.

In order to provide robust data against which one is able to describe any one of these processes, one must examine the process as it actually occurs. Thus the purpose of the present study was to look specifically at IRT interaction to explore and describe the decision-making process of the interdisciplinary rehabilitation team when deciding on the discharge destination for first-time stroke survivors following acute hospitalisation. Specifically, the study wished to examine the process of the IRT interactions as they occurred, accordingly ethnographic techniques that included observations and interviews were determined to be the most suitable research tool for this type of study. Chapter Three outlines this methodology in greater detail.

## Chapter Three

### Methodology

*Many of the health problems of late modernity are fundamentally problems of meaning and interpretation. Qualitative research methods focus on meanings and interpretations.*

*Rice and Ezzy*

### 3.1 Introduction

All research requires a methodology suited to the nature of the study and the question(s) asked. The purpose of this research was to understand more about the “culture” of the interdisciplinary rehabilitation team; that is, the factors influencing the team’s decision-making processes and how integrated rehabilitation teams arrive at their decisions. This research explored and described the specific client, clinical, and family situations were considered by team members and how that information was communicated and evaluated by them during their decision-making process to choose the stroke survivor's post hospital discharge destination from a British Columbia hospital stroke unit. Most importantly, the research sought to gain an understanding of the behaviour of the participants from, in part, the perspective of the participants. What were their motives and intentions, and how did they understand the process of which they were part? What contextual, cultural elements played a role in the process? The methodology for this research was chosen to help answer these questions.

Conceptually, the study drew on various theoretical perspectives such as phenomenology and cultural studies, but particularly on symbolic interactionism which

is keenly focused on issues of meaning and social process (Blumer, 1969). A qualitative methodology, ethnography, was selected to collect data partly because it complemented symbolic interactionism and partly because it suited an exploratory investigation such as this in a relatively new area of clinical practice. Through close observation of and enculturation into the group under study, a researcher can use ethnography to identify cultural symbols and explore the underlying meaning that participants place on them, their own actions, and the actions of others (Blumer, 1969). Using techniques of observation and interview, data in this study were collected at a regional hospital before analysis into themes.

### **3.2 Symbolic Interactionism**

Symbolic interactionism is a well-established sociological conceptual framework that seeks to understand the meaning people generate about the words used and the behavior exhibited while they interact intentionally and purposively with others to create their shared social world. Symbolic interactionism has its roots in phenomenology and emphasizes the subjective meaning of reality as based on an individual's or group's perspective (Denzin, 2008). Symbolic interactionism is a sociological perspective that is influential in many areas of the sociological discipline. It is particularly important in microsociology and social psychology. Although symbolic interactionism traces its origins to Max Weber's assertion that individuals act according to their interpretation of the meaning of their world, the American philosopher George Herbert Mead introduced this perspective to American sociology in the 1920s (Pollit & Beck, (2013). Researchers guided by symbolic interactionism investigate how people create meaning during social interaction, how they present and construct the self (or identity), and how their definitions and interpretations of situations influence their



responses. Language, particularly the use of symbols, metaphors, and descriptors, is an important component of communicating meaning (Blumer, 1969). According to Denzin (2008) symbolic interactionism holds that meaning, language and thought modify each individual interpretation. This is often conducted by focusing on human action instead of large scale social structures or meanings. **Symbolic interactionism is an interpretive process. According to Blumer (1969) this is referred to as *role-taking*. Blumer (1969) asserts that people are primarily conformists who try to achieve norms that accompany their roles, including group member checking to ensure individual's performance within a group conforms to the group's agreed norms. In this instance it is the ability of one IRT member to assert meaning from the perspective of the others within the IRT. In this vein this provides for clarity of meaning within the group. This also depends on the role each member plays within the group as they deliberate over discharge destinations for the stroke survivors.**

Ultimately, researchers employing symbolic interactionism seek explanations for action that are deeper than surface behaviour might suggest. Symbolic interactionism has been used to study a wide range of topics, from deviance and criminology to social movements and the “total institution.”

In health care, symbolic interactionism has informed various studies of human interaction, including personality disorder in mental health research, life in a hospital, or how illness and the subjective experience of being sick are constructed through the doctor-patient exchange. Researchers using symbolic interactionism have examined bullying amongst nurses, women's health, and the meaning of health and illness in cross-cultural groups (Crooks, 2010). Health care practitioners, like others, have beliefs, intentions, and values that they bring to their work and which they reveal

through their language and other behaviour. By exploring these aspects of human society through a symbolic interactionist approach, the researcher can provide deeper explanations for social and individual behaviour.

As the current research focuses on the interaction among members of an interdisciplinary clinical hospital team, symbolic interactionism was an appropriate analytical framework. It is an ideal perspective for studying how team members interpret clinical data, how they ascribe meaning to the words and actions of each other, and how they respond because of the meanings they have created. For example, symbolic interactionism asks the researcher to inquire into the perspectives, beliefs, values, and thoughts that compel a team member to state that a patient “requires so much care that it would be overwhelming for family” or he “needs his family around him.” Symbolic interactionism also asks the researcher to investigate the meaning behind non-verbal behaviours and actions, like eye-rolls when a colleague advocates for a particular discharge destination. Of course, interpretation of statements and gestures such as these can be aided by interviewing the person who made it. Symbolic interactionism asks the researcher to look not simply at surface behaviour such as the words used to justify a placement decision, but underneath the symbols to understand the significance and meaning placed upon the behaviour and ultimately the values and beliefs negotiated by members of the IRT. This deeper exploration allows the researcher to understand better the individual and collective factors motivating placement decisions. In the analysis of data, the researcher will further draw on the theory to look for meanings, language, and thoughts that are revealed in the data.

### 3.3 Research Quality

Qualitative research methods are often employed in research guided by symbolic interactionism. Unlike quantitative research, which is based on numerical coding of data and statistical analysis, qualitative researchers must recognize their own perspectives, biases, philosophical structures, and belief systems that may influence how they interpret the non-numerical data. Researchers need to be wary of trying to match the analysis of the data with presupposed theory the researcher holds. Unlike quantitative research, no standardized tests are present in qualitative research, thus “validity is represented by the actions, purpose and process involved” (Winter, 2000, p. 67). Guba and Lincoln (1994) suggested qualitative methodological categories which appear most relevant for this exploratory study which should improve the rigor of the research: *credibility, dependability, confirmability, and transferability*.

The trustworthiness or *credibility* of qualitative research can be aided by clarity of the questions asked of the participants, which helps the participants to describe the effect of the phenomenon under study. To address the issue of credibility in the present research, the researcher ensured they were familiar with the literature on the subject. The researcher also spent time with the IRT initially in order to gain an understanding of the organization. Lincoln and Guba (1985) posits that having an extended period observing the culture of a group will ensure researchers become familiar with cultural norms for that particular group so that trust may develop. Once the researcher was familiar with both the literature and the group culture questions were then crafted to allow the participants to provide their own perceptions of the process of decision-making as it relates to how they function as a team it also provided for the opportunity to enable team members to discuss how they felt about decision-making in general.

Once this was achieved the researcher then provided IRT members with an opportunity to validate the researcher's perceptions as they arose. This was usually done during the time before the commencement of the weekly meetings when team members arrived.

*Dependability* is concerned with documenting the process of data collection so that other researchers, if attempting to duplicate the research, are able to conduct the study in the same manner as the researcher. The complete presentation of data and supporting documentation allows for an audit trail ensuring *dependability* of the research. The audit trail in this study includes interview transcripts, analysis of data, notes relating to the process, descriptions of difficulties encountered with the method, personal notes on observations, impressions or interpretations, and all copies of drafts relating to the final work which, if reviewed by an outside/objective observer or conducted by another researcher, would result in obtaining the same data and similar interpretations that were obtained by this research (Guba & Lincoln, 1994; Polit et al., 2001).

*Confirmability*, which is concerned with objectivity, **was** obtained for this study through the use of multiple analysts for random sets of data. The researcher enlisted the help of an independent reviewer who was somewhat familiar with the culture of the research. Thematic analysis was compared between a sample of the researcher's work by that of the independent reviewer. Also the use of member checks involving IRT members **was utilised** and allowed for the confirmation or disputing of the researchers findings.

*Transferability* refers to the application of this research from one situation to another. Shenton (2003) asserts that qualitative research is usually limited to small numbers of "particular environments and individuals" and in this vein it is impossible to

generalize to other "situations or populations" (p. 69). The outcomes of the research were fostered by detailed verbatim description and transcription by the researcher of the participants' articulated experiences, and a clear audit trail. In this way the researcher provided enough contextual data which was noted in the findings chapter to aid other readers the opportunity to make the transfer.

Chenail (1997) emphasizes the importance of sense-making in qualitative research and how research projects "fit within the larger contexts of the literature on the topic, the researcher's experiences with the phenomenon in question and the sense they are making of the phenomenon out in the field" (p. 1). From this larger research environment, the researcher is able to triangulate qualitative inquiry. The term triangulation comes from the practice by which sailors and surveyors determine location by studying the intersection of three points. However, since Denzin's (1978) seminal work on research triangulation, the term usually means that a researcher has used different sets of data and different types of analysis. Triangulation is a means of using different references or different points of view to reach a conclusion about a certain area of study (Poilit & Beck, 2008). Triangulation seeks to confirm or disconfirm a single conclusion proposed by a single researcher (Denzin, 1989). According to Denzin, triangulation also seeks to ensure a more precise picture of the phenomenon in question by ensuring different types of confirmability. This research utilized the use of observations, interviews, supervisory team members observing a sample of early data collection and thematic analysis to ensure the researcher was on the right track, member checks as well as the use of an independent reviewer.

### **3.4 Ethnography: Researching Culture**

Ethnographic methods are ideally suited to answer the sorts of questions posed in the present study. Ethnography is a form of qualitative inquiry that uses repeated observations of interpersonal interactions and allows the researcher to investigate how various participants in the activity interpret the actions, motives, and culture of themselves and others. This research method complements symbolic interactionism as a theoretical background because it relies on natural observation and allows participants to provide explanations in their own voice. The value of ethnographic research in the current research project will be explained following a brief overview of the method itself.

**3.4.1 Overview of ethnography.** Ethnographic research, a commonly used form of qualitative research, stresses discovery and description and neither assumes answers nor confirms hypotheses through statistical significance, although the ethnographer may have some sense of what she will discover (O'Reilly, 2005). As a holistic research method founded in the idea that a system's properties cannot always be understood independently of one another (Rice & Ezzy, 2002), ethnographies focus on careful and rigorous descriptions of groups or settings through observation and documentation of individuals and their culture. Ethnographies study a group's "beliefs, behaviours, norms, attitudes, social arrangements, and forms of expression that form a describable pattern in the lives of the members of a community or institution" (LeCompte & Schensul, 1999, p. 21) and examine how individuals interact within these cultural contexts and display cultural traits through language, rituals, and other behaviour. Ethnographies, especially those informed by symbolic interactionism, explicitly include people's own perceptions of what they know, believe, think, understand, or feel, or what

they mean when they do what they do. Ethnography helps uncover the content, presentation, and interpretation of collective meaning in these individuals or groups as culture is not an individualized trait with parts that can be studied in isolation but something shared and repeated by others within a particular group. Ethnographic methods are ideal for exploring both large and small cultural groups, such as an interdisciplinary team.

Ethnography's strength is the ability to merge two points of view: that of the participants, as they go about their regular business in a natural setting (emic); and that of the researcher, as an observer providing explanations that cross different cultural contexts (etic) (Malinowski, 1922). The former provides an understanding of the culture and context-specific reasons for action; the principle goal is to "grasp the native's view, his relation to life, to realize his vision of his world" (Malinowski, 1922, p. 25), whereas the latter searches for cross-cultural contrasts and comparisons for a more comprehensive understanding (Richards & Morse, 2007). In Margaret Mead's famous studies of adolescence in Samoa, for example, she acknowledged both the significance of personal beliefs created by and in the local culture (emic perspective) and the universality of puberty (etic perspective) in explaining the rites of passage for adolescents (Mead, 1928). Ethnography is much different than mere observation of a particular group as it requires the researcher to become immersed deeply in a culture to understand it as an "insider" while remaining neutral to that culture to provide an account comprehensible to "outsiders." Ethnographic research is effective as a way to garner information from groups or cultures in order to become familiar with their norms (Roper & Shapiro, 2000).

**3.4.2 Doing ethnography.** As a practical research method, ethnography means gaining access to a group and observing and documenting their culture as members go about their daily lives (Fetterman, 1998, p. 1). Through continual observation of the participants within their natural cultural setting, researchers can begin to identify patterns of behaviour (Atkinson, 2007). Ethnographers often do have hunches or hypotheses about what they will find, but must be “able to go into the field with an open mind toward the cultural group involved in the research...” to explore and extrapolate new sources of data through the display of nuances within the cultural group (Fetterman, 1998, p. 2). To understand the insiders’ view, the ethnographer listens to conversations, asks questions, and collects data directly from the participant, “observing them, participating in their lives, and asking questions that relate to the daily life experience as we have seen and experienced” (O’Reilly, 2005, p. 92). Of course, members of the culture will want to know about the researcher, and this is part of the process. A reciprocal encounter allows the informant to learn more about the researcher and become comfortable with questions, and for the researcher it allows access to further information about the culture of the participant. The researcher also develops personal views and interpretations of what is observed or stated by the participant by posing and confirming informal hypothesis and reading other studies (Morgan, Gliner, & Harmon, 2006).

Ethnographers investigate a culture by using a combination of methods: visual and auditory observation, oral interviews, and documents (narrative notes) from a culture, which assist the ethnographer to understand the meanings and experiences of the participants of a social system. The contemporary ethnographer writes notes in field journals, records interviews and natural conversations with an audio-recorder, and



records sights and activities with a digital camera. The investigator can observe body language, facial expressions, and subtle nuances in behaviour by group members which may not be congruent with the participant's verbal comments (Atkinson, 2007). From this data, the researcher searches for patterns or themes that provide descriptive interpretations to explain the development, maintenance, and salience of certain social processes within that culture.

The ethnographer must define clearly her role within the group, as this can affect how she is perceived by group members (O'Reilly, 2005). One form of ethnographic observation is "participant observation," which entails joining the group and doing whatever they do as if the researcher were an insider. This can be done both overtly and covertly. Covert research is done thoroughly "undercover," with the group unaware of who the researcher is. This suggests an element of spying and may prompt ethical dilemmas during data collection. In overt research, the ethnographer explains why she is present but may write up field notes as covertly as possible so the participants forget why the researcher is present (O'Reilly, 2005).

The other form of observation is "non-participant observation," which occurs when the researcher does not actually join the group activities, but is permitted to observe from "the sidelines" to see aspects of group process that cannot be realized without observation. The primary risk in non-participant observation is the researcher's presence might influence individual attitudes and behaviours, and hence the overall performance of the group (Fetterman, 1998). Whether the researcher is a participant or non participant within the group the ultimate goal is the same: the participants know what the researcher is doing, but the researcher is not in the "forefront on their minds" (Atkinson, 2007).

During observations, field notes play a major role in collecting data. Field notes are written accounts which describe observations and experiences of the people being studied. These notes contain not only what is seen and heard, but also perceptions gleaned by the investigator as well as emerging questions that may be used as points of reference to be used later. Initially, the researcher may be uncertain which observations warrant a written description, but sometimes the first journeys into the field are the most significant so it is of vital importance that the ethnographer writes down as much detail as possible (O'Reilly, 2009). As the researcher becomes familiar with the group under observation, field notes often become more precise (MacKinem & Higgins, 2007).

Ethnographers also use interviews to gain valuable insights into cultural idiosyncrasies (Bauman & Adair, 1992). According to Spradley (1979), an ethnographic interview shares the same elements as a “friendly conversation” (p. 58), with participants speaking as if they were with a friend or colleague, taking turns naturally and not following a strict order. Otherwise, the conversation may become so rigid that the participant may cease to cooperate. As in a conversation, the researcher provides explanations to the participant (Spradley, 1979).

In practice, ethnographic semi-structured interviews are typically conducted face-to-face and begin with a set of “open ended” questions that can be augmented based on responses from participants (Bauman & Adair, 1992). This allows the data collection process to be flexible and responsive to the participant while permitting the researcher to explore issues in greater depth or to ask for further explanations of responses. This flexibility also allows the researcher to focus questions as the interview progresses and to expand on information which may be vital to the research (Creswell, 2009).

Responses are also flexible, or “open-ended,” so the participants can expand on answers

to provide rich information from their perspective (Creswell, 2009). Unlike with close-ended questioning, there are no right or wrong answers in a semi-structured interview, no forced choices (“yes or no”), and no restrictions on how the respondent might answer (O’Reilly, 2005).

Finally, an ethnographer can listen to the stories that members of a culture tell one another as they interact. Sometimes the stories also appear in printed documents, which provide another source of data. These stories, or narratives, are one of the ways people make sense of their world (Atkinson, Coffey, Delamont, & Lofland, 2001), providing the researcher with another means of understanding the culture in question. Narratives are often events that have occurred locally and are then passed along as stories told by one person to another. These can be measured and analysed to produce themes and patterns (Gubrin & Holstein, 2008).

**3.4.3 Ethnography in the present study.** Ethnography has great potential to enhance our knowledge of health care organizations and even of specialized teams (such as an interdisciplinary rehabilitation team) within those settings (Morse & Field, 1996). Ethnographic research stresses discovery, rather than assuming answers. The ethnographic method focuses on careful and rigorous descriptions of cultural groups or settings. The cultural setting in question is a tertiary level stroke unit and the cultural group is the IDT who make the decision to discharge the stroke survivor to either a LTC facility or back to the community. Ethnography involves observing and documenting the culture of groups of people and how all humans make, transfer, share, change and recreate cultural traits in a group (LeCompte & Schensul, 1999). In his seminal book on using ethnography to study health care settings, Boyle (1994) described “cultural roles,” “norms,” and “values” in these settings and how they might “inform and influence

health and illness.” Stein (1991) suggests that to understand the complex flow of thought and action in a health care setting, “...ethnography offers a more complete understanding of clinical decision-making than such formal cultural and biomedical doctrines as medical science, professionalism, objectivity, rationality, efficiency, [and] the sanctity of the carer-patient relationship” (p. 8). The present research followed this tradition by using ethnography to describe and understand how interdisciplinary rehabilitation teams make decisions around discharge destination placements of stroke survivors (Rice & Ezzy, 2002).

Ethnography was ideal for this research since its purpose was to observe and describe the culture of an interdisciplinary rehabilitation team, including the roles portrayed by individuals and how they impacted the wider group, and to explore the processes and the factors that influenced the team’s decisions about post-hospitalization stroke survivor placement. This study also raises questions for future research and permits comparisons or contrasts with interdisciplinary teams in other fields. (Comparative studies may not have been possible earlier as the researcher has been unable to find published articles that have studied the operations of an IRT from a cultural perspective.) Non-participant observation was selected as the best method of collecting observational data since the researcher could not take part in the actual decision-making process but nonetheless had to be present during team negotiations. An audio-recorded, semi-structured interview of each IRT member was conducted to determine perceptions of the decision-making process in which they participated.

As the researcher took on the role of non-participant observer, she risked contaminating the natural process of the interdisciplinary rehabilitation team because her presence in the meetings was not normal. What is more, the researcher was

previously a clinical nurse educator on the stroke unit and was familiar with some of the team members, particularly the nurses. As a non-participant observer, the researcher was sensitive to the importance of gaining acceptance and developing a trusting rapport with the team while remaining sensitive to biases when observing the team meetings. Initially, the team did balk at the researcher's presence, but as the members became more familiar with her in the room and through assurances of confidentiality, the natural process of the team returned. The researcher was reassured the ideal situation had been achieved when a team member said during an interview, "I forget you are there." (The potential for observer influence is addressed in the discussion chapter.)

### **3.5 Ethical Permission**

Ethical permission was also obtained for this study. Canada's Tri-Council Policy Statement (TCPS) on Ethical Conduct in Human Research (2010) states in section 3.1, 3.2, 3.4, and 3.5 that research will not commence without prior written consent and that consent shall be given voluntarily. Participants were notified of all risks and benefits, and their right to withdraw at any time without penalty and to have any observations of their behaviour, conversations, or other interactions removed from data records. Researchers are obliged to disclose incidental findings, whether anticipated or not, which have significant welfare implications for any participant. The present researcher received written consent from all individuals involved in the observation and interviews in this study.

Hospitals and universities also have their ethical guidelines. Before the researcher was able to obtain ethics clearance from the relevant Hospital Ethics Review Board (HERB), she required permission from the administrator and unit managers of the hospital which served as the research site. Once these were obtained, the HERB

granted permission for the researcher to begin her role as a non-participant observer of the IRT. Ethical clearance to observe human participants was also required from the Edith Cowan University Human Research Ethics Committee. As the HERB had granted permission and the participants from the IRT all consented, the university ethics committee also approved the research. Permission was provided to conduct the research from September 2012 through to September 2013. **Copies of the approval letters are provided as appendices to this dissertation.**

It is important to note the stroke survivors were not required to provide consent as they were not participating in the research. Even though no personal data were used in the research, the researcher was privy to private health information; therefore, a waiver of consent was obtained to avoid the necessity of obtaining consent from each stroke survivor. The waiver was considered appropriate because although the content of private medical records were discussed, the researcher was not concerned with the clinical information; she was, instead, interested in the interactions and behaviours of the interdisciplinary rehabilitation team. Consistent with Canada's National Health and Medical Research Council guidelines for waivers of consent and the Australian Federal Government's treatment of health records privacy, the researcher provided reassurances to both hospital and university ethics committees that any personal medical information discussed during the research would remain confidential, only reviewed by the researcher. Both the hospital and university ethics boards granted the waiver.

Under section 5.1 and 5.2 of the Canada's Tri -Council Policy Statement "de-identified information is free from privacy laws and the Health Privacy principles do not apply" (p. 58-59). Concern the participants may be potentially identifiable by use of their profession was covered in the context of gaining consent. Each healthcare

professional was advised of the way in which the researcher intended to identify quotes against a particular healthcare professional and was offered the opportunity to rescind any quote from the dissertation if they felt it may identify them or if they felt it portrayed them in a negative manner. No participant elected to have their quotes (ones they identified as their own) removed from the transcripts or the dissertation.

3.5.1 Risks. At the time of submitting the applications to the various ethics committees it was anticipated one major risk to the participants in the period of observation would be their time to participate in the face-to-face interviews. This was realised during the period of research where the researcher found the members of the IRT to be very willing to participate in interviews, but were time poor. This limited the capacity of the researcher to undertake more than one interview with each participant.

There was a recognised risk inherent in the type of research being undertaken the researcher's presence might impact on how the interdisciplinary team members may view the researcher's role. The researcher was a nurse educator on the unit and is familiar with the team. It was presumed before the research was conducted, and articulated on occasion by members of the IRT, this prior relationship along with the team becoming used to her presence, the risk of her presence altering behaviours or impacting on the capacity of the team to deliberate. It was found the concerns for this risk were not realised and the natural processes of the team was not impacted by the researcher's presence.

3.5.2 Benefits. There is little research on how decisions regarding rehabilitation placements for stroke survivors are made or how different members of the interdisciplinary rehabilitation team, stroke survivors and their significant others, participate and contribute to this decision. This research will contribute to the body of

knowledge by explicating the factors that affect decision-making made by the interdisciplinary team on a stroke unit.

In terms of direct benefit to the participants, there were three succinct benefits identified as a result of this research. Firstly the participants were keen to be engaged in research which was conducted by someone they knew and felt they could trust to “tell their story” through a sympathetic lens. Secondly the participants indicated they felt the non-participant observer was so unobtrusive they often “forgot she was there”. This was particularly significant in that a major concern for undertaking observational studies is the impact of the researcher on the participants’ behaviours. Finally, the participants echoed the researcher’s hope observation on this IRT may aid the team in developing processes and these processes may in turn, be helpful for other hospitals implementing interdisciplinary teams (not necessarily restricted to stroke).

### **3.6 Research Setting**

The data collection setting for this study was an acute care stroke unit located in a 350 bed rural tertiary hospital and academic medical centre. The hospital is located in one of the province’s health authority regions that provides dedicated stroke units, and is contiguous with two other health authority regions that also provide stroke units. (The remaining four health authorities in the province do not provide comprehensive stroke units.) The hospital and stroke unit in question served 13 outlying areas.

At the district hospital where the present study took place, the delivery of stroke care was reorganized in 2010. In response to new provincial policies, a four bed integrated stroke unit opened to accept patients in the acute, rehabilitation, and complex phases of the stroke continuum. This reorganization was intended to provide an



integrated approach to the treatment of patients with the diagnosis of stroke and to provide best-practice care to patients with acute stroke throughout the continuum of care. Patients with a diagnosis of stroke are generally admitted directly from the emergency department to a bed on a dedicated stroke unit. Continuity of care is maintained as patients move through the various stages of the recovery, changing designation but not physical location. Assessment, treatment, and rehabilitation begin immediately upon admission.

The research setting was representative of a “normal” setting for acute stroke care in British Columbia hospitals that house stroke units. The patients admitted to this unit have experienced ischemic and /or haemorrhagic stroke of varying severity. The unit currently has four beds for initial intake and 28 beds for acute rehabilitation which are provided once a patient has been stabilized. In 2012, the average number of stroke survivors per month in this unit was 20. The number of stroke survivors whose cases would be discussed by the interdisciplinary rehabilitation team during the six-month research observation period was thus 120 (using the 2012 figures), and the average length of stay in the stroke unit was two weeks. The survivor was then moved to the acute rehabilitation side of the wing for an average of two to four months unless waiting for a long-term care bed, which could prolong the survivor’s length of stay up to four or five months.

### **3.6 Sample**

Sampling is a term derived from quantitative research and infers an interest in a particular population (O’Reilly, 2005). Sampling in quantitative research consists of selecting participants from a larger group who are representative of a wider population. Care must be taken to ensure the sample selected is a true representation of the larger

group (Morgan, Gliner, & Harmon, 2006). In qualitative research, theoretical sampling techniques are also used to identify participants and settings but situational representativeness is more important than demographic representativeness. Since the qualitative researcher seeks to develop theory, generalizability in this case refers to the extent to which theory developed by one study may help to provide explanatory theory for the experiences of other individuals in comparable situations; the goal is to make “logical generalizations to a theoretical understanding of a similar class of phenomena rather than probabilistic generalizations to a population” (Popay et al., 1998, p. 348). For this study, the participants were necessarily an integrated rehabilitation team working in a hospital setting, although any such team at any hospital would have sufficed. Since the IRT was the only interdisciplinary rehabilitation team in the research setting, and therefore, comprised the entire available population from which a sample could have been drawn, it was a convenience sample. The other population that could be sampled was the patient population considered by the IRT.

**3.6.1 The IRT component of the sample.** The interdisciplinary rehabilitation team consisted of one physiatrist who specialized in rehabilitation medicine, one speech language pathologist, four occupational therapists, six physiotherapists, several registered and licensed practical nurses, one discharge planner, and a social worker, all of whom were either full- or part-time staff members at the research site. Three neurologists also participated, but mainly to diagnose the type of stroke and manage the stroke survivors’ initial acute care; they were not part of the interdisciplinary rehabilitation team and did not deliberate over discharge plans. At some point of the decision-making process, each member of the rehabilitative team was involved in the decision about the where the stroke survivor would go after hospitalization. However,

the physiatrist as the only medical professional was the IRT member ultimately responsible for the final decision on discharge destination.

Physiatrist	Medical professional who specialises in rehabilitation medicine. Male. 40 years of age. Practicing medicine for 15 years.
Physiotherapists (3)	Manage the physical aspects of patients' rehabilitation. One female; two males. Aged between 31 and 55 years. Between one and 23 years experience.
Occupational Therapists (3)	Manage the functional aspects of activities of daily living such as turning on a tap, making a meal or dressing. Three females aged between 25 and 45 years. One with less than one year's clinical experience. Two with greater than five years clinical experience.
Speech Language Pathologist	Concerned with speech, language and swallowing capacity. Female. 37 years of age. Over ten years clinical experience.
Social Worker	Concerned with patient and family support, including access to services and housing. Male. In late 30's. Over ten years clinical experience.
Registered Nurses Licensed Practical Nurses	Provision of clinical nursing care on the stroke unit. All female. Aged between 25 and 55 years. Between one and 25 years clinical experience.
Patient Care Coordinator	Manage the factors of care associated with bed allocation for incoming stroke survivors. Female. 52 years of age Greater than 25 years clinical nursing experience.
Discharge Planner	Registered Nurse who's main role is to determine what services are required once discharge has been agreed upon. Female. 55 years of age. Greater than 25 years clinical nursing experience.
Patient Care Coordinator	Senior Registered Nurse in charge of clinical care on stroke unit. Female. Over 40 years of age. Greater than 15 years clinical nursing experience.

**Table 2: Interdisciplinary Rehabilitation Team Members (Table developed from this study).**

**3.6.2 Patient component of sample: inclusion and exclusion.** Although the patients were not considered participants in this study, all patients who were admitted to the stroke unit were eligible for inclusion in this research. Initially, only stroke survivors who presented to the Emergency Department within 24 hours of the onset of symptoms were considered. However, this excluded patients from both haemorrhagic

and ischaemic groups, which would not have provided a full picture of what happens to all stroke survivors who enter the stroke unit. The decision to include all patients provided interesting data on how delays in seeking medical assistance affected survivor's prognosis and outcome. (This will be discussed further in the 'discussion' section of Chapter 5.) Patients who had suffered brain injury for reasons other than stroke were excluded from this study, as their progression did not reflect that of a stroke survivor.

### **3.7 Data Collection**

Data were collected over the six month period from January 2013 to June 2013, providing the researcher with ample opportunity to observe the IRT and collect field notes regarding their behaviours and interactions. Six months was also adequate for interviewing the IRT members to gain insight on how they felt about decision-making, particularly regarding stroke survivors. Most importantly, the length of time was adequate for the group to become comfortable with the researcher, allowing the natural processes of the team to take place and thus ensure the researcher that her presence was not interfering with the behaviours and interactions of others. During the last two months spent observing the team, the researcher began observing the same behaviours and hearing the same comments repeatedly, indicating data were saturated and no new themes would come forward. The researcher spent a total of 72 hours over six months at the research site observing and listening to the interaction during IRT meetings.

**3.7.1 Non-participant observation.** Data were collected primarily during the weekly interdisciplinary team meeting when decisions regarding placement were deliberated and chosen. The researcher attended a total of 24 meetings. In her role as a non-participant observer, the researcher arrived at the meeting room for the IRT

meeting one hour before the meeting was scheduled to begin. She took a random seat at the meeting table and placed a small audio recorder in front of her and opened her field note journal. She greeted every team member as they entered so they would be reminded of but not alarmed by her presence.

During these meetings, the researcher observed the interactions among team members and recorded both their verbal and non-verbal interactions as field notes. Following suggestions by Emerson, Fretz, and Shaw (1995), her notes included time and date of particular observations; observations of the initial site; symbols and abbreviations to expedite note-taking; researcher's perceptions; and specific phrases or behaviours exhibited by the participants.

For the sake of accuracy in recording observations, the investigator wrote the field notes during and immediately following each IRT meeting while perceptions were fresh in her mind. She noted subtle behaviours by the participants that may have influenced the team interaction processes, such as shifting in seats, losing attention, making or averting eye contact, talking while someone else was talking, assuming a position of superior or inferior power, etc. Even changes in the tone of team members' interactions were described in the field notes.

The researcher also noted in the page margins her own thoughts or impressions that came to mind while recording observations (see Figure 3). She then reviewed all of the previous field notes to identify emerging themes. She also reviewed the notes from the previous week prior to each meeting in case further clarification was needed.

In addition to field notes the researcher audio-recorded all of the IRT meetings. This allowed her to concentrate on her visual observations throughout the meeting. She



see whether these factors had any impact on the length of stay at the hospital, or whether the team only considered the survivor's clinical diagnosis and prognosis when making discharge plans.

**3.7.2 Semi-structured interviews.** The researcher interviewed all members of the IRT (N=10) within two months of each group observation using a semi-structured, open-ended interview methodology; these interviews were also audio-recorded. By the end of two months, the researcher felt ready to conduct interviews since she was sufficiently familiar with the group and had developed a feel for the intricacies of the group process. Participants were interviewed at a place and time of their choosing, and each interview lasted between 30 and 45 minutes.

During the interview, the researcher presented various observations of the process to the participants and asked them to ascribe meaning to the various statements they made or behaviours they exhibited by asking an open-ended question and allowing for the expansion of information until the participant decided all had been said; the researcher repeated this process with each of the subsequent questions. Lead interview questions were chosen to encourage participants to elaborate openly on any aspects of the team they may wish to discuss, providing rich data from which to gain their perceptions of the IRT process.

Each recorded interview was transcribed verbatim and a copy was provided to the participant. The interview provided an opportunity for the team member to reflect on their perception of the team interaction and the decision-making processes used by the IRT. By doing so, the participant helped to confirm the observations made by the researcher and permitted correction of errors or omissions. This member checking not

only provided confirmation of the observations made by the researcher, but also provided an opportunity for the participants to consider and evaluate their practice.

### **3.8 Data Analysis**

Qualitative data analysis begins the moment a research study begins. It is part of every step of the research process, from design to final write-up of the findings (Morgan, Glina, & Harmon, 2006). As soon as an ethnographer steps into his or her research site, the researcher begins to explore and to learn which questions to ask and which features to observe. For the present study, the researcher began data analysis when she decided to observe the IRT in the stroke unit. Although data is analysed continuously during ethnographic research, the following discussion focuses on the treatment of data after conducting the ethnographic observations and interviews.

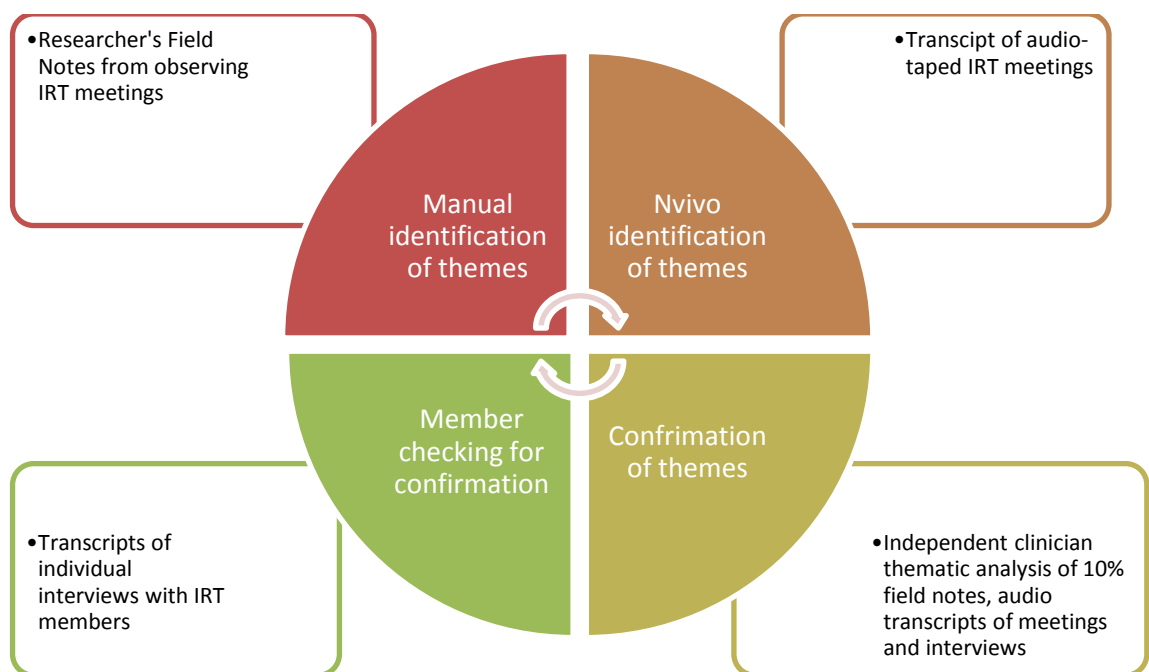
Qualitative data analysis seeks to understand data in a way that is different from quantitative analysis. In the latter, data are coded for statistical analysis as they are generated, and placed in closed analytical categories; in the former, data are unstructured and not coded in this way. Quantitative data analysis uses experimental tests or surveys to identify relationships between variables, thus supporting or refuting a hypothesis. Qualitative data analysis instead looks for meaning and seeks to understand the data in the context of the culture in question, and is not concerned with numerical representation or probabilistic occurrence (Creswell, 2009). Analysis in ethnography examines how links are made between observed phenomena and the guiding question (O'Reilly, 2005). The researcher looks for patterns and themes; as they become evident, further questions may arise that warrant further clarification and another round of observation, interview, or review of narratives.



Analysis of the data in this study involved a search for themes or patterns to suggest the individual values, attitudes, beliefs, and thought-processes of team members working within the research setting and the factors they considered when choosing a discharge destination for a stroke survivor. These patterns also suggested the shared or communal view that characterizes the stroke unit's environment or culture. The researcher found herself grouping items into themes early in the data collection process, and these themes remained consistent throughout the data collection with only a few variances. This reflects the suggestion made by Morse and Field (1998) that there may be preliminary connections or potential conclusions based on early observations. Transcripts for the meetings and interviews were also copied into the computer program NVivo10, which helped the researcher to review the recorded data repeatedly and to code similarities and patterns in the data as "nodes." Review of the nodes revealed additional themes that were grouped onto a graph which, after further thematic analysis, were clustered until no more new analytical themes emerged from the data, indicating that saturation was complete.

Confidence in the interpretation of the findings for this study was enhanced through the use of an independent review and analysis of a random sample of the researcher's field notes by a colleague who was an experienced nurse review samples of field notes, team meeting transcripts, and interview transcripts. The colleague was asked to suggest apparent themes for comparison and contrast with the researcher's themes, thus helping to confirm the trustworthiness of the data the researcher used for analysis. Chapter 4 lists the themes identified by this colleague, included with their permission.

Finally, as part of the research analysis, researchers must acknowledge their own beliefs, values, attitudes, preconceptions—their own bias—in a process known as reflexivity. As researchers become engrossed in the culture or setting they study, they generate opinions and interpretations influenced by their own self-identity. Researchers must understand they are not experiencing the culture under observation without a set of preconceived notions, and must be aware of reflexivity at all phases of the data collection and analysis (O'Reilly, 2005). To avoid researcher bias in this study, inter-rater reliability was reviewed at different intervals during data collection with the help of the independent clinician who checked 10% of the transcribed audiotapes to compare themes that had emerged from the data.



**Figure 6: Confirmation of Trustworthiness (Figure developed for this study).**

### 3.9 Summary and Limitations

The nature of a research question suggests the methodology best suited to answer it. Because the research question for this study inquired into the meaning of a social process, in this case how an integrated rehabilitation team negotiated the placement decision for a stroke survivor, symbolic interactionism seemed like an ideal theoretical perspective; ethnography was an obvious choice as a primary approach to conducting research. Equipped with these conceptual and methodological tools, the researcher arranged to conduct non-participant observations of and semi-structured interviews with members of a hospital integrated rehabilitation team. Data collected from these procedures were analysed both throughout this process and at the end, thereby providing the themes discussed in the next chapter.

The primary limitation of this study is that data collection and observation took place in only one of the hospitals within the local health authority where stroke units are fairly new. It would have been valuable to observe other team dynamics elsewhere in other hospitals. Interviewing the stroke survivors and their caregivers would have proved valuable as their perceptions on the discharge destination may have varied. Not being able to video tape the team during the weekly IRT meetings meant the researcher was not able to capture all the behaviours of the team as they happen *in situ*. The IRT was also tied to the constraints of time which meant the researcher was only able to interview each staff member on one occasion.

## Chapter Four

### Where it Begins

*The secret to change is to focus all of your energy,  
not on fighting the old, but on building the new.*

*Socrates*

#### 4.1 Introduction

The following three chapters present the findings from data collected during a non-participant observation of an interdisciplinary rehabilitation team (IRT) in a hospital in British Columbia, Canada, from January to June 2013. The study was conducted by a single, non-participant observer researcher.

The research questions addressed by this dissertation include:

1. Are there factors associated with hospital policy, social and economic context, and geographical distribution of the British Columbia and Canadian health care system which affect the decision-making processes of the IRT regarding discharge destination?
2. Does the decision-making model, composition, and way in which members interact, affect the deliberations and final decision the hospital IRT uses to determine a stroke survivor's discharge destination following care in a British Columbia hospital stroke unit?
3. Are there specific patient, clinical, and family factors considered and evaluated by team members in determining the most appropriate discharge destination for a stroke survivor?

To answer these questions, data were collected from:

- 24 weekly interdisciplinary team meetings on a stroke rehabilitation ward in one hospital in British Columbia, Canada, which were audio-recorded and transcribed verbatim. Each of the weekly IRT meetings were attended by all the team members. Meetings lasted two hours and each stroke survivor from admission through to a decision for discharge was discussed. Topics considered at the meetings included the survivors ability to function in the home, access to supports including whether family members would be present to help at home, and any co-morbidities that may prevent the survivor from remaining medically stable. Family members were not part of the IRT and hence were not included in the meetings, instead separate meetings at the instigation of the physiatrist would be initiated then with the help of the social worker. Information that may be obtained from these family meetings would then be discussed during the weekly meetings.
- non-participant observation field notes made during and directly after observing the weekly team meetings; and
- interviews conducted with the members of the IRT (n=10), which were also audio-recorded and transcribed verbatim.

Using these ethnographic tools, the researcher observed the culture of the interdisciplinary rehabilitation team and how team members deliberated to make decisions about the discharge destination of stroke survivors. Although the researcher had previously been a clinical nurse educator on the hospital unit serving as the research site and was somewhat familiar with several team members, she was not an active

participant on the team. An important consideration of ethnographic research is the manner in which the presence of an observer may change the behaviour of those in the culture being observed. In order to avoid changing the team dynamic by participating, it was appropriate for the researcher in this instance only to observe.

In ethnography, two main perspectives are considered: the *emic* (inside) perspective, which explores and describes the culture of a group from a members' perspective, and the *etic* (outside) perspective, which seeks to capture the differences across cultures (Pike, 1967). Emic perspectives study beliefs held by members of various cultural groups while etic is linked with various behaviours of cultural groups. Researchers familiar with the group under study benefit from their insider knowledge which assists data collection and analysis, and helps to "communicate expressions, sentiments and goals of the group" to represent the perspectives of participants and its importance (LaSala, 2003, p. 16). Data included in this research considered the two perspectives outlined above.

## **4.2 Analysis of Data**

O'Reilly asserts "analysis is so tangled up with every stage of the research process it is hard to talk of a particular analysis phase" (2005, p. 176). Consequently, all data were analysed separately on a constant iterative basis from the beginning of data collection throughout the entire research process. The researcher listened to audio-recorded data collected from the weekly meetings numerous times while reviewing field notes taken during the meetings to identify recurring themes. Data from the interviews were analysed separately before comparison with the themes from the meetings to ensure congruence.

These data were then entered into the Nvivo10 computer program to analyse the data further into thematic groupings, or nodes. These groupings or nodes were further explored by the researcher until additional themes emerged. The researcher then followed the same steps with the interview data. As ethnography seeks to utilize two perspectives, the researcher employed etic data (field notes and observation of the participants) as well as emic data (participant interviews).

#### **4.3 Validation of Qualitative Data Analysis**

Validity in qualitative research, unlike quantitative research, can be achieved through congruency and confirmability of the data. The researcher sought congruency with the interview data and ensured confirmability by employing member checks, which are questions asked of participants to clarify the meaning of certain words or phrases. The researcher then engaged a former work colleague, an experienced Registered Nurse with a master's degree and familiar with the culture under investigation, to review 10% of the raw data for themes. The colleague's observations, when compared to the researcher's, helped to reduce bias and provide transparency as she did not possess the same personal prejudices as the researcher. Guba and Lincoln (1994) suggested methodological categories which appear most relevant for the exploratory study and, if followed, should improve the rigor of the research: credibility, dependability, conformability and transferability.

#### **4.4 Overview of Key Findings**

Nodes of similar concepts were identified through constant comparative analysis and NVivo identification of concepts. These nodes were clustered into similar groups and these were the threads of similarity which were brought together to eventually form

the three key themes. Once the data revealed no new themes and the thematic analysis was complete, the researcher again reviewed the literature. The range of themes in the data were similar to many of those found in the literature.

The key themes identified in the data fell into three main clusters: setting, team, and patient-related factors (Table 4.1). These three themes correlate closely with the three research questions identified for data collection in this dissertation.

Themes	Interviews	Field notes	Audio transcripts	Third person reviewer
Setting: “bed block” (including time constraints)	X	X	X	-
Setting: rural issues	X	X	X	-
Setting: trusting community partners	X	X	X	X
Team: weekly meetings	-	X	X	-
Team: members’ roles	X	X	X	X
Team: nurses at the meeting	X	X	X	X
Team: decision-making processes	X	X	X	X
Team: decision-making model	X	X	X	X
Team: cultural environs	X	X	X	
Patient-related factors: patient led decision-making	X	X	X	X
Patient-related factors: role of the family in the decision-making	-	X	X	-
Patient factor: Functional Independence Measure	X	X	X	-

**Table 3: Themes identified from data. An X indicates which data source identified a given theme.**

The data presented in this chapter under the thematic heading of “setting” presents a description of factors associated with hospital policy, social and economic context, and geographical distribution of the British Columbia and Canadian health care



system which affect the decision-making processes of the IRT regarding discharge destination.

The data in the following chapter under the thematic heading of “team” describes the way in which the decision-making model, composition, and members’ interaction with one another, affect the deliberations and final decision the hospital IRT used to determine stroke survivors’ discharge destination following care in a British Columbia hospital stroke unit.

Finally, Chapter Six presents data under the thematic heading of “patient-related factors” to describe where specific factors related to the individual stroke survivor, their family or significant loved ones, were considered and evaluated by team members in determining the most appropriate discharge destination for a stroke survivor.

Each of the data chapters are descriptive rather than discursive. A final chapter is presented where the data findings themes and their impact on the decision-making processes related to choosing discharge destinations for stroke survivors are discussed, with opportunities for future research and potential ways to build on the work of the IRT are suggested.

The first of the thematic data is presented in the next section of this chapter. The focus in this data is the impact in which the physical setting where the IRT was located had on the capacity of the IRT to make decisions about what destination was the most appropriate for any given stroke survivor.

## **4.5 The Influence of Setting on Interdisciplinary Team Decision-Making**

The themes gleaned from the data described in this chapter relate generally to factors that did not have the stroke survivor or members of the interdisciplinary rehabilitation team as central to the theme. Instead this section specifically articulates the real physical hospital factors which impacted on the capacity of the IRT to make decisions based solely on the physical and psychosocial health and wellbeing of the stroke survivor and their significant others.

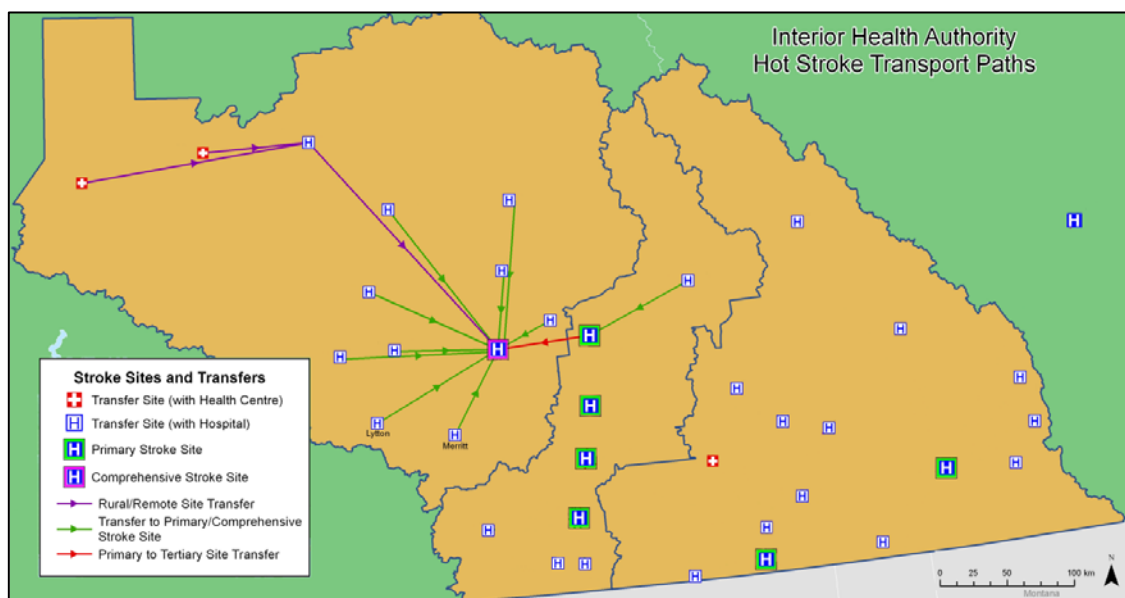
The interdisciplinary rehabilitation team and the stroke survivor faced many constraints by the characteristics of the setting, including hospital policy, bed utilisation, and British Columbia and Canadian health care system funding. These characteristics often prevented the stroke survivor from remaining in the hospital stroke unit long enough to gain maximum physical, social, and emotional rehabilitation. Each of the themes tells its own story about the operation of the stroke unit and how this operation affected the decision-making of the interdisciplinary rehabilitation team.

Several of the sub-themes present in the data involved some aspect of the physical setting of the stroke unit. These themes included the availability of beds, the location of the stroke unit within the region served, and the availability of community services.

**4.5.1 Bed block.** IRT members frequently discussed an issue common in the literature and familiar to those who know hospitals: bed availability. Demand for beds in the stroke unit typically exceeded supply, with the problem exacerbated by lack of space elsewhere in the hospital or at other nearby facilities for stroke survivors.

At the time of this research in 2014, the hospital system in Canada had 70,000 hospital beds (and an expenditure of over \$47 billion yearly), but gaining immediate

access to these beds for new stroke patients is often very difficult because stroke survivors who no longer need acute care occupy these beds while awaiting a place in long-term care, convalescent care, or rehabilitation facilities (Sutherland & Crump, 2012). With only four beds in the stroke unit at the research site, IRT members had to consider conditions outside the stroke unit since it receives patients from clinics and hospitals in 13 outlying areas (see Illustration 4.1).



**Figure 7 : Outlying areas served by the comprehensive Stroke Unit under study [Names have been removed to protect identities]. (Canadian Interior Health Authority, 2012).**

Emergency facilities in some of these outlying areas can administer tPa to assist ischaemic stroke casualties and provide computerised tomography for definitive diagnosis, but lack specialised stroke teams or neurologists for further treatment. Consequently, stroke patients are transported to the stroke unit of this study for acute care following their stroke, placing additional demand on bed availability.

Contributing to the immediate demand for beds in the stroke unit were other social and economic pressures. Demand for all hospital beds is increasing as the ageing population increases the prevalence of stroke, cardiovascular disease, and other age-

related disorders, forewarning, perhaps, an emerging long-term hospitalisation epidemic (Fung, 2004). During the period of observation it was noted many hospital beds were seen to be occupied by patients who no longer needed specialised hospital services and would be better served in long-term care facilities or in their own homes, receiving rehabilitation or other medical services as outpatients. This was noted to be a phenomenon in work conducted by Sutherland and Crump (2011). Long-standing budget and planning constraints on the government continue to limit long-term care beds available in British Columbia (Sutherland & Crump, 2011), although growing public demand is placing additional pressure on the provincial governments which fund public hospitals. In many cases, governments have responded by charging a daily stipend to offset the cost of any patient occupying a hospital bed while waiting for long-term or convalescent care.

On occasion, family members frustrated by waiting or paying additional fees have gone to the mass media to vent their feelings of disappointment in a system they perceive has failed them. These news stories create an abysmal picture of the health care system which misrepresents the high level of dedication and care provided by health care staff within the Canadian health care system. Negative media images of patients waiting in hospital hallways without proper treatment force administrators to take actions that affect the entire patient population. The Patient Care Coordinators (PCCs) on each unit, for example, are directed to discharge anyone who can be cared for at home, including stroke survivors receiving rehabilitation. This constant pressure to discharge always seemed to dominate discussions of stroke survivors during the weekly IRT meetings.

Although all levels of hospital staff felt the pressure to discharge patients home as soon as possible, the PCC in this study was particularly affected. The PCC often had to find solutions to bed shortage problems faced by angry, anxious families and patients. Key hospital staff and managers held weekly ‘bed meetings’ to find ways to accommodate new arrivals from the emergency departments and other nearby hospitals, which in turn placed enormous pressure on the PCC to move stroke survivors out of the hospital. When the PCC raised the issue of bed availability during the IRT meetings—which frequently happened—an uneasy silence fell over the room while team members shifted in their seats. It was common to hear the PCC remind others of the impact their decisions about discharge were going to have on bed availability:

*“The thing is, now the whole building is 56 over capacity. We’ve got rehabs (patients waiting to occupy beds from other units) waiting in the book. We’ve got such a group of rehabs right now that are not moving quickly, and the pressure is just huge. We have people in all corners on all units and we got to get them out, now.” (PCC)*

Patients transferred in from the outlying areas added to the demand for beds, but sometimes they were ‘traded’. This happened when a stroke patient no longer needing intense rehabilitation was sent to a hospital closer to his or her home where long-term rehabilitation support was available, providing a bed for a patient from another hospital who required acute care and rehabilitation unavailable in the source hospital. Such ‘trading’ had a positive impact for the IRT, partly because stroke survivors transferred out often received additional incentives to return to their homes for post-hospital rehabilitation, thus freeing up beds further. The following excerpt from a conversation

between the Community Access Coordinator (CAC) and the Patient Care Coordinator (PCC) was a typical exchange about trading:

*“So we’re getting one from [name] hospital right? (CAC)*

*We’re getting a stroke from [name]. (PCC)*

*Is that tomorrow, we’re doing a trade right? (CAC)*

*So then that means if we’re doing a trade then they still have two beds.” (PCC)*

Although the goals of the IRT were to maximize patient functionality to ensure a discharge to an appropriate setting, this was not always possible due, in part, to a lack of space in local short-term rehabilitation facilities. One long-term care facility located in the community where the research took place housed a short-term convalescent unit for patients to rest and gain strength, but not to maintain a rehabilitation regimen. In such places, stroke survivors who made great gains early in their recovery risked losing them while waiting for outpatient therapy appointments that only begin once they returned home. These short-term rehabilitation sites, such as the Convalescent Care Unit (CCU) mentioned in the following discussion between the Physiatrist (P) and the Patient Care Coordinator (PCC), are usually not in the hospital and thus lack specialized rehabilitation services.

*“So when would we be looking at taking her off rehab and doing the Convalescent Care Unit referral? (P)*

*No. We’ll do the referral right away, and hopefully they will now accept her to a Room. (PCC)*

*We’ll move her to CCU. (P)*

*Yes. (PCC)*

*Is the family aware that we were thinking of CCU? (P)*

*Yeah. So she's close to that time period, I think the CCU was brought up long time ago because I think that was the initial plan, but the time and the amount of therapy she would require was probably more than CCU could provide. We need to see if there is a bed ready for her." (PCC)*

At times, the discussion in the IRT meetings focused on the interplay between the receiving site and themselves rather than the availability of beds specifically for the stroke survivor. Conversations such as the one above often held an undertone of frustration about whether beds were actually available. If stroke survivors were to maintain their rehabilitation regimen while awaiting full hospital discharge, short stay rehabilitation sites needed to make space for them. Other patients transferring to these sites further reduced the beds available to stroke survivors who had to remain in the acute setting unnecessarily, compounding the bed block issues.

Although a lack of good short-term facilities slowed the discharge process in some cases, the IRT was also under pressure to discharge earlier than they wished medically. Patients admitted for stroke rehabilitation require time to stabilise medically and time to work toward their goals established by the IRT. Medical stabilization itself may take up to two weeks, depending on the severity of the stroke. In this study, the early rehabilitation goals sometimes took longer than expected. Hospital managers were observed to note this length of time and criticised the IRT for having unrealistic discharge goals for the stroke survivor. One team member summarised his response to the time pressure during the interview:

*“I don’t think anybody has a time frame. I don’t work as a rehab physician with time frames because we actually are ingrained to believe rehab sets goals; but the goals take time... the way I’ve been discussing is we would like to bring patients in, provide them with a short burst of rehab so they can actually start mobility with rehab. There are a lot of patients that we don’t meet their rehab needs before going home which is unfortunate but I don’t know that we can actually as a team solve that problem.” (Interview #3)*

Time affected treatment in other ways. Elderly stroke survivors require more time to reach their goals than their younger counterparts. Good, effective rapport between a therapist and a stroke survivor depends on the amount of time spent together (Barnard, Cruice, & Playford, 2010). The IRT had little opportunity to retain stroke survivors in the stroke unit for the length of time they truly thought was best to provide the necessary care; the only option for a longer hospital stay was to send survivors to long-term care facilities.

Members of the IRT often stated their discomfort with decisions to discharge a stroke survivor home who was not ready to stop hospital-based rehabilitation. The Occupational and Physical Therapists were particularly aggrieved and vocal in their discomfort with such a discharge, since they had to approve patient discharge readiness and preferred intense rehabilitation in the hospital before returning the person home safely. At times, however, their preference was overruled by either the Patient Care Coordinator or the Physiatrist. If the PCC mentioned that administrative pressures were mounting, team members were seen to look toward one another. The researcher often noted in her journal that team members appeared to be “seeking guidance” or “perhaps hoping for someone to speak up with sufficient enough argument to keep the patient in



hospital longer” [sic]. These observations as recorded in the field notes were supported during interviews by comments such as the following:

*“There is a push from above to get people out of here, we need programs to facilitate more long-term stay patient beds. We lack rehab facilities so we discharge them when we are told to even if they are not ready. We sometimes hope for one of the other team members to come up with a reason for them to stay...” (Interview #1)*

In cases of premature discharge, team members conferred to create the best possible rehabilitation plan for the patient once they left the hospital setting.

**4.5.2 Rural difficulties.** The hospital where the research took place is the major stroke centre for the region and supports 13 clinics and small hospitals in outlying areas. Patients are typically first seen at their own community medical centre (if there is one), then transported to the stroke unit under discussion. According to the British Columbia Stroke Strategy, stroke treatment should follow strategies that integrate and coordinate along the spectrum of care that includes “prevention, treatment, rehabilitation and community reintegration” using an integrated, team approach (p. 13).

The IRT demonstrated little confidence in the capacity of smaller, rural areas to offer the outpatient rehabilitation required by stroke survivors. The Community Access Coordinator often informed colleagues about the number of rehabilitation beds available for patients in the smaller communities, but these beds were often dismissed due to the perceived lack of nearby rehabilitation supports. During the interviews, team members clearly stated their discomfort with discharging patients to smaller, rural communities

which seemed to lack resources. Comments such as the following illustrate the IRTs concern about rural discharges:

*“Community has to complement what we do if we are to be successful with a discharge.” (Interview #5)*

*“No resources if a patient lives in a rural area.” (Interview #3)*

*“If we had more resources in the community and hospital then we could probably get better results.” (Interview #5)*

Sometimes, the IRT simply did not know what sort of health care resources existed in the outlying communities or about other rehabilitation facilities in the region that might accept discharged patients. The Social Worker occasionally helped the Community Access Coordinator obtain information on admission criteria to these facilities, of which there were three, but found it especially difficult to identify the exact admission criteria for them as they had mandates to care for other patients and only provided beds for stroke survivors if they had no wait list. One facility was not even in the province where the study took place and rarely accepted anyone who was over 50 years of age. Another facility was mandated to house persons with acquired brain injury only, and the third required patients to be younger than 60 years of age. IRT members clearly articulated their frustration about the situation during team meetings and interviews with comments such as the following:

*“Waiting for community resources is time consuming.” (Interview #3)*

*“Not happy about a patient who cannot be discharged to the other out-lying areas because of admission criteria when they need longer stay before going home.” (CAC)*

According to the British Columbia Stroke Strategy (2010), BC has fewer services for “rehabilitation and community re-integration” than for “acute stroke care and treatment” (p. 21). This was certainly the case in rural areas where few discharge options are available to the IRT. During this study, the IRT had an opportunity for a possible discharge to one of the outlying rehabilitation facilities, but the additional paperwork provoked some resistance. Duplication of paperwork was considered a waste of clinician time, encouraging IRT members to keep the patient to provide direct care rather than waste time completing paperwork that might require rewriting and revision before the **person who is responsible for the incoming paperwork from the external facility would even consider taking the patient.** There did not seem to be an appreciation by the IRT members that retaining a stroke survivor who may be eligible for transfer out would be an inappropriate use (or “waste”) of time they articulated the duplication of paper work was.

*“Maybe I can come up tomorrow and then just spend some time with him[patient] doing some intake kind of stuff then it will give me a better sense of if he will fit.  
(EFP)*

*I’ve done a complete referral to you, though. (SW)*

*Yeah, I have it. (EFP)*

*Do you, oh, okay? (SW)*

*We just have kind of have our own intake step process.” (EFP)*

This situation was compounded when the IRT received a patient from an external facility with paperwork that did not match the stroke unit’s organisational paperwork, but could not return the patient ‘home’ without complying precisely with the external

facility's administrative protocols. The team members articulated their frustration about patients and paperwork seeming to travel with ease 'one way' into the hospital, but against great obstacles when 'their [the EFP's] patient' was returned.

Some of the facilities that accepted stroke survivors for further rehabilitation had additional, limiting admission parameters. For example, patients going to one facility could not have addiction problems, could not be above a certain age, and had to be able to administer their own medication. In another facility, stroke survivors would only be eligible for admission if they were under 60 years of age and had no history of alcohol or drug abuse. Unless they met all requirements of the receiving facilities, stroke survivors had few options. When placement in a facility was not possible, the IRT sometimes discharged a patient home despite preferring a discharge to a health facility for ongoing support, if only for the patient's activities of daily living and not in-house rehabilitation.

The 'no-addiction' criterion provided an interesting case. During the weekly IRT meetings, the team rarely considered whether the stroke survivor had addiction issues as this was not relevant to the stroke diagnosis or the discharge decision. When the Physiatrist made this criterion known, in one case, the conversation abruptly halted and the room became silent. Once this condition of admission to the external facility was understood, the team had to revise the criteria upon which they considered their patients.

*“Outside resources are not always available for people who had drug and alcohol abuse issues even though they have had a stroke just like everyone else. We have to provide a service for them without prejudice, but the facilities get to place a different set of rules. It is incredibly frustrating.” (Interview #3)*

On the occasion when addiction issues affected whether a facility would receive a stroke survivor, the Social Worker had to arrange family meetings to discuss the implications of past addiction. These impending family meetings were always discussed in the IRT meetings as though family support would be forthcoming for the stroke survivor. Team members articulated their hope the family would be able to support the person at home, but it was observed many stroke survivors with addiction issues rarely had family willing to take them into their home. This was an existing issue prior to their stroke and the IRT were often forced to grapple with the existing family conflict issues in order to even address whether the family would be willing to support the person post-stroke.

The IRT always had to assess whether non-hospital rehabilitation and support facilities were available in rural areas. Even such seemingly mundane services as transportation had to be considered.

*“Patients from rural areas pose a problem unless family or friends are willing to taxi them to and from appointments as rehab is not always readily available.” (P)*

*“Now the only issue is this very road is kind of in between C and B area, and C seems to have no nurses at this point in time, and B will be more than happy to see him in the office. So the catheter and any diabetic follow-up, they need to come into the office. (CAC)*

*So they don’t have any home health nursing? (P)*

*No. And there’s no help out there because it’s 900 miles away.” (CAC)*

British Columbia, like Australia, has large tracts of sparsely populated land. In order to achieve a deontological approach to health care service delivery, much of the

health services are centrally located in major metropolitan areas or larger regional townships. In locations where public transportation was not appropriate for those with impaired mobility, the IRT realised that family or friends were essential for bringing stroke survivors to outpatient rehabilitation service facilities. Without this transportation support, anecdotal evidence gathered by the IRT indicated the stroke survivor received little or no follow-up rehabilitation at all.

The seemingly simple task of returning stroke survivors to their original home town was observed to be highly complex. Differing administrative procedures and paperwork across a single health service, poor local transportation, and limits on family support made discharge decisions difficult. The issue of trust in facilities outside of the hospital to provide rehabilitation support was not isolated to the rural setting. The IRT had little trust in the capacity of urban community partners to maintain the rehabilitation plans they set in place for stroke survivors.

**4.5.3 Trust in community partners.** In more urbanised areas, Occupational Therapists (OTs) and Physical Therapists (PTs) practicing outside the hospital were available to work with stroke survivors on referral from the hospital staff. The researcher noted the community-based therapists were very infrequently used by the IRT during the time of this study. The team expressed reluctance to refer stroke survivors to outpatient Therapists who were deemed less able to deliver the level of care provided in the hospital setting. The team Therapists were additionally wary when they could not determine the timing of the discharge, as they were even less confident about what they might expect from their community colleagues.

*“I think that was the one concern with mobility initially, that she was bumping into things, but that has improved, hasn’t it. (P)”*

*Yeah. So, I mean, one of the tasks we're doing, we're tossing the bean bag back and forth, different hands, different areas, and you know so there was no major neglect there. She was able to follow when we were up walking and, you know, I didn't see her stumbling into anything on either side. She's pretty good. She's just -- you know, she didn't look real stable on her feet. The dynamic balance was off a little bit when I went farther with some of the testing, but, again, those things are something that, you know, are possibly followed up in an outpatient setting I guess." (OT)*

During an interview the Community Access Coordinator provided an explanation regarding this reluctance. In the past, hospital Therapists had designed programs for stroke survivors returning to their original home environment, and the program had either been changed from the initial plan or discontinued. Why this had happened was not investigated by the hospital Therapists, although team members indicated their suspicions that patients sometimes did not attend their rehabilitation sessions and the programs designed in the hospital were sometimes not possible in smaller facilities.

*"Unless the therapists have experience in both community and hospital rehabilitation they don't have trust in their community partners. I feel this is a universal problem as I have seen it in multiple rehab sites I have worked at."*  
*(Interview #2)*

Although some members of the IRT did not appear to value the services of community partners (based on their prior experiences), others were more optimistic casual

adequate rehabilitation plans could be provided for patients in various community settings.

*“We need to be more familiar with what is out there and respect that they can take over.” (Interview #7)*

*“The primary focus of the team here is to get the person home safely. It doesn’t mean their rehab needs are all met. We are not here to finish the whole rehab needs of the patient.” (Interview #3)*

*“So most of the time the community program has to complement what we provide, so if there is needs that can be met safely at home, then the needs can be met outside a post-acute in-hospital program, then they should go home.” (Interview #4)*

The reluctance to use external therapists was observed to cause delays in discharge home or to another health facility with rehabilitation services, further adding to bed shortage problems in the stroke unit and hospital. Sometimes the Patient Care Coordinator and the Physiatrist overruled the Therapists’ preference to retain a stroke survivor who could clearly function in the community with the help of outpatient therapy, but this only occurred when the survivor was deemed cognitively competent as determined by such measures as the Montreal Cognitive Assessment (MCA).

*“Why don’t we plan for discharge from rehabilitation on Thursday? (P)*

*Do you want any further cognitive assessments? (OT)*

*Do you have a completed [MCA]? (P)*

*I have an MC. (OT)*



*That's enough. (P)*

*And then her functioning? (OT)*

*The MCA's enough." (P)*

#### **4.6 Summary of Findings related to the Setting**

In all cases the researcher witnessed, the PCC and the Physiatrist agreed with one another on decisions made for the stroke survivor even when they were in conflict with the Therapists. One interviewee suggested that perhaps the PCC and the Physiatrist held a broader perspective of the role of the IRT, rather than a singular perspective held by the Therapists who had specific goal aspirations for each stroke survivor.

*"Sometimes newer staff do not have a system perspective so if you actually delay a patient's discharge then we are caught causing a bottleneck effect whereby in which case you will see some patients going out of the system never coming through rehabilitation." (Interview #2)*

When the Therapists were overruled, team members, particularly those whose opinion had been challenged, shifted in their seats in what appeared to be a physical show of discomfort. The researcher's interpretation of discomfort was confirmed in the interviews:

*"I think they try and keep it as a team approach. I think that, you know, whatever decisions we come to, it shouldn't be based on one person's opinion; it should be based on the full team. So a lot of times, you know, even myself, I'll bring something up, and it might change their opinion so that -- you know, for the most part I think they try and consider everybody's aspect and come up with an*

*ultimate decision. But then again we are human, and sometimes, you know, that's hard to do.” (Interview #8)*

It was rare for the Therapists to challenge the Physiatrist or PCC once they had made the decision for discharge. When over-ruled, the Therapists were seen to resolve their physically obvious dissonance by reformulating their discharge plans to ensure the stroke survivor had access to community rehabilitation services, regardless of earlier reservations. The team Therapists articulated an understanding they had an obligation to revise their initial recommendation and understood the plan for each stroke survivor affected other patients. IRT members were willing to let other team members who have “expert knowledge step in and guide the team when it is in the best interest of the patient” (Behm & Gray, 2012, p. 59), but at the same time they did not feel silenced by the authority of others. Effectively the Physiatrist and PCC were observed to hold a higher level of influence in the ultimate decision about discharge destination. As one interviewee stated:

*“The doctor is rated a little higher than the rest, but all opinions are listened to.” (Interview #4)*

It is unclear from the data collected through observation or interview whether this influence resulted from the Physiatrist being the only medical healthcare professional or the PCC holding responsibility for bed management, or if there were other factors which contributed to this level of influence.

The demands on the local health authority by an increasing number of people with stroke have caused the rehabilitative needs of patients to exceed the local provision of care. No matter how hard or how well IRT members worked, the constraints of the setting were clearly observed to weigh heavily on their decisions. The data in this study

indicates decision-making by the IRT is bound by three key factors: demand for beds within the stroke unit, availability of beds in facilities external to the hospital, and trust issues relating to the use of Therapists external to the hospital.

Stroke survivors requiring acute intervention and rehabilitation have the priority for beds within the stroke unit. The length of time stroke survivors should remain within the unit should only be dependant upon their rehabilitation needs. Issues relating to transfer of patients out of the stroke unit while waiting placement in either the community setting with community Therapist support, or external long term care facilities was dependant upon the capacity of IRT members to work through multiple versions of paperwork, unclear admission criteria and their own biases about the capacity of external Therapists to provide adequate and appropriate rehabilitation support. Of course, the over-riding goal is to return stroke survivors safely to their homes and communities, not long-term care facilities. Not only do home discharges ease the financial burden of staffing long-term care beds continuously, but they enhance recovery since stroke survivors typically desire to return home for ongoing rehabilitation and a better quality of life (McClain, 2005). Some stroke survivors may return home needing little or no further formal rehabilitation (Gagnon, Nadeau, & Tam, 2005).

Utilising the decision-making expertise of an IRT allows for the early mobilisation and treatment of all stroke survivors because early onset rehabilitation, transfer to rehabilitation facilities, or a return home has a positive effect on the stroke survivor and reduces costs associated with care, however, as this study also shows, the IRT in this hospital is currently constrained by its environment and this had a significant impact on both patient care and the team decision.

## Chapter Five

### The Team

*Unity is strength...when there is teamwork and collaboration,  
wonderful things can be achieved.*

*Mattie Stepanek*

#### 5.1 Introduction

Where the previous chapter introduced the concept of the physical setting impacting on the capacity of a group of healthcare clinicians to determine the most appropriate discharge destination for a stroke survivor, this chapter presents the theme of how the composition of the IRT, its patterns of interaction, and the model of decision-making it uses impact on that decision.

The provision of stroke care on a dedicated unit has been shown to decrease disability and mortality by as much as 30% for all individuals with stroke regardless of age, gender, or severity of stroke (Canadian Stroke Strategy, 2006). The delivery of stroke care at the hospital where this study took place was reorganized in 2010 to provide a new four-bed integrated stroke unit accepting patients in the acute, rehabilitation, and complex phases of the stroke continuum. Changes to the physical environment were accompanied by changes in clinical management of stroke patients, from a traditional physician-led decision-making process to an innovative, consultative approach. The intent was to provide best practice care to patients with acute stroke at all stages of recovery. Integral to this new model of clinical management was an inter-disciplinary rehabilitation team (IRT).

Although in 2010 an IRT on a stroke rehabilitation unit at this site was new, such multi-disciplinary teams in health care have been widely recognised and accepted for many years, especially in the area of rehabilitation (Behm & Gray, 2012). The mandate of an IRT is typically to provide “well-coordinated care” by combining the talents and expertise of individual team members from different disciplines (Bokhour, 2006, p. 352). This chapter will use data to describe how members of the IRT in this study interacted with each other to reach a discharge placement decision for stroke survivors. The decision-making model employed by the IRT is also identified.

## **5.2 Team Weekly Meetings**

The first theme identified from the data related to the actual IRT team meetings. Meetings were held in a very small, windowless room on the stroke unit that felt confining, uninviting and stuffy to the researcher. It was not a place they would wish to spend particularly long periods of time in and would not be somewhere inviting to visitors such as family members attending the team meetings. This room was chosen as it was located on the unit, housed other patients who required rehabilitation as part of their recovery. Additionally it was the only room available nearby. The room contained a table at one end, fourteen chairs, and a computer at the other end. Initially, the researcher chose a seat randomly at the meeting table, before team members arrived. Subsequently, however, when it became clear that each team member sat in the same spot each week, the researcher also sat in the same seat to limit disruption to the routine of the team.

The literature suggests team members best function in an environment that encourages them to contribute their expertise, debate the issues, and negotiate solutions to problems (Henneman, et al., 1995). Each meeting began with talk about topics that

were not part of the hospital environment such as biking, snowboarding, and other leisure activities. These conversations were relaxed and showed a commonality of interests outside of the meeting context. Literature suggests this commonality of external interests in turn allows the team member to feel they belong to the team, which may promote collaboration with other team members (Nancarrow, et al., 2013).

Team meetings were held weekly with the intent of introducing new stroke survivors and reviewing current patients in the stroke unit who were at the point of discharge. According to Hakkennes, Brock, and Hill (2011, p. 2057), meetings that begin with presentation of data that are “identified as important” to a successful outcome for the stroke survivor should lead to a fruitful discussion and good decision-making. Similarly, Strasser (2008) asserts that a successful and satisfactory outcome for the stroke survivor requires consideration of all necessary variables.

In this IRT, the Physiotherapists and Occupational Therapists initiated discussions of each assigned stroke survivor. Team members encouraged each other to present new information by asking questions and seeking clarification according to the perspective of a particular clinical specialty. As the team had to consider many dimensions of a patient’s situation before making any decisions, discussions about new stroke survivors often began by reviewing their functional independence prior to their stroke, noting such characteristics as cognition and physical capabilities. At each meeting, team members pooled their insights to construct an increasingly detailed and nuanced understanding of each survivor prior to and following the stroke. For example, the Social Worker introduced information from family meetings while the Nurse presented observations of the stroke survivor while in the hospital, such as the patient’s mobility, cognition, continence, family support, or place of residence. Taken together, this

information helped the team to choose a discharge destination sensitive to the unique situation of each stroke survivor.

It took time to gather this information, and team members frequently commented on how long it took to choose a discharge destination for each stroke survivor's. The weekly team meetings usually lasted between two and two-and-a-half hours to accommodate discussion of each and every stroke survivor, regardless of duration of hospitalisation. The researcher noted that one stroke survivor who had been in the hospital over three months was reviewed with the same care as all the others, although the time required was much less than for a recent survivor beginning rehabilitation. Team members required a little more time to acquaint themselves with new stroke survivors and their family dynamics.

According to Heritage and Maynard (2006), decision-making is shaped by the individual strategies of all participating team members. A good understanding of all contributing factors is essential for determining a successful rehabilitation outcome. The IRT members insisted on sufficient time to discuss all patients and all important decision-making factors for each patient when determining a discharge destination plan for the stroke survivor and the team meeting involving a detailed discussion allowed all team members to contribute and collaborate.

*“Meetings can be exhausting but in the long run it helps sort out discharge planning.” (Interview # 5)*

*“I think if we didn't have meetings where we were all together once a week to discuss the patient; it wouldn't be streamlined in anyway.” (Interview # 5)*

Although hospital administrators questioned the length of the meetings, the IRT considered every aspect of the stroke survivor's situation to be valuable in decision-making; therefore, in the team's opinion, there was no way to shorten the meetings.

*"We know there are some who think we take too long in our weekly team meetings but this way no patient falls through the cracks as there are so many people discussing them with differing sets of expertise." (Interview #8)*

Sometimes the meetings were shorter than anyone expected, compelling the team members to question, then justify, why this anomaly occurred.

*"We are done 1/2 hour early today, I wonder why, we have the same amount of people on our rehabilitation list...I guess maybe they are not as sick this time." (CAC)*

*"...oh the stroke survivors are getting better that's why." (PCC)*

During the data collection, a team of best practice advisors visited to find ways to expedite the meetings or suggest discharge options they thought the IRT members may have overlooked. It was soon apparent the team already knew the suggestions made by the observers. The external observers never returned after their one meeting.

The IRT considered all discussion regarding the stroke survivors as necessary to become thoroughly familiar with each patient and the care or rehabilitation provided by each team members. They did not reduce the amount of time the whole meeting took, rather they were guided by the needs of each survivor. By taking the required time, team members indicated they felt they had the opportunity to engage in the decision-making process, if appropriate, and to provide opinions they felt might be helpful in determining the appropriate discharge destination for each stroke survivor.



### 5.3 Team Member Roles

The data also revealed the importance of members' roles in the IRT. Different members of the team clearly had different tasks and duties, as well as specific and different information to provide in the team meetings. The team consisted of a Patient Care Coordinator, a Physiatrist, six Therapists, a Social Worker, and a Community Access Coordinator. (Nurses also attended meetings, but not regularly so their input to the team will be discussed separately.)

The Patient Care Coordinator (PCC), a senior Registered Nurse responsible for the overall coordination of patient care in the stroke unit, held a central role. Among other duties, the PCC had to ensure appropriate staffing by nurses and to provide nursing staff with opportunities to develop new skills or to maintain accreditation in advanced skills. The PCC oversaw patient care for those admitted to the stroke unit and those awaiting admission while occupying beds elsewhere in the hospital. The PCC provided patient charts for review at each meeting and, when ward workload permitted, arranged for a nurse from each of the stroke unit's four nursing teams. The PCC also collated patient information and presented an overall assessment of patient progress, and informed the team of bed shortages and possible patient trades between hospitals. Although each team member had a specific role, the PCC seemed to understand many of the others' concerns and thus brought the team together. One informant remarked,

*"The PCC is the glue that holds the team together" (Interview # 3).*

The Physiatrist, a rehabilitation specialist (physician), provided medical consultation to the team during meetings and more generally throughout the working week. Physiatrists complete specialised training in physical medicine and

rehabilitation; they are nerve, muscle, and bone experts who treat injuries or illnesses that affect human movement. Specifically, physiatrists diagnose and treat pain, and restore function lost through injury, illness, or disabling conditions, usually through non-surgical treatments (Williams, 2013).

The Physiatrist was noted by the research to take on a secondary role, that of leader, helping the team refocus their discussions if necessary by reminding everyone to consider whether a stroke survivor should receive rehabilitation in the hospital setting. The researcher wrote in her field notes “the doctor is always able to frame the perspective”. It was unclear from this research whether this leadership came through the Physiatrist’s personality or his responsibility to ensure stroke survivors received the medical care appropriate to their individual needs.

The most numerous group in the IRT and at the meetings were the six Therapists—three Occupational Therapists and three Physiotherapists who worked to restore both the physical and functional well-being of each stroke survivor. Occupational therapy seeks to promote health and well-being by enabling people to participate in the occupations or activities of everyday life (Eustice, 2014). Occupational Therapists assist stroke survivors to engage in their desired (or required) occupations, or modify the occupation or the environment to facilitate better engagement. Physiotherapists, on the other hand, are primarily concerned with the remediation of a patient’s impairments and disabilities and the promotion of mobility, functional ability, quality of life, and movement potential. Physiotherapists examine stroke survivors, evaluate their conditions, diagnose an impairment, and prescribe and provide physical intervention.

The role of the team Social Worker (SW) was to assess the complexity of interactions between stroke survivors and their environment, and the extent to which the survivor affected and was affected by the many biological, psychological, and social factors involved in stroke rehabilitation. The Social Worker arranged family meetings and looked after transfer papers required for admissions to discharge destinations. Social workers use theories of human development, social theory, and social systems in the context of stroke rehabilitation to analyse complex social situations and to facilitate changes that are acceptable to stroke survivors (if they have sufficient cognition to understand) and their families and loved ones.

A Community Access Coordinator (CAC) ensured that incoming patients had a bed within the hospital that housed the stroke unit for access to the IRT and other advanced therapies available at this hospital. These beds were not always in the stroke unit, so the CAC and PCC worked closely together to move the most needy patients into the stroke unit and transfer stroke survivors awaiting discharge to beds elsewhere in the hospital. A secondary role of the CAC was to ensure those discharged from the stroke unit had a reasonable rehabilitation plan. The CAC was responsible for providing the team with information about external agencies and their admission criteria.

*“I am not sure what the exact details are for an admission to [facility x]—although I can find out.” (CAC)*

Failure of any individual team member to provide the relevant information resulted in delays in transferring patients to facilities and contributed to bed shortages. The hospital’s sole Speech Language Pathologist (SLP) was also part of the IRT but because this person was responsible for patients throughout the hospital (not just stroke survivors), she would only attend meetings occasionally or when specifically requested

to discuss a particular stroke survivor's case. No one expected the SLP to join all weekly meetings, although she was available for consultation.

#### **5.4 Nurses at the Meetings**

Nurses joined the meetings to discuss patients under their care and to answer questions posed by other members of the IRT. The IRT relied heavily on information provided by the nurses as they were the only health care staff continuously on the stroke unit for an eight or ten hour shift, giving them a strong relationship with patients and good insights into patient care needs (Burzotta & Noble, 2011; Meirs & Pollard, 2009). Questions about a stroke survivor were typically directed to the nurse who was working with that stroke survivor. The team might ask whether the stroke survivor had control of bowel and bladder function, met the rehabilitation goals laid out for the patient, dressed themselves, fed themselves (and how well), or required any assistance to ambulate. Answers to these questions aided the discharge destination decision as it helped measure progress toward the individualized rehabilitation plan for the stroke survivor. Despite their important insights, however, nurses were not always able to fulfill this role at the IRT meetings.

One of the barriers identified by member of the IRT as to the full participation of nurses was the meeting time, set for every Tuesday at one o'clock (1300 hours). These times often did not accommodate the busy schedules and heavy workload of the regular nurses who were familiar with each patient but could not leave them to attend long meetings. The Patient Care Coordinator, as the team member who took a broad perspective on hospital functions, noted the challenge of having nurses attend the weekly meetings:

*“I’m having a really hard time getting the nurses because their workload is so heavy right now, they’re not getting off at their breaks on time. And because the people are getting sick, so that’s why we ... it’s not they’re having a harder time getting in to the meetings. Because they get reminded every day, but the patients’ priority comes first. (PCC)*

*What do you mean? (P)*

*Well, it’s tough. I mean its 1:30, and they’re just taking the first lunch break.” (PCC)*

When nurses did attend meetings, they occasionally appeared poorly prepared. This was because sometimes the only nurse who was able to attend a meeting knew little about a particular patient of interest to the team, possibly because she had just returned from her days off work or because she was a casual (of whom there were many) who did not always know the stroke patients in great detail; team members sometimes discussed how the newer casual nurses did not appear to understand rehabilitation very well. Nurses could be employed on the ward under one of four ways: permanent full-time, permanent part-time, on short or long-term contract, or through the casual pool of nurses who were not employed on any particular ward, rather they were sent to whatever ward in the hospital where there were a shortage of nurses for any given shift. Casual nurses were most often generalist nursing staff with no particular formalised specialty education or skills. While casual nurses filled a physical gap in nursing numbers, they could not be expected to have the requisite skills or knowledge to provide the optimum level of care on a stroke rehabilitation unit.

When nurses were present at team meetings, usually because the stroke survivors familiar to them were discussed, they most often answered questions with ease and

sometimes faltered. At these latter times, team members' eyes darted around the room. On one occasion, the team members were frustrated with the nurse since she had only begun working with the patient and could not answer the questions.

IRT members had two strategies for obtaining additional information from nurses. The nurse at the meeting might be asked to collect missing or additional information and report back to the team, or team members at the meeting simply recounted what they heard nurses say about patients while working on the ward. These second hand accounts were observed to be less detailed than what a nurse providing direct patient care could provide, but it was felt by the IRT members to be better than a lack of information.

## **5.5 Collaboration**

Good team work depends on collaborative discussion among people with good communication skills who trust their own judgment, but who are also comfortable with other professionals (Behm & Gray, 2012). The interaction of the IRT members was visibly respectful. When one team member spoke, for example, each person displayed active and respectful listening by facing the speaker, refraining from side conversations, putting aside laptop or tablet computers, taking notes, and seeking clarification when the speaker ended. Listeners also nodded their heads, smiled, and provided other non-verbal cues of respectful engagement. Such respectful behaviour may have been deliberately calculated to provide good patient outcomes:

*“We work together to find the best outcome we can for the person, so we’re a team we get everybody’s take on things and you can cover more of what the patient needs.” (Interview #8)*

Team members particularly demonstrated respect for, and trust in, each other's opinions and expertise by asking for advice about a difficult patient situation or for colleagues' accounts of interactions with challenging patients. No one seemed hesitant to admit being challenged by an individual patient. According to Frank (2007), members of any interdisciplinary team must be able to articulate each other's roles with a clear understanding of the "strength of diversity" (p. 6). Again, this respect and trust was quite deliberately cultivated and even a source of pride among members of the IRT:

*"I tell my colleagues from different units how closely we collaborate on discharge planning, we trust each other with others' expertise." (SW)*

By using a respectful approach to sharing information and decision-making, team members were observed to be able to use the information to guide their future interactions with the patient, family and significant others, and their decisions for discharge. How the IRT used this information to guide decision-making comprises another theme identified in the research.

## **5.6 Team Decision-Making Processes**

Although the use of an interdisciplinary team to facilitate decision-making regarding discharge destination was relatively new to the stroke unit where this study took place, each team member in the study had worked in a rehabilitation setting previously and was familiar, in varying degrees, with collective, or team-based, decision-making. Team members cited this shared background as helpful to the formation of the IRT as they all held similar ideas about the purpose of the team. One informant noted the hospital saved both time and money from having such a team-

oriented group of people come together as there was little requirement for professional development before the IRT could commence its activities.

**5.6.1 Baseline assessment of function.** The IRT's decision-making process appeared somewhat formulaic to the researcher. Each stroke survivor was assessed by a Therapist upon admission and then provided with a care-plan outlining rehabilitation goals. Each stroke survivor's case was presented to the team, and all members presented information regarding the stroke survivor's pre- and post-stroke functional status and capabilities. The information about the stroke survivor's pre-morbid functional status was typically obtained by nurses or the Social Worker through discussions with visiting family. Patients were able to contribute to these assessments of pre-morbid function, but usually only after regaining some level of function following the acute phase of the illness. After considering as much information as possible, the team then determined which goals were most important for that particular stroke survivor. The assessments of functional independence made at admission provided a baseline for comparison with weekly gains scored on a Functional Independence Measure (FIM). (Other issues relating to the FIM are discussed in Chapter Six.)

At the time of this study, data on a patient's weekly gains came from the PCC's assessment of the patient, the FIM scores completed by nurses, or the nurses' daily progress notes. Usually, these data were conveyed to the IRT by the Physio- and Occupational Therapists. When the Therapists were not present on the ward, the FIM scores were gathered from Nurse Aides and focused on whether the survivor could perform activities of daily living on their own or with family help, or whether other



factors had to be addressed before the stroke survivor reached the goals necessary for a successful discharge home.

**5.6.2 Development of an individual rehabilitation plan.** The IRT began creating a care-plan for the stroke survivor immediately after the initial admission assessment, if the stroke survivor was medically stable. This care-plan, which included rehabilitation goals, became the starting point of the discussions for each of the weekly IRT meetings. After introducing a new patient, the Therapists often followed with discussion about the stroke survivor prior to the stroke, as this information could suggest changes or additions to the initial goals. At subsequent weekly meetings, the stroke survivor was assessed to determine whether the goals had been met.

**5.6.3 Weekly goal review.** The goals discussed by the Therapists at each meeting clearly referred to the physical functioning of a stroke survivor. All members of the IRT recognize the importance of physical ability when deciding upon a discharge destination.

*“Yes. She’s still needing the bedpan at night [indiscernible] to go to the bathroom, which is an issue. (Nurse)*

*I know. (OT)*

*Yeah. She’ll go during the day, it’s just at night time. Even early, early in the morning, she just fights you. (Nurse)*

*Yeah when I go in there to work with her, she’s hard to get up.” (OT)*

Team members all preferred home discharge and proposed rehabilitation strategies with this in mind. Of course, the IRT was also bound by hospital policy that preferred home discharge over release to a long-term care facility (LTC), although this

policy was greatly influenced by the costs of keeping stroke survivors in the hospital while awaiting transfer and tying up beds for other acute patients.

When LTC placement became the only option, the researcher observed the team struggle with this outcome. This decision was not embraced easily. Therapists were seen to appeal to colleagues for a second opinion to justify why a stroke survivor should not go to a long-term facility.

*“I’d like to do that this week and consult some of my colleagues and have them take a look as well. So, you know basically what I was saying when you were away is I’m still seeing some solid like small gradual improvements but I don’t know if it’s that’s enough to keep her in the rehab program and to go forward. So I’m just looking for maybe getting a second opinion there. She hasn’t totally plateaued but...” (OT)*

*“Because I’m feeling like you want an additional few more weeks of rehab? Then we can look at that as an option, but I think because of the complexity of this patient again, I don’t want to send another complex patient to a CCU [convalescent care unit], but if you feel, and I think I said last family conference two to three weeks, and I’m conscious of the fact that we still have the same goals, so if that is the only thing we need to work on then we have CCU as an option definitely, but we need to establish all the other complexities and see if CCU can provide that. Otherwise we may need to look at long-term care.” (PT)*

When discharge to a long-term care facility seemed likely, Therapists worked especially hard to help stroke survivors achieve as much function as possible to provide them with maximum control over their environment. Everyone rallied together to find other solutions for the stroke survivor facing placement in an LTC. When therapists

began struggling to avoid placement in a long-term care facility, the Physiatrist intervened to establish a consensus that an LTC was the best discharge destination. Although the Physiotherapist responsible for the patient in the previous example was noticeably disappointed, and colleagues tried to justify why the stroke survivor should stay longer in the hospital to reach goals that had not yet been met, the meeting continued with discussions about other stroke survivors and the Therapist regained his composure.

IRT members were observed to work together to ensure a successful discharge disposition for each stroke survivor. Sometimes goals were not congruent with the wishes of the stroke survivor or the family, prompting a negotiation process to adjust the rehabilitation plan. The team always appeared focused on the best interests of the stroke survivor as their main priority. This will be discussed further in the next few sections.

## **5.7 Decision-Making Model**

To make the best discharge decisions for stroke survivors, professionals with differing backgrounds, including physicians, nurses, and ‘allied health professionals,’ need to “communicate and collaborate effectively in a rapidly changing environment” (Maxson, Dozois, Holubar, & Wroblewski, 2011, p. 31). Each member of a successful interdisciplinary team must also support each other in making clinical decisions, recognize a clear division of labor, and receive continuing professional education to enhance their role as an IRT member (Grumbach & Bodenheimer, 2004; Headrick, Wilcox, & Betalden, 1998).

Any effective team needs a skilled leader who guides both the process and the people, whether through formal, appointed authority or an informal influence (Behm & Gray, 2012). In addition, for a team to be effective, a leader must be well versed in the context of the outcomes desired by the team (Salas, et al., 2010). In the case of this IRT, the Physiatrist appeared to hold the leadership role by always framing the perspective for the team as to what type of discharge decisions should be made. On multiple occasions the Physiatrist was observed to direct the way in which the IRT planned outcomes for a stroke survivor by stating firmly the options

*“As long as it is necessary for him to have daily therapy, we’ll keep him here. And when he’s the least bit ready for outpatient therapy, then we’ll set it up for him we need to get him home.” (P)*

Although he was not officially appointed to this leadership role, the team members appeared to embrace this hierarchy and even looked for it:

*“... is there hope for (patient) discharge, next week or the week after? (P)*

*No. (PCC)*

*I think we better just wait for [Speech Language Pathologist] to give us a clear picture by next week. (P)*

*So probably end of next week or week after.” (PCC)*

The researcher particularly noticed the influence of the Physiatrist when he held a minority opinion about the choice of discharge destination. When the Physiatrist found himself disagreeing with the team decision, he stated his opinion about their preferred choice of discharge destination while team members listened intently. For example, when team members, especially the Therapists, indicated the reasons why they wished

to retain the stroke survivor in the hospital, the Physiatrist sought clarification about which goals were important for that particular stroke survivor. This review of the stroke survivor's goals typically led the team to revise the initial decision to retain, and move toward a decision to discharge. In general, the Physiatrist either agreed with the team decision or stated a case against it. When the latter occurred a revised discharge plan resulted.

Interaction within the IRT was often characterised by a tension between the leadership's focus on bed availability and the rest of the team's focus on achieving the patient's fullest function capacity before discharge. The majority of IRT members wanted to discharge stroke survivors only after they had met all goals set during the hospital stay, and not rely on the care of family members and outpatient therapists to complete the process. The Physiatrist and the Patient Care Coordinator, in contrast, were observed to recognise retaining patients on the stroke unit longer than absolutely necessary impaired access for other acute patients. Sutherland and Crump (2011) suggest the increased cost in health care has caused service providers to discharge patient who no longer need acute care back to their community where they can be supported by outpatient services.

*“But that is again is not a justification for us to keep patients to satisfy the families, okay. Because we’re coming to the issue that really has no ground which is why I am concerned about this. (P)*

*“Well, it’s happening to a few of the patients’ families. (PT)*

*“Yes, but we cannot justify keeping somebody just because family decides they don’t like it. That’s not a good enough reason. So then we’ll just make sure that she’s safe with her stairs and then we’ll plan for a pass.” (P)*

When participating in their individual interviews, both the Physiatrist and PCC articulated their belief that team members held on to stroke survivors longer than was necessary, rather than letting their community counterparts assume the next phase in the rehabilitation of the survivor. This approach meant they needed to determine when a patient could be transferred without full recovery based on the evidence, rather than personal attachment, which they felt that some of the Therapists had developed.

*“It is always a challenge for a team like that. This is probably because of the in-patient teams and therapists in particular do not have the trust in the community team to deliver. So you see that, oh, they won’t meet the needs, they won’t meet the needs, and therefore you have that. And also some people have is actually an individual thing. Some therapists want to polish up the rehab goals, and, oh, somebody is walking safely, then they want to walk them more safely. That’s really then is beyond what we’re supposed to do because our goal is to ensure somebody is safe and then make sure they have a rehab program outside the hospital.” (Interview #3)*

Team members offered their opinions with enthusiasm on most occasions, but when the Physiatrist over-ruled or refocussed the direction of their decision, the researcher noticed a silence settle over the room. Silence differs depending on the setting within one experiences it and “silence like spoken language serves many functions” (Green, 2004, p.1). Occasionally this silence was accompanied by fidgeting and shifting in seats, and the researcher noticed the team members drop their eyes as if looking at their hands. These behaviours indicated feelings of discomfort on the part of the group with the Physiatrist. ~~seemingly showing signs of paternalism.~~ However, after a few awkward moments, the team appeared to rally back with enthusiasm as they

discussed the next stroke survivor. As usual, each team member gave the speaker complete attention and appeared keenly interested in the patient's goals and whether they had been met.

Further acceptance of the Physiatrist's leadership role became evident on the one occasion the Physiatrist was absent. The team made no concrete decisions about any individual survivor's discharge destination during that meeting, although the researcher noted the team discussed and had available all the relevant information on which to make a discharge decision. When the Physiatrist returned to the meeting the following week, decisions were made.

*"All opinions are listened to, but the doctor is rated a little higher than the rest." (Interview #8)*

Often the Patient Care Coordinator and the Physiatrist worked closely together to make decisions in the absence of team consensus, knowing that not every patient could stay on the stroke unit until all their rehabilitation goals were met. This implies a paternalistic model, one which the IRT members at times seemed to embrace. At some weekly team meetings the researcher noted that a stroke survivor had been discharged, but other IRT members made no comment and neither shifted uneasily in their seats nor sit in awkward silence. During the interviews, the PCC and the Physiatrist often articulated how they felt somewhat removed from the situation as they did not provide direct patient care as did the Therapists and nurses. For the PCC and Physiatrist, this distance helped them to judge the patient's progress less emotively and more accurately, allowing discharge for some stroke survivors sooner than the Therapists might prefer.

*“And, will she be ready for a pass after that visit? Do you think it would be too soon? The weekend? (P)*

*You’re talking about somebody bringing her home, she lives alone... (PT)*

*No, I’m thinking just about a weekend pass and we will see how she does. (P)*

*I think... I don’t know maybe not because if she’s alone she’d have to be walking to the bathroom. Like, she’s not ready.” (PT)*

## **5.8 Cultural Environment**

Early studies regarding stroke care (Myco, 1984) provided limited insight into how IRT members work together, focusing instead on the movement of stroke survivors through the health care system (Clarke, 2010). Studies also show that to reach a successful discharge destination decision, team members must cooperate in a way that considers and values each team member’s opinion (Nancarrow, et al., 2013).

Any team creates a culture that is, in turn, shared and accepted by the participants (Nguyen, et al., 2007). In this case, the culture of the IRT is created, shared, and accepted during the weekly discussions on stroke survivors and their attainment of goals, which guides the decision for discharge destination.

Overall, the culture of the IRT was observed to be cohesive, with a great spirit of collaboration including embracing the obvious leadership of the Physiatrist. IRT members began each weekly meeting bursting with energy and conversing with one another no matter what role they played. At the end of each meeting the team appeared just as bubbly although at times they struggled to reach consensus on decisions for each stroke survivor.



*“Respect for each other and respect for the patient... like we would love to see them succeed and get the heck out of here and keep on going with their lives. Being readily available here that is another component that creates cohesiveness in a team.” (Interview # 5)*

Members of this particular IRT seemed to meld together well and show respect for the decisions of others. When a colleague spoke, others would nod as if in agreement, falling silent and making eye contact or agreeing verbally as if validating what the speaker had said. They also seemed to look forward to the weekly team meetings as they often burst into the room with great zeal. Team members often talked of running into each other on the unit and discussing patients or asking questions about them, exchanging information in ways not always possible while working directly with the patient. Significantly, IRT members for the most part did not, on the surface at least, seem bothered by the knowledge that both the PCC and the Psychiatrist could override or re-focus the direction of their decision-making or that the Psychiatrist tended to have the last word in all discussions.

During the meetings, the researcher did not perceive any negative attitudes within the IRT except, as mentioned earlier, when discussing bed shortages or revising a decision at another's request. The researcher did not observe any signs of gender inequality during conversations between female and male Therapists. One particular Physiotherapist, when not actively discussing her patients, sometimes fell asleep but this probably said more about her fatigue than her regard for others as when it was her turn to talk about stroke survivors she was very eager and knowledgeable. Each Occupational and Physiotherapist in this study knew the current stroke survivors well and each listened intently to their colleagues' opinions. The researcher was not

immediately aware that each patient had been assigned only one Occupational and one Physiotherapist as it did not seem to matter which Therapist read the patient goals at the beginning of the discussion.

*“It is also neat to see how the OT/PT works together when their patients are being discussed. It is almost as if they finish each other’s sentences.” (Interview # 7)*

Although this team showed a collaborative spirit, not everyone participated equally. The Social Worker, for example, seemed not to contribute much to the discussions nor appeared particularly engaged, despite his experience. When he did contribute, his voice seemed barely audible although he was responsible for arranging family meetings, talking with stroke survivors, contacting external agencies, and gathering paperwork to initiate the discharge process. When he spoke he rarely finished his sentences, giving the impression that he felt uneasy with himself or perhaps undervalued by others. Despite these tendencies, he often initiated conversations regarding a patient’s social life and appeared well aware of possible family dynamics. However, the Social Worker was new to this team and may have felt less confident as he learned about other team members and the negotiation process. According to Brill (1976), commencing and maintaining relationships with other team members is an essential component of teamwork. Brill further suggests that a team member must have a level of knowledge that ensures comfort to participate in the team activity.

The Social Worker did add to the conversation when necessary, especially when reporting on the perceptions of family members or the admissions process of various agencies. If he had interacted with patients during his shift, the Social Worker described personal aspects of the stroke survivor not known to other team members.

He offered to organize family meetings when warranted, although once he forgot to do so at which time team members fell silent, looked at each other, rolled their eyes, or simply lacked expression—they did not appear impressed. The Social Worker was clearly very frustrated by the admission criteria of receiving facilities and the amount of paperwork required to admit a stroke survivor. His frustration often showed during the meetings, particularly when admission criteria seemed prejudiced against some patients. He stated several times during meetings that stroke survivors came from all walks of life and should be treated equally by admitting facilities, at times shrugging his shoulders to portray anger and claiming that he tried to talk with the admitting facility.

*“Outside resources are not always available for people who had drug and alcohol abuse even though they have had a stroke just like everyone else.” (Interview # 8)*

*“We probably have to touch base with [name] again, here is a man who is an appropriate candidate for this rehab program but has serious significant substance abuse history. (SW)*

*So I think their admission requirements disqualify him from the program.” (CAC)*

Similarly, the Community Access Coordinator spoke only during discussions of bed availability at other facilities or when a discharge destination decision had been reached. Otherwise the researcher could easily have forgotten she was in the room as she rarely spoke and sat quietly, barely moving and not at all engaged in discussion with the rest of the team although nodding on occasion to indicate active listening. The CAC was always busy with paperwork and always sat at the back of the room.

The overall culture of the team appeared to be cohesive, with team members respecting each other and participating in the discussions when required. Those who

seemed to participate less than others remained as much a part of the IRT as anyone else, rather they were less verbose than some others or had competing time constraints. How each team member participated with the team, respecting others and providing useful information when appropriate, seemed more important than the extent to which they participated.

## **5.9 Summary of Findings related to the Team**

Integrated rehabilitation teams produce sets of individual clinician expertise that, if well coordinated, can enhance health care to levels beyond the traditional patient/physician relationships which often excluded important aspects of care. At the same time, IRTs can reduce health care expenses by considering various solutions for stroke survivors. In 2006, the American Geriatric Society affirmed the care delivered using an IRT approach enhances the role of the caregiver and provides an advantage to health care in the long run. With the introduction of a dedicated stroke unit and associated IRT at the research site, health care providers and administrators anticipated that stroke survivors would move more quickly through the early stages of recovery because of an efficient and effective provision of special skills and knowledge by each team member. The themes realised in the data presented in this chapter support the concept of a collegial team pooling their collective clinical skills and knowledge to support decision-making for discharge destinations for stroke survivors.

Research literature on IRTs suggest that cooperative, collaborative, and respectful teams which share member knowledge perform better than teams lacking these characteristics. According to Thompson, et al. (2000), IRTs generally function more effectively when members share a common goal and respect each other's contributions toward that goal. The IRT in this study had many of these cooperative features, and for

the most part followed a shared model of decision-making. The researcher witnessed team members asking for each other's opinion during the meetings and even collaborating before the meetings. It was not unusual to see the Social Worker talk to the nurse about a particular patient, or the Physiotherapists talk to Occupational Therapists. This communal conversation suggested that IRT members felt comfortable with each colleague and valued each opinion. Even the most novice team members seemed able to contribute to expert decisions, perhaps due to the influence of the more experienced colleagues who modelled how to articulate goals and decisions, interact with the stroke survivors, and socialize with colleagues. Larson (2003) asserts that problems arise within IRTs when team members cannot see beyond their own professional roles to embrace the expertise of others. This team seemed quite able to accept diverse expertise, and exhibited a positive, even enthusiastic attitude to reviewing each stroke survivor that remained throughout the meeting.

What remains unchanged from the earlier, hierarchical model of medical decision-making is the central role of the physician on the team. Although IRT members seemed to meld together quite nicely, they were noticeably under the leadership of the Psychiatrist and the influence of the Patient Care Coordinator. According to Salas (2010), IRTs with a good team leader (or leaders) are able to work together successfully. The elements of hierarchy and paternalism forced on the team by external pressure to provide beds for new patients and to return survivors home with supports provide an opportunity for future research to determine if those pressures were absent, what change, if any, would occur within the leadership roles within the IRT.

It was obvious to the researcher that team members were attentive and invested in the discussion. The conversations collected as data seemed very respectful as team

members listened intently to each other and considered the full range of available expertise. The impact of the role nurses played within the IRT was highlighted as being significant in that all healthcare providers on the team spoke about the occasions where nurses were either absent from the meeting, or their level of knowledge was less than expected. Nursing staff attend IRT meetings to report on goal achievement, as they are acknowledged as the only ones present in the stroke unit to observe patient progress over a 24 hour period of time. Nursing staff are in a unique position to gather patient information otherwise unobtainable by the other IRT members and thus issues relating to lack of time quarantined for nurses to attend the IRT meetings were seen to contribute to delays in decision-making.

It was clear each member of the IRT had an instrumental role in the decision-making process to choose a discharge destination for each stroke survivor. IRT members often spoke of the value of input from survivors, families and significant others, not only as being welcome but as key stakeholders in the team necessary for a successful discharge deposition. Studies suggest communication between patients, family members, significant others, and health care professionals is central to a positive experience of stroke care (Payne, et al., 2010). The following chapter considers the themes developed from the data highlighting patient-related factors.

## Chapter Six

### Discharge Factors

*You never know what's around the corner. It could be everything. Or it could be nothing. You keep putting one foot in front of the other, and then one day you look back and you've climbed a mountain.*

*Tom Hiddleston*

#### 6.1 Introduction

The previous chapters presented the themes elicited from the data relating to the first two questions this research hoped to answer. Specifically what setting or team related factors impacted on the decision-making of an interdisciplinary rehabilitation team when determining the discharge destination for stroke survivors. The descriptions provided in this chapter present data around the theme of “patient-related” factors.

Three main considerations emerged from the data: the importance of setting appropriate rehabilitation goals that were considered by the IRT to be met in order to attain discharge. A second set of goals were those the stroke survivor had for themselves. And lastly there were goals outlined on the Functional Independence Measure (FIM) tool used as a guide to measure rehabilitation gain. These all lead to capacity for the system to respond to patient-led decision-making; the role of the family or significant others; and finally, the influence of the FIM score on the team's decision-making. To gain confirmation of the researcher's understanding of the different type of terms used in relation to goals, the Physiatrist and two Therapists explained the meaning they ascribed to different adjectives associated with the word “goals”.

*“Functional goals were those related to the stroke survivor’s FIM score”. (P)*

*“It’s [the FIM] more a reflection of the capacity to undertake activities of daily living”. (PT)*

*“Depending upon the severity of the stroke, survivors have different “end” goals”. “For us [sic] these end goals are the greatest level of recovery through rehabilitation the team think the survivor will reach. Usually this prognosis is based on past experience with other stroke survivors and through our combined knowledge. It don’t know if it’s something that is finite” (OT)*

Before a discharge home, Physical and Occupational Therapists will determine whether the survivor is ‘independent’ or ‘requiring support’ in his or her ability to navigate inside and outside a living environment. Patients will often have independent views on what they hope to accomplish, where and how they actually or would like to live, and what sort of lifestyle they wish to have. To be realistic and effective, goals set by Therapists must include the goals of the patient when they have the cognitive capacity to be engaged in this process.

The patient is not the only person who discharge destination will impact upon. The manner in which families or significant others are involved in the decision-making process is key to their engagement in discharge destination. On occasion patients and family perceptions about the survivor’s level of function, and potential level of future function, play an important role in the achievement of rehabilitation goals and thus the determination of a discharge destination. At times the IRT disagrees with the patients or their families and must engage in some careful negotiation.



The final component of the “patient-related” theme is the aspect of assessment that affects goal setting, goal attainment, and ultimately the discharge destination. The measurement of improved functional status established through goal planning must be compared to nurses’ observations as recorded by the Functional Independence Measure. This widely-used measurement tool has its own characteristics that ultimately influence the discharge decision.

## **6.2 Patient-led Decision-making**

The stroke survivor is a key element in the rehabilitation process. In fact, survivors ultimately determine the course of their rehabilitation since goals must fit their personal qualities and lifestyle before the stroke, as well as their circumstances following the stroke. In this study, the IRT spoke of actively encouraging stroke survivors to participate actively in their own decision-making process when they were cognitively able to do so. Decision-making should therefore have been a shared process contributing to successful patient outcomes.

Even when an IRT believes that it considers the stroke survivor’s best interests, patients must be consulted as their view of a goal for rehabilitation may be very different from that of the clinician (McPherson, Brander, Taylor, & McNaughton, 2001). Hafsteindottir and Grypdonk (1997) found that stroke survivors had clear goals for themselves which were not considered by the IRT. Goal setting should encourage good communication between IRT members, stroke survivors, and their families (Hartigan & McCauley 2012). The IRT in this study verbally indicated they considered patient participation to be central in determining any goal for an individual, but the observations made by the researcher did not support this.

IRT members stated they engaged with all stroke survivors who were able to participate in their rehabilitation goals, usually at the bedside during their interactions with the patient. To participate, the stroke survivor needed some self-awareness and a sense of how they would fit into their new lifestyle. The IRT member directly involved later reported this interaction during the team meetings. Patients who were able to engage in their goals reportedly made greater achievements than those who did not engage or unable to engage due to a cognitive disability.

On occasion, a stroke survivor suffered more from mental disability than with physical disability due to the nature of the stroke. These survivors were physically able to perform tasks but had a poor capacity to understand why they should do them. Consequently, they required significant support from others to engage in and complete many activities. The researcher heard staff term these stroke survivors ‘the walking dead’ as they were often unable to recognise or converse with the most intimate family members and thus the perception from staff was the person the stroke survivor was before their neurological insult had in fact died.

Goals help to assess a stroke survivor’s level of function and begin the process toward normalcy (Monghan, Channell, Dowel, & Sharma, 2005). Ultimately, progress toward those goals helps the team decide on the discharge destination of either a home in the community or a long-term care facility. Goal setting also helps protect the self determination of stroke survivors during rehabilitation as they see their own progress (Holliday, et al., 2007). IRT members in this study discussed patient goals extensively at each team meeting, seeking feedback from each other on the appropriateness of each goal and evaluating the progress of the stroke survivor toward them. During these discussions, which often lasted several minutes for each stroke survivor, team members

solved problems or determined a discharge destination protocol for a particular patient,. Like other rehabilitation workers cited in the literature, the IRT considered patient goals as a way to enhance the stroke survivor's likelihood of independence (McClain, 2005).

Normally, end-goals should be negotiated between the rehabilitation team members and the stroke survivor both to make full use of the team's expertise and to encourage the survivor to become responsible for his or her own progress and future life (Playford et al., 2009; Hartigan, 2012). Stroke survivors admitted to the stroke unit were assigned a rehabilitation Therapist who identified functional goals for the stroke survivor, although goals were typically set by both Occupational and Physiotherapists working together. These goals were primarily intended to assess all aspects of the stroke survivor's daily activities, from entering, exiting, or walking around the home to working with family members on hand to assist with mobility or other aspects of daily living. Sometimes, however, the physical surroundings of the patient's home constrained the goals. The person's entire future was guided by a goal toward which the team worked, even when the stroke survivor who was not fully cognizant. This emphasis on goals was illustrated by a comment made by a Physiotherapist during one meeting:

*“So our first goal would be independent ambulation by discharge. So right now I’ve got her standby assist. She can do one lap, but her tolerance is still low, so one lap with a two-wheeled walker, and after we’re done, she’s kind of -- she’s done. That’s about all we’re going to get out of her for another couple hours. I also have her using the stationary bike to try and build up her endurance. (PT)*

Ideally, the setting and assessment of goals should include dialogue between the IRT and the stroke survivor, but this was not always possible for the team in this study.

In some cases, the stroke survivor had lost the ability to speak or was cognitively impaired, or family member support was absent or limited.

The IRT also considered how goals might affect family members. Survivors often wished for a return home, at times with unrealistic expectations of their functional independence. A return home for these people would have required a high level of support from a family member who was neither equipped nor prepared to provide it. Additionally, in these circumstances, the survivor's lack of self-awareness could lead to conflict in the family home when the family caregiver tried to provide support the survivor felt was unnecessary.

According to Conneeley (2004), goal setting can be fraught with difficulty if the stroke survivor lacks insight into the rehabilitation process; an IRT must be fully aware of any possible deficits before considering discharge destination options. In all cases, goals must be within the stroke survivor's ability and appropriate for both the individual stroke survivor and their wider family, especially if the family will become caregivers. To be appropriate, goals must have importance to the survivor (Conrad, et al., 2009). For example, during one team meeting a goal to achieve competence working in a kitchen was found to be unnecessary. Although the stroke survivor did well in a kitchen assessment, the team later learned the stroke survivor would not need kitchen skills as his wife did all the cooking.

When the IRT recognised stroke survivors were cognitively unable to make decisions, the family or their significant others were contacted to determine whether they could cope financially, physically, and emotionally with the stroke survivor at home. The IRT then determined what sort of assistance the family would need if the survivor did return home. At times, the stroke survivors' needs exceeded family resources and

the IRT considered admission to a long-term care facility. Such a decision also took place when stroke survivors who wished to return home failed to appreciate the magnitude of their disability or how much their relationship with the primary caregiver would change. Mediating between the desires of the survivor and the capacity of family to provide support seemed to the researcher to be one of the key challenges for the IRT.

Inter-disciplinary team decision-making for stroke survivors has been shown to increase the chance of recovery by allowing diverse professionals to collaborate and plan. However, success will only come if the team also consults with the patient and their family and significant others. By including the stroke survivor's complete network of family and other support people, the IRT can obtain the most information possible to inform a sound decision for discharge.

### **6.3 The Role of Family in Decision-making**

In many medical situations, healthcare providers are involved in complex social interactions with patients and their families. The IRT in this study was no exception, particularly as it embraced the value of patient participation but also because a good placement decision depended on communication and cooperation among all involved. The stroke survivor, family and future primary care giver could not participate directly in the IRT meetings as many stroke survivors were discussed. To discuss many survivors in front of people who had no need to hear their private health information would constitute multiple breaches in privacy. In order to mitigate the need for survivor, primary future care giver and family input into the IRT meetings, the social worker routinely consulted with stroke survivors and their families for information about lifestyles and living arrangements before the stroke, and for insight into the goals, expectations, and support networks of the survivor. This was done at least once for each

stroke survivor to enable the IRT to determine the level of support in place prior to discharge. Meetings with the family and stroke survivor were instigated by both the Physiatrist and the Social Worker. Cooperation and collaboration with patients and families helped the IRT to choose the most appropriate discharge destination.

Family care is a serious aspect of stroke survivor care. The impact of a stroke can be devastating, not only to the patient but to family members who may feel catapulted in myriad directions since discharge destination decisions depend upon the support they are able and willing to give (McCullough, et al., 2005). The IRT had to consider how family members would cope as caregivers and whether they had access to their own support services if necessary. As decisions for discharge sometimes depended on family support, meetings with them were very important. IRT members reported consulting with family members or significant others to determine their ability and willingness to care for physically or cognitively impaired stroke survivors at home. At times the survivor had both physical and cognitive impairment.

Family members were always encouraged by IRT members to visit the hospital to help with personal care and to support the rehabilitation goals, or to learn how to assist the stroke survivor before they returned to the home. The researcher observed that when family members helped directly with stroke survivor care and discharge plans, the stroke survivor was reported to have better motivation, a greater sense of control, and more freedom to make personal decisions.

Given the demanding nature of home care, the IRT tested the capacity of family members to assist the stroke survivor they also worked toward teaching the family the necessary exercises needed to continually achieve rehabilitation goals. During the observation period of this study, the IRT often encouraged stroke survivors to spend a

weekend at home; how the survivor and their family coped was discussed at the following meeting. The weekend 'trial run' at home was intended to identify families who were unable to accommodate the survivor despite great efforts to do so. It was important these failures were reported to the IRT in meetings so the broader team could understand the differences between what the primary carer might see in the hospital situation and what the reality will be in the home where there are no health professionals to support them (the carer). It was also important for the (future) primary care giver to give the stroke survivor time without their support so the IRT could assess the survivor's level of functional capacity.

*"She's here before I come and she's here until I leave. She's here the entire day with her and her idea of a break is going to switch her parking from a one two hour spot to another two hour spot. That's her five minutes of break, and that's not gonna give the team a picture of how her mom is actually going to do."*

*(PCC)*

*In terms of toileting and continence, you know, it's kind of frustrating to deal with her because she's such a good advocate for her mom, but... (OT)*

*Did anyone talk to her about it? (P)*

*She knows to back off but she calls all the time, I mean I could talk to her again and say you can only come at this time, I mean is that fair?" (PCC)*

*Yes, I think that's fair, you know last time that's what we asked her to do withdraw and not to come before morning. (Nurse)*

*But I can't police it all the time." (PCC)*

Decision-making for stroke survivors must include family members and significant others to ensure a successful discharge home. Family should be considered as members of the IRT for the respective stroke survivor and given prominence in the decision-making process especially if they are responsible for the stroke survivor after discharge and must be educated for and supported in their role as the stroke survivor's primary caregiver.

The discharge decision depends on whether stroke survivors and family members are able to adapt to their new and unfamiliar roles (Lutz, 2004). Members of the IRT discussed family members' wishes and whether they complemented the clinicians' perspectives, and then worked to coordinate the various requests and demands. Respecting the wishes of stroke survivors or their family members was not always easy, however, due to differing priorities regarding goals, unreasonable family expectations for the stroke survivor, or the family's capacity to support the survivor. Sometimes, however, the IRT did not respond well to stroke survivors or their families who advocated for their wishes.

*"We teach patients self-care and to advocate for themselves and when they do we call them pushy." (SW)*

Instead of considering stroke survivors and family members to be pushy, clinicians articulated a desire to be more accepting of the survivor's or family member's willingness to participate. Families can help the rehabilitation team understand how the deficits revealed through intimate knowledge of the survivor pre-stroke will impact the patient's ability to return to a former living environment or level of functioning (Mitchell, 2009).



When survivors or families were present at the weekly team meetings, they were observed to have different perspectives from the healthcare professionals in terms of what they wanted for goals. For example, some stroke survivors wanted their goals to emphasise the physical aspects of rehabilitation, such as mobility, muscle strength, and endurance rather than the functional aspects of daily living at home (as measured by the FIM). Other studies have shown that patients and clinicians sometimes differ greatly in what they consider an important outcome (McPherson, Brander, Taylor, & McNaughton, 2001). When the Therapists presented contrasting patient views at the meetings, they sometimes discussed ways they might change the stroke survivor's perception of what was important.

*"Did he say why he was so against it or...? (P)*

*He doesn't say particularly why but it has to do with cognition. That if he goes there he will be working on cognitive tasks, thing like that but he only needs physio and that's his sure strong opinion, his whole goal that's it." (PT)*

*During one of my usual visits to assess... "I explained to him that C is not able to do physical therapy, it's actually about more about life skills so he doesn't want to hear about that. (OT)*

*No. (P)*

*He just wants physiotherapy seven days a week, physiotherapy that's what he wants. (PT)*

*So, once he is independent with his stairs, independent with his walking with quad cane, then he's ready for outpatient therapy if that's standard. PT*

*It sounds like the only option. (P)*

*So that's what he's going to do but problem is he may be lucky if he gets twice a day physio from outpatient. (PT)*

*Yeah he won't get twice a day physio, guaranteed. (P)*

*So it's only twice a week? (PT)*

*Yeah. Meanwhile he's Googling 'best physiotherapy in the world' and it's in northern Europe apparently. He has these plans to find the best physio in the world and somehow get into it. (OT)*

*There has got to be a way he can do both." (P)*

Family members were also observed to have differing views on rehabilitation objectives or had differing opinions about the importance of information provided to them by members of the IRT. This phenomenon is reported in the literature as is the stroke survivors' preparedness for home discharge (Suhonen, Nenonen, Laukka, & Valimake, 2005). The team Social Worker arranged family conferences for all patients and families who wished to take an active role in providing direct care or other support. These meetings allowed the IRT to hear and understand the perspectives of the stroke survivor and their family.

*"Family conferences are held for each client so that they have input into the discharge decision-making." (Excerpt from field notes)*

*"Now, [PCC], does [family member], do you think she would want to meet with the team, or... (P)*

*Yeah. Like she's called a couple of times, and she is going to be here, I think, this Thursday. [Family member], the daughter. (PCC)*

*She's not from here is she? (Physiatrist)*

*No. She's from [town name]. (PCC)*

*Yeah. I think it's [town name]. So she was just really worried and wanted to know what the plans were, so I explained the recent -- like our process, and I told her what we were doing she was just worried that she was going to get a phone call saying my mom's going home. And I said, No, that wouldn't happen.*

*Because, I mean, she does live alone and I heard someone say that there is a neighbor that has a set of keys to the house if we needed to go in and do a home assessment before she can go home because I said that might happen. (PCC)*

*She said that her plan was to come back this Thursday because I said we may need to meet and have a little meeting with you to find out what the plans are. (PCC)*

*Okay good, because I can be here on Thursday for that, so can we set up a family conference, teleconference, maybe Tuesday? (P)*

*I don't know how long she's coming for. Maybe she's coming Thursday night. I don't know. Are you around Friday?" (PCC)*

By participating in family meetings the Therapists often learned information that was not forthcoming through other avenues. Family meetings also allowed the Therapists to work cooperatively with family members to ensure a good outcome for each of the stroke survivors.

IRT members interacted as often as possible with family members. Family members (including spouses and 'significant others') were encouraged to visit the stroke unit at any time to prepare them for future care giving responsibilities and to give them a glimpse of the entire rehabilitation process. Family members were empowered

to participate and communicate with all IRT members to understand the provision of care for their loved one. By doing so, members of the IRT reported a smoother transition between hospital and home was possible for those patients discharged home.

Family participation also helped the IRT reach a decision because it meant that home discharge was a real option for the stroke survivor. The IRT had to be especially sensitive to the family's ability and readiness to learn new skills or, conversely, aware of potential negative family reactions to placement in a long-term care facility. They were noted to be very hesitant to commit the patient or their family to paying the daily stipend required for the survivor to remain in the stroke unit until transfer to a long-term care facility. Not only was this arrangement costly to the family, as transfer could take several months, but detrimental to the survivor as the stipend did not cover rehabilitation. The IRT sometimes realised during family discussions about long-term care that families who could not or would not pay the fee verbalised their intent to abandon their now disabled relative. When this actually happened, the survivor was treated like other patients in a public hospital where no fees were charged. Thus, the decision to discharge a patient to an LTC weighed heavily on the team as this added a financial burden to a family who may already have lost an income if the stroke survivor had been working.

Before an individual family member assumed the new role of carer, the IRT noted whether they had social supports such as extended family or close friends who could help care for the stroke survivor. Such support would enable the primary caregiver to have a better social life. When a family was willing to house a stroke survivor, meetings were arranged with them that included the Psychiatrist, Patient Care Coordinator, Social Worker, and appropriate Therapist to discuss discharge options,

evaluate family support, and assess family attitudes toward participation in the stroke survivor's rehabilitation process.

A third scenario was observed by the researcher. In this case, families delayed the whole process by demanding to see immediate progress or by insisting the primary caregiver at home was too elderly to care for the stroke survivor. The team accepted most patient and family suggestions and discussed them objectively and without prejudice, but it was not uncommon for families and IRT members to have markedly different ideas about the stroke survivor.

*“Yes, so we have the husband not wanting her to go home now, we cannot justify keeping somebody just because family decides they don't like it. That's not a good enough reason. So we keep them for good rehab reasons. Say if they refuse, because I think that's a possibility, then she would be losing a length of rehab which I think she would benefit from. So then we'll just make sure that she's safe with her stairs and then we'll plan for a pass then discharge home.” (P)*

Encouraging family members to be part of the IRT from the time of hospital admission to discharge, regardless of destination, can empower the family in many ways. Family members who participated in the process were often noted to have the confidence both to listen to plans deliberated and chosen by the IRT and to state their own views. Families also become familiar with how much direct rehabilitation time IRT members spend with the stroke survivor, and why, and learnt how to assist the survivors in simple ways when the IRT could not be present.

Clearly, stroke survivors, their families, significant others and Therapists need to work together to formulate an appropriate discharge plan that includes appropriate

goals, since progress toward these goals helps determine a discharge destination. The IRT Therapists in this study formulated goals that were measured weekly, providing reasons either to continue with the present goal or begin the next one, if any. Given the discussion of goals and their attainment was always at the forefront of the weekly meetings, and because goal achievement provided the key indicator of rehabilitation gain in support of weekly decisions about each survivor, the nature of goal measurement takes on special importance. In this case, goals were measured using the Functional Independence Measure, a widely used tool in many rehabilitation settings. The nature and limitations of this tool described by the healthcare workers in this setting are thus rendered closer examination.

#### **6.4 Functional Independence Measure**

The Functional Independence Measure (FIM) is a tool which describes and rates the severity of a disability, including stroke (Australian Rehabilitation Outcome Center, 2012). This was the only tool used by the IRT in this study to measure the stroke survivor's functional abilities and state of rehabilitation. Upon admission to a hospital, during the course of rehabilitation, and at discharge from the stroke unit, the stroke survivor's various capabilities were observed, primarily by nursing staff, and measured using the FIM. Nurses typically noted in the patient's chart his or her level of mobility and competence with activities of daily living such as dressing, feeding, and grooming oneself. Based on the FIM scores, the IRT created initial goals for the stroke survivor to improve their activities of daily living. An improvement in the FIM scores indicated the achievement of goals and progress toward discharge.

When asked during an interview how the FIM scores were used, one Therapist told the researcher the recorded scores were intended to indicate whether weekly goals

had been changed or met, thus providing the team with some indication of whether the stroke survivor was progressing toward the goals necessary to return home. The Therapist added that once the nurses noticed goal attainment, which they often did, they were to indicate this accomplishment under ‘weekly goals’ in the rehabilitation notes. However, this observation was not consistently recorded.

The Physio- and Occupational Therapists used the numbers generated by the nurses using the FIM to assess whether a patient’s weekly goals had been met. When the FIM was first implemented on the unit, nurses conducted daily FIM charting as part of their daily routine, but this practice gained a reputation amongst nursing staff for inconsistency and subjectivity. The researcher also noticed that nurses were often asked to complete FIMs for patients not under their care, so were less able to comment on functional status. Furthermore, nurses who were unfamiliar with ward duties such as the FIM may have had insufficient time to complete the assigned task (Griffith, Wilson, & Desai et al., 1997). Subsequently, during the period of observation for this research project, FIM charting was reduced to three days a week and nurses were assured appropriate training in using the instrument to ensure consistency and less subjectivity. Providing staff training to use the FIM as an assessment tool made sense because the rationale for using the FIM must be clear, subjective, and universally understood (AROC, 2012). Without an objective tool, rehabilitation gain cannot be measured effectively (Uniform Data Systems, 2012).

The proposed professional development had barriers to success, however. Full-time nurses selected for the training often cannot be released from ward work, and casual and part-time nurses are often not scheduled at times when they can attend or they are ineligible. Without widespread training of all nursing staff, however,

inconsistency and subjectivity associated with the FIM was likely to continue. The hospital did try to overcome the problem of transient staffing by providing some ‘on the job’ training by assigning nurses familiar with the FIM to assist colleagues who were less familiar.

The FIM was undoubtedly important to the IRT, since discussion of the patient’s goals began each meeting. However, the discussion of goals was primarily intended to inform other team members of a patient’s functional gains and to elicit other professional perspectives regarding discharge planning. Despite the problem of consistency and reliability in the use of the FIM, IRT members often stated in interviews they paid close attention to the current FIM scores and compared them with those of the previous week. Although the FIM had great importance to members of the IRT, no one actually mentioned the scores during the meetings, not even indirectly. Instead, the Therapists discussed what they experienced while working with each stroke survivor to guide their discharge destination choices.

As patients achieved goals, team members changed or augmented the goals to reflect new or ongoing needs of the stroke survivor. This process of goal setting, measurement, and achievement was central to the discharge destination decision-making process for the stroke survivor. Each Therapist at different times stated goals at the beginning of a meeting or commented on a goal using statements such as the following:

*“So, he is independent with bed mobility transfers, wheelchair mobility, sitting balance. Next long-term goal is independent grooming.” (PT)*

*“We tried that he was pretty good.” (OT)*



*“That’s done. Next one is independent upper and lower body dressing.” (PT)*

*“So, we’ve worked on a lot of things; pretty much independent but I continued with that goal I would like to work on lacing his long sleeves up his left upper extremity he’s got the t-shirts but were just working on long sleeved shirts now as opposed to t-shirts and maybe just that left sock. He’s got his right sock and right shoe okay. Yeah I’m going to discontinue that.” (OT)*

*“So, probably by the end of next week, well discharge him of the ADL program and just encourage nursing to have him do it on his own. If you just give him extra time he can be independent.” (OT)*

It was not clear by the end of the researcher’s observation whether changes to goals were prompted by the use of the FIM instrument or by personal observations of IRT members. It was clear, however, that goals were continually measured against personal professional knowledge of the various team members.

The FIM, at the hospital where this research study was conducted, was the instrument of choice for measuring goal attainment to indicate independent function of stroke survivors. However, the FIM requires time to complete and involves an element of subjectivity which affects the consistency of scores. If used inappropriately, the FIM provides a poor measurement of functional gain and impedes decision-making as the IRT struggles to determine which goals actually been met. One final limitation of the FIM is that it does not reflect the value of patient participation in setting goals, and thus prevents patients from contributing to the attainment of their goals. The IRT had to find other ways to involve patients and their families in discussions about goals and how to attain them.

## **6.5 Summary of Patient-Related Factors**

Chapter Six described three important aspects of the IRT's decision-making process revealed by this study: patient-led decision-making including development of functional goals for the stroke survivor, the role of the family and significant others in the decision-making; and the assessment of goal attainment using the Functional Independence Measure.

The relationship between stroke survivors, family members, and the IRT needs to be trusting and long lasting. This collegial relationship in stroke management and rehabilitation is very different from earlier paternalistic relationships for stroke survivors where health care experts told patients and families what was best for them. Without cooperation among all stake-holders, stroke survivors were observed to not recuperate in a timely manner and faced delays in their discharge to a suitable destination.

IRTs must be able to measure the stroke survivor's goal achievement using the Functional Independence Measure (FIM), which could measure whether the stroke survivor was moving toward a discharge home or to a long-term care facility. To be effective, this tool relied on skilled users. This study identified issues with the nurses responsible for completing the FIM, with issues of limited expertise or being rushed due to workloads, or feelings the charting was cumbersome. Data collection using this tool was observed to be ineffective and the results were unreliable. This issue of unreliable charting was explained as the reason why the IRT did not use the FIM scores consistently at their meetings. This study did not examine the extent to which the IRT actually used this tool to assess rehabilitation gain.

Any IRT must recognise the cues that indicate when a return home is possible, whether the cues are presented by the stroke survivors or family members. In all cases, goals clearly need to be negotiated over time and among all responsible parties.

This chapter has described the factors associated with patients that appeared during this study as the most influential on the IRT when choosing a discharge destination. The IRT considered the stroke survivor's level of functioning, encouraged participatory goal setting, and included the stroke survivor and their family in decision-making before choosing a discharge destination. The IRT in this study most often followed best evidence practice in their deliberations by drawing information from many sources, including their own observations, the Functional Independence Measure, family members and significant others, and whenever possible, the patient.

## Chapter Seven

### So Where Do We Go From Here?

*The doctor of the future will give no medicine, but will interest her or his patients in the care of the human frame, in a proper diet, and in the cause and prevention of disease.*

*Thomas Edison*

#### 7.1 Introduction

The stroke survivor's journey is unexpected, long, and unpredictable. Researchers have studied ways to enhance care to provide optimum outcomes. The literature reviewed for this research presented evidence that positive outcomes are more likely if the stroke survivor receives acute care in a dedicated stroke unit staffed by an IRT and has support from family members (Putman, Schupp, Beyens, & Dejaeger, 2007). Analysis of the literature indicates that setting variables, such as availability of beds, presence of community resources, and broad policies for stroke survivor care all affect recovery outcomes (BCSS, 2010). Data from this research confirmed that these factors did indeed influence the decisions of the IRT in this study; this study also supported many other findings suggested in the literature. The key recommendations to be discussed in Chapter Seven are based on the three main, broad themes discussed separately in earlier chapters: the influence of setting variables as the stroke survivor passed from admission to discharge, as discussed in Chapter Four; the IRT itself and how team members worked through their deliberations to decide upon a discharge destination, as discussed in Chapter Five; and the characteristics of the stroke survivor and family as they adapted to a new, unfamiliar way of life, as discussed in Chapter Six.

This chapter ends by considering the strengths and limitations of this research, some future directions for ongoing investigations, and finally, a general conclusion about this study.

## **7.2 The Setting**

The hospital in this study had clearly articulated procedures for treating stroke victims that governed admission directly into the stroke unit from the Emergency Department, initial assessment, mobilisation of the IRT, acute treatment, and discharge. According to the British Columbia Stroke Strategy (2010), stroke care in a dedicated stroke unit with clear procedures increases a survivor's chance of recovery compared to stroke care without such guidelines. However, not all stroke survivors could be placed in the stroke unit at the same time, so some were placed elsewhere in the hospital while awaiting a stroke unit bed. In other words, the stroke unit suffered from shortages of beds for stroke survivors who needed them during the acute phase of their rehabilitation, raising the possibility that some stroke survivors not housed on the dedicated stroke unit could 'fall through the cracks.' Bed shortage, or bed block, on the stroke unit also meant that some stroke survivors who initially had a bed in the unit were transferred to a distant part of the hospital following acute rehabilitation, which was observed during this study. Stroke survivors placed elsewhere in the hospital had less time working with the IRT on their rehabilitation plan, especially those moved farther away while awaiting a bed in a long term facility. This resulted in an observable reduction in the time members of the IRT spent with stroke survivors who were not able to remain within the stroke unit. Collectively, bed shortage inevitably led to less rehabilitation time for stroke survivors during a crucial stage of their recovery; the literature clearly indicates that early intervention leads to better stroke survivor

rehabilitation and hence recovery. According to a retrospective study on inpatient stay and discharge outcome (Fung, 2004), goals of early rehabilitation centre on decreasing the amount of disability, which leads to better long-term outcomes for stroke survivors. Although hospital policy to discharge stroke survivors as quickly as possible was designed to reduce bed block, the effect of this policy may have freed up beds but also resulted in less than optimum care from the IRT team (e.g., less time spent with expert team members to enhance self-care abilities). Despite the pressure to discharge as soon as possible, IRT decision-making could lead to a longer hospital stay for some patients, as the IRT struggled to ensure that the stroke survivor was not discharged until absolutely ready, contributing to the bed block. This decision-making dilemma was a common theme team members discussed during the weekly meetings and interviews for this study and clearly had an influence on IRT decision-making.

Both administrators and the IRT articulated their frustration about the limited number of beds for stroke survivors within the hospital and in long term care facilities during the weekly meetings. The data from this research show that the tension between bed shortage for the post-hospital stroke survivors and pressures from hospital administrators to vacate stroke unit beds forced the IRT to discharge some stroke survivors into less suitable settings, such as family homes where neither the survivor nor the family caregiver were fully prepared for the challenge. The researcher observed the IRT struggle, on occasion, to choose a discharge destination when longer stay outpatient or community-based services appeared unavailable or were unknown.

IRT members reported frustration over their limited knowledge of resources in the community, which made their decision-making feel like ‘guess work.’ This attitude was evident during the interviews, especially that of the discharge planner who was

ultimately responsible for finding community resources for the stroke survivor but was sometimes unaware of all the options. This knowledge deficit might have reflected a push by the British Columbia government to introduce new initiatives to support seniors in their homes, but without informing the discharge planner in a timely manner about new programs that could support stroke survivors.

Members of the IRT stated that more time, money, and support for stroke rehabilitation in the community is necessary, which would enable more survivors to return home quickly. However, this perception of community services was noted by the researcher to be incongruent with the team's self-acknowledged deficits in knowledge about the services available outside the hospital and their poor opinion of the services that were known. Choosing a discharge destination should have been quite simple for those able to return home early and continue with outpatient Therapists. The statements made by the IRT members seemed to lack congruity given their reluctance to discharge stroke survivors as soon as possible, and supported the paternalistic interventions of the Psychiatrist and the Patient Care Coordinator.

Regardless of other factors that influenced the decisions of the IRT, the researcher clearly observed bed shortages, the consequent lack of time spent with stroke survivors, and lack of trust in community partners by the IRT. These factors encouraged the IRT to make decisions that were paternalistic or dependent upon aspects of the hospital system rather than the stroke survivors themselves.

**7.2.1 Recommendation 1.** This study suggests various opportunities for improving stroke care in British Columbia, given that *the wider setting such as the hospital environment* had a significant influence on the decisions made by the IRT. Improvements to the setting could improve the decision-making process and outcomes

(Neuman et al., 2010). Some improvements have already been made in the province. For example, the literature on stroke treatment for many years recommended dedicated stroke units in hospitals where stroke survivors can obtain the best support from a team of rehabilitation specialists (Teasell et al., 2008). Consistent with such recommendations, the health system in the province adopted the 2010 Stroke Strategy which provided valuable guidance for the management of the disease while government provided initial funding to support treatment during the acute phase of recovery. However, little financial, administrative, or clinical support was provided at that time for the non-acute, rehabilitative stage of recovery. Stroke survivors very often require a long period of rehabilitation after the acute stage, and benefit considerably from time spent in dedicated rehabilitation facilities (Harvey, 2010). To alleviate ‘bed block’ in the stroke unit and increase precious rehabilitation time in the hospital, additional funding for stroke rehabilitation in British Columbia could be used to provide more beds for post-acute stroke survivors who are not yet ready to return home. Although the hospital in this study had a convalescent care unit available to the IRT, the unit was dedicated to rest and recovery, not rehabilitation. Because the lack of rehabilitation facilities within the hospital and the IRT’s limited knowledge of or trust in services available in the wider community had a strong, limiting influence on the IRT’s decision-making process, improving services for long-term rehabilitation could very well improve that process.

**7.2.2 Recommendation 2.** The preceding recommendation can be further refined in support of a dedicated, post-hospital rehabilitation centre. Such a suggestion is not new. Evidence suggests a higher rate of return to the community for stroke survivors receiving care at a “dedicated rehabilitation centre than those who are housed in acute



care” (Harvey, 2010, p. 32). According to Fitzpatrick (2008), stroke care which is “outcome driven” is best supported with “early active team-based stroke care” (p. 582). Furthermore, according to Teasell et al., (2008) “admission to specialized stroke rehabilitation units, early admission to stroke rehabilitation units, intensive stroke rehabilitation therapy, task specific rehabilitation and well-resourced outpatient programs” will reduce the overall costs of care and number of discharges to long-term facilities (p. 592).

Based on this study, decision-making was influenced by lack of beds, forcing the IRT to struggle to determine discharge destination and timing. As observed during the weekly meetings, team members were clearly frustrated when they learned that another new stroke survivor was placed elsewhere in the hospital awaiting a bed. Sometimes, this knowledge prompted the transfer of post-acute stroke survivors from the stroke unit to other areas in the hospital. When this happened, the frustration of IRT members during the weekly meetings was made clear to the researcher either directly through their conversations with each other or indirectly by an uneasy silence. The hospital where this research took place did make good use of a dedicated rehabilitation unit, but administrators often demanded beds there for other, acute patients who had not had a stroke. To avoid struggles of priority and jurisdiction within the hospital, stroke care should be provided in a dedicated rehabilitation unit which is not housed in the confines of the hospital.

Although initial costs for such a rehabilitation hospital will be high, personal gains for stroke survivors and an overall reduction in hospital costs should be anticipated over the long term as a result of implementing the IRT. By providing funding to the hospital for additional dedicated stroke survivor beds, and hence

increasing rehabilitation time, the financial impact on families and long term facilities could be reduced because stroke survivors can reach their maximum level of function before discharge. Short-term gain from budgetary constraints and an emphasis on the acute phase of care in a general hospital may not benefit stroke survivors and may cause long-term financial burdens to the individual stroke survivor, their caregivers (who may be required to give up paid work), and the province who must then support two people. Brandon (2013) found that a number of caregivers experience “financial pressure when caring for stroke survivors” (p. 37). According to DeVol, Bedroussian, and Charuworn (2007), caregivers collectively experience a loss in mean income of some \$11 million (USD) per year. The IRT did consider finances when choosing a discharge destination and included families in the rehabilitation goal making process for that particular stroke survivor.

If rehabilitation hospitals were available, decision-making for the IRT would be less strained as the team could choose between a discharge home or to long-term care facility, without considering whether they had to relinquish a bed in another part of the hospital for a stroke survivor unable to receive adequate rehabilitation time. A dedicated rehabilitation hospital may also lead to greater cohesion between the inpatient and outpatient Therapists as they could consult with each other on a regular basis instead of feeling and acting as though they were separated into distinct roles of health authority inpatient therapist and private outpatient therapist.

In 2014, the collaborative responsible for introducing the stroke unit at the research site announced its intention to increase funding for stroke rehabilitation following the acute phase. According to the British Columbia Stroke Strategy (2010), a second phase of stroke care funding will be dedicated to rehabilitation. If this should be

the case, then hospital administrators and responsible clinicians need to consult collectively to ensure that hospitals are not occupied by stroke survivors waiting for continued rehabilitation (Sutherland & Crump, 2012). If new funding does provide an opportunity to develop a state-of-the-art stroke rehabilitation facility, all the key stakeholders must be included in the development process if it is to succeed; if the project is not initiated carefully, the funding will fail to have the desired benefit and the overall shortfall in rehabilitative care will remain. The IRT's decision making process will undoubtedly be affected by such developments; if a new dedicated facility comes to exist, stroke survivors who need a longer hospital stay will be able to remain in their beds. At present, IRT is forced to make decisions governed by the dynamics of a general hospital, but a dedicated stroke centre may change this and allow the IRT to function more effectively.

### **7.3 The Team**

Even though the Physiatrist and the Patient Care Coordinator sometimes interrupted the decision-making process to provide a paternalistic decision, this team was generally observed to operate according to the values and procedures of a shared decision-making model. This IRT could serve as an exemplar for interdisciplinary teams elsewhere because of the way team members communicated with one another, especially when choosing goals. This was evidenced by the way in which they demonstrated active listening, sought clarification from one another, and made decisions based on the combined collective information provided by the team members. According to Neumann et al. (2010), IRTs that use a shared decision-making model are more effective in their decisions than those that do not. More specifically, teams that

agree upon goals and objectives have a better chance of success in their decision-making than those who do not.

However, the IRT in this study did not always have the freedom to choose the survivor's discharge destination and timing, especially for patients who had to move to different units within the confines of the hospital due to bed block. When stroke survivors were moved to beds outside of the stroke unit, the IRT interaction with these patients was reduced. This in turn resulted in a reduction in rehabilitation, extending the time to achieve rehabilitation goals, which conversely to the desire to see them discharged quickly, was observed to delay their discharge to a long term care facility.

IRT members were also limited by their lack of familiarity with all the opportunities in the community setting. Neumann (2010) also posits that IRT members need to possess the appropriate range of "knowledge and skill" in all relevant areas needed for a decision (p. 4). This lack of knowledge was observed to result in delays in discharge to the community until stroke survivors were further along in their rehabilitation progression toward goals, or the stroke survivor was not returned to the community at all and was placed in long term care.

**7.3.1 Recommendation 3.** In order to provide the greatest opportunity for stroke survivors to have the maximum effect of rehabilitation within the community, the IRT needs to develop robust methods of investigating available community based rehabilitation services. Additionally, the IRT needs to develop relationships with these community based service providers so they can begin an efficient and effective handover of stroke survivors from the in-patient tertiary hospital setting. It is proposed this will have a two-fold positive impact on stroke survivors: more survivors will be

returned to the community rather than to long term care facilities, and there will be more capacity for this to occur quicker than currently happens.

In-hospital and out-patient hospital Therapists may also have an opportunity to understand each other's roles better, perhaps through information-sharing sessions, to ensure in-hospital therapists are willing to discharge stroke survivors to the community earlier. This could improve decision-making as the IRT would be aware of all resources existing in the community. Future research could explore reasons why the hospital-based Therapists distrust outpatient and community Therapists, and find effective ways to build trust to ensure the best outcome for patients. Better relationships with community partners may alleviate some of the IRT's concerns, particularly if all agree to work for the stroke survivor's best outcomes. Under these conditions, decision-making is holistic and all-encompassing, and affords a stroke survivor the opportunity for an earlier discharge to the community.

Members of the IRT who have previously raised concerns about the standard of care provided by community based service providers could benefit from examining the basis for these concerns to establish if they remain valid concerns based on evidence, or if they are based on issues no longer present. Including community based service providers in the planning for discharge may also assist in strengthening relationships between the hospital based IRT and the community based rehabilitation providers, thus helping to develop trust the care the community healthcare providers will meet the stroke survivor's needs.

One possible way for this increase in knowledge could be for an IRT member to examine community services, develop networks with community service partners, and maintain contacts useful to a stroke survivor discharged home and requiring assistance.

Having this information readily available would reduce wait time for a long-term community centre and the costs to the family and health care system. At the same time, the IRT would become familiar with local outpatient Therapists and develop trusting relationships that would facilitate an earlier home discharge, further reducing the burden on the hospital and long-term care facilities. An IRT well-informed about rehabilitation choices for stroke survivors is necessary to achieve successful outcomes (Dy & Feldman, 2010). Dy and Feldman further assert that early post-acute intervention may assist the stroke survivor and caregivers move from the hospital to the home, which creates a more successful outcome.

Clearly missing in the team deliberations, however, were family members and nurses. The role of the family in terms of team membership is posited here. The impact of the family on decision-making is discussed in the next section (7.4). The IRT did not provide the family with a definitive role in the deliberations about discharge destination, despite the clear evidence from the literature on the importance of determining whether families or significant others were able to provide care. This lack of engagement was observed several times. At stake is an inappropriate discharge destination decision due either to the stroke survivor's failure to understand the change in their circumstances or the caregiver's failure to say 'no.' Mackenzie and Newby (2008), in a study of capacity to make decisions about discharge destination, found that the stroke survivor's level of cognition influenced whether a multi-disciplinary team included them in decision-making about discharge destination. The team justified its decision to include or exclude by referring the possible risk the stroke survivor would face upon discharge home. The authors also suggested that all stroke survivors with cognitive limitations

should be assessed for capacity to participate in decisions that affect them, otherwise stroke survivors “may be deprived of their liberty” (p. 1122).

**7.3.2 Recommendation 4.** The decision-making of the IRT remains incomplete without the input of the stroke survivor and their family or loved ones at the meetings. Minimally, the IRT could look to include the stroke survivor who has the cognitive capacity to be included, along with a nominated family member or significant other, in order to ensure the decisions made about the stroke survivor’s discharge destination is in keeping with their wishes. Being present at the meetings would have a twofold effect: the IRT would be always aware of the wishes of both the survivor and their family/significant other in terms of their goals; and secondly, the reality of the stroke survivor’s capacity for rehabilitation, and therefore the burden of care the family/significant other would be required to accept, would be clearly articulated, leaving no opportunity for unrealistic expectations for rehabilitation goals, or for the immense changes required to become a carer. How this would be practicable given the broader concerns for patient privacy would have to be considered if a family/stroke survivor inclusive IRT was to be considered.

Nurses were not always available to attend the weekly meetings although they had useful information about each patient’s discharge readiness and their family dynamics. Nurses were often unavailable because of their workload, or because the large number of nurses in the hospital (including many casual and agency nurses) were not familiar with the stroke unit (Burzotta & Noble, 2011). Without nurses at the meetings, the effectiveness of the decision making process was compromised. DeMiris, Washington, Oliver, and Wittenberg-Lyles (2008), in a study of information flow within hospice interdisciplinary teams, found that decision-making may become flawed if some

members have “access to information” not presented during the weekly team meetings (p. 6).

The absence of nurses from IRT meetings frustrated the Patient Care Coordinator and other team members who recognised their importance to the discharge decisions. Accounts in the literature of professional teams emphasise the importance of communication from all participants; good teamwork includes all team members (Behm & Gray, 2012). Lack of vital, accurate, and up-to-date information affects decision-making considerably (DeMiris et al., 2008).

**7.3.3 Recommendation 5.** Dedicated time for Registered Nurses to attend the IRT meetings is **quarantined** as part of the roster in the dedicated stroke unit. For the team to work efficiently and effectively, all members need the time to attend the meetings. Effective teams require each member to be present and willing to accept ideas other than their own (Kuziemy, Borycki, Purkis, Black, Boyle, Cloutier-Fisher...2009). According to DeMiris et al. (2008), decision-making remains effective only when information about all aspects of the stroke survivor is available to the IRT when choosing a discharge destination. Conversely, the authors further assert that decision-making may be flawed if vital information that may be pertinent to the success of the discharge destination decision is missing

Given the characteristics of the IRT in this study, several opportunities have been identified to improve its decision-making effectiveness. The IRT in this study was new and without a clear template to guide its development into a mature and confident decision-making body. Being new did provide the IRT with opportunities to develop its own decision-making practices. Taken together the recommendations relating to The Team may aid in a better outcome for the stroke survivor and their family.



## **7.4 The Patient and the Family**

In their study of palliative care and the stroke survivor, Dy and Feldman (2012) assert the stroke survivor's opportunity for decision-making increases if the survivor is taught to participate as a team member, gets to know other team members' roles, and understands what resources are available. Two key factors are contained within this theme of how the stroke survivor and their family can influence discharge destination decision-making. The first is whether the patient and family members are able to carry on at home by themselves, and the second is the extent to which the patient and their family are included in the decision-making process. In regard to the first factor, the literature clearly indicates that family members can aid in home recovery. According to Heart Healthy Women (2013), in a study about social support and stroke recovery conducted on 313 stroke survivors, stroke survivors who received support from family members possessed a greater chance of being discharged home rather than to a long-term care facility, and stroke survivors who had support from family achieved better functional outcomes post-stroke.

According to the literature, because most stroke survivors require long term care, either at home or in a long term care facility, friends and family members should be included in hospital discharge plans as they will become the primary care givers if the stroke survivor returns home (McCullough et al., 2005). Family members must be involved in the IRT's decisions about care, goals, and discharge destination to create a smooth transition for the survivor out of the hospital (Lutz, 2004). Through participation in the weekly IRT meetings, families can feel empowered to voice their concerns. At the same time, they can gain information about rehabilitation goals and practices for the stroke survivor.

In this study, stroke survivors were central to the discharge destination decision, particularly their level of physical and cognitive function following the acute period of rehabilitation. Sometimes, however, stroke survivors were discharged into long-term care facility which houses a convalescent care unit for ongoing rehabilitation until a family member or friend was able to take them into their home. This happened after a long period of ongoing rehabilitation or after lengthy modifications to the family home to accommodate the physical needs of the stroke survivor.

Problems arose when the stroke survivor wished to return to their pre-stroke living arrangements but were physically unable to do so, or the families felt unable to take on the role and responsibility of care giver. In these cases, the IRT had to be honest with the stroke survivor about their current functional ability and potential to recover their pre-morbid ability. Considerable tact and diplomacy were required to discuss such matters with persons unaware of their functional deficits and the family member who lacked the emotional, physical, or financial capacity to become the primary caregiver. Discussions were especially difficult when the stroke survivor had been working full-time and contributing a full income to the family home at the time of their cerebral insult. The family may have lost the primary source of income, leaving a spouse with mortgage payments or parenting responsibilities. Dual income families were no more secure as they often have higher levels of financial commitment and a loss of one income may impact lifestyle or require moving to a smaller home.

**7.4.1 Recommendation 6.** A clear indication of the family's role in the IRT and its decisions would help team members and family members of stroke survivors. Since the IRT in this study did not regularly include the survivor or their family in its deliberations, an opportunity exists to do so. To ensure an effective process, the IRT

needs to articulate clearly the roles and functions of family caregivers to ensure that all clinicians view them with the same expectations when discussing whether to send a stroke survivor home (Mitchell, 2009). Without clear expectations, IRT members may make errors when discussing family caregivers. Furthermore, clear guidelines help stroke survivors and their families understand the stroke, the likely progression of the rehabilitation process, and the survivor's capacity for independence (Mitchell, 2009).

If family members and stroke survivors became part of the IRT, their understanding of the rehabilitation process could be assessed as part of the discharge decision (Fung, 2004). Without a clear set of guidelines for the caregiver, family members may accept the role without fully understanding its demands, and stroke survivors may fail to understand the changed relationships, the time and financial costs of support, or the need for physical alterations to the home (Hakkennes, et al., 2011). If family members are to assist the stroke survivor in a significant way, they must participate actively in all stages of the care plan and know the rehabilitation goals set forth by the IRT (McClain, 2005). Family must be included in the Therapist's work and be ~~taught~~ mentored through the process of learning how to interact with the stroke survivor who is a changed person from that which they were before the stroke, in preparation for a return home. Providing knowledge, practice, and encouragement to friends and capable family members is crucial for the stroke survivor's early discharge home (Ling, 2004). Effective engagement of family and stroke survivors in the weekly team meetings may be another area for further study.

## **7.5 Strengths and Limitations**

The key strength in this study was the selection of the ethnographic method. Ethnography has been demonstrated in this instance to address the research questions

posed in this study. It provided the opportunity for the researcher to observe firsthand the subtle nuances of each of the team members as they worked to reach decisions for the stroke survivor, then have these observations authenticated through individual interviews where the participants being observed were able to confirm the meaning the researcher had subscribed to her observations. The field notes, audio-recorded team meetings, and audio-recorded individual interviews yielded adequate data to answer the research question(s) by providing a rich and thick description of a culture which had previously been poorly described.

Not only was the method selected appropriate to provide a description of the IRT, but these observations and subsequent thematic analysis provided sufficient evidence for the researcher to be able to generate recommendations relating to further research, opportunities for the IRT to enhance their service and for the organization to expand their service for stroke survivors into the community.

The limitations for this study commence with the single interview. Increasing the number of interviews with each team member may have clarified the meaning they ascribed to incidents during team meetings. Similarly having more than one interview may have elicited responses that were more candid as IRT members became increasingly comfortable with the researcher. A second interview might also have allowed each team member more time to consider the questions asked during the first interview, and to add any additional information. **The researcher may also have been able to build on responses made by participants during the first interview which in turn may have elicited more considered or thought provoking responses.**

Video-recording the meetings would have allowed for continued and repeated observation of the interactions and behaviours of team members during deliberations.

The researcher could also have used video-recordings to review her field notes to determine whether they accurately captured all the interactions and the behaviours among members of the IRT during the meetings. This may have enabled the researcher to confirm any questions she had whilst determining the themes or while she was analyzing the data. Video-recording was considered for this study; however the ethical review board in British Columbia considered it more invasive than non-participant observation and declined to grant permission for its use.

The presence of a researcher who was not a regular part of the team cannot be overlooked as a limitation. No matter how comfortable team members might have become with her presence, one cannot be sure if the deliberations of the IRT had been skewed by her presence. Although the researcher made every effort not to intrude, it is not possible to measure accurately the impact of an observer on the behaviour of others or to determine completely if the observed IRT behaviours and interactions were real or altered by her mere presence. The phenomenon of the researcher altering the culture in which the observation has been conducted has been well documented in ethnographic and anthropological literature. It cannot be excluded as a potential limitation of this research.

This study was also limited by its use of one research site and one IRT; other teams may behave differently and consider different information for their decisions. Thus generalizability to teams in other locations is not possible as the parameters around the decision-making processes at other sites may be different. Nor is generalizability to other IRTs possible as their composition may differ. For example, other IRTs elsewhere may include Nurses, stroke survivors, or families in the weekly meetings. Different personalities on different teams may create outcomes very different

from those observed in the current research. However, comparisons with IRTs elsewhere may yield useful insights that would help to generalize the findings of this study beyond the one research site.

## 7.6 Conclusion

The aging population in Canada will continue to increase proportionately for many more years. Stroke will remain a medical problem with a long recovery time, if there is recovery at all. Even without any intervention, stroke care remains a large financial cost to individuals and the public health care system of Canada and the province of British Columbia. Dedicated stroke units across Canada have decreased the costs of caring for the stroke survivor, partly through the use of integrated rehabilitation teams to ensure the best possible discharge destination for survivors. According to the Canadian Institute of Health Information in 2012, the new stroke unit in the hospital where this research took place ranked in the top 4% nationally for effective stroke care based on mortality and readmission rates.

What remains to be seen is whether the initiative to improve funding for stroke care continues, and whether the IRT that has been entrusted to ensure the success of the new model of health care delivery receives the necessary administrative and financial support to continue its momentum. This study has highlighted the limited use of therapists from both the outpatient perspective and those in the community. Opportunities for the health service to define what services are available have been identified. Once this has occurred, it will then be up to the administration and funding bodies to determine how to utilize those services. This in turn may provide the IRT with new ways to measure the rehabilitation gains of their stroke survivors, as well as reducing discharge waiting times.

Furthermore, this study has indicated it may be prudent to consider the benefits if all rehabilitation services available within the hospital and in the community became integrated into a single unit with a capacity to support stroke survivors as they move through various stages of care, from hospital admission to discharge, to long-term placement. If these transitions are smooth, hospitals, including the one in the current study, will be able to send stroke survivors home early and provide beds for new patients.

Finally, the study supported previous research findings in respect of inclusiveness having a profound impact on the patient. Provision for family members to become part of the IRT is an important construct to consider. Engaging with the family early and regularly as members of the IRT would immerse them into the caregiving role immediately so they feel supported and know where their new role begins. How this may be facilitated in the current model of multiple stroke survivors being discussed at each IRT meeting would need careful consideration and organization. A secondary impact of this inclusiveness would be for future research to examine the role of family caregivers in providing rehabilitation support. This additional research has the potential to facilitate continued investment in stroke rehabilitation begun by the British Columbia Stroke Strategy and provide stakeholders with an ongoing interest in stroke care and management.

Describing the tacit knowledge the members of the IRT collectively hold, not only about stroke management and decision-making relating to the most appropriate destination for individual stroke survivors, but also about how they work within an interdisciplinary team, is the key outcome from this research. Sharing this knowledge has the potential to lead to organisational change within the Canadian health system.

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