The Role of Interprofessional Collaboration on the Discharge Planning Process in the Neonatal Intensive Care Unit

By

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Abstract

Rationale: Interprofessional collaboration (IPC) occurs when "multiple health workers from different professional backgrounds work together with patients, families, careers and communities to deliver the highest quality of care" (WHO, 2010, p. 13). Successful discharge planning for patients from hospitals is dependent upon IPC (Shepperd et al., 2004). The purpose of this study is to identify and examine barriers or facilitators to IPC as they pertain to discharge planning on a neonatal intensive care unit (NICU).

Methods: Case study design using an online survey, participant observation and semi-structured interviews for data collection. Healthcare workers on a NICU at a large Canadian teaching hospital were surveyed to determine their views on the discharge planning process, leadership and IPC. Participant observations took place during the weekly IPC rounds to observe the healthcare workers when discussing discharge plans and to identify key informants for interviews. Based on these observations, 10 health care workers were selected to interview to gain a more in depth understanding of IPC in the discharge planning. Data collection occurred from December 2010 to February 2011.

Results: Survey results (n=66) indicate that the majority of healthcare workers on the NICU support IPC. However, the interview data demonstrated that problems arose during an emergency discharge. An emergency discharge occurs when an existing patient on the NICU needs to be discharged to another unit in order to provide a bed for a new admission. The lack of effective communication, role clarity issues, and a need for mutual respect act as barriers to the full participation of all members of the interprofessional team in an emergency discharge.

Conclusions: Defining the context is important; IPC works well in a non-emergency situation on the NICU. The level of involvement of the healthcare workers in IPC varies due to previous experience working on interprofessional teams (IPT). The medical lead is responsible for making the decision about a discharge. However, what has been identified as important is an IPC leader who is responsible for ensuring that all information from the IPT members is accessible to inform the medical lead.

Key Words: interprofessional, practice, collaboration, discharge, planning

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Chapter One

Introduction

1.1 Statement of the Problem

Interprofessional collaboration (IPC) and teamwork enhances the effectiveness and efficiency of practice (Pethybridge, 2004). Implementation of IPC is required to improve the working conditions for healthcare providers and to enhance patient outcomes (Atwal & Caldwell, 2002). IPC is defined as two or more frontline providers working and learning from, with and about each other as a team to provide the best possible outcome for their patient (CAIPE, 2002). Effective team work involves sharing a common purpose, team members understanding their own and others' functions, pooling knowledge, skills, resources and responsibility for the outcome of their decisions, and lastly, the team's ability to carry out its work and manage itself as an independent group of people (Pethybridge, 2004).

Discharge planning of patients from hospital to home and/or to another hospital is a complex process dependent upon a number of healthcare workers working collaboratively. This involves the development of a discharge plan for the patient prior to leaving hospital (ideally on admission), with the aim of containing costs and improving patient outcomes (Shepperd et al., 2004). Successful discharges result in the patient meeting safe discharge criteria, the family feeling prepared to provide care at home, in addition to no readmission back to the unit (Barrett et al., 2007). Healthcare professionals continually modify their discharge processes in an attempt to make the process more efficient and to improve patient outcomes. Post-discharge patients or their

parents/guardians will be responsible for the management of their health and well-being. Complex chronic patients must be linked up with several community resources in order to continue their care at home. Facilitation and coordination of this process is therefore important to assist the patient once they leave the hospital.

IPC is a contributing factor to containing costs and ensuring the best patient outcomes. Poor IPC can affect the discharge planning communication and, as a result, can affect the post-discharge outcome for patients and families (e.g. re-admissions and potentially increase costs for the healthcare system) (Hansen, Bull & Gross, 1998).

A survey was conducted by the researcher on the state of IPC on the NICU as part of an undergraduate project in 2007. During this time, discussion with the staff on the NICU helped the researcher to understand that many healthcare professionals were involved in the discharge planning process. A literature review was also performed to search for previous studies on the role of IPC in discharge planning in a paediatric setting. A number of separate studies have been conducted on the discharge planning process (Atwal, 2002; Baker & Wellman, 2005; Corser, 2004; Day & McCarthy, 2009) and on IPC (Atwal & Caldwell, 2002; Halm, et al., 2003; Protheroe, et al., 2007; Curran, et al., 2007). However, little research has been done to study the role of IPC in discharge planning in paediatrics. Many of the studies focused on discharging elderly patients from the hospital back to the community. The researcher was able to understand that discharge planning differed between higher and lower acuity units. In a higher acuity unit, such as the NICU, many complex care infants are admitted and their care requires the work of a number of different healthcare professionals working collaboratively to ensure the best

outcome for the infants. The results of this previous study are what lead the researcher to choose the NICU as the study sample.

This thesis identifies and examines the factors associated with interprofessional collaboration which act as a barrier or facilitator to effective discharge planning.

1.2 Research Questions

This investigation of the role of IPC on the discharge planning process is based on a multistage analysis involving a number of steps and research questions. The initial step, or **Stage I** of the investigation, provides an overview of the current discharge planning process at a teaching hospital in Canada. **Stage II** examines the views on IPC of the healthcare staff on one unit. **Stage III** analyzes the potential barriers for the implementation of IPC in the discharge planning process and the benefits, if any, of IPC for discharge planning.

Stage I Overview of the Discharge Planning Process

Key to the examination of the role of interprofessional collaboration on the discharge planning process on the Neonatal Intensive Care Unit (NICU) at a Canadian teaching hospital is an understanding of the unit and its discharge planning process. Therefore, in Stage I, the following questions were investigated:

What is the discharge planning process on the NICU?

Stage II Healthcare Professionals' Views on IPC

Stage II of the investigation analyzes the views of the healthcare professionals on the NICU on IPC. The specific question investigated was

What are the views on IPC of the healthcare professionals on the NICU?

Stage III Analysis of Potential Benefits and Potential Barriers for the Implementation of IPC in the Discharge Planning Process

Stage III of the analysis examines the potential barriers for the implementation of IPC in the discharge planning process on the NICU. It also examines the benefits, if any, of IPC for discharge planning. The following question was investigated in Stage III:

What are the facilitators and barriers to IPC?

1.3 Overview of the Steps Taken To Address the Research Questions

The following overview illustrates how the remaining chapters of the thesis address the research questions identified above.

Chapter Two defines IPC, the various terms associated with IPC, and discharge planning; examines the relationship between IPC and discharge planning; examines why IPC is important; and identifies the facilitators and barriers of IPC. The final sections of chapter two highlight the lack of studies in this area and the benefits of studying this field.

Chapter Three details the methodological approaches utilized for this study. Included is a discussion of the specific data sources used and the analytical technique.

Chapters Four through Six provide the specific details and findings of the analysis. Chapter Four presents the results that were obtained from the online survey which was used to measure staff members' perceptions of IPC. Chapter Five provides details on the participant observations, specifically providing information on the context of the study, and presents the key informant interview findings.

The thesis is concluded by Chapter Six, which examines the various outcomes and implications of the findings of the study. It also presents the lessons learned, suggestions for the NICU, and the resultant contributions and suggestions for future research.

Chapter Two

Review of the Literature

Chapter Two examines the definition of interprofessional collaboration; why interprofessional collaboration is important to healthcare; and what are the facilitators and/or barriers to interprofessional collaboration. The final section will examine why the study undertaken was important.

2.1 What is Interprofessional Collaboration?

Interprofessional collaboration (IPC) is defined as "two or more frontline providers working and learning from, with, and about each other as a team to provide the best possible outcome for their patient" (CAIPE, 2002). Effective team work involves sharing a common purpose; team members understanding their own and others' functions; pooling knowledge, skills, resources and responsibility for the outcome of their decisions; and lastly, the team's ability to carry out its work and manage itself as an independent group of people (Pethybridge, 2004). Respect, trust, shared decision making, and partnerships are all elements of interprofessional collaboration (CIHC, 2010).

The successful implementation of IPC in the healthcare setting is dependent on the collaboration of many stakeholders and not solely on healthcare professionals. These stakeholders include regulatory bodies, healthcare professional organizations, academic institutions, hospitals, insurers, community and support agencies, organized labour,

researchers, patient/consumer groups, educators, administrators, patients and families (ICSIC, 2010).

IPC is not a new phenomenon in Ontario, but one that is increasingly beginning to be recognized as an approach to care delivery. Initiatives in Ontario such as Family Health Teams (FHTs) and Anaesthesia Care Teams (ACTs), illustrate the growing interest in the healthcare arena to incorporate IPC in the healthcare setting (ICSIC, 2010). HealthForceOntario is an initiative that was announced by the Ministry of Health and Long-Term Care (MOHLTC) in May of 2006 as a means to ensure that Ontarians have equal access to "the right number and mix of qualified health caregivers, now and in the future" (ICSIC, 2010). This initiative focuses on emphasizing interprofessional collaborative care (ICSIC, 2010).

2.2 Differentiation of Terms

Several different terms related to interprofessional collaboration exist. These terms are used interchangeably by professionals which demonstrate their lack of a mutual understanding of IPC. Thus, it is important to understand the difference among the terms that are used.

Multidisciplinary team refers to situations where several different professionals work on the same project but independently or in parallel (Siegler & Whitney, 1994; Schofield & Amodeo, 1999; Paul & Peterson, 2001; Satin, 1994). Multidisciplinary teams require a combination of various professionals and competencies interacting on a limited and transient basis (Klein, 1990; Satin, 1994).

An *interdisciplinary team* implies a greater degree of collaboration among team members (Baggs & Schmitt, 1988; Klein, 1990; Satin, 1994). This type of team involves integrating and translating themes and schemes shared by several professions (Satin, 1994). This team will have a common goal and work with a common decision-making process (Mariano, 1989). Interdisciplinary teams are based on the integration of knowledge and expertise of each professional so that solutions to complex problems can be reached (Klein, 1990).

A *transdisciplinary team* is a type of professional practice in which "consensus-seeking and the opening up of professional territories play a major role" (D'Amour, 2005). As a result of this, professional boundaries become blurred or vanish (Paul & Peterson, 2001). This type of practice is characterized by an exchange of knowledge, skills and expertise that goes beyond professional boundaries (Stepans et al., 2002).

Interprofessional collaborative practice is a relatively new term used to describe or rename the concept of a collaboratory team. Interprofessional collaborative practice is "centred on the needs of clients; enabling them to be partners in their care, with the most appropriate health professionals providing services required to meet their healthcare needs" (Health Canada, 2005). This term recognizes and values the expertise of healthcare workers and also acknowledges their separate and shared knowledge and skill base. It eventually leads to a participatory, collaborative and coordinated approach to patient-centred care (WHO, 2010; CIHC, 2010).

2.3 Why is Interprofessional Collaboration Important?

Interprofessional collaboration and learning was recommended by the Romanow Report (2002) as an important area for research. The report identifies that new environments and new divisions of labour require new approaches to collaboration among healthcare providers in order to maximize the use of the health workforce (Romanow, 2002).

Interprofessional collaboration has been identified by the World Health Organization (WHO, 2010) as an innovative strategy that will strengthen the health workforce for future generations. Many policy-makers are recognizing that a strong, flexible and collaborative health workforce is one of the best ways to deal with highly complex health challenges such as epidemics of HIV/AIDS and/or tuberculosis, spiralling healthcare costs, natural disasters, ageing populations, and other global health issues (WHO, 2010).

The collaboration of healthcare professionals to place patients and their families in the centre of care leads to many benefits for care providers and patients. IPC benefits and empowers patients to take an active role in their care and leads to increased job satisfaction for healthcare providers (ICSIC, 2010; Curran, et al., 2007).

Research strongly supports positive outcomes for patients/clients, providers, and the healthcare system when IPC is implemented. Positive outcomes for patients/clients include and are not limited to enhanced patient self-care, better access to healthcare, shorter wait times, and improved outcomes for patients with chronic diseases (Barrett et al., 2007; ICSIC, 2010).

Barrett and colleagues (2007) identify increased knowledge, enhanced provider satisfaction, and decreased tension and conflict amongst caregivers as benefits for providers. Curran and colleagues (2007) report the potential of IPC to improve professional relationships, increase efficiency and coordination, and to ultimately enhance patient and health outcomes.

The overall healthcare system also has its benefits from implementing IPC. These include and are not limited to decreased provider and patient costs, lower readmission rates, better use of clinical resources, easier recruitment of caregivers, and lower rates of staff turnover (ICSIC, 2010).

It is important for all healthcare workers involved in a patient's care to efficiently work collaboratively in order to facilitate a successful discharge (Hansen, Bull & Gross, 1998). IPC requires healthcare providers to use a broad range of skills, including both those specific to their clinical area of expertise and more general skills, such as communication. Poor communication during discharge planning can potentially negatively impact the post-discharge outcome for patients and families (e.g. re-admissions, increased costs for the healthcare system) (Hansen, Bull & Gross, 1998).

2.4 IPC and Discharge Planning

According to Atwal & Caldwell (2002), the patient discharge process has been problematic for health care professionals. Delayed discharges cause significant impact on hospital admissions and patient flow throughout the hospital (Atwal & Caldwell, 2002).

Health care professionals continually modify and re-modify their discharge protocols in an attempt to make the process more efficient. Containing costs and ensuring the best patient outcomes depends on the IPC. This includes all the healthcare workers involved with the patients. Poor IPC can affect the discharge planning communication (Hansen, Bull & Gross, 1998) and, as a result, can affect the post-discharge outcome for patients. For example, Hansen, Bull and Gross (1998) found that poor discharge planning has been associated with increased hospital readmissions.

Baker and Wellman (2005) reported that having the different healthcare professionals take part in the discharge process has positive outcomes given the responsibility of each team member to have knowledge of the community resources within their field. These studies clearly support that IPC results in positive patient outcome.

2.5 Facilitators and Barriers of Interprofessional Collaboration

The literature identifies a number of facilitators and barriers for IPC. The National Interprofessional Competency Framework (NICF) proposed by the Canadian Interprofessional Health Collaborative (2010) identifies six competencies required for effective interprofessional collaboration: interprofessional communication; patient/client/family/community-centred care; role clarification; team functioning; collaborative leadership; and interprofessional conflict resolution. This framework relies on the ability of healthcare professionals to integrate knowledge, skills, attitudes, and values in arriving at judgement (Roegiers, 2007). These competencies were developed to

help achieve IPC and are individualized, based on the level of experience of healthcare professionals, and reflect their practice context (CIHC, 2010).

Importance of open and active communication within the team

Communication was identified as a key component of collaboration. Interprofessional communication is one of the competencies identified in the NICF and is defined as "communicating with each other in a collaborative, responsive, and responsible manner" (CIHC, 2010). Martin-Rodriguez et al. (2005), identify three reasons why communication is important for effective collaboration. The first is that the development of collaboration requires the healthcare professionals on a team to understand their own roles and how to communicate the importance of their role to others. Secondly, effective communication is required for constructive negotiations with other professionals. Finally, communication acts as a vehicle for the other components of collaboration (e.g. mutual respect, sharing or mutual trust). Respectful interprofessional communication incorporates full disclosure and transparency in all interactions with patients, clients, and families (Suter, et al., 2009).

Healthcare professionals agreed that open communication was essential for positive IPC and successful patient discharge (McKenna et al., 2000). Open communication allows for the easy transfer of ideas and opinions among different healthcare professions (Hansen, Bull & Gross, 1998; McKenna et al., 2000). It also helps to avoid missing any important information regarding the health of the patient who is being taken care of by the interprofessional team (Watts et al., 2006). Bull and colleagues (1997), found that inadequate communication was a fundamental source of

discontinuity in discharge planning. Inadequate communication led to gaps in information transfer, redundancies and errors that impeded the effectiveness and efficiency of care delivery (CIHC, 2010).

Trust, mutual respect and role clarification as key elements for collaboration

Trust was identified as a key element for collaboration amongst healthcare professionals on a team (D'Amour et al., 2005; CIHC, 2010). D'Amour and colleagues (2005) indicate that healthcare professionals require trust in their own abilities before they can trust others. Professionals consider trust indispensible if they are to establish collaborative working relationships (D'Amour et al., 2005). While healthcare professionals believe trust to be essential for collaboration, Henneman and colleagues (1995) describe that the amount of trust one places on another in the healthcare arena depends on the competence of that person (skill, knowledge, and attitude).

Mutual respect is another element identified as necessary for successful collaboration. It implies knowledge and recognition of the complementarity of the contributions of the various professionals in the team and of their interdependence (Martin-Rodriguez et al., 2005). Stereotypes (positive and negative) related to professional roles and demographic/cultural differences affect the relationship between healthcare professionals (IPEC, 2011). These stereotypes help to create "disparity diversity" – ideas about a profession's worth – and thus eroding mutual respect (IPEC, 2011). A lack of mutual respect in a team is a barrier to IPC among healthcare professionals.

Role clarification is an important element for successful IPC. Learning to be a part of an interprofessional team requires an understanding of how professional roles and responsibilities complement each other in patient-centred care (IPEC, 2011). Healthcare professionals need to clearly articulate their roles, knowledge, and skills within the context of their clinical work (CIHC, 2010). This helps individuals or healthcare professionals to determine who has the appropriate knowledge and skills to address the specific needs of patients or clients. This allows for the "right mix" of healthcare professionals and ensures a more equal distribution of the work load (Suter, et al., 2009). According to the Interprofessional Education Collaborative (IPEC) (2011), being able to explain what other professionals' roles and responsibilities are and how they complement one's own is more difficult when individual roles cannot be clearly articulated. The IPEC also highlights that recognizing the limits of professional expertise, and the need for cooperation, coordination and collaboration across the professions is necessary to promote health and treat illness. However, effective coordination and collaboration depends on whether each profession knows and uses the others' expertise and capabilities in a patient-centred way.

Team Functioning

Being a good team player is an important characteristic for interprofessional collaborative practice. Effective team functioning requires trust, mutual respect, availability, open communication and attentive listening (CIHC, 2010). It is important for healthcare professionals to be able to coordinate and work cooperatively with their team in order to avoid gaps, redundancies, and errors that impact both effectiveness and

efficiency of care delivery, and collaborate with others through shared decision-making (CIHC, 2010; IPEC, 2011).

Work in a healthcare team means learning to be part of a small, complex system which has been organized to share the care of a person (IPEC, 2011). The extent of involvement of the healthcare professionals on such a team is dependent on the value of the professional expertise that can be contributed toward the outcomes of care in specific situations. Team members require having an understanding of team developmental dynamics and an awareness of how organizational complexity influences collaborative practice (CIHC, 2010; IPEC, 2011).

Shared accountability, shared problem-solving, and shared decision-making are characteristics of collaborative teamwork and working effectively in teams (IPEC, 2011). Valuing the outcome of teamwork in a patient's care, being clear about one's own role and the roles of others in a patient's care, and practicing interprofessional communication have been indicated as contributing to teamwork behaviours and effective team functioning (IPEC, 2011).

Collaborative Leadership

Collaboration is about working together "in the face of both commonality and difference" (Meads, et al., 2005). In collaborative leadership, healthcare professional support the choice of the leader depending on the context of the situation (CIHC, 2010). Accountability for the processes chosen to achieve outcomes is shared amongst the healthcare professionals involved in the patient's care. Heinneman and Zeis (2002) indicate that leadership should be based upon the need for specific kinds of expertise at a

given point in time. They also distinguish between two characteristics of a leader: task-orientation and relationship-orientation. Task-orientation refers to the leader's role of working to help members of their group to stay on task. Relationship-orientation refers to the leader's role to assist the members of their group to work more effectively together (Heinneman & Zeis, 2002).

Hansen and colleagues (1998), Macleod (2006), and Day and colleagues (2009) all support the idea that nurses should take a proactive lead in discharge planning. Macleod (2006) proposed that since nurses are the healthcare professionals who spend the most time with the patient and the patient's family, they would have the most comprehensive and up-to-date information about the well-being of the patient and thus are in the best position to coordinate their discharge.

Both Hansen and colleagues (1998) and Jewell (1993) found that many of the other healthcare professionals (e.g. social workers, physiotherapists, dieticians) find it easier to communicate with nurses rather than the staff physician. Not only did they find it more comfortable to speak with the nurses but they also found that it was easier to reach the nurses than the physicians (Day et al., 2009). Members of the healthcare team describe difficulty in contacting physicians such as not having pages answered in a timely manner and having to physically search for the physician (Hansen et al., 1998). Thus nurses, as the main lead for discharge planning, were recommended to assist healthcare professionals to participate in the discharge process without feeling anxious and to give healthcare professionals a contact for discharge planning communication.

Interprofessional Conflict Resolution

Managing conflict was identified as an important aspect to maintaining interprofessional collaborative care in a healthcare unit (IPEC, 2011). A potential source of conflict among healthcare team members is the diversity of their professional expertise and abilities (IPEC, 2011). Conflicts can arise from role-related issues (e.g. differing accountability issues, perceptions of role overloads, or role ambiguity amongst healthcare workers) and goal-related issues (dissimilar philosophies towards care, professional socialization, etc.) (CIHC, 2010). Conflicts may also arise over leadership issues especially when power is confused with authority which is based on professional expertise (IPEC, 2011).

The NICF (CIHC, 2011) defines interprofessional conflict resolution as practitioners actively engaging themselves and others positively and constructively addressing disagreements as they arise. Dealing with the conflict in an open and constructive manner through effective interprofessional communication and shared problem-solving will strengthen the ability to work together and will create a more effective healthcare team (IPEC, 2011).

Complexity, Context, and Quality Improvement

The NICF (CIHC, 2010) identifies three considerations which influence the competencies required for IPC. These considerations are: complexity, context, and quality improvement.

Approaches to IPC can vary from simple to complex. Three types of systems corresponding to three types of problems have been suggested by Glouberman and

Zimmerman (2004). In *simple systems*, some basic understanding of technique and terminology is required. These simple techniques assure a high degree of success, outcomes can be predicted, and procedures for intervention can be quantified, measured, and replicated (Hager, 1995). *Complicated systems* involve a subset of simple systems that cannot be reduced to just one simple system (Glouberman & Zimmerman, 2004). These systems not only require an understanding of techniques and terminologies but also coordination and specialized expertise (Glouberman & Zimmerman, 2004). The last type of system, *complex systems*, can involve both complicated and simple systems, but cannot be reduced to either type. Unlike the other two systems, complex systems require understanding unique local conditions, interdependency and non-linearity, and the ability to adapt to changing conditions (Glouberman & Zimmerman, 2004). A certain level of ambiguity and uncertainty is found in complex systems (CIHC, 2010). How, and to what degree, the IPC competencies are applied is dependent on the complexity of the system in which the healthcare professionals are working.

The context of the unit plays a role in a healthcare professional's ability to integrate IPC competencies into their daily practice (CIHC, 2010). In certain areas of practice, such as rehabilitation or paediatric care, the IPC competency framework can be used to create and support a comprehensive and consistent team. This provides the team with time to consolidate and learn how to constructively work together (CIHC, 2010). However, the competency framework would be applied differently in an Emergency unit or a high turnover acute medical unit such as the NICU (CIHC, 2010). In this context, short-term encounters will require collaboration. However, those healthcare professionals involved in a patient's care may only be involved for a short period of time

before shift changeover and patients are discharged (CIHC, 2010). In addition to the type of unit, the capacity of the individual to demonstrate the integration of these competencies in different contexts is dependent on their comfort level and work experience (CIHC, 2010; IPEC, 2011). The NICF (CIHC, 2010) notes that when a healthcare professional is introduced to a new work setting, he/she will return back to their basic understanding of collaboration until they are able to learn how the IPC competencies apply to the new context. As their experience in the particular context increases, their ability to optimally incorporate IPC also increases.

Quality improvement is another consideration that influences the application of the framework. Quality improvement is an important component of IPC (CIHC, 2010). Working together across professions and institutional roles as an interprofessional team to carry out improvement activities is more effective in addressing quality issues than individuals or uniprofessional teams (CIHC, 2010). Interprofessional teams can influence changes in practices that reduce safety risks by examining issues from several disciplinary perspectives (CIHC, 2010)

Professionalization as a barrier to successful collaboration

The professional system has a significant effect on the development of a collaborative practice. This notion of professionalization promotes a perspective which is in direct opposition to the rationale for collaboration (D'Amour et al., 1999). According to Freidson (1986), professionalization promotes the achievement of domination, autonomy, and control rather than collegiality and trust which is needed for collaboration.

The dynamics of professionalization lead to differentiation amongst professionals which in turn promote territorial behaviours within the team (D'Amour, 1999). During their professional education, healthcare students are immersed in theories and philosophies which are specific to their respective professions. This creates conflicts and hinders the development of a true collaborative practice (Hanson et al., 2000; Walsh et al., 1999).

Many studies have indicated the weak relationship between professional identity and interprofessional collaboration (Miller, 2004; Hall, 2005; Pullon, 2008; Arndt, 2009; Martin-Rodriguez, et al., 2005; Apker, et al., 2006). Through the professionalization process in healthcare education, students come out with strong boundaries surrounding the workings of their profession. When placed into a team setting with other healthcare professionals, conflict arises due to role overlap, role ambiguity, and misconceptions (Miller, 2004). Based on interviews with healthcare professionals, Apker and colleagues (2006), found that professionals experiencing contradictory role expectations from team members may lead some to questions their professional role identity. These tensions in the workplace hamper successful interprofessional collaboration.

Miller (2004) also found that weak relationships between identity and collaboration suggest that higher education levels negatively affect collaboration. In fact, Miller (2004) reports that because graduate education tends to be disciplinary focused, graduate students lack the time and interest necessary for interdisciplinary commitment and therefore are less likely to participate in interdisciplinary activities.

D'Amour and colleagues (1999) demonstrate the influence of the professional system on the development of collaboration. Fragmentation of care, identified in this

study, the authors explained, resulted directly from the tendency of healthcare professionals to maintain professional territories in the workplace.

It is recommended that healthcare professionals have an understanding of and accept the differences between them and the other professions in order to work amongst each other. In the healthcare setting, collaboration and not professionalization is what should be promoted.

Interprofessional education as a means to eliminate dominance and promote collaboration

Gair and Hartery (2001) found that reducing the level of medical dominance encourages the contributions of all team members and thus enhances patient care. This is supported by Atwal and Caldwell (2005) who, through their direct observational study, noted that physicians tended to dominate the discharge planning meetings. It was found that the other healthcare professionals had important information to share but opted not to speak out in these meetings.

Healthcare professionals stated fear of being blamed for delaying the discharge of a patient as the major reason for reluctance to participate (Atwal & Caldwell, 2005). In this case, interprofessional training (e.g. workshops, professional development) would be ideal in assisting them to learn and understand the roles of their healthcare colleagues (Gair & Hartery, 2001). This type of training would help the dominant healthcare professionals to understand the value of the contribution of their colleagues (Baker & Wellman, 2005), and the less dominant healthcare professionals to feel confident to voice their opinions (Gair & Hartery, 2001).

Interprofessional education has been identified as a principal lever for promoting collaborative values among future healthcare professionals (Martin-Rodriguez et al., 2005). Typically, healthcare professionals are socialized with a strong professional identity that falls between the boundaries of their respective professions (Walsh et al., 1999). The result of this professional socialization is the development of healthcare professionals with limited knowledge about other professions. Members of each healthcare profession know very little of the practices, expertise, responsibilities, skills, values, and theoretical perspectives of professionals in other disciplines (Hanson et al., 2000). According to Hanson and colleagues (2000), this lack of knowledge is the main obstacle to collaborative practice. It is recommended that healthcare professional students, during the professional socialization phase, should be taught the value of professional pluralism and the awareness of sharing and the integration of their knowledge and practices should be promoted (Walsh et al., 1999).

A professionalization approach which supports IPC is needed for all healthcare education systems. This will allow future healthcare professionals to develop interprofessional competencies required for collaborative patient-centred care (Arndt, 2009). Arndt (2009) suggests that the professionalization process and experiences should be expanded with other disciplines during academic and placement learning to further develop the student's professional identity in relation to other professions. Healthcare students should be supported to acquire both professional and interprofessional identities to create more competent practitioners who work collaboratively.

D'Amour & Oandasan (2005) propose the concept of interprofessionality. Interprofessionality is the development of a cohesive practice among professionals from

different disciplines (D-Amour & Oandasan, 2005). The introduction of this concept into the professionalization process would allow healthcare students to build the skill to reflect on and develop ways of practicing that provides an integrated and cohesive answer to the needs of the client (D'Amour & Oandasan, 2005).

Interprofessional education should be included in the curriculum for healthcare professional training. In their survey of healthcare faculty members in a Canadian university, Curran and colleagues (2007) found that members with previous experience in IPC where more likely to practice IPC.

Lack of time as a barrier for IPC

Studies have stated that healthcare professionals found time constraints as a barrier to taking part in interprofessional team meetings. The interprofessional meetings were often held on the same day and the same time every week therefore providing no flexibility for staff members who may not be available during that time slot (Halm et al., 2003). This is especially the case for nurses who have to stay by the bedside of their patient during their shift. Healthcare professionals also found it difficult to communicate with one another when the majority of their time is spent with patients.

The nurses and social workers in the study by Atwal and Caldwell (2002) state that in order to discuss important information with the staff physician, they had to physically go find him/her as contacting them through phone or e-mail never solicited a response. Due to the nature of their jobs, physically searching for the staff physician is not always possible.

McGinley and colleagues (1996) reported on the time constraints faced by physicians. The ratio of doctor to patient is very high and the physician often finds himself moving from one patient to another during his/her shift. When not taking care of patients, physicians are busy charting and are often interrupted during this time to attend pages requesting to see a patient. Thus physicians find it hard to set aside time to sit down or meet with the other healthcare professionals to discuss discharge plans especially when they are under pressure to clear hospital beds as soon as possible (McGinley et al., 1996). In this case, it seems more convenient to physicians to process a discharge based on the information that they have.

The study by Halm and colleagues (2003), described the results they obtained from a unit which newly introduced interdisciplinary rounds. As a result of the introduction of interdisciplinary rounds, the target institution noted a greater participation by all disciplines in achieving patient and family outcomes, increased early recognition of patients at risk, and improved communication among members of the healthcare team. Baker and Wellman (2005) reported that having the different healthcare professionals take part in the discharge process has positive outcomes. This positive outcomes can be achieved through the responsibility of each interdisciplinary team member to have knowledge of the community resources within their field. These studies clearly support that IPC results in positive patient outcome.

Need for defined and unified discharge documentation

Studies by McKenna and colleagues (2000), Atwal & Caldwell (2002), and Bull & Kane (1997) reported on the issue of poor discharge documentation by healthcare

professionals. It was reported that on many hospital units the various healthcare professionals opted to have their own set of discharge notes (McKenna et al., 2000). This leads to confusion, repetition of information, and loss of important information (Atwal & Caldwell, 2002).

Because the discharge team is often in a hurry to discharge the patient, the documentation of other professionals is ignored by the healthcare professional in charge of the discharge (McWilliam & Sangster, 1994). This often leads to the professional missing out on important information. Multiple discharge documentation also results in the patients being asked for the same information repetitively by different healthcare professionals (Bull & Kane, 1997). This proved to be frustrating for the patients and their caregivers.

There is a need to create a standard discharge planning document that should always be present in the patient's hospital chart. All the healthcare professionals who are involved in the patient's care should make sure that any notes regarding discharge planning should be recorded on that document and nothing else. Having a standard discharge documentation process will definitely help to eliminate these problems (Bull & Kane, 1997).

This literature review highlights the importance of interprofessional collaboration and provides an overview of the various terminologies being used. It also identifies and provides support for the key competencies required for effective interprofessional collaboration in a healthcare setting: interprofessional communication, patient/client/family/community-centred care, role clarification, team functioning, collaborative leadership, and interprofessional conflict resolution. On top of the

competencies required, several issues were identified which affected IPC in discharge planning. These included professionalization, interprofessional education, lack of time, and a need for defined and unified discharge documentation.

2.6 Uniqueness of the Study

There is a growing amount of research being done on the discharge planning process and on IPC. However, little research has been done to study the role of IPC in discharge planning.

Most studies focus on the communication between physicians and nurses (Apker et al., 2006; Baggs & Schmitt, 1988; Chaboyer & Patterson, 2001; Siegler & Whitney, 1994). Little research has been done which includes other healthcare professions. It is important to include these other healthcare professionals (i.e. respiratory therapists) because they are specialists in their field and they have the knowledge about community resources that are available to help patients upon discharge. Therefore they are important members of the interprofessional team.

Also, it was found that the majority of studies on IPC and discharge planning were focused on the discharge of elderly patients back to their home (Atwal, 2002; Baker & Wellman, 2005; Bull & Kane, 1997; Corser, 2004; Day & McCarthy, 2009; Fairhurt et al., 1996; Gair & Hartery, 2001; Hansen et al., 1998; Jewell, 1993; Siegler & Whitney, 1994). The studies that were found did not focus on the discharge of infants or children. IPC issues might well be different in specialty hospitals that focus on particular populations (e.g. children's hospitals). Thus, it is beneficial to study how IPC issues vary

across specialty units so that strategies can be introduced according to the needs of the unit. Most of the studies also did not focus on the fact that patients are not always discharged home but may also be discharged or transferred to another hospital.

Very few studies on IPC and the discharge planning process were conducted in Canada (Curran et al., 2007). The majority studies were mostly conducted in Europe and the United States. It is very important to study the role and facilitators and/or barriers of IPC in discharge planning in Canadian hospitals. Since there is country variation in how services are organized and delivered, results from studies conducted in other countries may not always be comparable or informant for the Canadian experience.

What was surprising was that there were no articles that discussed the discharge planning of infants. Not only do infants make up a large portion of the patient population, but being discharged from the NICU is most likely the first step of their long journey throughout the healthcare system. We need to ensure that the discharge experience for the patient and their family is a positive one, and that the patient is transferred to the correct resources.

Taken together, these studies support that IPC is an important concept that plays a major role in the outcome of a discharge planning process. The primary goal for healthcare workers is to work towards the best outcome for our patient. In the past, healthcare workers were trained to build their own identities. When we suddenly throw them into a group and expect them to work as a team, it may cause conflict and role confusion. Thus it is important to study the factors that affect IPC and use the results of this study to help professionals work collaboratively to benefit discharge planning and

ultimately patient outcomes. This study examines the role of IPC in discharge planning for children to home and/or other hospitals.

CHAPTER 3

Methodological Approach

The goal of this study was to identify barriers for the implementation of IPC in the discharge planning process and to determine the benefits, if any, of IPC for discharge planning. This thesis examined the following research questions:

1. What is the current discharge planning process for the NICU at the teaching hospital?
2. What are the views of the healthcare professionals on IPC on the NICU?
3. What are the facilitators and barriers to IPC?

To answer these questions, the views of healthcare professionals working on a NICU in a large Canadian teaching hospital were examined using an online survey, direct observation and semi-structured interviews.

The questionnaire asked healthcare professionals about their views regarding IPC, the discharge planning process, leadership, and team work. The questionnaire also included items which asked for respondents' demographic information.

Observations occurred during the multidisciplinary rounds. The discharge planner's role was also observed in order to: a) gain insight into the discharge planning process in the NICU, and b) assist with identifying potential key informants for the interviews.

Key informant interviews were also conducted. The informants were asked about their views of IPC, team work and the role they perceived IPC to play in the discharge planning process.

My role in this research project included a) collaborative participation (with key stakeholders at the teaching hospital); b) conceptualization of the project, establishment of partnerships with the key stakeholders at the teaching hospital; c) development of research questions and research design; d) completion of information for scientific review and for two research ethics boards; e) production and distribution of the questionnaire; f) data collection; g) data entry; h) data analysis; i) presentations at national and international conferences and the authoring of an international publication.

3.1 Research Design

The research design for this thesis was a mixed methodology including both quantitative (e.g. online survey) and qualitative data (e.g. participant observations and key informant interviews). The study was designed to: a) obtain the views of healthcare professionals working in the NICU about IPC and the discharge planning process and b) identify facilitators and barriers to IPC.

This study took place in the NICU at a large teaching hospital in Canada. This unit is a tertiary/quaternary care NICU with a 31 – 36 bed capacity. There are approximately 800 admissions per year nationally and internationally.

3.2 Data Collection

Data was collected using three different data-collection techniques: an online survey, direct observation, and key informant interviews. This ensured methodological

triangulation which facilitates validation of data through cross verification from more than two sources (Bogdan & Biklen, 2006; Denzin, 2006). The three data collection methods were carried out simultaneously during the same time period from December 2010 to February 2011. Sections 3.3 – 3.5 will provide in-depth detail of the methodology used for each of the data collection methods in this study.

3.3 Self-Administered Online Questionnaire

The purpose of the online survey was to obtain staff members' views of IPC (see Appendix A). The questionnaire was adapted from the collaboration survey used by Zwarenstein, et al. (2007), an adaptation of the Collaboration Among Medical Staff Subscale (CMSS) from the Nurses' Opinion Survey (Adams et al., 1995). The CMSS measures professional working relationships among nurses, physicians, and other healthcare professionals (Zwarenstein et al., 2007). Measurements of data from several published versions of the CMSS have been tested for validity and reliability (Zwarenstein et al., 2007; Chaboyer & Patterson, 2001; Chaboyer et al., 2001).

Prior to using this questionnaire, the research sat down with the discharge coordinator and discussed the current discharge planning process. This questionnaire was also presented to the discharge coordinator on the unit to check the relevance of the questions asked. The questionnaire was also reviewed by the Scientific Review Committee and it was accepted by them to be a valid and reliable tool to use.

3.3.1 Sample and Sampling Method for Online Survey

Sample

The participants in this study included physicians, medical fellows, registered nurses, clinical support nurses (CSNs), clinical nurse specialist-nurse practitioner (CNS-NPs), clinical managers, the discharge coordinator, respiratory therapists, pharmacists, social workers, dieticians, chaplains and occupational therapists from the NICU.

The sample for all three parts of this study did not include patients, patients' families or the receiving hospitals/units. Upon consultation with the scientific review committee at the Canadian teaching hospital, it was decided that the initial step of this study should be limited to obtaining the views on IPC of the healthcare professionals on the NICU. It was suggested to include patients, their families, and the receiving hospitals/units in a future study assessing the outcome of a planned discharge (second stage of the study).

This study used a non-random sampling technique. Participation in this study was completely voluntary. This made the sample size dependent on the number of healthcare professionals who voluntarily agreed to participate in this study. Three groups were created for the purposes of analysis. Placing all of the medical decision makers in group A (medical services staff), allowed for a larger pool with which to work and also assisted in maintaining anonymity in their responses. The CNS-NPs act in a physician-style role on the unit and work in the medical team. They differ from bedside nurses in that they take part in the care of all the infants on the unit whereas bedside nurses are assigned to specific patients in one room. Because they work in a similar capacity to medical

fellows/residents, it was decided to place them in the medical services group as opposed to the nursing staff group.

All nursing staff were placed in Group B and the remaining healthcare professionals were placed in Group C. As the number of individuals in professions (other than nursing and medicine) on the unit was minimal, placing them in Group C prevented responses from being recognizable by specific professional grouping. As illustrated in Table 3-1 presented below, the sample size for Group A is 30, Group B is 154 and Group C is 35.

Table 3-1: Estimated sample size for each professional grouping

Group	Professional Designation	Number
A	Staff Neonatologists (2 provide clinical care at a time)	10
	Fellows	10
	Nurse Practitioners	10
B	Transitional Care Coordinator	1
	Nurse Manager	1
	Quality & Risk Manager	1
	Nursing	149
	Director	1
	Bereavement Coordinator	1
C	Social Workers	2
	Occupational Therapists	2
	Physiotherapists	1
	Dieticians	3
	Pharmacists	2
	Respiratory Therapists	25

Inclusion and Exclusion Criteria

Healthcare professionals in the NICU at the teaching hospital who had completed orientation and worked in the NICU for greater than six months as a paid

employee were included in the sample. Staff returning and those who were three months post-return from leave were also included in the sample.

Those healthcare professionals who had not yet completed orientation and had worked for fewer than six months in the NICU at the teaching hospital as a paid employee were not eligible to participate in the study. Individuals who were newly hired to the hospital were put on a six-month probationary period. It is after the successful completion of this probation period that their contract is extended. It takes six months to have a working knowledge of the unit and therefore their views may only reflect their experience of transitioning into the culture of the unit. Also, these individuals were considered not to have enough experience or time spent in the discharge process. This automatically excluded residents who generally provide clinical care on the NICU as part of their placements which are six weeks or less. This decision was made in collaboration with the study's scientific review committee at the hospital.

Sampling Method

A number of strategies were used to increase the response rate for the online survey. Every effort was made by the researcher to encourage all staff to participate in the survey to attain the recommended response rate of 35% (Dillman, 2007). The strategies included the distribution of flyers on the unit, weekly emails, and the sponsoring of a social event.

Once a month, a social gathering, called "Tea at 3", was organized as a way to recognize staff members on the NICU for their work and to give staff the opportunity to socialize with each other on a non-work basis. During this one-hour gathering, staff

members during the scheduled break, take turns dropping in for ten to fifteen minutes. The research team sponsored a "Tea at 3" event in December 2010 to promote the study. During this event, refreshments were provided and reminder cards about the online survey containing the link to the questionnaire were distributed (See Appendix B). These cards were also made available on the unit, at the front desk, and in the staff lounge. All attendees were approached individually and encouraged to participate in the survey. Posters were also put up throughout the NICU and weekly emails were sent out by the unit, kindly reminding them to take part in the online survey.

3.3.2 Distribution of the self-administered web-based questionnaire

The questionnaire was distributed to all healthcare professionals on the NICU who met the criteria described above in Section 3.3.1. The questionnaire was self-administered. Invitation to take part in the survey was made by email and the participants completed the questionnaire electronically using LimeSurvey ™. LimeSurvey ™ was chosen as the survey administrator/software as its security features were appropriate to the policies of the Research Ethics Boards at the teaching hospital and the University of Ontario Institute of Technology. The survey asked healthcare professionals about their views on: a) IPC, b) the discharge planning process, c) leadership, and d) team work.

An introduction letter included an invitation to complete the questionnaire and the link to access the questionnaire (see Appendix C). As part of the working partnership with the NICU, the unit was responsible for sending out the invitation to take part in the study in the format of an e-mail. It was decided to send out the invitation through the unit to make sure the researcher was unable to match the names with the data collected

(Dillman, 2007). Eligible staff were also invited to participate through posters (See Appendix D). The first screen of the questionnaire included information about the study and contact information for the researchers and the research ethics boards. Participants confirmed their consent to participate in the online questionnaire by clicking a checkbox which was present on the first screen of the web-based questionnaire.

The invitation to take part in the survey was sent out in December 2010. As noted by Dillman (2007), follow-up letters or emails with research participants helped to increase response rates. Thus, one email per week was sent to the participants to remind them to complete the survey during the months of December 2010 and January 2011. Data collection for this part of the study was completed by January 2011.

3.3.3 Pilot Test

A pilot test of the survey was completed during November 2010. Six individuals drawn from the sample completed the pilot test online. Their responses were not included in the results. Participants in the pilot test were invited to comment on the items in the questionnaire and the distribution method. A response sheet was constructed for the respondents to complete and return with the completed questionnaire (See Appendix E). The questionnaire was adapted accordingly in response to the comments provided by those who participated in the pilot test. The results from the pilot test demonstrated that there was no need to make any major changes to the questionnaire. Only minor changes such as grammatical corrections were made to provide clarity to the instructions for the questionnaire.

3.4 Participant Observation

Observations provide an opportunity for the researcher to collect data that does not just rely on what people say they do but drawing on evidence of events first hand (Denscombe, 1998). Observations during the multidisciplinary rounds and of the discharge coordinator gave the researcher an opportunity to learn about the workings of the unit and how discharges were planned.

3.4.1 Multidisciplinary Rounds

As noted above, observations took place during the unit's multidisciplinary rounds. This meeting is held once a week for an hour on the NICU. The purpose of this weekly meeting is to discuss discharge plans of the patients on the unit on a case-by-case basis. The healthcare professionals who are part of infants' care on the unit attend these rounds.

The main purpose of observing these rounds was to ascertain how much of the time in rounds were actually spent on discharge planning discussions. Another purpose of this method was to observe who is involved in the discussions that occur during these meetings. These observations assisted in identifying potential key informants to interview.

3.4.1.1 Method of Observation During Multidisciplinary Rounds

A standard chart/matrix (See Appendix F) was created by the researcher to take observation notes. The researcher sat in these meetings prior to the start of the observations to get an understanding of how the meetings run and also to get the group

familiar with having the researcher in the group. The chart was created in consultation with the hospital-based research team member and was based on the format of the multidisciplinary meetings. Sitting in on the meetings before the start of the actual observations helped the researcher identify what should be included in the chart. This chart allowed the researcher to take note of the number of times the healthcare professionals spoke about discharge during the meeting and also to keep track of the professions who took part the most/least during the meeting.

When obtaining consent in a group, there is often a high chance of group coercion. Group coercion refers to people agreeing to participate out of fear of falling out of the group or not meeting the group's expectations (Cox & Sipprelle, 1971). The following method was adopted in an attempt to minimize any chance of group coercion. Staff members were notified of the presence of the researcher in the multidisciplinary meetings and were briefed about the study's purpose by either the physician leading the meeting or the discharge coordinator. The person briefing the staff members were given a script which included the information which was to be mentioned prior to commencing the meeting (See Appendix G). Staff members were notified that they had the opportunity to approach the researcher at the end or after the meeting outside of the meeting room to have their comments removed from her notes. Staff members who did not wish to be a subject in this study were not approached by the researcher and any observations about them were not recorded.

The researcher sat in on four meetings to allow the participants to get used to the presence of the researcher in the room before starting the actual observations (Macleod, 2006). Any identifiable information was removed from the field notes. The researcher

obtained permission from the discharge planning team as well as the hospital's Research Ethics Board (REB) to sit in the multidisciplinary rounds for observation on each occasion.

3.4.2 Observation of Role of Discharge Coordinator

In addition to the observations at the multidisciplinary meetings, the researcher observed the role of the discharge coordinator (DC) on the unit. The researcher spent a day with the DC taking note of her daily routine and interactions. The purpose of this observation was to get an understanding of the discharge planning process on the NICU and get a better understanding of the DC's role in the discharge planning process.

3.5 Key Informant Interviews

Qualitative research methods, such as key informant interviews, help to obtain answers to questions on a broader level. These methods also help to further understand the results obtained from the survey (Bowling & Ebrahim, 2007). The online survey that was designed for this study comprised of all close-ended questions. Thus, respondents were required to provide answers based on the options that were presented to them for each question. By participating in the key informant interviews, participants were able to expand on items in the survey in a more significant way by providing examples and sharing their experiences to illustrate their main point (Kumar, 1989). Therefore, interviewing healthcare professionals on the NICU helped to further understand the responses that were obtained through the online survey. Those interviewed also had the

opportunity to ask for clarification of any of the questions that were being asked, whereas in the survey they had to rely on their own understanding of the question. To maintain confidentiality of all the key informants, codes were used instead of participant names or professional designation (See Table 3-2).

A limitation to using surveys is that the researcher is usually not able to fully understand why participants chose a specific answer (Bowling & Ebrahim, 2007). This is especially evident when using closed-ended survey questions (Bowling & Ebrahim, 2007). For example, when asked whether they felt patient discharge plans were adequately discussed between them and their colleagues, healthcare professional staff indicated that they were not included in these discussions by the medical and nursing staff. However, through the interviews it was further learned that communication fell apart during certain situations and not constantly as indicated by the survey data. Without the information obtained in the key informant interviews, this important point would definitely have been missed and the answers provided in the survey may have been misinterpreted by the researcher. Therefore, data collected from key informant interviews built on the data collected from surveys and thus could be used to improve the analysis and interpretation of the data (Bowling & Ebrahim, 2007).

3.5.1 Interview Method

The purpose of conducting the key informant interviews was to gain a deeper understanding of: a) the roles and/or the content of the discussions observed during the multidisciplinary rounds and b) the data obtained from the online survey (See Appendices H & I). The informants selected were believed to be the key stakeholders in the

discharge planning process. Thus it was believed that they would provide the most valuable information in regards to our study (Kumar, 1989). Key informants were chosen based on their participation in the discharge planning process. The researcher attempted to select a sample that was representative of the professions on the unit.

The following questions were asked during the interview:

1. What does interprofessional collaboration mean to you?
2. What do you think are the key elements of your team?
3. In your opinion, is interprofessional collaboration occurring on the unit?
    - If yes, how?
    - If no, why not?
4. How do you communicate your ideas or suggestions regarding a child's discharge plan to your team?
    - Who is your first contact regarding discharge planning?
    - Who else needs to be involved in discharge planning?
    - Is all the team needed involved in discharge planning most of the time?
    - What could be done better?
5. How would you improve interprofessional collaboration on the N.I.C.U.?
6. What would you like done in the future regarding interprofessional collaboration?
    - Meetings with the heads of each discipline? etc.

3.5.2 Interview Sample and Sampling Method

3.5.2.1 Sample

Thirteen (13) individuals were contacted and of those individuals contacted, 10 consented to be interviewed. The informants were interviewed between January 2011 and February 2011. The interviews ranged in length from 20 minutes to 90 minutes with the majority of the interviews lasting 30 minutes.

The sample size for the interviews was purposive and was based on the participation of healthcare professionals in the multidisciplinary rounds and in the overall discharge planning process. Selection of individuals was also based on their specific area

of expertise. The size of the sample was determined by data saturation. Saturation was achieved when further sampling did not generate any new data (Siegle, 2002).

The sample included healthcare professionals representing different areas of expertise in the field of neonatology working on the NICU. Table 3-2 shows the informants interviewed by profession. Each informant was given letter identifiers according to the professional grouping created. For example, a physician was given the designation of MS (medical staff) and then assigned chronological numbers, e.g., MS-01, MS-02, etc.

Table 3-2: Number of Informants Interviewed by Position with Letter Identifiers

Position	Letter Identifiers	Number Interviewed
Physician	MS-01	1
Nurse Practitioner	MS-02	1
Nurse Manager	RN-01	1
Clinical Support Nurse	RN-02 & RN-03	2
Registered Nurse	RN-04	1
Discharge Coordinator	RN-05	1
Social Worker	HCP-01	1
Occupational Therapist	HCP-02	1
Respiratory Therapist	HCP-03	1

3.5.2.2 Sampling Method

Participants for the key informant interviews were chosen based on observations taken during the multidisciplinary rounds. The researcher aimed to have a sample that was representative of the professionals who attended the rounds. This was not limited to:

physician; nursing; OT/PT; dietician; TCC; chaplaincy; follow-up clinical staff; social work. The observations taken during the multidisciplinary rounds helped the researcher to identify potential key informants.

Throughout the interview process, the researcher was sensitive to data saturation, which is defined as the point when researchers are no longer hearing or seeing any new information (Siegle, 2002). Interviews were continued until all groups were represented and until saturation was reached.

3.5.3 Recruitment of Key Informants

Once identified, the 13 key informants were sent a letter of introduction for the purpose of requesting an interview. Copies of the consent forms for participation in the interviews and to be audio-taped were also included with the letter of invitation (See Appendices J & K). The letter of introduction was followed up with an email approximately one week after distribution with the intention of setting a date and time for the interview.

At the time of the interview, each informant was presented with the two consent forms to be signed by both participant and researcher. In this research, confidentiality was an important aspect of the research design. Confidentiality of participants was established within the terms of a Consent Form signed by both the researcher and each participant, and by reporting the results in a manner that does not identify any informant. The Research Ethics Boards at the teaching hospital and at the University of Ontario Institute of Technology (UOIT) approved the research study and the consent form.

The signed consent forms were sealed in envelopes and stored in a locked cabinet in the office of the research partner on the NICU.

3.5.4 Interview Data Collection

Data obtained during the key informant interviews were collected by digital audiotape. Consent for audiotaping was obtained at the beginning of each interview. Participants were reminded not to use patient or staff names or identifying information prior to the taping.

Transcription was conducted by the researcher. Any identifying information in the recordings was deleted during the transcription. Any pauses in the recordings were noted in the transcript with ellipsis. The researcher, once done transcribing, reviewed the transcripts while listening to the tapes to ensure accuracy. Hard copies of the transcripts were sealed in envelopes and stored in the locked filing cabinet of the research partner on the NICU. They were stored separately from the consent forms.

Data analysis was carried out using NVivo9™ software on a password-protected computer to ensure that the data was not accessible to anyone other than the researcher. The transcripts, when completed, were uploaded onto NVivo9™. This analysis software was used to perform thematic analysis of the interviews.

The identification of themes is one of the most fundamental tasks in qualitative research (Ryan & Bernard, 2003). The transcripts were then analyzed line-by-line to find themes that represented the data (Ryan & Bernard, 2003). An iterative approach was used where the themes were identified prior to overlaying the framework for analysis.

The interview results were analyzed using the Canadian Interprofessional Health Collaborative's National Interprofessional Competency Framework (2010). This framework involves four central domains including role clarification, team functioning, interprofessional conflict resolution, and collaborative leadership (CIHC, 2010). These domains are supported by two others: interprofessional communication and patient/client/family/community-centred care. The complexity of the situation, the context of the practice, and the need for quality improvement all influence the way in which the framework is applied (CIHC, 2010).

The themes which were drawn from the interview results were categorized according to the five competencies obtained from the framework. The sixth competency, patient/client/family/community-centred care, was not used as the sample population for this study did not include patients, families, or community-centred care facilities. Also, in the case of the NICU, complexity refers to the post-discharge stage of the patients. As this is beyond the scope of this study, complexity was not used in the analysis of the interview results.

3.6 Conduct of Analysis

The analytical process includes a number of distinct and interconnected stages. An iterative analysis of the data was done in three stages.

3.6.1 Stage I – Overview of the Discharge Planning Process

The first stage of this research project was to get an understanding of the NICU and their existing discharge planning process. NVivo9™ was used for analysis of the trends that appeared in the data collected from the key informant interviews. The demographics, description of the setting, and the survey results can be found in Chapter Four.

3.6.2 Stage II - Healthcare Professionals' Views on Interprofessional Collaboration

Stage II of the investigation provides an overview of the views of healthcare professionals on the NICU on interprofessional collaboration. The interview data - analyzed using the National Interprofessional Competency Framework - is presented in Chapter Five of this thesis.

3.6.3 Stage III - Analysis of Benefits and Potential Barriers for the Implementation of IPC in the Discharge Planning Process

Stage III of the analysis presents the potential barriers for the implementation of IPC on the NICU. It also examines the benefits, if any, of IPC for discharge planning. This information is presented in Chapter Six.

3.7 Ethics Approval

This study went through scientific review at the teaching hospital on July 19, 2010. This included a review of the research proposal by three researchers at the teaching hospital. It also required a meeting where the researcher and her research team

defended the research and provided answers to the questions that the review team had. Upon the successful completion of the questions brought up by the scientific review team, the study proposal was submitted to the Research Ethics Boards.

This study was approved by the Research Ethics Board at the University of Ontario Institute of Technology on October 19, 2010 and by the Research Ethics Board at the teaching hospital where the study was conducted on November 25, 2010.

3.8 Study Limitations

Due to the nature of this study and the population that was studied, this research, like others, was subject to limitations. One of the limitations was that the situation of the meetings often varied weekly and was not consistent. This made it difficult to compare the interaction between the staff members because for each situation their interaction changed making it difficult to come to any conclusions or to observe any patterns in behaviour. Attendance was also not consistent thus making the environment different at each meeting. For instance, the leads of the meetings are the physicians who rotate every two weeks. Their styles of leading the meetings differ among the physicians and thus often changed the dynamics of the meeting.

One of the limitations faced with the online survey was the issue of people not identifying their occupation. The survey was set up such that after identifying their profession, healthcare professionals were directed to the appropriate survey. However, some professionals felt uncomfortable indicating their profession out of fear of being identified. This made it difficult for the researcher to be able to group the responses into

one of three categories (medical staff, nursing staff or healthcare professional staff). It also did not guarantee that those professionals who chose not to indicate their profession took the correct survey.

Attention bias was one of the limitations faced during the key informant interviews. Attention bias refers to when people are aware of their involvement in a study and as a result of the attention received may give more favourable responses than those who are unaware of the study's intent (Kumar, 1989). As the key informants knew what the study was about and what the study's objectives were before being interviewed, they were more prone to providing subjective perspectives on the discharge planning process. Some of the informants took the interviews as their chance to bring out personal issues with colleagues. This made it necessary for the researcher to be aware of their answers and be able to weed out unnecessary information.

Chapter Four

Survey Results

The survey component of this study was designed to gain insight into the demographic breakdown of respondents and to get an understanding of the views of healthcare professionals on the NICU about IPC and its role in discharge planning. The survey included items on: 1) demographics, 2) views on communication in discharge planning, 3) views on discharge planning in general, 4) roles and responsibilities of staff members, and 5) views on conflicts and understanding among each other.

The results from this survey, for each of the above categories, are presented in the following tables. The tables provide a comparison of answers for each of the questions among the three professional groups: medical staff, nursing staff, and healthcare professional staff. Seventy-one surveys were returned online, however only 66 surveys were complete. The five incomplete surveys were not included in the final analysis.

4.1 Description of the Respondents

The survey contained items on gender, occupation, employment status, experience in the profession, previous IPC training, whether respondents provided direct patient/client care, and if they managed any staff members. Tables 4-1 and 4-2 present data on the occupational status and experience in the profession of the respondents respectively.

Table 4-1: Occupational Status, Total N = 66 unless indicated otherwise

OCCUPATION	n (percent)
Staff Physician/Attending Physician	3 (4.6%)
Medical Fellow	4 (6.1%)
Nurse Practitioner	6 (9.1%)
Advanced Practice Nurse	2 (3.0%)
Registered Nurse	40 (60.6%)
Chaplain	1 (1.5%)
Dietitian	1 (1.5%)
Occupational Therapist	2 (3.0%)
Respiratory Therapist	3 (4.6%)
Social Worker	1 (1.5%)
No Answer	3 (4.6%)

Table 4-2: Years in the Profession, Total N = 66 unless indicated otherwise

EXPERIENCE IN PROFESSION	n (percent)
More than 1 year to 5 years	23 (34.9%)
More than 5 years to 10 years	16 (24.2%)
More than 10 years	23 (34.9%)
Other	3 (4.6%)
No Answer	1 (1.5%)

A total of 66 participants responded which is a 32% response rate. Fifty-eight (87.9%) of the respondents were female and seven (10.6%) were male. The majority of the respondents provided direct patient/client care (62, 93.9%). Number of years in the profession ranged from more than one year to 10+ years. Twenty-three (34.9%) of the respondents had more than one year to five years of experience and another twenty-three (34.9%) had more than ten years of experience. Fifty-four (81.8%) of the respondents held full-time positions whereas ten (15.2%) held part-time positions. Twenty-two (33.3%) of the respondents had previous interprofessional collaboration training. Of the twenty-two respondents who indicated having previous IPC training, twelve (54.5%)

indicated having formal IPC training and twelve (54.5%) indicated having informal IPC training. The majority of the sample who responded were registered nurses (40, 60.6%). Thirteen respondents (19.6%) were grouped into the medical staff group, forty-two (63.6%) respondents were grouped into the nursing staff group, and eight (12.1%) respondents were grouped into the healthcare professional staff group.

4.2 Communication in Discharge Planning

The following tables will provide an overview of the responses obtained from questions assessing the views of healthcare professionals on the importance of communication in discharge planning. Respondents were asked to read various phrases and then indicate whether they a) agree, b) disagree, c) neither agree nor disagree, or d) have no answer in relation to the phrase.

Table 4-3: I feel that patient discharge plans are *not* adequately discussed between us and the ____ team.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	I feel that patient discharge plans are not adequately discussed between the medical team and nurses.	2	5	5	1
	I feel that patient discharge plans are not adequately discussed between the medical team and Healthcare professional services staff.	4	2	6	1
Nursing Staff (n=42)	I feel that patient discharge plans are not adequately discussed between nurses and the medical team.	15	13	13	1
	I feel that patient discharge plans are not adequately discussed between nurses and Healthcare professional services staff.	9	14	19	0
Healthcare Professionals	I feel that patient discharge plans are not adequately discussed between	3	3	2	0

Staff (n=8)	Healthcare professional services staff and The medical team.				
	I feel that patient discharge plans are not adequately discussed between Healthcare professional services staff and nurses.	3	2	3	0

When asked about whether they felt patient discharge plans were not adequately discussed between themselves and the nursing staff, the majority of medical staff respondents disagreed and another majority indicated neither agree nor disagree. When healthcare professional staff were asked the same question, the majority of healthcare professional staff respondents agreed and another majority disagreed with the statement. When the same question was asked regarding healthcare professional staff, both the medical staff respondents and the nursing staff respondents disagreed with the statement. However, when the statement was asked regarding the medical staff, the majority of nursing staff respondents and healthcare professional staff respondents agreed with the statement. The same amount of healthcare professionals also indicated neither agree nor disagree.

Table 4-4: ____ are willing to discuss issues related to a patient's discharge.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	Nurses are willing to discuss issues related to a patient's discharge	9	3	0	1
	Healthcare professional services staff are willing to discuss issues related to a patient's discharge.	9	3	0	1
Nursing Staff (n=42)	The medical team is willing to discuss issues related to a patient's discharge.	27	10	4	1
	Healthcare professional services staff are willing to discuss issues related to a	24	4	3	1

	patient's discharge.				
Healthcare Professionals Staff (n=8)	The medical team are willing to discuss issues related to a patient's discharge.	7	1	0	0
	Nurses are willing to discuss issues related to a patient's discharge.	7	1	0	0

The survey respondents were asked whether they thought their colleagues would be willing to discuss issues related to a patient's discharge. The majority of medical, nursing, and healthcare professional staff respondents agreed with this statement.

Table 4.5: ____ do *not* usually ask for our opinions when discharge planning.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	The nurses do not usually ask for the medical team's opinions when discharge planning.	2	4	6	1
	The healthcare professional services staff do not usually ask for medical staff's opinions when discharge planning.	0	1	10	2
Nursing Staff (n=42)	The medical staff do not usually ask for nurses' opinions when discharge planning.	17	8	17	0
	The Healthcare professional services staff do not usually ask for nurses' opinions when discharge planning.	10	7	24	1
Healthcare Professionals Staff (n=8)	The medical staff do not usually ask for Healthcare professional services staff' opinions when discharge planning.	1	1	6	0
	The nurses do not usually ask for Healthcare professional services staff' opinions when discharge planning.	2	1	5	0

The respondents were asked if they thought their colleagues would not usually ask for their opinions when discharge planning. The majority of medical, nursing, and healthcare professional staff respondents disagreed with the statement. However, it

should be noted that another majority of nursing staff respondents agreed that the medical staff do not usually ask for their opinions when discharge planning.

Table 4-6: Important information regarding a patient's discharge is always passed on between us and the _____ team.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	Important information regarding a patient's discharge is always passed on between the medical team and nurses.	5	1	6	1
	Important information regarding a patient's discharge is always passed on between the medical team and Healthcare professional services staff.	5	3	4	1
Nursing Staff (n=42)	Important information regarding a patient's discharge is always passed on between nurses and the medical team.	15	14	12	1
	Important information regarding a patient's discharge is always passed on between nurses and Healthcare professional services staff.	20	12	9	1
Healthcare Professionals Staff (n=8)	Important information regarding a patient's discharge is always passed on between Healthcare professional services staff and the medical team.	3	1	4	0
	Important information regarding a patient's discharge is always passed on between Healthcare professional services staff and nurses.	5	1	2	0

When asked whether they felt important information regarding a patient's discharge is always passed on between them and their colleagues, the majority of medical, nursing, and healthcare professional staff respondents agreed with the statement. However, when medical staff respondents were asked whether they felt information was shared between them and nurses, the majority disagreed. The majority of healthcare

professionals also disagreed that the medical team shared discharge planning information with them.

Table 4-7: ____ would not be willing to share their observations which may be beneficial to discharge planning with us.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	Nurses would not be willing to share their observations which may be beneficial to discharge planning with The medical team.	0	0	12	1
	Healthcare professional services staff would not be willing to share their observations which may be beneficial to discharge planning with the medical team.	1	0	10	2
Nursing Staff (n=42)	The medical team would not be willing to discuss their observations which may be beneficial to discharge planning with nurses.	4	12	25	1
	Healthcare professional services staff would not be willing to share their observations which may be beneficial to discharge planning with nurses.	4	5	33	0
Healthcare Professionals Staff (n=8)	The medical team would not be willing to discuss their observations which may be beneficial to discharge planning with the Healthcare professional services staff.	0	1	6	1
	Nurses would not be willing to share their observations which may be beneficial to discharge planning with Healthcare professional services staff.	1	0	7	0

The respondents were asked whether they thought their colleagues would be willing to share their observations which may be beneficial to discharge planning with them. The majority of medical, nursing, and healthcare professional staff respondents disagreed with the statement.

Table 4-8: It is important to communicate well with _____ when planning a discharge.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	It is important to communicate well with nurses when planning a discharge.	12	0	0	1
	It is important to communicate well with Healthcare professional services staff when planning a discharge.	12	0	0	1
Nursing Staff (n=42)	It is important to communicate well with the medical team when planning a discharge.	35	1	2	4
	It is important to communicate well with Healthcare professional services staff when planning a discharge.	36	0	2	4
Healthcare Professionals Staff (n=8)	It is important to communicate well with the medical team when planning a discharge.	8	0	0	0
	It is important to communicate well with nurses when planning a discharge.	8	0	0	0

When asked whether they thought it was important to communicate well with their colleagues when planning a discharge, the respondents all gave the same answer. The majority of medical, nursing, and healthcare professional staff agreed with the statement.

4.3 Views on the Discharge Planning Process

This section will present the results obtained from questions assessing the views of healthcare professionals on the discharge planning process. Respondents were presented phrases and asked to choose a response of either a) agree, b) disagree, c) neither agree nor disagree, or d) have no answer in relation to the phrase. The following tables will present the responses received from each professional group.

Table 4-9: We and the ____ share similar ideas about how to facilitate a patient's discharge.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	The medical team and nurses share similar ideas about how to facilitate a patient's discharge	5	4	3	1
	Medical staff and Healthcare professional services staff share similar ideas about how to facilitate patient discharge.	3	6	1	3
Nursing Staff (n=42)	Nurses and members of the medical team share similar ideas about how to facilitate a patient's discharge.	20	9	10	3
	Nurses and Healthcare professional services staff share similar ideas about how to facilitate patient discharge.	27	11	3	1
Healthcare Professionals Staff (n=8)	Healthcare professional services staff and medical staff share similar ideas about how to facilitate a patient's discharge.	4	3	1	0
	Healthcare professional services staff and nurses share similar ideas about how to facilitate a patient's discharge.	6	2	0	0

When asked whether they thought their colleagues shared similar ideas about how to facilitate a patient's discharge with them, the majority of medical, nursing, and healthcare professional staff respondents agreed with the statement. However, when the medical staff respondents were asked the same statement with regards to the healthcare professional staff respondents, the majority responded neither agree nor disagree.

Table 4-10: ___ cooperate with the way we organize a discharge.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	Nurses cooperate with the way we organize discharge.	7	4	1	1
	Healthcare professional services staff cooperate with the way we organize discharge.	9	3	0	1

Nursing Staff (n=42)	Medical staff cooperate with the way we organize discharge.	25	10	6	1
	Healthcare professional services staff cooperate with the way we organize discharge.	32	7	2	1
Healthcare Professionals Staff (n=8)	Medical staff cooperate with the way we organize discharge.	3	1	1	3
	Nurses cooperate with the way we organize discharge.	6	1	0	1

The respondents were asked whether they thought their colleagues cooperated with the way they organized discharge. The majority of medical, nursing, and healthcare professional staff agreed with the statement.

Table 4-11: ___ would be willing to cooperate with new discharge planning processes.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	Nursing staff would be willing to cooperate with new discharge planning processes.	9	2	0	2
	Healthcare professional services staff would be willing to cooperate with new discharge planning processes.	11	1	0	1
Nursing Staff (n=42)	Medical staff would be willing to cooperate with new discharge planning processes.	20	11	7	4
	Healthcare professional services staff would be willing to cooperate with new discharge planning processes.	29	8	2	3
Healthcare Professionals Staff (n=8)	Medical staff would be willing to cooperate with new discharge planning processes.	3	2	2	1
	Nursing staff would be willing to cooperate with new discharge planning processes.	6	2	0	0

The respondents were asked whether they thought their colleagues would be willing to cooperate with new discharge planning processes. The medical, nursing, and healthcare professional staff respondents agreed with this statement.

4.4 Roles and Responsibilities

The following tables will provide an overview of the responses obtained from questions assessing the views of healthcare professionals regarding the importance of understanding roles and responsibilities. Respondents were presented with phrases and asked to choose a response of either a) agree, b) disagree, c) neither agree nor disagree, or d) have no answer in relation to the phrase.

Table 4-12: We have a good understanding with the ___ about our respective responsibilities and roles in discharge planning.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	The medical team has a good understanding with the nurses about our respective responsibilities /roles in discharge planning	9	2	1	1
	The medical team has a good understanding with the Healthcare professional services staff about our respective responsibilities/roles in discharge planning.	6	2	4	1
Nursing Staff (n=42)	Nurses have a good understanding with the medical team about our respective responsibilities/roles in discharge planning.	30	7	5	0
	Nurses have a good understanding with the Healthcare professional services staff about our respective responsibilities/roles in discharge planning	31	6	4	1
Healthcare Professionals Staff (n=8)	Healthcare professional services staff have a good understanding with the medical team about our respective responsibilities/roles in discharge planning.	5	1	2	0
	Healthcare professional services staff have a good understanding with the nurses about our respective responsibilities/roles in discharge planning.	6	1	0	1

The respondents were asked whether they thought their colleagues had a good understanding with them about their respective responsibilities/roles in discharge planning. The majority of medical, nursing, and healthcare professional staff respondents agreed with the statement.

Table 4-13: ___ think their work when planning a discharge is more important than our work.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	Nurses think their work when planning a discharge is more important than the work of medical staff.	1	1	10	1
	Healthcare professional services staff think their work when planning a discharge is more important than the work of medical staff.	0	1	11	1
Nursing Staff (n=42)	The medical team think their work when planning a discharge is more important than the work of nurses.	11	13	15	3
	Healthcare professional services staff think their work when planning a discharge is more important than the work of nurses.	6	12	21	3
Healthcare Professionals Staff (n=8)	The medical team thinks their work when planning a discharge is more important than the work of Healthcare professional services staff.	3	3	1	1
	Nurses think their work when planning a discharge is more important than the work of Healthcare professional services staff.	1	1	5	1

When asked whether they felt that their colleagues thought their work when planning a discharge is more important than the work of others, the majority of medical, nursing, and healthcare professional staff respondents agreed with the statement. However, the views of healthcare professional staff differed when the statement was

presented regarding the medical staff. The majority of healthcare professional staff respondents indicated agree and neither agree nor disagree with the statement.

Table 4-14: ___ usually think we are an important part of the discharge planning team.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	Nurses usually think the medical team is an important part of the discharge planning team.	9	2	0	2
	Healthcare professional services staff usually think the medical team is an important part of the discharge planning team.	12	0	0	1
Nursing Staff (n=42)	The medical team usually think nurses are an important part of the discharge team.	25	9	7	1
	Healthcare professional services staff usually think nurses are an important part of the discharge team.	30	6	5	1
Healthcare Professionals Staff (n=8)	The medical team usually thinks Healthcare professional services staff are an important part of the discharge team.	6	1	1	0
	Nurses usually think Healthcare professional services staff are an important part of the discharge team.	5	3	0	0

The respondents were asked whether they thought their colleagues considered them as an important part of the discharge team. The majority of medical, nursing, and healthcare professional staff agreed with the statement.

4.5 Views on Understanding and Conflict Management

This section will present the results obtained from questions assessing the views of healthcare professionals on understanding each other and on conflict management.

Respondents were presented phrases and asked to choose a response of either a) agree, b) disagree, c) neither agree nor disagree, or d) have no answer in relation to the phrase. The following tables will present the responses received from each professional group.

Table 4-15: ___ are usually willing to take into account our convenience when planning a patient's discharge.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	Nurses are usually willing to take into account the convenience of the medical team when planning a patient's discharge.	3	3	6	1
	Healthcare professional services staff are usually willing to take into account the convenience of the medical team when planning a patient's discharge.	4	5	3	1
Nursing Staff (n=42)	The medical team is usually willing to take into account the convenience of the nurses when planning a patient's discharge.	7	17	18	0
	Healthcare professional services staff are usually willing to take into account the convenience of the nurses when planning a patient's discharge.	31	13	7	1
Healthcare Professionals Staff (n=8)	The medical team are usually willing to take into account the convenience of the Healthcare professional services staff when planning a patient's discharge.	2	2	4	0
	Nurses are usually willing to take into account the convenience of the Healthcare professional services staff when planning a patient's discharge.	7	1	0	0

When asked whether they thought their colleagues considered their convenience when planning a discharge both the healthcare professional and nursing staff respondents agreed with regard to each other. When the same statement was presented to the nursing and medical staff, the majority of each disagreed with the statement in regard to each other. The healthcare professional staff and the medical staff had differing views about each other. The majority of healthcare professional staff disagreed with the statement in

regard to the medical staff whereas the majority of medical staff respondents neither agreed nor disagreed with the statement in regards to the healthcare professional staff.

Table 4-16: ___ anticipate when we will need their help when planning a discharge.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	Nursing staff anticipate when the medical team will need their help when planning a discharge.	5	2	5	1
	Healthcare professional services staff anticipate when the medical team will need their help when planning a discharge.	8	2	2	1
Nursing Staff (n=42)	Medical staff anticipate when nurses will need their help when planning a discharge.	3	15	23	1
	Healthcare professional services staff anticipate when nurses will need their help when planning a discharge.	16	17	8	1
Healthcare Professionals Staff (n=8)	Medical staff anticipate when Healthcare professional services staff will need their help when planning a discharge.	2	3	1	2
	Nursing staff anticipate when Healthcare professional services staff will need their help when planning a discharge.	5	3	0	0

When asked whether they felt their colleagues anticipated when they would need help when planning a discharge, the views differed among the three groups. The majority of medical staff neither agreed nor disagreed with the statement with regards to nursing staff whereas they agreed with the statement in regards to the healthcare professional staff. The majority of nursing staff disagreed with the statement regarding the medical staff whereas they indicated neither agree nor disagree regarding the healthcare professional staff. Finally, the healthcare professional staff responded neither agree nor

disagree with the statement regarding the medical staff whereas they agreed with the statement regarding the nursing staff.

Table 4-17 Disagreements regarding a discharge with ____ often remain unresolved.

Professional Grouping	Question	Agree	Neither	Disagree	No Answer
Medical Staff (n=13)	Disagreements regarding a discharge with nurses often remain unresolved.	1	3	8	1
	Disagreements regarding a discharge with Healthcare professional services staff often remain unresolved.	3	1	8	1
Nursing Staff (n=42)	Disagreements regarding a discharge with the medical team often remain unresolved.	15	10	16	1
	Disagreements regarding a discharge with Healthcare professional services staff often remain unresolved.	3	12	24	3
Healthcare Professionals Staff (n=8)	Disagreements regarding a discharge with the medical team often remain unresolved.	3	2	2	1
	Disagreements regarding a discharge with nurses often remain unresolved.	3	1	3	1

The majority of medical and nursing staff disagreed with the statement that disagreements regarding discharge planning remained unresolved. However, the majority of healthcare professionals agreed with the statement regarding the medical staff and nursing staff and another majority disagreed with the statement with regards to the nursing staff.

4.6 Frequency of Communication

The healthcare workers were also asked how frequently they communicated with the other healthcare workers about discharge planning. They chose responses of either a)

not applicable, b) never or almost never, c) infrequently, d) once per day, or e) several times per day. The following graphs will present the responses received from each professional group for the two questions asked.

Table 4-18: When planning a patient's discharge, how often do you speak with other professionals about the discharge?

Profession	Several times per day	Once per day	Infrequently	Never or almost never	N/A	No Answer
Chaplain	1	2	12	41	6	4
Clerical Assistant	12	18	17	13	2	4
Dietitian	4	26	27	6	0	3
Nurse	48	9	2	0	2	5
Occupational Therapist	2	29	28	4	1	2
Pharmacist	3	21	26	14	0	2
Physical Therapist	0	10	22	24	3	7
Physician	45	16	2	0	2	1
Respiratory Therapist	15	21	20	6	1	3
Social Worker	13	31	14	5	1	2
Discharge Coordinator	42	10	6	2	2	4
Other	5	3	1	1	6	50

When asked about how often they spoke with other professionals about the discharge, the majority of respondents indicated speaking to nurses, physicians and the discharge coordinator respectively, several times per day.

The majority of respondents indicated speaking to clerical assistants, occupational therapists, respiratory therapists, and social workers respectively, once per day regarding discharge.

The majority of respondents indicated speaking infrequently to dietitians and pharmacists never or almost never speaking to chaplains and physical therapists about discharge.

Table 4-19: As a clinician, how often do you read information or notes inserted in a patient's chart by other professionals?

Profession	Several times per day	Once per day	Infrequently	Never or almost never	N/A	No Answer
Chaplain	1	8	8	23	17	9
Clerical Assistant	2	5	7	12	28	12
Dietitian	3	32	15	5	4	7
Nurse	32	27	1	0	1	5
Occupational Therapist	8	35	13	1	3	6
Pharmacist	6	29	14	8	2	7
Physical Therapist	4	21	8	13	6	14
Physician	32	26	0	1	2	5
Respiratory Therapist	16	28	7	5	3	7
Social Worker	11	41	4	1	1	8
Discharge Coordinator	11	21	12	7	5	10
Other	3	2	1	0	8	52

When asked how often respondents read information or notes inserted in a patient's chart by other professionals, the majority of respondents indicated reading notes by nurses and physicians, respectively, several times a day.

The majority of respondents indicated reading notes or information inserted in a patient's chart by dietitians, occupational therapists, pharmacists, physical therapists, respiratory therapists, social workers, and the discharge coordinator respectively, once per day.

The majority of respondents indicated never or almost never reading notes or information inserted in a patient's chart by the chaplain and not applicable for the clerical assistant.

Survey results indicate that the majority of healthcare workers on the NICU support IPC. There was consensus across the three groups about the staff members' understanding of each others' roles and responsibilities and about the discharge planning

in general. However, there was disagreement among the three groups on questions about communication during discharge planning. The data presented that healthcare professional staff believed that they were not included in discussions about discharge planning and that there was a breakdown in communication.

The survey results provided a general understanding of the views of healthcare workers on the NICU about IPC and the discharge planning process on the unit. The interview data provided further clarification and a more in depth account of the views of healthcare workers on the NICU. This data is presented in Chapter five of this thesis.

Chapter Five

Qualitative Results

This chapter presents the results based on the following questions: What is the current discharge planning process on the NICU? What views of IPC do healthcare professionals working in the NICU hold? What are the facilitators and barriers to IPC?

5.1 Participant Observations

For this phase of the research observations were taken during the multidisciplinary rounds and of the discharge coordinator to give the researcher an opportunity to learn about the workings of the unit and how discharges are planned.

5.1.1 The Discharge Coordinator

The Discharge Coordinator (DC) role was created in 1996 by members of the NICU at this Canadian teaching hospital (Personal communication). The role was accepted by the hospital and has been in effect since 2006 (Personal communication). The role of the DC includes: to facilitate the flow of medically complex children across the continuum from admission to discharge; to foster effective communication with patients, families, caregivers, service providers and community agencies to ensure continuity, quality of care and optimal support and services; and to promote a seamless transition of patients and their family from SickKids to their community (SickKids, 2011).

Part of the DC's role includes attending rounds (other than the multidisciplinary rounds) on a daily basis to keep updated on patient status. The DC's day starts off with attending morning rounds. Here the DC is able to obtain updates on babies from the night staff. The DC uses a worksheet to track updates on the babies on the unit. Those infants who are ready for discharge are transferred to the "Discharges & Transfers" sheet.

The DC plays an important role in coordinating the discharge planning process. According to the current discharge planning process, once a baby is identified as ready for discharge the DC's role is to identify a hospital with a bed available to accommodate the infant's needs. The physician at the receiving hospital is identified and the contact information is provided to the neonatologist on the NICU to communicate and exchange patient history. After this communication, the discharge letter is completed by the physicians.

The next step in the process is for the DC to notify the bedside nurse that their patient is ready for discharge. The responsibility of the bedside nurse is to ensure the infant is ready for travel (e.g. isolette is warmed and nurse escort is identified). The bedside nurse is also responsible for notifying the parents of the infant that their child is ready for discharge.

The DC introduced the researcher to the "Provincial Repatriation Tool". This tool is a provincial project to streamline patient flow through collaborative communication and help NICU's "repatriate" the patient back to their community (Personal communication). This tool is in the trial stage and has only a few hospitals participating in the pilot. In this tool, a request for a spot is sent by the transferring unit. This request is visible to all the hospitals participating and those that have the space can

accept or reject the request. This tool is seen as a way for the province to allocate resources to the hospitals based on need (Personal communication).

Further into the discharge process, the DC needs to arrange a private escort to move the baby. As the drivers of these private companies are not paramedics, a nurse is required to accompany the child during the transfer. A lot of considerations have to be taken prior to booking (e.g. Avoid booking the escort right after feeding to prevent the infant from vomiting). This planning requires collaboration between the DC and the bedside nurse.

Before the infant is discharged, the DC collaborates with the physician and the charge nurses to identify any planning appointments that must be made (e.g. the parents need to be trained about stents). The booking of these appointments are taken care of by the Information Coordinator who acts as the DC and medical staff's assistant.

The healthcare professionals required in the infant's discharge plan depends on the complexity of the child. For example, if the infant is a special case (e.g. has stents), this infant may need a specially trained home nurse which can take up to four to six weeks to arrange. In this case, the social workers are involved as they are responsible for helping the parents of the infant apply for funding to cover the cost of the home nurse.

Another tool that the DC introduced the researcher to was "CIMS". This electronic record is available to all healthcare professionals on the NICU and has a section for discharge notes. Here, the DC provides updates on the child's discharge status. Any healthcare professional can read/enter information in this section. CIMS provides an easy way to follow up on an infant's discharge plan progress. Before leaving for the day, the DC ensures that all discharge updates are entered in CIMS and that a

printout is left on the board for the night nurses to view. This helps the night nurses to identify infants for discharge if an emergency discharge must occur during their night shift in the absence of the DC. However, even though CIMS seemed like a good way to keep all healthcare professionals updated, the DC expressed frustration when it was clear that the healthcare professionals on the NICU did not pay much attention to that section. The DC's day ends after attending multidisciplinary rounds. Upon completion of the rounds, the DC meets with the nurse practitioner to identify patients ready for discharge.

After shadowing the DC for a day, the importance of the DC role was clear. The DC was viewed as the central person in the discharge planning process who was in control of coordinating discharge related information amongst the healthcare professionals involved in a patient's care. The DC not only maintains the collaboration amongst the healthcare professionals but also ensures that discharge plan is flowing on the right track. The DC role is invaluable to the discharge planning process and the implementation of IPC.

5.1.2 Multidisciplinary Meetings

Observations were also taken during the unit's multidisciplinary rounds. This meeting is held once a week for an hour on the NICU. The purpose of this weekly meeting is to discuss discharge plans of the patients on the unit on a case-by-case basis. The healthcare professionals who are part of infants' care on the unit attend these rounds.

The main purpose of observing these rounds was to ascertain how much of the time in rounds were actually spent on discharge planning discussions and who was involved in the discussions that occur during these meetings. While some time was given

to discussing the discharge plan of the infants admitted, it was not consistent. The format of the meeting concentrated heavily on medical and social updates on each child; the physician provided a medical update and the social worker provided a social update on each infant on a case-by-case basis. Whenever there was a need for discharge-related information, the DC would intervene with the relevant question(s). The other healthcare professionals were not given much time to provide their input unless, either questions were directed to them, or the healthcare professionals felt comfortable intervening with their question or opinion. These observations assisted in identifying potential key informants to interview. The results of the interviews are presented in the following sections.

5.2 Views on Interprofessional Collaboration

For this phase of the research, key informants were chosen based on their participation in the discharge planning process. The researcher attempted to select a sample that was representative of the professions on the unit. The data obtained from the key informant interviews were analyzed using the National Interprofessional Competency Framework (NICF). The framework involves four central domains including role clarification, team functioning, interprofessional conflict resolution, and collaborative leadership (CIHC, 2010). These domains are supported by the fifth domain interprofessional communication. The complexity of the situation, the context of practice and the need for quality improvement all influence the way in which the framework is applied (CIHC, 2010).

Key informants were asked what the term "interprofessional collaboration" meant to them. The views on IPC were different among the participants (See Table 5-1 in Appendix L). The definition of IPC used by some respondents was a group of healthcare professionals working together towards a common goal or towards the best treatment for their patient. A healthcare professional defined interprofessional collaboration as:

> It means a number of people from different professional designations working together to provide the best possible care for the patient.

A similar response was provided by a nurse who said:

> It means a group of individuals within the healthcare system that work together to enable a child to transition from our unit out into the periphery – home or another hospital or like Bloorview, their institution.

Another respondent went further and stated their disagreement with the word "interprofessional". According to a medical staff respondent, the term "multidisciplinary" is more appropriate:

> I think for collaboration within multidisciplinary or team, I see it as multidisciplinary. I know they say interdisciplinary, between two. But, in this case I believe it needs to be much bigger than just saying interdisciplinary. It needs to be multidisciplinary. Interdisciplinary to me is limiting. The word; because it just means two people and then you're done. I still think going back to the old days of multidisciplinary meetings there are multiple, not just two or three, but numerous and that interdisciplinary needs to be multidisciplinary.

Respondents were also asked whether they felt IPC was occurring on the NICU. One healthcare professional was very positive and strongly felt that IPC was occurring on the unit. This informant also stated that the NICU practiced IPC more than any other unit in the entire hospital. A healthcare professional stated:

> I've worked in all the areas of the hospital. I've worked in CCU, I've worked in NICU, I've worked on the transport team, and I worked on wards and Emerg. I

> haven't done research, but I have colleagues that work in research and we speak a lot about it. I think in this unit, it definitely does [occur].
>
> People know each other's roles. They, for the most part, I'd say 9 times out of 10, [demonstrate] very respectful behaviour, very interprofessional or inter-collaborative behaviour.
>
> I probably wouldn't, if I had to make a choice again, I probably wouldn't work anywhere else but in the NICU.

The other nine key informants indicated that IPC was occurring on the unit but that it needed improvement. For example, a medical staff respondent stated:

> In a sense the group is there but the hierarchy does not permit full…It could be much better.

Two healthcare professionals also shared similar views:

> I think there's a fair amount of lip service paid to it but I wouldn't say that it's always….I wouldn't say it's as good as people think it is.
>
> I would say that for the most part it does occur. I don't think we always do it perfectly. There's always room for improvement.

Reasons for why these respondents believed IPC did not occur optimally or required improvement included issues with role clarity, differences in views of how to plan a discharge, and differences in views/perceptions of IPC amongst staff members. A medical staff respondent said the following about role clarity and about differences in views of discharge planning:

> The physical bodies are sitting there, but you're not using them appropriately. Umm…..they're not necessarily listened to and the hierarchy top down is still…
>
> But they have no idea about planning and process….meaning that baby's step A now, you need B to occur before you can do C…..no foresight….or lack of vision in some members.

A healthcare professional stated how IPC is affected by differing views of IPC:

> It all depends on the players. Some players are much better at collaborating and are true collaborators……and others truly are not and they play the game. Some don't even play the game which in a way maybe is better [laughs].

The responses presented in this section demonstrate the issue of differing interpretations of IPC amongst the healthcare team. Without everyone on the healthcare team having the same definition of IPC, implementing IPC on the unit becomes a challenge. Other factors affecting the implementation of IPC on the NICU are presented in the next section.

5.3 Common Themes Identified from Key Informant Responses

The following competencies from the CIHC National Interprofessional Competency Framework were used to categorize and analyze the responses obtained during the key informant interviews: interprofessional communication; role clarification; team functioning; collaborative leadership; interprofessional conflict resolution; contextual issues; and quality improvement. The common themes for each category are presented in Table 5-2.

Table 5-2 Categories and Their Common Themes

CATEGORIES	COMMON THEMES
Interprofessional Communication	• Open environment for information sharing • Communication • Inconsistent information sharing
Role clarification	• Role clarity • Respect
Team functioning	• Multidisciplinary meetings • Team work

	• Collaboration • Discharge process • Receiving hospitals • Funding
Collaborative leadership	• Leadership • Medical lead • Discharge coordinator • Implementation issues
Interprofessional Conflict Resolution	• Interprofessional education
Contextual Issues	• Experience in the profession • Staff turnover • Change in the hospital's perspective • "Push to admit"
Quality Improvement	• Lack of evaluation

Semi-structured interviews with ten key informants led to the identification of facilitators and barriers to interprofessional collaboration in discharge planning. When it came to categorizing quotes into the categories, most of the participants identified themes related to the categories. Phrases were also used to support the emerging themes (ex. "communication is essential to successful discharge planning"). The following sections present the various themes under the presented categories.

5.3.1 Interprofessional Communication

The key informants identified interprofessional communication as an important factor for ICP. The themes for interprofessional communication and the quotes that support them are presented in Table 5-3 in Appendix M.

5.3.1.1 Open Environment for Information Sharing

Encouraging an open environment for information sharing was raised as another important element required for successful team work. Key informants recognized that

some healthcare workers may feel excluded or uncomfortable sharing information with others which may be important to planning an infant's discharge. They stated that this issue occurred due to the fast-paced nature of the planning meetings and also as a result of specific individual characteristics. For instance, some healthcare workers are likely to be open and more likely to speak out in such meetings whereas others may feel intimidated. Key informants stressed fostering an open environment for information sharing in order to encourage all healthcare workers to provide their input. A medical staff respondent expressed the importance of encouraging an open environment for information sharing and a possible solution to this issue:

> I think you just need to continue to foster an environment where other professionals feel that they are comfortable with presenting their ideas.
>
> ……..that they would feel open in terms of coming and speaking with the team about and discussing a particular case……that if there are challenging cases that there are opportunities for team meetings to foster, you know, if there are concerns and to address the concerns and to provide coordinative care. I think it needs to be open and available to the rest of the team so they can call a meeting and say, let's talk about it.

Two healthcare professional staff also indicated the importance of having an open environment for information sharing:

> The ability to listen or hear actually…….not to listen to actually hear what people are trying to say and to give people a chance to say those things.
>
> I think being open and being transparent with one another and with the families in order to provide the best care.

5.3.1.2 Communication

Communication was one of the most popular elements brought up in the key informant interviews. Respondents had different viewpoints of how communication played a role in facilitating IPC and how it acted as a barrier. Some participants indicated

that communication was occurring well on the unit. They claimed that the current opportunities for communication on the unit were good and aided with discharge planning. A medical staff person gave examples of the way they communicated on the NICU regarding discharge:

> We talk about it in rounds, in morning rounds, we bring it up in MultiD rounds; we talk about it in walk-around rounds. We talk about how do we plan? Is this child ready for it? Has this child been flagged for discharge? What are the steps necessary? Are there any outstanding issues in terms of tying things up?

A healthcare professional explained how communication is better on the NICU compared to other units in the hospital:

> And we have a fairly direct line of communication with the people that you need to talk to. Whereas again on some other floors, you're doing the broken telephone thing because you talk to the junior resident who talks to the next one who talks to the next one.

On the other hand, some key informants described issues with communication on the unit and how it hindered their participation in the discharge planning process. When it comes to discussing discharge planning plans with those in charge, a medical staff person said the following, "if you try to say something, they kinda shoo ya." A healthcare professional shared a similar idea about communication failure during discharge planning:

> People like your opinion as long as it agrees with theirs [laughs]. So the collaboration goes right downhill if you're not giving them the answer that they want.
>
> …call people in but it's predetermined what you need to say….so, that's not really collaboration and you don't really want me if you're not going to listen to what I have to say anyway.

5.3.1.3 Inconsistent Information Sharing

Participants universally identified inconsistent information sharing as one of the main barriers to successful discharge planning. Lack of information shared between the healthcare workers was felt to contribute to the failure of IPC in discharge planning. Healthcare professional staff identified lack of information sharing to hinder their work. Some indicated confusion and stress to be the result of inconsistent information sharing. A nurse explains how gaps in information sharing can lead to tension:

> So if maybe they were aware that this (discharge) was going to happen, it would be less tension. Because you do get a lot of push back or attitude back sometimes when you're……..you know it's a lot of work.

Key informants also indicated that during what they call a "normal discharge", everyone tends to be included in the discharge planning communications and that the discharge happens smoothly. However, in an emergency situation, where an infant needs to be discharged immediately in order to make room for another infant waiting for care, a number of the key players in the infant's treatment get left out of the process. For example, a healthcare professional said:

> I think for the most, people who should be involved are. But I think sometimes when things have to happen quickly…..sometimes, you know…..for me sometimes I won't know if a discharge plan has come up after rounds and it has been decided in the late afternoon cuz sometimes I do my check-in in the morning.

The majority of the key informants stressed the point of starting discharge planning earlier in the child's course of stay as a solution to solving the problem of inconsistent information sharing. A nurse stated the following:

> Sometimes if we knew earlier, it would be easier to identify everyone earlier so it's not a shock and everyone running around trying to get things done.

> And we understand that the doctors are busy and then when we're telling them they need to do a discharge summary and it hasn't been started……it can be pages long. It's a work intensive thing. So, if they have warning, or someone starts that earlier, it would be much smoother.

5.3.2 Role Clarification

Key informants identified role clarification as an important factor for IPC. The themes which related to role clarification and the quotes that support them are presented in Table 5-3 in Appendix M.

5.3.2.1 Role Clarity

Role clarity was identified by the key informants as another factor which both facilitated and hindered IPC in discharge planning. The key informants indicated understanding the importance of role clarity towards working together effectively in a team. A medical staff respondent described what they thought was role clarity to them: "I think that's what's important because you need the perspective of all disciplines involved in the child's care."

Several of the key informants interviewed stated that they believed role clarity was not an issue on the NICU. A healthcare professional stated:

> To me it means knowledge and understanding of individual roles, what someone comes to the table with, what they have to offer within their role and what they can do for that patient. So I think we pretty much know what each of us have to offer, what we can do. We know who our resources are. We know who to go to and we know who does what and who does it best.

Another healthcare professional staff person thought that having an understanding of every profession on the unit was not necessary to successful team work:

> I don't think you necessarily need that much knowledge of someone else's profession if you're willing to listen and hear them and then you respect what they

> say. I think the people have….the team works better if each player has knowledge in their own area because if you don't it would be difficult.

A medical staff respondent brought up the point that even though the discharge planning team consisted of individuals from different professions, they were not all used appropriately:

> In a sense the group is there but the hierarchy does not permit full…It could be much better. The physical bodies are sitting there, but you're not using them appropriately. They're not necessarily listened to and the hierarchy top down is still…But they have no idea about planning and process...no foresight….or lack of vision in some members. So you really can't use your team the best you can.

5.3.2.2 Respect

When asked about what they thought were the key elements of a team, respect was the most popular key element cited. Respect was highlighted as one of the most important elements and the basis of successful IPC in discharge planning.

Respondents also indicated that respect was not only required among the healthcare professionals, but also for other non-healthcare related professions such as cleaning personnel. For example, a healthcare professional explained why respect is the most important element in interprofessional collaboration and team work:

> I think for me respect is big. Just respect from the person that helps keep the floors and rooms clean to the staff doctor who makes the final call and decisions and has to speak to the parents and has to make the life and death decisions sometimes. I think without the one all the way up to the other, we couldn't function. So for me it's just respect. Respect for every single individual on that team. Code of conduct, respect, professional respectful behaviour. I think if you start there, you can't go wrong. For me anyway. Never failed me. Never failed me.

Many of the participants (n=9) interviewed felt that respect for each other could be improved on the unit. A healthcare professional expressed frustration towards the lack of respect for each others' knowledge base on the unit:

> You know, they're arguing with you about swallowing, and you're like 'come on you guys, give me a break". It's insulting . . . it's a lack of respect for your knowledge base. I wouldn't argue with them about, you know, whether the child needs a PDA ligation or not.

Several of the key informants commented on the multidisciplinary team meetings as being a dialogue between certain professions and thus not a good use of their time. A medical staff respondent supported this point:

> So that's not necessarily fair to other team members to voice their opinions and to look at transition. . . .

5.3.3 Team Functioning

Key informants identified team functioning as an important factor contributing to IPC. The themes which related to team functioning and the quotes that support them are presented in Table 5-3 in Appendix M.

5.3.3.1 Multidisciplinary Meetings

Multidisciplinary meetings occur once a week every week on the NICU for an hour. During this time, all healthcare professionals who are able to make it during that time period will attend the meeting. At this meeting each infant's case is presented and the next steps are discussed. Discharge plans are also discussed during this meeting which is led by the staff physician in charge.

The key informants viewed these meetings differently. Some of the informants interviewed thought that the multidisciplinary meetings were very useful to their practice and aided them with keeping up with discharge plans on the unit for the infants that they were taking care of. A nurse described their view as:

> …they're very useful...you go in and basically what you're getting is a plan. You know, you're talking about everything, but a plan is one of the big things that you're trying to get out.

A medical staff person also shared a similar perspective:

> From a follow-up perspective, it's useful for me because it really is about finding more about the social situations, the complexity of care, if there are issues that have been identified in the unit which will be carried into the follow-up clinic……then those are the kids that I need to know about.

On the other hand, some of the key informants view the multidisciplinary meetings as not beneficial and not a good use of their time. In fact, many of the informants viewed the multidisciplinary rounds as more of a psycho-social round than multidisciplinary. They stated that the meetings were more of a dialogue between the social workers and the physicians. A medical staff person supported this point:

> It's two people running the show and that's it. So this multi d round is very social work oriented, right. And so it's a social round. It's not necessarily a team round that aims with the goal of discharge process or the goal of transition or the goal it's just many times rolls into a social work update. And so that's not necessarily fair to other team members to voice their opinions and to look at transition cause we do not have a discharge process around at all and maybe that needs to be added so that we can have a social work rounds separately.

A healthcare professional also shared a similar view:

> They like to call these multidisciplinary, they're necessary for accreditation, they're actually psycho-social rounds; the social workers talk to the doctors and the rest of us, if we're lucky, can get a word in there.

Many of the key informants indicated that they felt the multidisciplinary meetings were very repetitive. They felt that they heard a lot of the same information about the infants on the unit over and over again. Information that was presented in the morning rounds and walk-around rounds were what was presented again in these multidisciplinary

rounds with the added element of social work. This, most of them felt, was a waste of an hour of their time. A healthcare professional described MultiD rounds as:

> I find MultiD rounds repetitive. They're very repetitive. Cuz I go to them a lot. And when I was a manager, I went to them every week. I just find that they're exactly repeating what was said in the morning. Then what was said in the afternoon or morning rounds, like walk around rounds. With the only difference is there's an additive of a social work component……

A healthcare professional suggested incorporating the element of social work into the existing rounds as a solution:

> … it seems like an extra meeting every week that you have to gather 20 people at when perhaps social work….it might be easier for social work to attend the already existing rounds where I swear the exact same things are said. [Whisper]: Exact same things are said.

When discussing the multidisciplinary rounds during the key informant interviews, the respondents offered several solutions to making the multidisciplinary meetings more efficient and useful to everyone. A nurse suggested the following:

> I think that maybe we should for every child that we do rounds on, at the end of the round on that baby, perhaps we should say and where are we at with our discharge planning? And that would give everybody the opportunity to bring forward, "ok I talked to OT and they have a really good OT in North York General, and maybe that's where this baby should go to be followed up at a level II with an OT".

A healthcare professional provided the following suggestion:

> Even just setting the tone for communicating with families and who needs discussions and medical meetings and all of that I think sometimes, perhaps, we need to meet twice a week – early in the week and then in the middle of the week just to see where things are at. So my suggestion would be even to do a short round, half hour.

5.3.3.2 Working as a Team

The importance of working as a team was also identified as important by key informants. A healthcare professional supported this view:

> It's like everybody's usually involved because usually most people have to contribute to that conversation. It will be me telling them 'you know what, he's been on low flow or he's been on CPAP for a week and he's had zero spells, he's been great…..you know, we should get him off'. And then the dietitian will say, 'you know he's on full feeds and his things….'. I think everybody has to contribute to that……that target. To be able to say, 'ok, now this child's ready to go so where do we go from here?' So I think it's really the whole team. I don't think it's just one person who say's this child's ready to go.

Many key informants indicated that they felt they functioned well as a team. A medical staff person described team work as viewed by them on the NICU as:

> Once you get the team together, they can work very well together if they're given the time and if they're allowed to.

A healthcare professional also shared views on team work within the NICU:

> Very interprofessional or inter-collaborative behaviour. Not a lot is done without informing most of the members of the team, and yeah definitely. I probably wouldn't, if I had to make a choice again, I probably wouldn't work anywhere else but in the NICU.

Several of the key informants also indicated what they felt were key elements required to work in a team. Elements identified included cooperation, flexibility, respect, and understanding. A nurse stated cooperation as a key element:

> Cooperation….I guess that's the biggest thing. They have to cooperate in order to be effective. You all have to come to a satisfactory agreement, not everybody has to agree. But in the overall, everybody has to have input and everyone has to come an agreeance on how to transition that baby from here to there and identify different factors.

A medical staff person stated the following:

> I think you need to be open-minded, very flexible. Willing to learn, willing to listen to ideas that are challenging or to challenge what your own framework is. And you really have to be that kind of person that personality is not threatened by, you know, potential, or other people taking that lead just…..you really have to be just very…..you have to walk in with an open mind.

5.3.3.3 Collaboration

Barr et al. (2005) state that "collaboration is about working together in the face of both commonality and difference". Collaboration is also about working together and not just alongside. When asked about what they felt were important aspects of a team, collaboration was also brought up by the key informants interviewed. They clearly identified in the interview that collaboration was definitely needed to successfully plan a discharge. A healthcare professional indicated the importance of collaboration within a healthcare team and provided a similar definition of collaboration as what was provided by Barr et al.:

> To do the work that we do we need to collaborate with one another whether it's about transitioning a child home or to another floor, organizing discussions with families…umm…you know I think that we do need to work with one another to facilitate all of that to happen.

Similarly, a nurse stressed the importance of collaboration:

> To discuss different prognoses and diagnoses and all of that I think there is a certain level of collaboration that goes on.

While all the informants identified collaboration as an important element for team work, some of them also began to question whether collaboration occurred properly. For example, a healthcare professional questioned whether the current status of communication regarding discharge planning is true collaboration:

> They think of you, they want your opinion, but…..they're not going to listen to you unless you say what they want you to say [laughs]. So…you know…I don't know if that counts as collaboration.

> So if somebody asked me to see a child…..to see if they could go somewhere, but then they're going anyway……part of it is the reality that they need that bed and that bed's open at the other hospital…..so what you say doesn't matter really. Is that collaboration?

Key informants also identified staff changeover to interfere with collaboration. A healthcare professional explained that the frequent rate of staff changeover affected collaboration amongst the team members and also put the families of the patients in a confused position:

> So sometimes that just for collaboration can be challenging because you don't know who's coming on and you don't know who to tell families is coming on.

Differences in staff perceptions of collaboration and differences in the value given to collaboration by staff members were also identified by key informants as hindering collaboration. A healthcare professional provided another example of this situation:

> Some staff are more engaged in the psycho-social or wanting to be a part of medical meetings and in order to support the family and get information then there's other staff who'll say, 'you just let me know what happened'……and that could be a bit of a challenge to work collaboratively as well.

5.3.3.4 Discharge Process

The NICU currently has a discharge process in place termed "retro-transfers". This policy outlines the process that needs to be followed when planning an infant's discharge. The key informants indicated that when this process is followed, it acted as a facilitator to IPC and discharge planning. When it wasn't followed, it was a barrier. A nurse supported this view:

> When things work very well, we're able to identify it early sometimes in our weekly meetings where they'll start talking about plans…….usually the doctors. Because it has to be a medical decision and the baby will be getting ready for a change in care.

A medical staff person indicated the importance of following the process in order to plan a smooth discharge:

> "Most of our kids aren't complex. So it really is the ones who are very, very complicated and you need to slow down and just make sure that the discharge planning and coordination of care and transfer of care is as smooth as possible."

The key informants interviewed also provided suggestions to how the current discharge process could be improved. A nurse provided a suggestion for improvement:

> Being able to identify those things earlier and getting them in place a lot earlier so it's not like the day the baby's going home that we're trying to figure out.

5.3.3.5 Receiving Hospital

The receiving hospitals or units were said to play an important role in the discharge planning process by the key informants. Many of the infants seeking care at the NICU have complex needs and thus require special care. However, the issue arises when these complex care infants need to be discharged because there often are not a lot of other centres which offer the complex care that these infants need. Thus, when there are no spaces available in these hospitals, the discharge of these infants comes to a halt. A healthcare professional highlighted this problem:

> The big thing for me is the blockade that we hit in the community.
>
> So for me it's the blockade so that once we're ready to go…..we're not going anywhere. Like I just had two patients and one sat around for 4 days. Ready to go for 4 days because we can't get to the place that we need to get to. However, you know, sometimes it's because they just don't have any beds. Sometimes it's because they can't deal with whatever……A, B, or C. They can't deal with a pick line maybe or they can't deal with a so and so. Well……they haven't been able to deal with a pick line for as long as we've known.

The key informants also identified issues with discharging infants to centres which may not have the exact complex care needed, but can manage the infant. A medical staff respondent highlighted the problems faced when this is the case:

> Actually, the more complicated ones, we need to have a better dialogue with the receiving physicians and the care providers on the other end just to make sure and

> ensuring that follow-up is involved and that someone's taking care or taking leadership and coordinating the care of these children.

A medical staff person also explained some of the problems or extra work that has to be done when infants are discharged to centres which may not have the exact type of care needed:

> They can't take them because they don't know what to do. The answer is, well then you go out and teach them what to do. We don't have the resources to teach here with our RNs. We're a specialist hospital. We have people here studying for years to learn what to do then all of a sudden it becomes okay that they have to do it.

> SO they're calling me, calling the RD, calling the surgeon, calling other people…But the work is still going on because where they sent it [the infant], is not capable to really doing it without our support, and we don't have the funds to run that support.

A healthcare professional questioned what's being done with the extra funds allocated to these level II NICUs:

> I would really like to see what has or hasn't changed or what the funding has gone to or what's been improved. Have wait times been improved? Because sometimes it doesn't seem to us on this end, that they've really improved that much.

> I don't think there's been any follow-up. Or they may have been from the ministry, but I don't think personally that we've really gone with a fine-toothed comb and said, 'ok, this is what they used to give us and be able to offer three years ago or two years ago and this is what they're offering now…..hey……it hasn't really changed that much.

5.3.3.6 Allocation of Funding

Lack of funding or not enough funding was identified as a barrier. Several key informants indicated that the majority of funds were going towards the admission of patients and not towards the discharge of patients thus making it difficult to maintain the balance. This in turn was stated to create tension amongst the healthcare professionals. A

medical staff person expressed frustration with the lack of funding when it came to discharging patients:

> So the whole focus of you need to admit, but then there's been no dollars, very few, little intention paid to you need to discharge in order to admit. The push to admit, admit, admit, deferral, deferral. No you need to discharge first so, that whole money and everything needs to go on the other end. Lots of research time, admissions and delays, but very little spent on transport and discharge.
>
> But even though the monies have increased, things just cost more...We've always received more money than the year before but just not as much as we've spent. We keep spending more. We're spending more because everything costs more.

The effects of cut-backs to community services and the effects of lack of funding to boost services in receiving hospitals was also identified as a barrier to successful discharge planning. A medical staff person highlighted this point:

> But there are no dollars. There's dollars in the hospital for bed deferral is a key, but delaying discharge is because another hospital doesn't have a bed because that other hospital cannot take care of the child. It's not their fault. They don't have the skill set. We're sending a complex child out, we haven't done our work. They can't deal with it. You sending a child who needed care for the past 7 months you think all of a sudden they'll learn what we know in a few days? So it's just all very mixed up and that the community services have been cut so tremendously. Looks like it's increased in some areas, but in reality CCC nursing is very, very short staffed for pediatric intensive, pediatric complex care.

How funding was distributed among the different NICUs was also brought up in the interviews. Whether the funding allocated was used properly was questioned by several of the key informants. A healthcare professional expressed frustration over how funding was allocated between the NICUs:

> You know, we didn't get the ministry funding for beds because they (level II NICUs) were going to get funding so they can beef up their services.
>
> So where did that ministry funding go that was supposed to beef up their services because we didn't get it to increase our beds and help get more kids in but they were supposed to have gotten it to beef up their education and what they could offer.

> Where did the funds go? Were they used? What did they beef up? Can we get a rundown of what things were like……what were these hospitals offering two years ago vs. what they are offering now. And I will bet my life that very few of them….have changed that dramatically. So then maybe that needs to be re-visited and maybe the funding should come back to the level III's.

5.3.4 Collaborative Leadership

Key informants identified collaborative leadership as an important factor to IPC. Collaborative leadership is defined as healthcare workers understanding and applying leadership principles that support a collaborative model (CIHC, 2010). The themes which related to collaborative leadership and quotes that support them are presented in Table 5-3 in Appendix M.

5.3.4.1 Leadership

Leadership was another key element identified by the key informants as important to successful team work. While the respondents understood the importance of IPC and working together as a team, they also identified the need to have a lead person to smoothly delegate the discharge planning process amongst the various team members. A healthcare professional expressed the need to have a leader and the importance of that lead person taking a neutral position within the team:

> It works best when you have a leader or a, yeah leader I guess, that can bring in all the different points of view and integrate all that without having a pre-setted agenda or preset outcome.

Even though respondents indicated the importance of having a leader in the team, they also stated that the role of the leader should be to facilitate collaboration and not necessarily to take full charge of making decisions; they should assist with making sure everyone is included in the planning process and should promote a collaborative

environment. A medical staff person explained what they thought the role of the leader should be:

> You definitely need leadership across the board to facilitate interdisciplinary collaboration, but it really is the people who are at ground level and you need to make an environment that's supportive of that type of collaboration. Umm…but you can set it from the top of, but it really is working at the ground level.

All the key informants stressed the medical leader as an important figure throughout the discharge planning process. Many indicated that the medical professional team should be trained in IPC so that they could promote it to the other healthcare professionals in their team. For instance, when asked what they would suggest for the medical lead, a nurse stated, "I think education for the physicians."

Several of the key informants brought up the frequent turnover of medical staff as hindering discharge planning and IPC. Currently medical staff change over occurs every two weeks on the NICU. Key informants indicated this as a barrier because of differing treatment opinions amongst the medical staff and also differing views of IPC. A healthcare professional stated how this frequent turnover acted as a barrier:

> Like for a two week block, these two people will be on and things will be done a certain way. Then all of a sudden, the next two will come on and they don't believe in that medication and this one doesn't believe in that type of ventilation and….you know….I think it makes it difficult for the team.

> A lot of the times the nurses, the RTs, the dietitians, the CSN-NPs, we're the constants. So sometimes we're the ones who have the whole picture, the whole story over the last two months. So it's just that discrepancy between them that would make things, I think, for the teams a little bit more predictable, little bit easier.

Key informants also demonstrated an understanding of the position of the medical staff and indicated that this frequent turnover made it difficult for medical staff to come to a proper decision as they may have only known the infant being discharged for a day

or two. A nurse felt that it was unfair to require the medical staff to make big decisions when they don't have the proper information:

> But then when you have discharge coordinator making a big term decision and a doctor who has met the baby once….first day…..first week….it's very difficult. Medical update….they get a handover but then it's putting a lot of pressure on someone who's there for their first time. They need to hear from us because we are the consistency, they are not. So maybe it should be that we update them. Don't leave them in the dark.

A healthcare professional highlighted that the behaviour of the healthcare professionals often changed based on the staff physician who was leading:

> I mean, the professional services staff and the nursing……everybody modifies their behaviour based on who's the physician on. But again, you think, well that's not really right, but, how are you going to change that? Everybody knows that with so and so, you have to do it this way to get what you want. I don't know, that's just the way it is I guess.

Key informants suggested physicians meeting together and coming up with a consensus on what the treatment for each infant. This suggestion was given to cut down the number of changes in treatment plan for each infant and also to make it less frustrating and stressful for the healthcare professionals on the team. A healthcare professional provided their suggestion:

> We still communicate and collaborate the same way, but it makes it hard when the people up top, kind of together can't always come to a consensus on how we treat certain modalities or pathophysiologies, or what's the best route. Even though there's guidelines and protocols, they're the final say, right?
>
> I think if they, as a team, would at least agree…we need to come to a consensus so that every two weeks the recipe doesn't change cuz it makes it difficult for the rest of the team.

5.3.4.2 Discharge Coordinator

Many key informants stressed the discharge coordinator as a very important figure to the discharge planning process and appreciated having this role on the unit. A nurse supported this view:

> I think that now that we have our discharge coordinator, that that's really improved.
>
> I think with having this role that's more concentrated just on that developing relationships with the other people such as homecare and …….it has made it [discharge planning] faster and smoother.

Many also stated that the discharge coordinator was their first point of contact regarding a patient's discharge plan. A medical staff person confirmed this point:

> Yeah first contact is really the discharge coordinator, so we make that plan through her.

A nurse also supported this point:

> We have a discharge planner/coordinator, and I would check with her.

A healthcare professional also stated the importance of the discharge coordinator:

> I don't think so because everyone does their thing and she [TCC] pretty much just kind of….you know….is the pinnacle that kind of ties all the stuff together. She knows all the resources in the community. It's better to have that one person, I think.

Several key informants provided some suggestions on how the role could be improved to better facilitate the discharge planning process. A nurse provided a suggestion for improvement:

> I think that the role of the discharge planner – I think the discharge planner should be on rounds.
>
> On walk-around rounds…….and she should be doing that part. At the end of the discussion on where the baby is and how the baby is, she should be bringing up, just like the RTs do – they bring up their ventilation. She should be bringing up

> discharge planning and this is where we're at…….so it's out there and everybody has the information. I think it would be disseminated a lot easier that way.

5.3.4.3 Implementation Issues

When asked about how they felt about discharge planning on the unit, many of the key informants indicated that there were issues around the implementation of IPC in the discharge planning process. They also indicated that the discharge planning process is not given as much importance as it once was given. A medical staff person explained that changes in management and thus changes in views (lack of understanding the importance of discharge planning) was one of the causes:

> ….Discharge process committee ran for 5 years and it disappeared with one of the new managers who came in and said we don't need that…..it's redundant…..bedside nurses can do that…….we don't need that time and energy spent.

Several of the key informants directly indicated that IPC was understood by everyone and that they all wanted to implement it into the discharge planning process. However, they said that it was outside sources that often hindered the successful implementation of IPC. A healthcare professional provided an example of this view:

> There's nice IPC between three of the five professions…so, you know, it's there, it's not like someone decides that this is what's going to happen and nobody gets to…….so, yeah, sometimes it's just think we can't and it's the outside system that puts some of these limits on.

5.3.5 Interprofessional Conflict Resolution

Key informants during the interview process identified interprofessional conflict resolution as an important factor for IPC. Interprofessional conflict resolution is defined as healthcare workers actively engaging themselves and others in positively and

constructively addressing disagreements as they arise (CIHC, 2010). The themes which related to team functioning and the quotes that support them are presented in Table 5-3 in Appendix M.

5.3.5.1 Interprofessional Education

Interprofessional education (IPE) was identified as a facilitator of IPC in the discharge planning process. The informants gave credit to having IPE as part of the healthcare professionals' curriculum. They also stated that they are starting to see the effects of IPE on the recent graduates of healthcare professionals. The informants agreed that the recent graduates of healthcare professionals were more collaborative and understanding of other healthcare professional roles. Some of the informants indicated that the healthcare professionals who were educated prior to the introduction of IPE in healthcare professional education are also beginning to understand IPC and follow it as well. For example, a healthcare professional stated:

> So the new generation is much different and they're probably more collaborative, again, not all of them cuz there's always the personality difference. But even the old generation has changed over time.

The purpose of IPE and whether it was part of the curriculum for healthcare professional education was also brought up by some of the key informants. Some questioned whether the medical staff should be targeted more and not so much the healthcare professionals staff. A healthcare professional shared their opinions about interprofessional education:

> Like, the professional services staff are collaborative. They have to be. We can't do our job without other people. So, I don't know does all that education really geared to the right subset of people?

5.3.6 Contextual Issues

Key informants identified factors which impacted their context. The capacity of an individual to demonstrate the integration of the competencies of the national framework is affected by their context (CIHC, 2010). The themes which related to contextual issues and the quotes that support them are presented in Table 5-3 in Appendix M.

5.3.6.1 Experience in the Profession

The extent of experience healthcare professionals had on the unit was another factor that was reported to either facilitate or hinder IPC and the discharge planning process. Key informants indicated that those healthcare professionals who had been working in the NICU or in their profession longer were more likely to be active in their patient's care and were often more comfortable communicating their views and opinions with the discharge team. A healthcare professional supported this view:

> So you can have a team with people who have less experience, but a team, I think, works better the more experience people have in a way.

A healthcare professional shared what she felt was the connection between experience in the profession and communication:

> And also I think if you don't have knowledge in your own area, you're not as comfortable to state your opinions and make your contribution to the team.

The informants suggested that lack of experience in the profession contributed to new professionals being confused over what should be shared with the team and what does not need to be shared. For example, a nurse used junior nurses as an example to explain their point:

> I think it happens more with the junior nurses. They may have the information but they may not realize that they need to take that information somewhere else, where they have to disperse that information. And that's all just experience.
>
> I think it's just that they don't realize that they have this information that they need to disseminate. It's an omission more than anything else.

5.3.6.2 Staff Turnover

Staff turnover was another factor that was identified as a barrier and a facilitator to IPC and discharge planning. As the NICU is a high turnover acute medical unit, those involved in a patient's care may work together only for a short period of time before shifts change and patients are discharged (CIHC, 2010). A healthcare professional indicated how staff turnover acted as a barrier:

> Given the number of people involved sometimes in a child's care…..I think sometimes information can get missed especially with changing staff and umm….particularly physicians or you know a lot of turnover in nurses.

A healthcare professional also supported this view:

> I tend to be a continuous person in the child's care and you can sometimes see for a family if that collaboration or sometimes pieces are missing or sometimes things are manipulated because they're talking to new people or sometimes plans can change and I can see that that can be frustrating

A healthcare professional also shared the flip side of the situation – how staff turnover can be a benefit to families:

> Or it can be welcomed by a family because they might not have agreed with the plan that was in place initially.

5.3.6.3 Change in Hospital's Perspective

One of the key informants brought up the point of a change in the hospital's perspective on providing care as a barrier towards implementing IPC and a root cause for the "push-to-admit" situation. A medical staff person explained this view:

> You know, so those sort of perspectives of transition as push come to shove…..you only have x beds, and looking at the philosophy of the hospital in my disappointment in that over the past couple of years it was always, you know, do the best you can for all that you can and make sure that every child is cared for to do whatever you can, however you can, for whomever you can. It's gone really, yeah. Cuz you go, Oh I can't do it for that kid……oh well so too bad, move on…..do it for someone else. Move on. [laughs] No but that's what it looks like. Those are the optics.

5.3.6.4 Emergency Situation

An interesting factor brought up by the key informants interviewed was this notion of "push-to-admit". According to the respondents, the healthcare team on the NICU is under constant pressure to admit every single baby that comes their way. Thus, for every new admission, an infant on the unit needs to be discharged to make room for the infant coming in. A medical staff person explained this situation:

> We transfer a baby to Buffalo, to Hamilton, to wherever. So that becomes in the news. It's crisis for the hospital who can't admit a child. A child is left outside. Or with bed deferrals, where the mother has been transferred as there's no room for the mother at Mt Sinai. And the reason why there's no room for the mother is there's no room in the NICU. SO the mother gets sent to Kingston, or to Ottawa, or to Montreal, or to Buffalo to deliver the baby. So that hits the news, so the hospital is put under pressure. So all those dollars and all that is there but not on the back end. The point is you have to get out before you can bring in.

In such situations, the most stable infant, or the infant who is the most ready for discharge is quickly transferred from the unit to make room for the new infant coming in. A medical staff person explained the no-win situation that they are placed in:

> So, and they say yesterday you had to do A to Z with this one child before discharge. You then now remove 10 things from that list because you do not have the time to do it to discharge because you have an admission. Therefore you put the child at risk and they willingly do it because they need the bed. So what was good one day or what were the requirements for one day all of a sudden is not a requirement, not a priority because you have a child in the periphery who's dying without care or is very sick without care or will succumb without care. So you have to pick and choose who you can focus you're energies on.

Key informants indicated that during this situation, their comments or concerns were often overlooked. When this happened, the key informants indicated feeling a bit guilty of not performing their job properly or not being able to help the child being discharged early. A medical staff person stated:

> Because top down will say move today irrespective of what you say. So I document my risks assessments in the chart. Absolutely. I have no fear in doing that anymore. And I tell them, this is at risk and I do not agree. And they still do it.

5.3.7 Quality Improvement

Key informants identified themes which related to quality improvement. Team members may take part in quality improvement as "an outcome of a patient's safety issue that, when addressed collaboratively, improves health outcomes" (CIHC, 2010). The themes which related to quality improvement and the quotes that support them are presented in Table 5-3 in Appendix M.

5.3.7.1 Lack of Evaluation

Lack of evaluation was identified as a barrier to enhancing or improving the discharge planning process. The NICU has no evaluation plan in place to keep track of

and evaluate the outcomes of their discharges to other units or hospitals. Thus they are unable to assess their discharge plans and learn from successes or mistakes made. A medical staff person explained their point:

> But the people who are actually providing the care now, they'll never see them again. They have no outcome, or no indication, no ability to assess what they have done in their care. What outcomes happened to them, or the results, or the next few weeks. They've transferred the baby, it's not in their mind anymore. The baby is gone. They never hear about it.

Readmission back to the NICU was identified as negative outcome of a discharge plan. It also was identified by key informants as their only method of evaluation. A medical staff person explained the situation:

> We have no method to evaluate our discharge process other than readmission. And even so, readmission has to be to here and to this unit before they find out. And we only track for 24 hours really.
>
> And then right there, right back at you to show you, in fact to hit you in the face to show you, you shouldn't have done this. But what consequences are there? Anything happen? They came back and? Did anybody learn any lesson?

5.4 Summary

The NICF provides an integrative approach to describing the competencies required for effective IPC. This framework presents competencies which are required for effective interprofessional collaboration: interprofessional communication, role clarification, team functioning, collaborative leadership, and interprofessional conflict resolution. It also indicates that the context of practice, complexity of the case and quality improvement influence how these competencies are applied (CIHC, 2010).

Based on the results of the key informant interviews conducted as part of this study, themes were drawn which supported the competencies presented by the NICF. The themes obtained from the interviews support that these competencies remain important elements for the integration of effective IPC in practice. These results also provided an insight into the workings of the unit and how IPC enhances the discharge planning process. Based on the results from the interviews, the weakness and strengths of the current state of IPC on the unit can be found and several suggestions for improvement can be provided. Chapter six will present this discussion.

Chapter 6

Discussion and Conclusions

The purpose of this study was to understand the role of IPC in the discharge planning process on a NICU in a large teaching hospital in Canada. The following research questions were used to examine the role of IPC in the discharge planning process and to identify the facilitators and barriers of IPC:

1. What is the current discharge planning process on the NICU at the teaching hospital?
2. What are the views of the healthcare professionals on IPC on the NICU?
3. What are the facilitators and barriers to IPC?

The National Interprofessional Competency Framework (NICF) (CIHC, 2010) identifies six competencies required for effective interprofessional collaboration: a) role clarification, b) team functioning, c) interprofessional communication, d) collaborative leadership, e) interprofessional conflict resolution, and f) patient/client/family/community-centred care.

This framework was used to guide the analysis and the presentation of the results. Chapter six presents the outcomes and implications of the findings of the study. It also presents the lessons learned, suggestions for the NICU on how to incorporate IPC on the unit, and the contributions and suggestions for future research.

6.1 Views on IPC

This section analyzes the data obtained from the online survey and the key informant interviews on how healthcare workers defined IPC. It also examines how healthcare professionals viewed the current state of IPC to be on the NICU.

6.1.1 Different Interpretations of IPC

Healthcare professionals working in the NICU were asked to define the term IPC. According to CAIPE (2002), interprofessional collaboration (IPC) is defined as "two or more frontline providers working and learning from, with, and about each other as a team to provide the best possible outcome for their patient." The elements of respect, trust, shared decision-making, and partnerships are used to define IPC (CIHC, 2010). The key informants identified some of these elements in their definitions of IPC, such as mutual respect, communication, and collaboration. However, a variety of views were expressed by the participants. This is an important finding as the lack of a common understanding of IPC results in different interpretations of IPC which may lead to conflict amongst team members and result in the unsuccessful implementation of IPC (Pethybridge, 2004).

Evidence to further support that healthcare professionals involved in this study did not share a common interpretation of IPC was demonstrated by the use of the terms of multidisciplinary and interdisciplinary interchangeably with the term IPC during the interviews. As noted in the literature review (see page 6) the terms are not interchangeable. Different interpretations of IPC act as a barrier to the implementation of IPC (EICPHC, 2005; Barr, 2005; CHSRF, 2006). When healthcare professionals have a different understanding of IPC it makes it difficult for them to collaborate.

6.1.2 Views on the Practice of IPC on the NICU

Healthcare professionals working in the NICU stated that they believed IPC was occurring on the unit. Results from the online survey indicate that the healthcare workers on the NICU understand each others' roles and acknowledge that they are willing to discuss discharge plans with each other. For example, when asked whether they felt they understood each others' respective role and responsibilities in discharge planning, all the respondents agreed with the statement. These findings are similar to other research findings that the health care workers agreed that IPC is occurring within their team (Pethybridge, 2004; Curran et al., 2007). However, many of the respondents indicated that IPC could be improved on the NICU.

6.2 Elements of IPC

The following section will provide an analysis of the online survey, observation, and key informant interview results. The results will be analyzed based on the National Interprofessional Competency Framework (NICF) established by the Canadian Interprofessional Health Collaborative (CIHC) for developing a Canada-wide competency framework for IPC.

6.2.1 Interprofessional Communication

This lack of communication acts as a barrier to the implementation of IPC (CIHC, 2010; Martin-Rodriguez et al., 2005; Suter et al., 2009; McKenna et al., 2000; Hansen, Bull & Gross, 1998). Inadequate communication among the healthcare team members is

a fundamental source of discontinuity in discharge planning (Bull et al., 1997). The survey results indicate that healthcare professional staff (does not include medical or nursing staff) believe that they do not receive the appropriate communication from the nursing and medical staff regarding patients in their care. 50% of the healthcare professional staff believed that important information regarding a patient's discharge was always shared with them. The key informant interviews supported these results (see page 76).

The majority of healthcare professional staff interviewed agreed that they did not receive adequate information regarding a patient's discharge. Some indicated that their method of obtaining information was by actively searching for the information themselves – mostly by meeting with the respective medical or nursing staff or the DC directly to ask for updates.

Key informants were asked how frequently they spoke to other professionals about discharge and how frequently they read notes inserted in a patient's chart by other professionals elicited an interesting response that should be noted. When asked about how often they spoke to other professionals about discharge, the responses for each professional varied according to the different response choices that were given (see table 4-18 on page 63). However, when asked how often they read notes inserted in patient's charts by other professionals, almost everyone indicated once per day for the majority of professionals. This response indicates that the majority of healthcare workers on the NICU seem to rely on written notes as opposed to word of mouth to keep them updated regarding the discharge process for the infants they are taking care of. These findings

support the need for unified discharge documentation (McKenna et al., 2000; Atwal & Caldwell, 2002; Bull & Kane, 1997).

During the key informant interviews, healthcare workers were also asked about how they communicate with each other regarding a patient's discharge plan. The interview responses differed from the survey responses. In the survey, healthcare workers indicated reading the written notes inserted in a patient's chart by healthcare workers more frequently than directly speaking to them. However, the majority of key informants indicated directly contacting and speaking with the relevant health care worker or the DC when they required any information on a particular infant's discharge plan. Key informants explained that even through it was easier to read notes made by each healthcare professional, often times these notes were not sufficient. Thus it was much easier and less time-consuming to approach the respective healthcare worker directly to ask questions instead of searching for their response in the patient's chart. However, key informants also mentioned that differing work schedules often acted as a barrier when they wanted to communicate directly with the healthcare worker of interest. McWilliam & Sangster (1994) have shown that work schedules acted as a barrier to interprofessional collaboration.

6.2.2 Role Clarification

The NICF identifies role clarification as an important competency required for IPC. The framework defines role clarification as healthcare workers understanding their own role and the roles of others and using this knowledge appropriately to establish and achieve patient goals (CIHC, 2010).

When asked whether they thought they had a good understanding of each others' roles and responsibilities in discharge planning, the survey results indicate that the three professional groupings agree with this statement. However, the key informant interviews indicate that healthcare professional staff, specifically, found role clarity to be lacking in the team. This difference in opinion was further clarified by key informants. They indicated that they felt they understood the roles and responsibilities of others but that the others in their team did not understand their roles (e.g. a dietitian understood the roles of the members of her team but felt that her team members did not understand her role in discharge planning).

Several healthcare professionals who were interviewed expressed their frustration when the other professions stepped into their professional boundary. For instance, a healthcare professional shared their viewpoint:

> You know, they're arguing with you about swallowing, and you're like "come on you guys, give me a break". It's insulting . . . its lack of respect for your knowledge base. I wouldn't argue with them about, you know, whether the child needs a PDA ligation or not.

This viewpoint demonstrates the importance of determining who has the knowledge and skills needed to address the needs of patients (Suter et al., 2009). This allows for a more appropriate use of practitioners and a more equitable distribution of the workload (CIHC, 2010; Suter et al., 2009).

The first step to identifying where unique knowledge and skills are held, professionals must have the ability to listen to other professionals (CIHC, 2010). However, many of the healthcare professional staff interviewed stressed not being listened to by the other professionals on the unit. This does not allow the expertise of the other healthcare workers to be used to full capacity to assist in patient care. One of the

goals of IPC is to obtain the right mix of healthcare workers to ensure a more equitable distribution of workload (CIHC, 2010). Without listening to other healthcare workers to learn of their knowledge and skills, it would be difficult to spread out the workload among the team.

6.2.3 Team Functioning

It is necessary for members of a team to have an understanding of the principles of teamwork in order to enable effective IPC (CIHC, 2010). Collaboration requires trust, mutual respect, availability, open communication, attentive listening, information sharing, and shared care planning, problem solving, and decision-making (CIHC, 2010).

The key informants were asked what they thought were important elements of a team in the interviews. The majority of key informants identified most of the elements stated above including trust, mutual respect, open communication, and information sharing.

6.2.3.1 Mutual Respect

The element stressed the most by key informants (n=10) was mutual respect. Key informants recognized that it was important to understand each other's roles and to respect their knowledge base and expertise in the profession. They also stressed that although mutual respect was seen on the unit, there are still some areas where it could be "better". The problem was identified when professional boundaries were crossed. Key informants, specifically healthcare professional staff, felt a lack of respect for their knowledge base and expertise when other professionals were making decisions outside of

their own professional boundaries. A lack of mutual respect acts as a barrier to IPC (IPEC, 2011).

6.2.3.2 Trust

Trust was another element that was brought up by key informants as important for working in a team. Key informants linked trust, mutual respect, and role clarity together. They stated that professionals need to understand their own role and the importance of the roles of others in discharge planning. This understanding of the different roles will help them to acknowledge the value of the different professions in a patient's care and thus form respect for that profession. Having respect for the knowledge base of the different professions will help to build trust among each other and to trust the expertise of the various professions (Henneman et al., 1995). This trust will assist in decreasing role blurring. Without trust, the establishment of collaborative working relationships would be difficult (D'Amour, 1997).

6.2.3.3 Lack of Open Communication and Information Sharing

Open communication and information sharing were other elements stressed by participants as necessary for efficient teamwork. For instance, some healthcare professional staff respondents identified conflicting work schedules as a barrier to keeping updated on a patient's status. Some of the healthcare professionals on the unit work during the day and are on call on the weekend. Thus, while they are working, they are able to speak with the respective team members regarding a patient's status in order to provide them with up-to-date care. However, when they are away (e.g. sick, training,

etc.) or during the time when they are not working, they will miss out on any changes that occur to the patient. These healthcare professionals stated coming onto the unit when their shift starts and having to quickly update themselves on anything that might have happened to the patients they are caring for overnight. Due to the nature of their jobs, physically searching for their colleagues is not always possible (Atwal & Caldwell, 2002). In some cases, when these healthcare professionals are met with an emergency situation that requires their immediate assistance right at the start of their shift, they are unable to update themselves immediately and may lose out on important information that way. Gaps in information transfer were identified as a barrier to IPC (CIHC, 2010).

Another example of missing out on important updates occur when the respective healthcare professional is absent (e.g. A nurse needs detailed information on an infant's social status but cannot obtain the information if the social worker is absent as he/she has no access to their in-depth notes). In this case, the nurse would have to approach the parents themselves to obtain this information, wasting time that could be used for discharge planning. Thus, key informants stressed the need for a method of communication and information sharing that would be consistent amongst the professions. This is also supported in the literature (McKenna et al., 2000; Atwal & Caldwell, 2002; Bull & Kane, 1997; McWilliam & Sangster, 1994).

Healthcare professionals were asked how often they read notes about a patient written by other professionals. The majority answered that they would read the notes at least once a day. This response shows that healthcare professionals do find an importance in reading written notes.

6.2.3.4 Multidisciplinary Meetings

Participating in multidisciplinary meetings (MultiD) was another method of communication that key informants brought up during the interviews. However, there were mixed feelings about the usefulness of these rounds. As noted above, the term "multidisciplinary" itself can cause confusion as a multidisciplinary team refers to situations where several different professionals work on the same project but independently or in parallel (Siegler & Whitney, 1994; Schofield & Amodeo, 1999; Paul & Peterson, 2001; Satin, 1994). The term multidisciplinary does not support the collaborative team that is needed to achieve optimal patient care and thus should not be used to describe rounds which are meant to bring the different healthcare workers together to discuss cases.

MultiD occurs once a week, every week on the NICU for an hour. At this meeting, professionals who are able to attend during that time period attend and each infant's case is presented with a discussion of next steps. Currently, the two physicians in charge for the week run these meetings. Halm et al. (2003) reported that the participation of all the healthcare disciplines in the discharge planning process increased when interdisciplinary rounds were introduced. However, very few key informants acknowledged that the MultiD rounds were useful to them.

The majority of the key informants found MultiD not beneficial and not a good use of their time. In fact, MultiD was viewed by many as a time to learn about the social and medical history of the patient and not as an opportunity for IPC. From the observations of MultiD rounds for two months, it was noticeable that the main players in the Multi-D meetings are the physicians and the social workers. The physicians give a

medical update and the social workers give a social update (e.g. the family's financial situation) on a case-by-case basis. Input varies from other professionals depending on the time and whether specific questions are directed. There is not enough time and opportunity for everyone's input. The time constraint also does not allow ample time to discuss the complex, high-priority cases.

From the key informant interviews, it can be seen that the healthcare professionals on the NICU understand team developmental dynamics and also are able to identify the elements needed for IPC. In general, the key informants indicate they understand IPC and are aware that it unites all practitioners in the common goal of delivering the best care possible to patients. However, they feel that certain changes can be done to improve how and who facilitates these elements and thus the ability to work together collaboratively.

6.2.4 Collaborative Leadership

Collaborative leadership is defined as healthcare professionals understanding and applying leadership principles that support a collaborative model (CIHC, 2010). The key informants interviewed acknowledged that a leader was needed to delegate the discharge planning process among the different professionals who may be involved. As noted in the NICF (CIHC, 2010), key informants indicated that the role of the lead of the discharge planning team should be both task-oriented and relationship-oriented with an equal emphasis placed on both.

Key informants also stressed that the leader should be one who can take a neutral position within the team. They stated that the role of the lead of the discharge planning

team should be to facilitate collaboration amongst the players in the team and not to be fully engrossed in making decisions about an infant's discharge. This lead, as the key informants stated, should make sure that every member of the team has a fair chance to voice their ideas, opinions, or concerns.

Currently the lead of the discharge planning team is the staff physician. As the physician is legally responsible for making decisions about an infant's discharge, it seems appropriate that they should be the ones to lead the discharge team. However, the decision to discharge and the lead for the team are separate functions. The ratio of physicians to patients is very high and the physician is often moving from one patient to another. Thus, physicians find it hard to set aside time to sit down or meet with the other healthcare professionals to discuss discharge plans especially when they are under pressure to clear hospital beds as soon as possible (McGinley et al., 1996). Here, the lead fulfills their role of coordinating information amongst the healthcare professionals in the team making the physician better informed to make a decision. The difference between the role of the leader and the role of the decision-maker must be noted: the coordination of information among the healthcare professionals in the team is the role of the leader; the decision to discharge is the role of the physician.

The key informants highlighted a point that supports why staff physicians may not be the best choice of lead. On the NICU, there is a frequent turnover of medical staff. Currently medical staff change over occurs every two weeks on the NICU. Key informants indicated this as a barrier because of differing treatment opinions amongst the medical staff. This frequent turnover is also seen as placing the physicians in a weak position to make decisions. For example, if a child is flagged as ready for discharge the

week physicians change shifts, the new physician has to work to learn about the patient quickly in order to make decisions on discharge. This is unfair to the physicians and also acts a disruption for the entire discharge team as every professional must make changes to their care plan according to the new physician's opinion of treatment. The physicians are already overloaded with work and this frequent changeover does not help their situation. In this case, the leader can help bring information together which also results in the inclusiveness of the other professions. This type of set-up would prove to be a winning solution for everyone on the team including the patient.

6.2.5 Interprofessional Conflict Resolution

Interprofessional conflict resolution was identified in the NICF as one of the competencies required for effective IPC. The NICF defines interprofessional conflict resolution as healthcare workers actively engaging themselves and others in positively and constructively addressing disagreements as they arise (CIHC, 2010).

In the online survey, respondents were asked whether they thought disagreements regarding a discharge with their colleagues often remain unresolved. The nursing and medical staff respondents disagreed with this statement. Healthcare professional staff agreed with this statement regarding medical staff and the nursing staff. The data from the key informant interviews supported this finding. The healthcare professional staff respondents identified the tendency for unresolved conflicts with the medical staff. For instance, healthcare professional staff respondents highlighted the issue of lack of role clarity and thus stepping over professional boundaries as a longstanding conflict between them and their medical colleagues.

However, the healthcare professional staff interviewed did acknowledge that they found recent graduates of healthcare professionals to be more collaborative and understanding of other professional roles. Therefore, interprofessional education (IPE) as a component of core curriculum of healthcare professional schools was encouraged by the key informants. Incorporating IPE into the curriculum and teaching healthcare professional students the methods of effective collaboration was seen as valuable to the healthcare team (Gair & Hartery, 2001; Baker & Wellman, 2005; Martin-Rodriguez et al., 2005; Hanson et al., 2000). Teaching students to understand the role of the other healthcare professionals in a patient's care and the importance of working in a team to provide optimal patient care prior to the point at which they enter the work environment helps to minimize some of the problems associated with collaboration (Walsh et al, 1999).

6.2.6 Contextual Issues

Context is one of three background considerations identified by the CIHC to influence the way in which the NICF is applied. The capacity of an individual to demonstrate the integration of the competencies of the national framework is affected by the context that they are in (CIHC, 2010).

6.2.6.1 Experience in the Profession

Experience in the profession was stated to play a role in how professionals integrate the competencies into their practice (CIHC, 2010). It is with experience that a healthcare worker learns how IPC is applied in the context (CIHC, 2010).

Key informants stated frustration when healthcare workers do not share important information/observations about a patient with the respective healthcare worker. For example, a healthcare professional staff respondent mentioned that bedside nurses make a valuable contribution to a patient's care since they spend the most time with the patient and are often able to provide direct observations on the patient's status. This respondent also pointed out that some bedside nurses make important observations (e.g. the infant's mother seems stressed) that they fail to share with other professionals. To clarify, nursing staff respondents were asked about this situation. The nurses pointed to experience in the profession as the reason. They indicated that junior nurses were more likely to not share this kind of information, not because they don't want to, but because they don't know that they are supposed to. This is a good example of the role of lack of experience in the profession in IPC.

6.2.6.2 IPC Falling Apart During Emergency Situations

The healthcare professionals group stated that they felt they were not considered when planning a discharge and that information regarding discharge was not adequately shared with them. For example, 50% of respondents from the healthcare professional staff group disagreed that important information regarding a patient's discharge is always passed on between them and the medical team. The majority of healthcare professional staff respondents also indicated that they felt disagreements were left unresolved. For example, the majority of healthcare professional staff respondents agreed with the statement that disagreements regarding a discharge with the medical staff and nursing staff often remained unresolved. Being one of the key elements of IPC, this breakdown

in communication between the healthcare professional staff and the nursing and medical staff becomes a challenge for the implementation of IPC (CIHC, 2010; Pethybridge, 2004; Herbert, 2005). As noted in the NICF, communication influences all of the other competencies identified in the framework (CIHC, 2010). Thus, without a strong basis (communication), it would be difficult to incorporate the other competencies required for effective IPC in a healthcare team.

To further understand why healthcare professional staff indicated feeling left out of discharge planning communication in the survey, key informant interviews were held. In the interviews, healthcare professionals acknowledged that they understand IPC and they also credited the NICU for being one of the units in the hospital that practices IPC the "best".

The interview data demonstrated that IPC worked well during a routine discharge. Some of the key informants acknowledged that they felt they were able to obtain information about a patient's discharge plans from the respective healthcare professional whenever they inquired about it. However, further into the interviews, the key informants identified a time when IPC "fell apart".

The healthcare professional staff respondents who were interviewed identified that when there was an emergency situation on the unit, they were left out of the discharge process. By emergency, they referred to a new admission on to the unit who needs to be admitted immediately in order to provide care for that infant. Without admission immediately onto the NICU, that infant may be at risk or unable to receive the care that they need. However, in order to admit this newborn in the NICU, an existing NICU patient must be discharged to make a bed available for the new patient. So, the

most stable infant is identified and prepared for discharge to an appropriate bed within the hospital or to another hospital for further care.

The medical team and the discharge coordinator (DC) are primarily involved in discharging an infant when the need arises in an emergency situation as defined. Rarely are other members of the team involved in the discharge. Other healthcare professionals, who may be involved in the treatment of the infant being discharged, stated they were not notified about the early discharge and often were not given adequate information about the discharge. Also, important information regarding a patient that must be considered before being discharged may not be relayed between the healthcare professional staff and the medical and nursing staff. Several participants identified that this information may not be considered during these emergency situations. According to the healthcare professionals, this is when IPC on the unit falls apart and is due to the lack of communication.

The staff physician is legally responsible for the decision to discharge. However there is a two-week turnover on the unit (meaning the neonatologist switches every two weeks on the unit). Thus, when there is an immediate need for discharge, it may be that the neonatologist has not had the opportunity to participate in previous IPC rounds or discussions about the patient. As a result he/she relies on the DC to provide them with the most updated information needed to make the decision to discharge.

However, the DC may not have all the information. The DC relies on healthcare professionals to provide information and updates on the patients. Nevertheless, due to varying work schedules and lack of time for communication, it is not always possible to be constantly updated by the respective healthcare professional. The DC does not

conduct investigations on each child to identify potential problems. Their role is to obtain the information from the different healthcare professionals involved in an infant's care and facilitate the discharge. This is also an example of the lack of role clarity amongst the healthcare workers – another barrier to IPC which is believed to hinder the discharge planning process.

6.2.7 Quality Improvement

Quality improvement is another background factor which was identified by the NICF to influence the way the framework is applied. The NICF states that team members may take part in quality improvement as "an outcome of a patient's safety issue that, when addressed collaboratively, improves health outcomes" (CIHC, 2010, p. 20).

The interview data presented that the unit does not currently have a method of evaluation related to their discharges from the unit. Methods of evaluation act as important tools to evaluate the outcomes of IPC (Stecher & Davis, 1987). Thus they are unable to assess their discharge plans and learn from mistakes made. Once an infant is discharged from the unit, the healthcare professionals on the NICU have no way of hearing what was the outcome of their discharge. Lack of knowledge on the result of IPC does not allow professionals to assess the outcome of their IPC (Stecher & Davis, 1987).

Key informants indicated that readmission back to the NICU, unfortunately, is the only way to find out the outcome of their planned discharge. It is unfortunate that healthcare professionals are unable to assess the outcome of their discharge and it is strongly recommended that a study be conducted which would follow several infants who were patients on the NICU post-discharge.

6.3 Recommendations

The following section presents several recommendations identified by the researcher through information obtained from the literature and also from the key informant interview and survey data. Recommendations which were suggested by participants in the interviews are also presented.

6.3.1 Unified Discharge Documentation or Electronic Medical Charts

A possible solution to the identified lack of communication is to have unified discharge documentation where all the healthcare professionals involved in a patient's care would write their notes all in one area (i.e. Everyone's notes are available in the patient's chart).

An alternate solution would be to make the change from paper charts to electronic charts or electronic medical records (EMR). Storing clinical information electronically will help healthcare professionals significantly enhance the quality of medical care and increase the efficiency of medical practice (Sujansky, 1998). Using EMR will allow healthcare professionals involved in a patient's care to have access to the patient's chart at any time when they are on the unit and would be able to provide updates to the patient's chart whenever a change arises. This EMR eliminates the need for professionals to rely on physically searching for the respective professionals for information and it also makes their own notes available to other professionals in the event that they are absent from the unit.

6.3.2 Multidisciplinary Meetings

During the interviews, participants identified that the unit's purpose for the MultiD meetings was for healthcare professionals to collaborate regarding a patient's care plan. However, the participants did not find them either useful or particularly interprofessional.

Some suggestions that were provided by the key informants included having a separate meeting to discuss social issues whereas others suggested incorporating the element of discharge planning and social work into the daily rounds that already exist. Based on the observations during the MultiD rounds, a suggestion for improvement would be to change the lead of the MultiD rounds. Since the DC has an idea of which patients are ready for discharge and which are not, the DC may be the best person to lead the meeting. He/she can use the already proposed "Traffic Light System" which signals infants on the unit as either red (not ready for discharge), yellow (almost ready for discharge), and green (ready for discharge), to help organize the meeting. This way, important information needed for discharge will be discussed, and those infants who are of higher priority or are ready for discharge will be given more time for discussion and decision-making about their discharge.

6.3.3 Discharge Coordinator as Lead of the Discharge Planning Team

The best suggestion would be to have a person who understands the discharge process and also has knowledge of elements of team functioning to be the lead. Many of the key informants stressed the importance of the DC to the discharge planning process and appreciated having this role on the unit. The majority of key informants identified

the DC as their first point of contact regarding a patient's discharge plan. This finding demonstrates that the majority of healthcare professionals felt comfortable approaching the DC and view the DC as a central figure in the discharge planning process (Hansen et al., 1998; Jewell, 1993).

Having the DC as the lead of the discharge planning process would be beneficial in many ways. First, the DC would act as the intermediary between the different members of the discharge planning team and facilitate communication amongst them. With all the information from the different players, the DC can take this information to the staff physician to assist them with making the optimal decision for discharge. Second, the DC can act as the constant person in the discharge planning team to whom healthcare professionals who are entering the team (e.g. physicians during shift changeover) or those who have been away for some time can approach for updated information. Finally, the DC can lead the MultiD meetings and organize the format of the meeting to follow the Traffic Light System thus ensuring that time is spent accordingly to the complexity of the child and that the appropriate discharge plans are discussed. Based on these benefits and many more, the DC appears to be the optimal person to coordinate the transfer of information among the healthcare team members.

6.3.4 Encourage Healthcare Professionals to Share Information

Key informants identified lack of information sharing among the healthcare team members as a barrier to IPC. A solution to this would be to encourage healthcare professionals to share information with others and provide them with examples of what types of information they should be taking note of and what should be shared. Another

solution would be for senior healthcare professionals to make an attempt to ask the junior healthcare professionals for any information that they might want to provide or share with them. This helps them to get into the habit of communicating their observations to the appropriate healthcare professional.

6.4 Future Research

The purpose of this research was to study the role of IPC on the discharge planning process in the NICU. This study assisted with not only understanding the importance of IPC but also with identifying parts of the discharge planning process which need to be further studied and improved in order to improve the process.

6.4.1 Inclusion of Receiving Hospital Members and Family Members in Sample

This study only included the healthcare professionals on a NICU of a Canadian teaching hospital in the sample. It did not include the healthcare professionals who are a part of the discharge planning process by being part of the staff at the receiving hospitals. However, key informants identified the receiving hospitals/units to be an important factor in the discharge planning process. The second step of this study should be to include the receiving hospital in the sample in order to assess their collaboration with the NICU and to see how that can be improved to facilitate a smoother transition. The role of the receiving hospital in the discharge planning process of the NICU should be accessed. Also, the receiving hospital's team members can identify how the discharge planning process can be improved in the NICU based on their experiences.

Additionally, the patient's family should be included in the sample. Family members are most impacted by the discharge plan (Shepperd et al., 2004). The family members of the infants admitted are commonly stressed and may also be confused about their child's situation. Thus, it is important to consider the family's situation prior to planning a discharge and include them in the discharge planning and obtain their views and opinions before making plans (CIHC, 2010).

6.4.2 Longitudinal Studies of Discharged Infants

Lack of evaluation is a problem (Sticker & Davis, 1989). Currently there is no evaluation process and thus no assessment of the discharge planning process on the NICU. How do professionals improve the way they collaborate interprofessionally if they have nothing to measure the outcome of their previous efforts?

It is recommended that a longitudinal study following infants who are discharged from the NICU be conducted to assess the outcome of the current discharge process. The sample should include a mix of infants who require different levels of care (e.g. complex care infants, long-term care infants, etc.). The study should obtain the views of the healthcare professionals on the NICU and the receiving hospital and should also include the views of the patient's family. The study should take note of: a) what happened to the child after being discharged from the NICU, b) if there were any delays in the discharge planning and why, and importantly c) what could have been done better.

The results from this longitudinal study should be used to make any improvements to the current discharge planning process. Another goal of this longitudinal study should be to help lead towards identifying a method of evaluation for

the unit. The results from this study may help to identify the importance of having an evaluation process.

6.5 Conclusion

The structure and the organization of the NICU provided several different opportunities for the communication of patient information (e.g. rounds, daily meetings of the interprofessional team (IPT) and a discharge planner position). However, when faced with an emergency situation, there was an increased reliance on the traditional model of care requiring that the decisions made with regards to discharge were the sole responsibility of the physician. This is not a surprising finding as physicians are ultimately responsible from a medical-legal perspective (Lahey and Currie, 2005). However, one of the unintended consequences was that other IPT members who had been involved in the care of the patient were uncertain as to whether their contributions were taken into consideration.

Clearly, while the mechanisms exist to communicate effectively on the unit, the organization and structure of the current communication processes does not allow for the integration of information in a meaningful way. To address this problem we recommend examining the implementation of a unified electronic chart and the creation of a new discharge model for emergency situations.

A unified electronic chart would make accessible to all healthcare workers the most up to date information for each patient (Friedman et al., 2002; Miller, 2005). It also

allows all healthcare workers involved in a patient's care to have access to information even when colleagues are absent during an emergency discharge.

Another recommendation is to either update the current discharge planning model (e.g. creating a checklist which identifies all the healthcare workers involved in the child's care to be included in the patient's chart) or to create a separate IPC model for emergency discharges. This would help to empower the entire allied health staff involved to be active in the discharge planning of the infant under their care and would help to alleviate issues around ineffective communication.

This study examined the role of IPC on the discharge planning process in the NICU. Results demonstrated that defining the context is important and that IPC works well in a non-emergency situation on the NICU. The level of involvement of the healthcare workers in IPC varies due to previous experience working on interprofessional teams (IPT) and educational preparedness. The medical lead is responsible for making the decision about a discharge. However, what has been identified as important is an IPC leader who is responsible for ensuring that all information from the IPT members is accessible to inform the medical lead. Future research has the potential to alleviate some of the barriers which were identified in the study.

Glossary of Terms

Healthcare Professionals (HCPs): A HCP is a trained person who delivers medical care in a systematic way, following prescribed protocols and procedures. This term covers everything from a doctor, nurse and physical therapist to a pharmacist and dietitian.

Interdisciplinary team: Involves integrating and translating themes and schemes shared by several professions. This team will have a common goal and work with a common decision-making process (Satin, 1994).

Interprofessional collaboration (IPC): "Two or more frontline providers working and learning from, with, and about each other as a team to provide the best possible outcome for their patient" (CAIPE, 2002).

Interprofessional Collaborative Practice (IPCP): This practice is centred on the needs of clients; enabling them to be partners in their care, with the most appropriate healthcare professionals providing services required to meet their healthcare needs (Health Canada, 2005).

Interprofessional Competencies: "Describe the complex integration of knowledge, skills, attitudes, values, and judgements that allow a healthcare provider to apply these components into all collaborative solutions" (CIHC, 2010, p. 24).

Interprofessional education (IPE): "Occasions is when two or more professions learn with, from and about each other to improve collaboration and quality of care" (CAIPE, 2002).

Multidisciplinary meetings (MultiD): This meeting is held once a week for an hour on the NICU of the Canadian teaching hospital. The purpose of this weekly meeting is to discuss discharge plans of the patients on the unit on a case-by-case basis. The healthcare professionals who are part of infants' care on the unit attend these rounds.

Multidisciplinary team: Situations where several different professionals work on the same project but independently or in parallel (Satin, 1994).

National Interprofessional Competency Framework (NICF): This framework involves four central domains including role clarification, team functioning, interprofessional conflict resolution, and collaborative leadership (CIHC, 2010). These domains are supported by two others: interprofessional communication and patient/client/family/community-centred care. The complexity of the situation, the context of the practice, and the need for quality improvement all influence the way in which the framework is applied (CIHC, 2010).

Neonatal Intensive Care Unit (NICU): An intensive care unit designed with special equipment to care for premature or seriously ill newborns.

Transdisciplinary team: A type of professional practice in which consensus-seeking and the opening up of professional territories play a major role. This type of practice is characterized by an exchange of knowledge, skills, and expertise that goes beyond professional boundaries (D'Amour, 2005).

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Appendices

Appendix A: Online Survey

IPC & Discharge Planning

The Role of Interprofessional Practice on the Discharge Planning Process in the Neonatal Intensive Care Unit at the Hospital for Sick Children

Survey

Introduction

This survey is part of a study to identify and examine the factors associated with interprofessional collaboration (IPC) that facilitate or act as barriers to effective discharge planning. The survey items will ask you to report your perceptions of IPC in relation to the discharge planning process on the NICU.

In order to participate in this survey, you must be involved in some aspect of the discharge planning process on the NICU. Completing the survey is voluntary and the data is confidential. Once the survey is started it is advisable to complete it in one sitting. Data entered will not be saved and data will be lost if you need to come back to the survey. If you choose to withdraw from the study, or if you begin and stop completing the survey before you have finished, it will not affect your employment status at SickKids in any way. Any data already entered in the survey before withdrawal will not be saved.

We will store your responses in a secure location. Before data analysis, we will anonymize your responses by removing identifying data from them. The findings of the research will be reported in written publications and conference presentations. We will never use your survey responses in a way that could allow your colleagues or supervisors to identify you as the survey respondent.

By clicking the box at the bottom of this page you are consenting to participate in the study. If you have questions about the rights of research participants, please contact the Research Ethics Manager at SickKids at (416) 813-5718 or REB Administration at UOIT at (905) 721-8668, ext. 3693. If you have questions about the survey or need assistance completing it, contact:

Lori Ives-Baine Neonatal Intensive Care Unit Hospital for Sick Children 555 University Avenue Toronto, Ontario M5G 1X8 Tel.: (416) 813-6782 Email: lori.ives-baine@sickkids.ca	Or	Myuri Manogaran Graduate Student Faculty of Health Sciences University of Ontario Institute of Tech. 2000 Simcoe Street North Oshawa, Ontario, L1H 7K4 Tel.: (905) 721-8668 x:2950 Email: myuri.manogaran@uoit.ca

The survey takes 15 minutes to complete. Please respond to each question as you believe the situation really exists, not as you think it should be or wish it to be.

☐ I consent to participating in this online survey

I. Indicate your sex: Male_____ Female_____ .

II. Do you provide direct patient/client care? Yes_____ No_____ .

III. Do you manage any staff members? Yes_____ No_____ .

IV. Experience in your profession: Less than 6 months_____ More than 6 months to 1 year_____

More than 1 year to 5 years_____ More than 5 years to 10 years_____ More than 10 years_____ .

V. Employment Status: Full time_____ Part time_____

Other_____ (specify):_____ .

VI. Have you had previous interprofessional collaboration training? Yes_____ No_____

Formal Training? Yes_____ No_____ If yes, please specify _____

Informal Training? Yes_____ No_____ If yes, please specify _____

VI. Select your occupation:

Medical Team

Staff/Attending_____ Fellow_____ Nurse Practitioner _____

Other (specify):_____ .

(*Survey skips to section A for Medical Team)

OR

Nursing

Advanced Practice Nurse_____ Registered Nurse_____

Other (specify):_____.

(*Survey skips to section B for nurses)

OR

Healthcare Professional Services Staff

Chaplain_____ Dietitian_____ Occupational Therapist_____ Pharmacist_____
Physical Therapist_____ Respiratory Therapist_____ Social Worker_____
Other (specify):_____ .

(*Survey skips to section C for Healthcare professional services staff)

Section A. Complete this section ONLY if you are a member of the Medical Team.

As a medical staff you work with *nurses* and *Healthcare professional services staff* like therapists, speech and language pathologists, social workers, psychologists, pharmacists, etc. Please evaluate work relationships between physicians, nurses, and Healthcare professional services staff who work with you in terms of discharge planning. Read the statements below. Select one response that best describes your opinion about the statement.

Units:	**Inpatient Units**			
Choose your responses based on this range of numbers	**Strongly Disagree** 1	**Disagree** 2	**Agree** 3	**Strongly Agree** 4
1. The medical team has a good understanding with the nurses about our respective responsibilities /roles in discharge planning	1	2	3	4
2. Nurses are usually willing to take into account the convenience of the medical team when planning a patient's discharge.	1	2	3	4
3. I feel that patient discharge plans are not adequately discussed between the medical team and nurses.	1	2	3	4
4. The medical team and nurses share similar ideas about how to facilitate a patient's discharge	1	2	3	4
5. Nurses are willing to discuss issues related to a patient's discharge.	1	2	3	4
6. Nurses cooperate with the way we organize discharge.	1	2	3	4
7. Nursing staff would be willing to cooperate with new discharge planning processes.	1	2	3	4
8. The nurses do not usually ask for the medical team's opinions when discharge planning.	1	2	3	4
9. Nursing staff anticipate when the medical team will need their help when planning a discharge.	1	2	3	4
10. Important information regarding a patient's discharge is always passed on between the medical team and nurses.	1	2	3	4
11. Disagreements regarding a discharge with nurses often remain unresolved.	1	2	3	4
12. Nurses think their work when planning a discharge is more important than the work of medical staff.	1	2	3	4
13. Nurses would not be willing to share their observations which may be beneficial to discharge planning with The medical team.	1	2	3	4
14. It is important to communicate well with nurses when planning a discharge.	1	2	3	4
15. Nurses usually think the medical team is an important part of the discharge planning team.	1	2	3	4

Continue on the next page

Section A, continued, for the Medical Team.

	Inpatient Units			
Choose your responses based on this range of numbers	**Strongly Disagree** 1	**Disagree** 2	**Agree** 3	**Strongly Agree** 4
16. The medical team has a good understanding with the Healthcare professional services staff about our respective responsibilities/roles in discharge planning.	1	2	3	4
17. Healthcare professional services staff are usually willing to take into account the convenience of the medical team when planning a patient's discharge.	1	2	3	4
18. I feel that patient discharge plans are not adequately discussed between the medical team and Healthcare professional services staff.	1	2	3	4
19. Medical staff and Healthcare professional services staff share similar ideas about how to facilitate patient discharge.	1	2	3	4
20. Healthcare professional services staff are willing to discuss issues related to a patient's discharge.	1	2	3	4
21. Healthcare professional services staff cooperate with the way we organize discharge.	1	2	3	4
22. Healthcare professional services staff would be willing to cooperate with new discharge planning processes.	1	2	3	4
23. The Healthcare professional services staff do not usually ask for medical staff's opinions when discharge planning.	1	2	3	4
24. Healthcare professional services staff anticipate when the medical team will need their help when planning a discharge.	1	2	3	4
25. Important information regarding a patient's discharge is always passed on between the medical team and Healthcare professional services staff.	1	2	3	4
26. Disagreements regarding a discharge with Healthcare professional services staff often remain unresolved.	1	2	3	4
27. Healthcare professional services staff think their work when planning a discharge is more important than the work of medical staff.	1	2	3	4
28. Healthcare professional services staff would not be willing to share their observations which may be beneficial to discharge planning with the medical team.	1	2	3	4
29. It is important to communicate well with Healthcare professional services staff when planning a discharge.	1	2	3	4
30. Healthcare professional services staff usually think the medical team is an important part of the discharge planning team.	1	2	3	4

Section B. Complete this section ONLY if you are a member of the NURSING STAFF.

As a nurse you work with *physicians* and *Healthcare professional services staff* like therapists, social workers, pharmacists, etc. Please evaluate work relationships between nurses, physicians, and Healthcare professional services staff who work with you in terms of discharge planning. Read the statements below. Select one response that best describes your opinion about the statement.

Units:	**Inpatient Units**			
Choose your responses based on this range of numbers	**Strongly Disagree** 1	**Disagree** 2	**Agree** 3	**Strongly Agree** 4
1. Nurses have a good understanding with the medical team about our respective responsibilities/roles in discharge planning.	1	2	3	4
2. The medical team is usually willing to take into account the convenience of the nurses when planning a patient's discharge.	1	2	3	4
3. I feel that patient discharge plans are not adequately discussed between nurses and the medical team.	1	2	3	4
4. Nurses and members of the medical team share similar ideas about how to facilitate a patient's discharge.	1	2	3	4
5. The medical team is willing to discuss issues related to a patient's discharge.	1	2	3	4
6. Medical staff cooperate with the way we organize discharge.	1	2	3	4
7. Medical staff would be willing to cooperate with new discharge planning processes.	1	2	3	4
8. The medical staff do not usually ask for nurses' opinions when discharge planning.	1	2	3	4
9. Medical staff anticipate when nurses will need their help when planning a discharge.	1	2	3	4
10. Important information regarding a patient's discharge is always passed on between nurses and the medical team.	1	2	3	4
11. Disagreements regarding a discharge with the medical team often remain unresolved.	1	2	3	4
12. The medical team think their work when planning a discharge is more important than the work of nurses.	1	2	3	4
13. The medical team would not be willing to discuss their observations which may be beneficial to discharge planning with nurses.	1	2	3	4
14. It is important to communicate well with the medical team when planning a discharge.	1	2	3	4
15. The medical team usually think nurses are an important part of the discharge team.	1	2	3	4

Continue on the next page

Section B, continued, for NURSING STAFF.

Units:	Inpatient Unit			
Choose your responses based on this range of numbers	Strongly Disagree	Disagree	Agree	Strongly Agree
	1	2	3	4
16. Nurses have a good understanding with the Healthcare professional services staff about our respective responsibilities/roles in discharge planning	1	2	3	4
17. Healthcare professional services staff are usually willing to take into account the convenience of the nurses when planning a patient's discharge.	1	2	3	4
18. I feel that patient discharge plans are not adequately discussed between nurses and Healthcare professional services staff.	1	2	3	4
19. Nurses and Healthcare professional services staff share similar ideas about how to facilitate patient discharge.	1	2	3	4
20. Healthcare professional services staff are willing to discuss issues related to a patient's discharge.	1	2	3	4
21. Healthcare professional services staff cooperate with the way we organize discharge.	1	2	3	4
22. Healthcare professional services staff would be willing to cooperate with new discharge planning processes.	1	2	3	4
23. The Healthcare professional services staff do not usually ask for nurses' opinions when discharge planning.	1	2	3	4
24. Healthcare professional services staff anticipate when nurses will need their help when planning a discharge.	1	2	3	4
25. Important information regarding a patient's discharge is always passed on between nurses and Healthcare professional services staff.	1	2	3	4
26. Disagreements regarding a discharge with Healthcare professional services staff often remain unresolved.	1	2	3	4
27. Healthcare professional services staff think their work when planning a discharge is more important than the work of nurses.	1	2	3	4
28. Healthcare professional services staff would not be willing to share their observations which may be beneficial to discharge planning with nurses.	1	2	3	4
29. It is important to communicate well with Healthcare professional services staff when planning a discharge.	1	2	3	4
30. Healthcare professional services staff usually think nurses are an important part of the discharge team.	1	2	3	4

Survey skips to section D

Section C. Complete this section ONLY if you are a CHAPLAIN, DIETITIAN, OT, PT, PHARMACIST, RESPIRATORY THERAPIST, SOCIAL WORKER, or ANOTHER HEALTHCARE PROFESSIONAL.

You work with *physicians* and *nurses*. Please evaluate work relationships between Healthcare professional services staff, nurses and physicians who work with you in terms of discharge planning. Read the statements below. Select one response that best describes your opinion about the statement.

Units:	**Inpatient Units**			
Choose your responses based on this range of numbers	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**
	1	2	3	4
1. Healthcare professional services staff have a good understanding with the medical team about our respective responsibilities/roles in discharge planning.	1	2	3	4
2. The medical team are usually willing to take into account the convenience of the Healthcare professional services staff when planning a patient's discharge.	1	2	3	4
3. I feel that patient discharge plans are not adequately discussed between Healthcare professional services staff and The medical team.	1	2	3	4
4. Healthcare professional services staff and medical staff share similar ideas about how to facilitate a patient's discharge.	1	2	3	4
5. The medical team are willing to discuss issues related to a patient's discharge.	1	2	3	4
6. Medical staff cooperate with the way we organize discharge	1	2	3	4
7. Medical staff would be willing to cooperate with new discharge planning processes.	1	2	3	4
8. The medical staff do not usually ask for Healthcare professional services staff' opinions when discharge planning.	1	2	3	4
9. Medical staff anticipate when Healthcare professional services staff will need their help when planning a discharge.	1	2	3	4
10. Important information regarding a patient's discharge is always passed on between Healthcare professional services staff and The medical team.	1	2	3	4
11. Disagreements regarding a discharge with the medical team often remain unresolved.	1	2	3	4
12. The medical team thinks their work when planning a discharge is more important than the work of Healthcare professional services staff.	1	2	3	4
13. The medical team would not be willing to discuss their observations which may be beneficial to discharge planning Healthcare professional services staff.	1	2	3	4
14. It is important to communicate well with the medical team when planning a discharge.	1	2	3	4
15. The medical team usually thinks Healthcare professional services staff are an important part of the discharge team.	1	2	3	4

Continue on the next page

Section C, continued, for PROFESSIONAL SERVICES HEALTH CARE PROFESSIONALS.

Units:	Inpatient Units			
Choose your responses based on this range of numbers	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**
	1	2	3	4
16. Healthcare professional services staff have a good understanding with the nurses about our respective responsibilities/roles in discharge planning.	1	2	3	4
17. Nurses are usually willing to take into account the convenience of the Healthcare professional services staff when planning a patient's discharge.	1	2	3	4
18. I feel that patient discharge plans are not adequately discussed between Healthcare professional services staff and nurses.	1	2	3	4
19. Healthcare professional services staff and nurses share similar ideas about how to facilitate a patient's discharge.	1	2	3	4
20. Nurses are willing to discuss issues related to a patient's discharge.	1	2	3	4
21. Nurses cooperate with the way we organize discharge.	1	2	3	4
22. Nursing staff would be willing to cooperate with new discharge planning processes.	1	2	3	4
23. The nurses do not usually ask for Healthcare professional services staff' opinions when discharge planning.	1	2	3	4
24. Nursing staff anticipate when Healthcare professional services staff will need their help when planning a discharge.	1	2	3	4
25. Important information regarding a patient's discharge is always passed on between Healthcare professional services staff and nurses.	1	2	3	4
26. Disagreements regarding a discharge with nurses often remain unresolved.	1	2	3	4
27. Nurses think their work when planning a discharge is more important than the work of Healthcare professional services staff.	1	2	3	4
28. Nurses would not be willing to share their observations which may be beneficial to discharge planning with Healthcare professional services staff.	1	2	3	4
29. It is important to communicate well with nurses when planning a discharge.	1	2	3	4
30. Nurses usually think Healthcare professional services staff are an important part of the discharge team.	1	2	3	4

Survey skips to Section D

Section D. (FOR ALL) Complete this section.

31. When planning a patient's discharge, how often do you speak with other professionals about the discharge? Please tell us about every profession. Mark the box that describes the frequency.

I speak about patient care with a/an:	Several times per day	About once a day	Infrequently	Never or almost never	Not applicable
Chaplain	☐	☐	☐	☐	☐
Clerical Assistant	☐	☐	☐	☐	☐
Dietitian	☐	☐	☐	☐	☐
Nurse	☐	☐	☐	☐	☐
Occupational Therapist	☐	☐	☐	☐	☐
Pharmacist	☐	☐	☐	☐	☐
Physical Therapist	☐	☐	☐	☐	☐
Physician	☐	☐	☐	☐	☐
Respiratory Therapist	☐	☐	☐	☐	☐
Social Worker	☐	☐	☐	☐	☐
Transition Coordinator	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐

32. As a clinician, how often do you read information or notes inserted in a patient's chart by other professionals? Please tell us about every profession. Mark the box that describes the frequency.

I read information and notes about patient care by a/an:	Several ~~time~~s per day	About once a day	Infrequently	Never or almost never	Not applicable
Chaplain	☐	☐	☐	☐	☐
Clerical Assistant	☐	☐	☐	☐	☐
Dietitian	☐	☐	☐	☐	☐
Nurse	☐	☐	☐	☐	☐
Occupational Therapist	☐	☐	☐	☐	☐
Pharmacist	☐	☐	☐	☐	☐
Physical Therapist	☐	☐	☐	☐	☐
Physician	☐	☐	☐	☐	☐
Respiratory Therapist	☐	☐	☐	☐	☐
Social Worker	☐	☐	☐	☐	☐
Transition Coordinator	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐

This is the end of the survey. Thank you for participating. Your responses are valuable to us.

Appendix B: Recruitment Information – Little card distributed at "Tea at 3" Event

Hello NICU Colleague,

The **"Role of interprofessional collaboration on the discharge planning process in the neonatal intensive care unit"** research project is ready for your participation!

The survey is now open at the following link:

ipcdischargeplanning.limequery.com

Thank you for your participation!

Appendix C: Recruitment/Invitation Email

Recruitment information – to be sent by email

Hello NICU Colleagues,

The **"Role of interprofessional collaboration on the discharge planning process in the neonatal intensive care unit"** research project is ready for your participation!

Many of you learned about this project during the Tea for 3 sponsored by the researchers of this project, and we hope that you will consider taking part in our research. You will receive an invitation by email from Lori Ives-Baine to consider participation in the study. After receiving the invitation to participate in the study, you can click on the link provided which will take you to the survey's website.

The survey will take approximately 15 minutes in length and will ask how you feel about IPC and your views about the discharge planning process, leadership, team work, and healthcare hierarchy.

Along with this survey, a researcher (Myuri Manogaran) will be observing the NICU Team during the multidisciplinary rounds. These observations will concentrate on the interactions between the members of the team.

Based on her observations, key informants will be invited for an interview to provide a deeper understanding and an explanation for certain behaviours observed. This interview will be approximately 60 minutes in length and tape recorded.

All data obtained during all parts of this study will be kept confidential and anonymous. You are welcome to withdraw from the study at any point of the project.

With thanks,

Lori Ives-Baine, Myuri Manogaran, and Brenda Gamble

Appendix D: Recruitment Flyer

The Role of Interprofessional Collaboration on Discharge Planning in the NICU

WHO?

All health-care professionals who work in the NICU:

Physicians, Fellows, Residents, Registered Nurses, Clinical Support Nurses, CNS-NPs, Clinical Managers, Transitional Care Coordinator, Respiratory Therapists, Pharmacists, Social Workers, Dieticians, Chaplains, Occupational Therapists

WHAT WOULD IT INVOLVE?

- Completion of an **online survey** asking how you feel about IPC and your views about the discharge planning process, leadership, team work and health-care hierarchy

WHEN?

Fall 2010

PURPOSE OF STUDY?

- To identify barriers for the implementation of IPC in the discharge planning process.
- To determine the benefits, if any, of IPC for discharge planning.

WHAT IS IN IT FOR ME?

- The comfort that you have helped to identify any gaps in the current discharge planning process.
- Contribution to help facilitate interprofessional collaboration in the unit.

All responses are anonymous and confidential.

You can also contact Lori (ext. 6782) with any questions or Myuri Manogaran at myuri.manogaran@uoit.ca to learn more and discuss participation.

*****Check your email for an invitation to take part in the online survey!**

Appendix E: Pilot Survey Response Form

Pilot Study of Survey
RESPONSE FORM

Study Title: The role of interprofessional collaboration on the discharge planning process in the neonatal intensive care unit

**Please complete the online survey that will be used to assess the opinions of healthcare professionals on the neonatal intensive care unit and answer the questions below. Your responses will be used to improve the survey before launching it.

1. How long did it take you to complete the entire survey?
   _____
2. Were the questions/instructions clear?
3. Was the format of the survey easy to follow?
4. Did you notice any spelling/grammar mistakes?
5. Do you feel that anything important/relevant to the study was missing in the survey?
6. How can we improve this survey?
7. Any additional comments?

Appendix F: Observation Chart

Case Number	Spoke about Prognosis	Spoke about Diagnosis	Spoken about Discharge	Communication From	Communication To	Results	Immediate Visible Effects	Notes

Appendix G: Verbal Consent Script

Verbal Consent Script – What will be said at beginning of the observations

Hello NICU Colleagues,

Before we start the meeting today I'd like to introduce you to Myuri Manogaran who is here to take observations for her research project exploring the role of interprofessional collaboration on discharge planning in the NICU.

Many of you learned about this project during the Tea for 3 sponsored by the researchers of this project. Part of the project includes observations during our multidisciplinary rounds. Myuri will be sitting in our meeting every week for the next two months to observe our interactions with each other.

All data obtained during the observations will be kept confidential and anonymous. You are welcome to withdraw from the study at any point of the observations.

If you do not want to participate, you may approach Myuri at the end or after the meeting if you would like your comments removed from her notes. She will wait outside of the meeting room for anyone who would like to withdraw information or withdraw from the study.

Appendix H: Key Informant Interviews Script

Key Informant Interviews Script – What will be said at beginning of the interview

Hello NICU Colleague,

Thank you for taking part in our research project studying the **"Role of interprofessional collaboration on the discharge planning process in the neonatal intensive care unit"**.

Based on observations that were taken by the researcher, Myuri Manogaran, you were invited for a key informant interview. The purpose of this interview is to gain a deeper understanding of your role and/or the content of the discussion observed.

The interview will take approximately 60 minutes in length. You will be asked to about how you feel about IPC and your views about the discharge planning process, leadership, team work, healthcare hierarchy, and dual line of authority.

During this interview, I kindly ask that you refrain from using the names of, or any identifying information of your colleagues, patients, or other individuals.

With your permission, the data collected for this study may also be used for other research related to understanding interprofessional collaboration and its role in discharge planning. All data would be anonymous.

If during this interview you feel uncomfortable with a question, you have the option of avoiding it and may do so by indicating your choice to the interviewer. If you would like to discontinue your participation in the interview, you may do so at any time. Your decision to discontinue will not affect your position at Sick Kids.

Once again, thank you very much for your participation. Your contribution will help make a difference in the discharge planning process for patients on the NICU.

Lori Ives-Baine, Myuri Manogaran, Brenda Gamble

Appendix I: Key Informant Interview Guiding Questions

Interprofessional Collaboration

Sick Kids' definition:

> ***"The continuous interaction of two or more professions, organized into a common effort to solve or explore common issues with the best possible participation of the child and family."***

Questions:

1. What does interprofessional collaboration (interdisciplinary team) mean to you?

2. What do you think are the key elements of your team?

3. In your opinion, is interprofessional collaboration occurring on the unit?
   - If yes, how?
   - If no, why not?

4. How do you communicate your ideas or suggestions regarding a child's discharge plan to your team?
   - Who is your first contact regarding discharge planning?
   - Who else needs to be involved in discharge planning?
   - Is all the team needed involved in discharge planning most of the time?
   - What could be done better?

5. How would you improve interprofessional collaboration on the N.I.C.U.?

6. What would you like done in the future regarding interprofessional collaboration?
   - Meetings with the heads of each discipline? Etc.

Appendix J: Research Consent Form

SickKids®
THE HOSPITAL FOR
SICK CHILDREN
Research Ethics Board

Research Consent Form

Title of Research Project:

• The role of interprofessional collaboration on the discharge planning process in the neonatal intensive care unit

Investigator(s):

Principal Investigator:
Lori Ives-Baine, R.N., B.Sc.N., M.N.
Palliative Care & Bereavement Coordinator
Neonatology Program
Hospital for Sick Children
555 University Avenue
Toronto, ON; M5G 1X8
(416) 813-6782
lori.ives-baine@sickkids.ca

Co-Investigator:
Myuri Manogaran, BSc (Hon), MHSc (Candidate)
Faculty of Health Sciences
University of Ontario Institute of Technology
2000 Simcoe St. North
Oshawa, ON; L1H 7K4
(905) 721-3111
myuri.manogaran@uoit.ca

Co-Investigator:
Brenda J. Gamble, Ph.D.
Faculty of Health Sciences
University of Ontario Institute of Technology
2000 Simcoe St. North
Oshawa, ON; L1H 7K4
(905) 721-3111
brenda.gamble@uoit.ca

Purpose of the Research:
The primary purpose of the study is to identify and examine the factors associated with interprofessional collaboration (IPC) that facilitate or hinder effective discharge planning. Specifically the study will look at the discharge planning of patients on the Neonatal Intensive Care Unit (NICU) at the Hospital for Sick Children.

Description of the Research:
We plan to collect information from key informants through individual in-depth interviews conducted in person. You are being asked to participate in one individual interview conducted with the researcher. We will be asking you to share your feelings about IPC, your views about the discharge planning process, leadership, team work, healthcare hierarchy, and dual line of authority. The interview will take approximately 1 hour. We will contact you to set up the day and the time of the interview according to your preference. The interviews will be audio-taped and transcribed. You will be asked to review a transcript from the taped interview for accuracy. Only the interviewer and the transcriber will be able to identify you. The transcriber will be asked to sign a Confidentiality Agreement.

Once the interview has been completed the audio-tape and any written information from the audio-tape will be kept in a locked, safe place and your name will not be marked on either the tape or any paper material. If you prefer not to be audio taped we will take detailed notes of the discussion. You will not be identified in any reports or publications.

Potential Harms:
There are no known harms that we are aware of that are associated with participation in this study but there may be harms that we do not know about.

Potential Discomforts or Inconvenience:
Sometimes people involved in discussions like these feel stress and anxiety. If this happens to you, we can stop the interview. The interviewer will attempt to make you feel as comfortable as possible. In addition, there is no guarantee that the proposed research will result in any change specific to the policies or procedures around discharge planning in the NICU.

Potential Benefit to Individual Subjects:
Participants will have the ability to make their views known, provide observations of the process from their point of view and articulate potential improvements that may not have been considered in the past.

Potential Benefit to Society:
This study will add to the knowledge of the Interdisciplinary team in discharge planning, which is sparse at present.

Confidentiality:
We will respect your privacy. No information about who you are (your child is) will be given to anyone or be published without your permission, unless required by law. For example, the law could make us give information about you if a child has been abused, if you have an illness that could spread to others, if you or someone else talks about suicide (killing themselves), or if the court orders us to give them the study papers.

The data produced from this study will be stored in a secure, locked location. Only members of the research team will have access to the data. Following completion of the research study the data will be kept for seven years as required then destroyed as required by Sick Kids policy. Published study results will not reveal your identity.

Reimbursement:
We will reimburse you for all your reasonable out of pocket expenses for being in this study eg., meals, babysitters, parking and getting you to and from Sick Kids. If you stop taking part in the study, we will pay you for your expenses for taking part in the study up until that point.

Participation:
Participation in this study is voluntary and you are free to withdraw from the study at any time. Your decision to continue or discontinue with the study will not affect your employment position at SickKids. Any information already provided by you prior to withdrawing will not be used in the study.

New information that we get while we are doing this study may affect your decision to take part in this study. If this happens, we will tell you about this new information. And we will ask you again if you still want to be in the study.

During this study we may create new tests, new medicines, or other things that may be worth some money. Although we may make money from these findings, we cannot give you any of this money now or in the future because you took part in this study.

Sponsorship:
The sponsor of the study is Ms. Ives-Baine and The Hospital for Sick Children. This is a Masters thesis project funded by Myuri Manogaran in partnership with the University of Ontario Institute of Technology.

Conflict of Interest:
The Principal Investigator, Ms. Ives-Baine and the other research team members have no conflict of interest to declare.

Consent :
"By signing this form, I agree that:
1) You have explained this study to me. You have answered all my questions.
2) You have explained the possible harms and benefits (if any) of this study.

3) I know what I could do instead of taking part in this study. I understand that I have the right not to take part in the study and the right to stop at any time. My decision about taking part in the study will not affect my employment at Sick Kids.
4) I am free now, and in the future, to ask questions about the study.
5) I understand that no information about who I am will be given to anyone or be published without first asking my permission.
6) I have read and understood pages 1 to 4 of this consent form. I agree, or consent, to take part in this study.

_____	_____
Printed Name of Subject	Subject's signature & date
_____	_____
Printed Name of person who explained consent	Signature of Person who explained consent & date
_____	_____
Printed Witness' name (if the subject/legal guardian does not read English)	Witness' signature & date

If you have any questions about this study, please call Lori Ives-Baine at 416-813-6782 or Myuri Manogaran at myuri.manogaran@uoit.ca

If you have questions about your rights as a subject in a study or injuries during a study, please call the Research Ethics Manager at 416-813-5718.

Appendix K: Audio Taping Consent Form

Research Ethics Board
Audio taping Consent Form

Title of Research Project:

The role of interprofessional collaboration on the discharge planning process in the Neonatal Intensive Care Unit

Investigator(s):

Principal Investigator:
Lori Ives-Baine, R.N., B.Sc.N., M.N.
Palliative Care & Bereavement Coordinator
Neonatology Program
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Co-Investigator:
Myuri Manogaran, BSc (Hon), MHSc (Candidate)
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University of Ontario Institute of Technology
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myuri.manogaran@uoit.ca

Co-Investigator:
Brenda J. Gamble, Ph.D.
Faculty of Health Sciences
University of Ontario Institute of Technology
2000 Simcoe St. North
Oshawa, ON; L1H 7K4
(905) 721-3111
brenda.gamble@uoit.ca

Confidentiality:

The audiotapes produced from this study will be stored in a secure, locked location. Only members of the research team (and potentially the SickKids REB monitor) will have access to them. Following completion of the study the tapes will be kept as long as required in the SickKids "Records Retention and Destruction" policy. They will then be destroyed according to this same policy.

***Consent*:**
By signing this form,

1) I also agree to be audio taped during this study. These tapes from this one interview session will be used to assist with transcription of important information that will be discussed in the interview.
2) I understand that I have the right to refuse to take part in this study. I also have the right to withdraw from this part of the study at any time. eg., before or after the tapes are made. My decision will not affect my employment at Sick Kids.
3) I am free now, and in the future, to ask questions about the taping.
4) I have been told that my transcripts will be kept private. You will give no one any information about me, unless the law requires you to.
5) I understand that no information about me (including these tapes) will be given to anyone or be published without first asking my permission.
6) I have read and understood pages 1 to 3 of this consent form. I agree, or consent, to having my voice being taped (in person and on telephone) as part of the study.

_____ _____

Printed Name of Subject Subject's Signature & date

_____ _____

Printed Name of person who explained the consent Signature & Date

In addition, I agree or consent for this tape(s)/photograph(s) to be used for:

1. Other studies on the same topic o
2. Teaching and demonstration at SickKids. o
3. Teaching and demonstration at meetings outside SickKids. o
4. Not to be used for anything else. o

In agreeing to the use of the tape(s) for other purposes, I have been offered a chance to hear the tape(s). I also have the right to withdraw my permission for other uses of the tape(s) at any time.

_____	_____
Printed Name of Subject	Subject's signature & date
_____	_____
Printed Name of person who explained consent	Signature & date

Appendix L: Audit Trail of IPC Definitions and Views

Definition of IPC	**"Well to me it's really about how people come in with different roles and through IPC those lines are actually blurred and so you know, through working together with a common goal in mind and everyone's really taking that opportunity to I guess, to bring to the discussion their own expertise, skills set, in terms of involving and producing a common goal."** **"…there may be different leads at any point within the collaboration but it's not necessarily that there is a designated lead. I mean, that's what it means to me. It's really you just working in sort of a …….everyone just comes to the table as equal partners."** **"I think it's about bringing together varying members of the team expertise to come to the best plans or conclusions for the families that we work with."**
Does IPC occur?	"I would say that for the most part it does occur." "…there's always room for improvement..." "I don't think we always do it perfectly."

Appendix M: Audit Trail of Themes

Interprofessional Communication	Open environment for information sharing	"I think you just need to continue to foster an environment where other professionals feel that they are comfortable with presenting their ideas." "The ability to listen or hear actually…….not to listen to actually hear what people are trying to say and to give people a chance to say those things." "I think being open and being transparent with one another and with the families in order to provide the best care."
	Communication	"I think we have good communication between all of the different services and I think everybody feels that they are part of a team." "People like your opinion as long as it agrees with theirs [laughs]. So the collaboration goes right downhill if you're not giving them the answer that they want." "Yup, if you try to say something, they kinda shoo ya."
	Inconsistent information sharing	Sometimes if we knew earlier, it would be easier to identify everyone earlier so it's not a shock and everyone running around trying to get things done So there's a little bit of….ummm…….you know, it's easy to say 'you can go', but to make everything happen it is more difficult. So they need to make sure that everybody has the plan and everybody's up-to-date and knows on the medical team, because it does change daily. "…given the number of people involved sometimes in a child's care…..I think sometimes information can get missed

		especially with changing staff and umm….particularly physicians, or you know a lot of turnover in nurses…"
Role Clarification	Role clarity	"….the team works better if each player has knowledge in their own area because if you don't it would be difficult." "The physical bodies are sitting there, but you're not using the appropriately." "I think we pretty much know what each of us have to offer, what we can do. We know who our resources are. We know who to go to and we know who does what and who does it best."
	Respect	"Everybody's very informal in general on the floor. Everybody goes on a first name basis. Everyone is treated with equal value, I think. You can talk to anybody in any different role without having anything to worry about." "I think there needs to be a certain amount of knowledge for each of the team members…..must have a certain amount of knowledge. There needs to be respect for each person's knowledge and area of expertise." "I think it has a lot to do with respect….interprofessional respect. Not only knowing what the other person does, but respecting them as a professional that's on……..If not at completely an equal level, but at a, uhh, necessary or valuable level within the team."
Team Functioning	Multidisciplinary Meetings	"…other times when it seems more medical, like it's going more over the medical things that are currently happening or need to happen but sort of missing some of the other parts." "…they like to call these multiD, they're necessary for accreditation, they're actually psycho-social rounds; the social workers talk to the doctors and the rest of us, if we're lucky, can get a word in there."

		"I'd say for the most part, I feel that it's valuable and I feel that people on the team seem to perceive it to be valuable."
	Team work	"We all feel part of the unit which is helpful." "We work very well as a very much integrated team our roles which blur." "The team works very hard. They were very well together, but still the top-down pressure."
	Collaboration	"I think we do it well. I think it's something that draws me to the work that I do here. It's part of the reason why I like to work in this type of environment cuz I do find it very collaborative and I think that's the most important part to meet our goals for the families and to be able to meet their needs. To give the best care possible." "…to do the work that we do we need to collaborate with one another whether it's about transitioning a child home or to another floor, organizing discussions with families……ummm….you know I think that we do need to work with one another to facilitate all of that to happen." "…to discuss different prognoses and diagnoses and all of that I think there is a certain level of collaboration that goes on."
	Discharge Process	"…when things work very well, we're able to identify it early sometimes in our weekly meetings where they'll start talking about plans…" "…most of our kids aren't complex. So it really is the ones who are very, very complicated and you need to slow down and just make sure that the discharge planning and coordination of care and transfer of care is as smooth as

		possible."
	Receiving Hospitals	"…actually the more complicated ones, we need to have a better dialogue with the receiving physicians and the care providers on the other end just to make sure and ensuring that follow-up is involved and that someone's taking care or taking leadership and coordinating the care of these children." "The big thing for me is the blockade that we hit in the community." "Where did the funds go? Were they used? What did we beef up? Can we get a rundown of what things were like……what were these hospitals offering two years ago vs. what they are offering now. And I will bet my life that very few of them….have changed that dramatically."
	Funding	"…but then there's been no dollars, very few little intention paid…" "But there are no dollars. There's dollars in the hospital for bed deferral is a key, but delaying discharge is because another hospital doesn't have a bed because that other hospital cannot take care of the child." "We've always received more money than the year before but just not as much as we've spent. We keep spending more. We're spending more because everything costs more."
Collaborative Leadership	Leadership	"You definitely need leadership across the board to facilitate interdisciplinary collaboration, but it really is the people who are at ground level and you need to make an environment that's supportive of that type of collaboration. Umm……but you can set it from the top of, but it really is working at the ground level."
	Medical Lead	"So it needs to be more than just two multiple and that the physicians within the hierarchy need to hear it from all team members to make appropriate

		decisions because they really do not have that skill set although they may believe that they do." "Yup, they think it's not important, so move on. But it is crucial for the child." "…a lot of the time they [physicians] can't collaborate or kind of come to consensus amongst themselves…..and they're like the top of the hierarchy pretty much."
	Discharge Coordinator	"I think that now that we have our discharge coordinator, that that's really improved." "We have a discharge planner/coordinator, and I would check with her if she knows, sometimes she does and sometimes she doesn't. The quick ones, sometimes she doesn't. Check with her and see if she knows about the plan and if she knows what are the plans and then I would have input into those plans." "I think that the role of the discharge planner – I think the discharge planner should be on rounds."
	Implementation Issues	"We had a discharge process team, we used to have a discharge committee…..all went away. We had an entire discharge planning committee…..all gone…..they felt it was unnecessary." "…sometimes it's just think we can't and it's the outside system that puts some of these limits on." "…and the pressures of the…….the things that they have no control over."
Interprofessional Conflict Resolution	Interprofessional Education	"Oh, you can see that now even. Over time, I don't think it has to do with that education, I think that overtime at this hospital, anyway, people are involved…" "So the new generation is much different

		and they're probably more collaborative, again, not all of them cuz there's always the personality difference. But even the old generation has changed over time." "Like, the professional services staff are collaborative. They have to be. We can't do our job without other people. So, I don't know does all that education really geared to the right subset of people?"
Contextual Issues	Experience in the profession	"I think it happens more with the junior nurses. They may have the information but they may not realize that they need to take that information somewhere else, where they have to disperse that information. And that's all just experience." '…it's an insult that they don't feel that you know more than they do. Like, it should be okay that you know more than they do in those areas." "So you can have a team with people who have less experience, but a team, I think, works better the more experience people have in a way."
	Staff Turnover	"…given the number of people involved sometimes in a child's care…..I think sometimes information can get missed especially with changing staff and umm….particularly physicians, or you know a lot of turnover in nurses…" "…or it can be welcomed by a family because they might not have agreed with the plan that was in place initially."
	Change in the hospital's perpective	"…looking at the philosophy of the hospital in my disappointment in that over the past couple of years it was always, you know, do the best you can for all that you can and make sure that every child is cared for to do whatever you can, however you can, for whomever you can."

		"But the whole philosophy has changed…"
	"Push-to-admit"	"So, and they say yesterday you had to do A to Z with this one child before discharge. You then now remove 10 things from that list because you do not have the time to do it to discharge because you have an admission." "So what was good one day or what were the requirements for one day all of a sudden is not a requirement, not a priority because you have a child in the periphery who's dying without care or is very sick without care or will succumb without care. So you have to pick and choose who you can focus you're energies on." "Because top down will say move today irrespective e of what you say."
Quality Improvement	Lack of Evaluation	"…we need to have a better dialogue with the receiving physicians and the care providers on the other end just to make sure and ensuring that follow-up is involved…" "You can't say you can measure those outcomes because they always talk, well what's the outcome? What's the risk to the baby? Have you seen the risk? We may not see because the child may not come back here….it goes back to another hospital." "We have no method to evaluate our discharge process other than readmission."