

**Understanding Knowledge, Attitude and Practice of Health Professionals on  
Interdisciplinary Team Approach in the provision of service in Pediatric Unit  
at Selected Rehabilitation Centre**

**By**

Nurjahan Shampa

B.Sc in Occupational Therapy 4<sup>th</sup> year.

Roll: 16

Session: 2013-14

**April 21, 2018**

**Bangladesh Professions Institute (BHPI)**

**Faculty of Medicine**

**University of Dhaka**



## Declaration Form

- This work has not previously accepted and submitted by any investigator for any degree.
  
- This dissertation is being submitted as part of Research project for the Course of B.sc in Occupational Therapy.
  
- This dissertation is result of my own independent work/investigation. Other sources are acknowledged by giving explicit references on acknowledgement. A bibliography is attached.
  
- I am confirm that if anything unethical in my work that I have plagiarism or any form of cheating that will directly awarded me fail and I will obey the disciplinary action of authority.
  
  
- I confirm that the electronic copy is identical to the bound copy of the Thesis.

Signature.....

Name: Nurjahan Shampa

Date: 21.04.2018

## **Acknowledgement**

This research could not have been completed without the support and generous contribution of many individuals. As an investigator; I would like to thank everyone who was involved contributed in the preparation of the thesis paper in different way.

I am exposing my cordial gratitude to my honorable supervisor Shamima Akter, Associate Professor Department of Occupational Therapy for providing me the opportunity to complete the study also for being such a supportive and modest tutor. Thank you for providing such encouraging and pleasant discussion with valuable time and for sharing your profound knowledge about research.

Thanks to SK. Moniruzzam, Assistant Professor and Head, and Md. Julker Nayan, Clinical Head, Occupational Therapy Department at Bangladesh Health Professions Institute for approving my proposal and giving me permission to complete the dissertation also for the constructive discussion throughout the research process.

This research cannot be concluded without expressing deeply gratitude for the support provided by the interdisciplinary teammembers of Centre for the Rehabilitation of the Paralyzed at Pediatric Unit, thank you all for participating and helping to complete the study.

## **List of Table**

## List of Figure

Table 1: Characteristics of the participants of interdisciplinary team

Table 2: Characteristics of Interdisciplinary Team

Table 3: Percentage of participants regarding their level of collaboration in each domain of collaborative practice assessment tool

Table 4: Association with socio-demographic factors and level of collaboration

Table 5: Mean difference in collaborative practice of professionals

Table 6: Theme of the qualitative study at a glance

Table 7: Professional understands about Interdisciplinary team

Table 8: Professional's perspective on importance of IPCT

Table 9: Strength of current interdisciplinary team regarding their knowledge about IPCT

Table 10: Weakness of current interdisciplinary team

Table 11: Opportunities in practicing inter-professional collaborative team

Table 12: Threats in practicing inter-professional collaborative practice

Table 13: Strategies followed by professionals to improve collaboration

- Figure 1:** Level of collaboration among the Interdisciplinary Team member
- Figure 2:** Percentage of participants regarding level of collaboration in Mission, Meaningful Purpose and Goals Domain.
- Figure 3:** Percentage of participants regarding level of collaboration in General Relationship Domain
- Figure 4:** Percentage of participants regarding level of collaboration in Team Leadership Domain
- Figure 5:** Percentage of participants regarding level of collaboration in General Roles, Responsibilities, and Autonomy
- Figure 6:** Percentage of participants regarding level of Communication and information exchange Domain
- Figure 7:** Percentage of participants regarding level of collaboration in Decision Making and Conflict Management Domain
- Figure 8:** Percentage of participants regarding level of community Linkage and coordination of care Domain

## **Abstract**

## **Abbreviation**

BHPI-Bangladesh Health Professions Institute

CRP-Centre for the Rehabilitation of the Paralysed

IDT-Interdisciplinary Team

IPC-Inter-professional Collaboration

IPCT- Inter-professional Collaborative Team

IPCP-Inter-professional Collaborative Practice

IPE- Inter-professional Education

MDT-Multi-disciplinary Team

OT-Occupational Therapy

PT-Physiotherapy

SLT-Speech & Language Therapy

WHO- World Health Organization

**Background:** Lack of collaboration, knowledge and practices among interdisciplinary team member's reduced patient safety and outcome have been reported in different literature. Centre for the rehabilitation of the paralysed promoted collaboration among interdisciplinary team members. In Pediatric unit interdisciplinary team members work together but yet not known about how effectively they collaborate with each other and with the patient.

**Purpose:** To explore the current situation of inter-professional collaborative practice among the team members in a Pediatric department from the knowledge and perspectives of professionals.

**Methods & Materials:** Mixed methodology, both qualitative and quantitative studies were applied to achieve the overall and specific objectives of the current study. In the quantitative part purposive sampling design was used to find out the level of collaboration among the team members. Each and every team members of inter-professional collaborative team were invited to participate in this part of the study. In qualitative part, phenomenological study design was used to understand the perceived strengths, weakness, opportunity and threats from the professional's perspective. For qualitative interview, simple random sampling was done to select participants from every discipline of team to assess their level of knowledge, attitudes toward the collaborative practice of inter-professional team.

**Results:** The overall collaboration level of inter-professional collaborative team was slightly higher(72.23%) than moderate level of collaboration(51-75%).Among the eight domains of collaborative practice, most of the participants specified five domains where they showed high level of collaboration includes mission, meaningful purpose, goals'; 'community linkages and coordination of care'; 'communication & information exchange'; 'general role, responsibilities autonomy'; 'patient involvement'; domain. Whereas in the rest of the three domains moderate level of collaboration was reported by the significant percentage of participants. Inter-professional collaborative team faced multiple barriers through this team had also strengths and opportunities to minimize the threats such as reoccurring conflicts and poor communication within rehabilitation settings.

**Conclusion:** The study findings could be implicated in improving the collaboration level at rehabilitation sector where there is inter-professional team members working with children with disability and their family.

**Keywords:** Knowledge, Attitude, Practice, Interdisciplinary team, Collaborative practice, Pediatric Unit, Rehabilitation.

## CHAPTER I: INTRODUCTION

Inter-professional collaboration is a key factor in initiatives designed to increase the effectiveness of health services currently offered to the public. It is important that the concept of collaboration be well understood, because although the increasingly complex health problems faced by health professionals are creating more interdependencies among them, we still have limited knowledge of the complexity of inter-professional relationships (Amour et al 2009).

However, interdisciplinary team is more effectively reported in several literatures. McCallin et al.2009 defined that inter-professional collaboration in a rehabilitation setting can be defined as an integrative cooperation of different health professionals, blending collaborative competences, qualities and skills, and making possible the best use of resources.

When multiple groups of people work together, it can be termed as multidisciplinary, trans disciplinary and interdisciplinary care.

Maria et al.2015 mentioned that inter-professional collaboration in health care is now considered a high priority. Scott Reeves et al.2015 argued that collaborative teamwork occurs when health professionals focus on patient-centered care, and networking across communities, in order to optimize quality care for patients and families. Mueller et al.2015 interdisciplinary team approach.

Rice, k.et al.2010 also found that inter-professional collaborative practice may decrease hospitalization and readmission rates and thus improve quality of health care. On the other hand, Reeves, S. et al.2010 exposed that inter-professional collaborative practice is an enabler for improving patient care and meeting the current demands placed on the healthcare system. Vanessa et al. 2016; Silva 2016; Nichols 2016 suggested this approach to healthcare has been found to reduce errors, improve quality of care and patient outcomes, reduce healthcare workloads and cost, and increase job satisfaction and retention.

Brumfitt, S.M., 2008 found that rehabilitation health professionals may face challenges regarding inter-professional collaboration in communication, team leadership, shared decision making and maintaining autonomy in practice for achievement towards a common goals of client's betterment within the rehabilitation settings, reported in several articles.

Reeves, S. et al.2015 found that un-professional approaches to health professions education are seen as insufficient to support effective inter-professional practice. Results on impressive growth of collaborative interventions and activities, as well as a growth in conceptual, empirical and more recently theoretical publications in the inter-professional field. There are different terms such, when multiple group of people work together, it can be termed as multidisciplinary, trans-disciplinary and interdisciplinary care, however, interdisciplinary team is more effective in this literature.



Besides, leaders follow a more open communication style by providing support and personal encouragement based on the individual's needs to complete the task. Leaders enable effective inter-professional teamwork in clinical practice is a particularly complex and challenging task. Team leaders are expected to have the knowledge, skills and ability to help members from various professions learn how to be team members by integrating their theoretical knowledge, skills, and attitudes, professional and regulatory obligations into team practice (Carole & Reeves., 2014).

Fox, A. et al. 2015 enhance health professional efforts to involve patients in decision-making process about care and largely ignore the inequitable social, political, and economic conditions in which health care providers work, assume that patients want and take on the responsibilities that come with that role.

Tomizawa, R., Reeves, S., et al. 2017 mentioned that to ensure high quality, safe, and cost-effective care in the future is seen in an inter-professional collaboration (IPC) that operates on a highly developed level. Health professionals have to work with a limited number of resources. In this stage collaborative practice could be the best suited model for the rehabilitation health sectors.

In Bangladesh, patient centered healthcare is a challenge to all concerned. Studies reveal that the public health sector is plagued by uneven demand and perception of poor quality of care. It is interesting that in Bangladesh, the Centre for the Rehabilitation of the Paralyzed provides an opportunity to promote collaborative practice among different professionals through implementing an interdisciplinary team approach which was previously known as a multidisciplinary team approach for patients with cerebral palsy.

Rather, Bangladesh is a developing country with a large number of populations although facilities in health care services are inadequate. Health professionals have to work with a limited number of resources. In this stage collaborative practice could be the best suited model for the rehabilitation health sectors of this country to improve equal chance for getting treatment without being in a waiting queue.

The Center for the Rehabilitation of the Paralyzed (CRP) provides an opportunity to promote collaborative practice among different professionals through implementing an interdisciplinary team approach which was previously known as a multidisciplinary team approach at the Pediatric unit.

Therefore, a collaborative effort of all professionals is essential for improvement of healthcare delivery. But due to the existence of barriers to team work such as conflicting interests, power

differentials, competition for resources, lack of mutual respect, Patient care as well health care is adversely affected.

## **1.2 Justification**

Health care professionals work collaboratively to promote rehabilitation and client centered approach. Mostly children with special needs seek services from health care professionals. Thus Physiotherapist, Occupational Therapist, Speech and Language Therapist collaboration is key to positive prognosis for the patient. Interdisciplinary team members have the ability to achieve successful outcome. Therefore it is very important to understand accurately own role, discipline, motives for health professionals. Lack of understanding, knowledge is leading to poor inter-professional relationships. Therefore, purpose of the study is to examine the level of inter-professional collaboration among professionals at Pediatric unit. In Bangladesh there is limited number of research on healthcare professional's collaboration and their relationship in the rehabilitation setting. By collecting data from Doctors, Physiotherapist, Occupational Therapist, Speech and Language Therapist regarding their knowledge, attitudes, practices, professional responsibility, leadership, conflict resolving strategies, communication, expertise values will provide a guideline to judge their relationship, practices.

This research results and conclusion drawn from data collection will be use for improve interdisciplinary team members collaboration, relationship towards quality of care for clients in pediatric unit. Therefore, inter-professional can use the data to improve their relationship, knowledge also for design better collaborative practice.

## **1.3 Research Question**

What is the current situation regarding inter-professional collaborative knowledge and practice among the interdisciplinary team members in pediatric department a selected rehabilitation center?

## **1.4 Operational Definition**

### **Inter-professionals Knowledge, Attitude and practice**

The term 'Inter-professional collaboration' in communication, team leadership, shared decision making and maintaining autonomy in practice for achievement towards a common goals of clients betterment within the rehabilitation settings, reported in several articles. Scott Reeves. 2017 found that inter-professional collaborative practice may decrease hospitalization and readmission rates and thus improve quality of health care. Inter-professional collaboration happens when different health professions communicate individually and make decisions about a patient's health care based on shared knowledge and skills. Inter-professional attitude and practice on collaboration was defined as members of more than one health or social care profession learning interactively together, for the explicit purpose of improving inter-

professional collaboration, the health and well-being of patients, or both. IPC intervention might work by incorporating a tool, routine, or activity to improve inter-professional interaction into clinical practice.

### **Interdisciplinary team**

Interdisciplinary team consists of health professionals from different disciplines to form a treatment to take decision jointly with patient and their family. The health-care providers included Doctors, Occupational Therapist, and Physiotherapist, Speech and Language Therapist and others.

### **Inter-professional Collaborative Practice**

Scott Reeves; Lewin; Espin,2016 mentioned that to ensure high quality, safe, and cost- effective care in the future is seen in an inter-professional collaboration (IPC) that operates on a highly developed level. Health professionals have to work with a limited number of resources. In this stage collaborative practice could be best suited model for the rehabilitation health sectors. Leaders enable effective inter-professional teamwork in clinical practice is a particularly complex and challenging task. Team leaders are expected to have the knowledge, skills and ability to help members from various professions learn how to be team members by integrating their theoretical knowledge, skills, and attitudes, professional and regulatory obligations into team practice(Carole& Reeves.,2014).Interdisciplinary team work in the hospital setting to maximize the opportunity of care may involve in decision making process on care planning and outcome.

### **Interdisciplinary Team Approach**

Teamwork plays an important role in one aspects of hospital care delivery. American College of Physician Executives (ACPE) recognizes the importance of teamwork. Studies have evaluated the effectiveness of teamwork training programs on patient outcomes, and the results are mixed at United Kingdom. Interdisciplinary rounds may be particularly useful for clinical settings in which team members are traditionally dispersed in time and place, such as medical-surgical units. Rather, physicians increase the frequency of nurse-physician communication, but are insufficient in creating a shared understanding of patients' plans of care.

Further, leaders wishing to improve interdisciplinary team- work should consider implementing a combination of complementary interventions (Curley; McEachern et al.2009). However, it has been found that a range of professional, organizational and culture factors can impede efforts to ensure care is responsive, timely and effectively delivered to patients.

O' Leary et al.2011 also included that team member can overcome some of the unique barriers to collaboration in set- tings where members are dispersed in time and space. Because patient outcomes are affected by a number of factors and because hospitals frequently engage in multiple, simultaneous efforts to improve care, it is often difficult to clearly link improved outcomes with teamwork interventions.

Reeves et al.2014 reported that each member of the team bears the same responsibility to engage collaboratively to address the disagreement in the patient's best interests. Participation and involvement in patient care rounds often provides an appropriate forum to engage in respectful sharing of information. Chatalalsing ET al.2014 also included that, at times, professional opinions will differ. When this happens, each member of the team bears the same responsibility to engage collaboratively to address the disagreement in the patient's best interests.

Therefore, Service integration requires the redefinition of professions' roles and changes to the existing service culture (WHO, 2013).Reeves et al. 2010 have been offered to attempt to under- stand the nature and practices related to inter-professional team- work, such as social psychological and organizational theories.

## **Health Professionals Level of Collaboration**

Now-a-days the need for effective inter-professional collaboration (IPC) to reduce duplication of effort, clinical error restriction, improve safety and enhance the quality of patient care is widely acknowledged by all (Reeves et al. 2015). This study utilized a comparative ethnographic approach through gathering observation, interview and documentary data relating to the behaviors and attitudes of healthcare providers and family members across several sites.

Medical education and medical practice on quality improvement and patient safety, their role in residency training has not been well defined in many literatures. The Canadian Nurses Association (2006) reported that quality health care could be supported through the collaboration of professionals, whereas every professional within a health care organization looks at inter-professional collaboration for patient care from different perspectives.

Tomizawa et al. 2017 reported that frameworks have been presented that can help researchers understand the quality of inter-professional team-work in mental health settings. To enrich team practice, it has been argued that theories from educators, practitioners, researchers, and policymakers are required.

### **Inter-Professional Collaborative Practice at Pediatric Unit**

Almost in all discussion on rehabilitation suggest that inter-professional collaborative practice is needed to coordinate the service for meeting the needs of patient. Silva et al 2016 mentioned that collaborative teamwork occurs when health professionals focus on patient-centered care, problem solving approach in order to optimize quality care for patients and families. Another way it will also help to ensure safety of patient through shared decision between members.

Le'gare et al. 2011 mentioned that an integrative cooperation of different health professionals, collaborative competences, skills, knowledge and through best use of resources. Even in intervention of children with disability requires team members consist of doctor, occupational therapist, physiotherapist, speech and language therapist, nurse, social workers and others associated to health sector.

Reeves et al. 2016 identified that continuous communication among care providers and participation in clinical decision-making within and across disciplines, is required to ensure that patients receive care from the right person at the right time. Silva 2016 suggested that healthcare has been found to reduce errors, improve quality of patient care and outcomes, and reduce workload and cost, increase knowledge, quality of service and job satisfaction.

## **Knowledge about Inter-professional Team**

Reeves; Fox; et al.2009 identified that there is a scope of practice and identifying appropriate indicators of acceptable performance, also the competency movement may also be viewed as a trend that reproduces conventional practices. Professional competences are growing among the health professions. Increasing numbers of professional groups. Pre-determined menu of best practice options that created again by professional experts and leaders. Furthermore, once competency frameworks are adopted and implemented, there appear few mechanisms available to support the introduction of new and innovative ideas that offer contrasting perspectives for practice.

Online learning in primary healthcare among health professionals is a scope of learning. Health professional's competences-attitudes, knowledge, skills and behaviors being more efficient through this learning. Fletcher et al.2017 proposed that online learning can be as effective as physical attendance in a traditional classroom and for health professionals include diminishing logistical barriers such: access at anytime, anyplace learning for busy health care providers working in different environment and also individualized, tailored, point-of-care learning that meets the varied needs of professional learners from multiple practice settings. Rather it supports increase knowledge of health professionals through Postgraduate e-learning course

## **Attitudes of Health Professionals towards Interdisciplinary Team Approach**

Inter-professional team approach is often mostly discussed when talking about teamwork, collaboration in healthcare. Even when healthcare providers from different backgrounds actively work together to achieve particular goal or outcome.

Health professional's attitude facilitates collaboration and team approach guides multi professionals practice in health sector. Careu et al.2015 informed that when healthcare providers develop a deeper understanding of each other's roles and responsibilities, there required respect and trust between team members.

McCallin et al.2009 pointed that health care professional in a team from different background doesn't mean they will have same knowledge, skills or attitude that is necessary to work together collaboratively to enhance patient care. Inter-professional collaboration involves regular negotiation and interaction between professionals, which values the expertise and contributions that various healthcare professionals bring to patient care.

## **Factors Influencing Collaborative practice of Professionals**

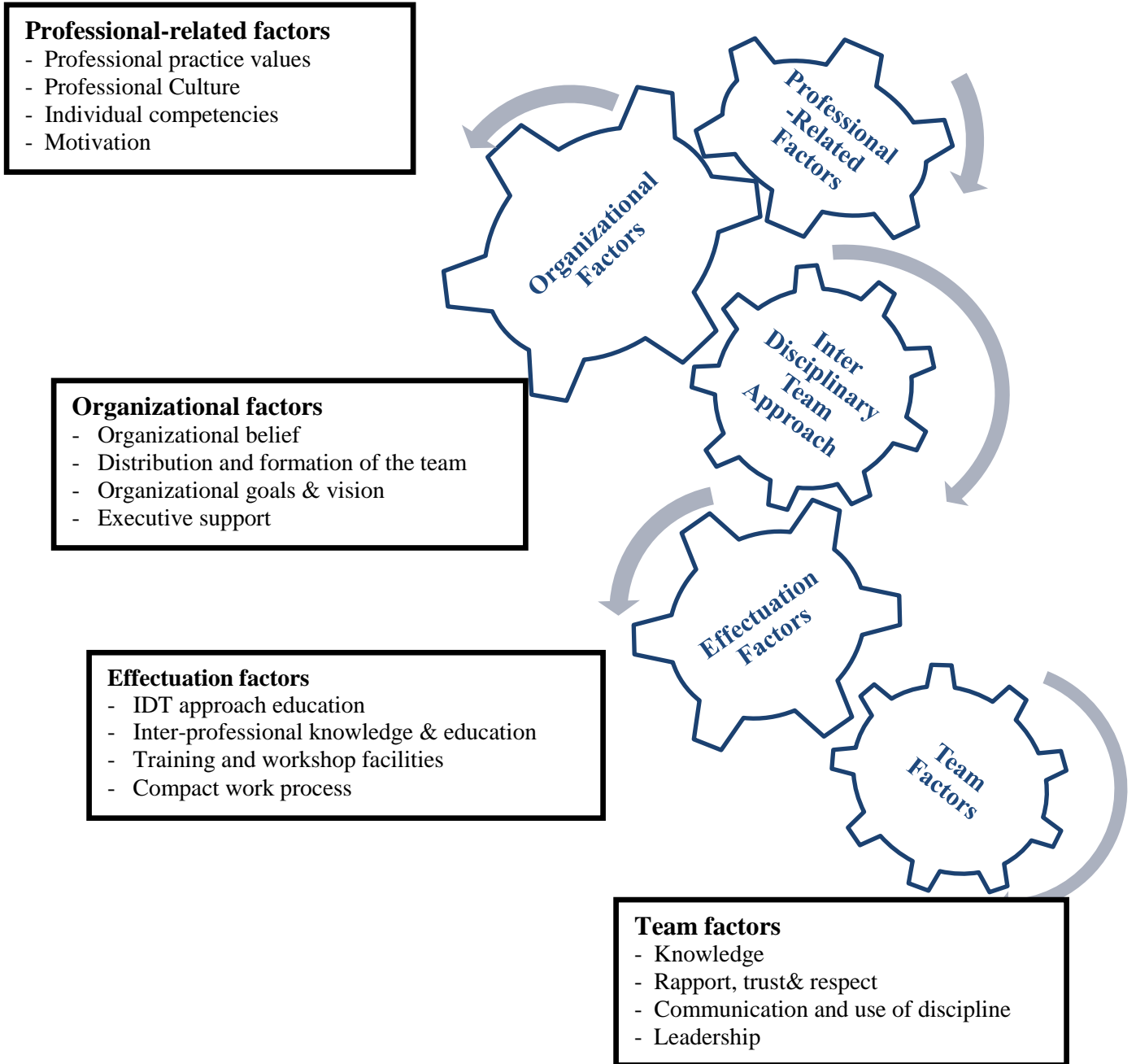
Rice et al. 2010 discussed that health providers need to consider others roles while creating their own roles as a part of broader healthcare team. Also health providers are able to describe their roles with other health providers by understanding others roles. Rather it improves team work, more time for health providers to ensure more effective planning, better practice and services.

Inter-professional collaboration involves regular negotiation and interaction between professionals, which values the expertise and contributions that various healthcare professionals bring to patient care. Fletcher et al. 2017 found that members of more than one health or social care profession learning interactively together, for the explicit purpose of improving inter-professional collaboration, the health and well-being of patients, or both. IPC intervention might work by incorporating a tool, routine, or activity to improve inter-professional interaction into clinical practice. This refers improving collaboration between two or more health and social care professionals.

Martin et al. 2011 found that intensity of collaboration ranges from consultative activities to different work practices. Also effectiveness of teams depend on team members skills, knowledge of one another's roles and practice style, their respect, trust, cooperation, organizational support. (2005). Inter-professional collaboration in a rehabilitation setting can be defined as an integrative cooperation of different health professionals, blending collaborative competences, qualities and skills and making possible best use of resources.

Stocker et al. 2016 appraised in their article that inter-professional team models vary based on the context, nature of tasks and duration, intensity of collaboration that are processed of the team structure. Collaborative practice happens when multiple health workers from different professionals backgrounds, with patients and their families to deliver the highest quality of care. However, it has been found that a range of professional, organizational and culture factors can impede efforts to ensure care is responsive, timely and effectively delivered to patients. Therefore, effective inter-professional collaboration among the various health and social care providers has long been regarded as essential for delivering high-quality patient care

**3.1 Conceptual framework**



**3.2 Research Question**



What is the current situation regarding inter-professional collaborative knowledge and practice among the interdisciplinary team members in the Pediatric unit at a selected rehabilitation centre?

### **3.3 Study Objectives**

#### **3.3.1 General Objectives**

To explore the current situation of inter-professional knowledge and collaborative practice among the team members in the Pediatric unit from the perspectives of professionals.

#### **3.3.2 Specific Objectives**

- To assess the current level of collaborative practice among the members of the inter-professional collaborative team by using the Collaborative Practice Assessment Tool (Schdrone 2011).
- To identify the differences in level of collaboration among different group of professionals.
- To identify knowledge among professionals about collaborative practice in particular unit.
- To explore the relative strengths and weakness in implementing collaborative practice.
- To explicit the major opportunities and threats in implementing a collaborative practice.

### **3.4 Study Design**

To accomplish the overall and specific objectives of the current study mixed methodology both qualitative and quantitative studies were applied. Tashakkori et al, 2007 stated that mixed methods, here investigator has used both qualitative and quantitative method for collecting data, analysis, integrate findings draw interference. In the article of Christ, 2007, found that a sequential and developed research question shaped with mixed methodology. Tashakkori et al, 2011 stated that mixed method expanded with an increasing trajectory, although the expansion is healthy; indicate strong growth in a new field of health. To enhance reliability and genuineness, and the significance and appropriateness of the data both qualitative and quantitative research designs were used on the study in order.

The quantitative part was designed to find out the factors associated with existing collaborative practice situation. The investigator intention was to measure the level of inter-professional collaboration through using a standardized tool. The investigator's interview was focused on substantial information as well as individual knowledge, attitudes, experiences, practice and subjective assessment.

In the qualitative part, phenomenological study design was incorporated with a focus on understanding the experiences of a phenomenon on situation of collaborative practice from the professional's own knowledge, practice and attitude. The investigator identified in-depth

information existing collaborative practice situation from the participants and also existing opportunities and barriers relating inter-professional collaboration within current practice setting. The qualitative part helped to identify the explanation behind their attitude toward collaborative practice and other information from the participants.

### **3.5 Study participants**

The study participants consisted of inter-professional team members, particularly physiotherapist, occupational therapist, speech and language therapist, doctors who frequently participated in interdisciplinary meetings. The objective was to identify the level of knowledge adhering collaborative practice and determine the relative strength, opportunities and threats related to collaboration.

The participants of the current study were selected according to researcher participant selection criteria with their availability and volunteer participation.

In Savar, CRP, ten clinical physiotherapists, six intern PT, nine clinical Occupational Therapists, three intern OT, seven clinical Speech & Language Therapists and two intern SLT and one doctor were working in Pediatric Unit was selected as participant of the study in order to identify their knowledge, attitude toward inter-professional collaborative practice regarding strengths, weakness, opportunities and threats of collaboration from the organizational perspectives.

#### **3.5.1 Inclusion Criteria:**

- Inter-professional team members working in the clinical setting of the pediatric unit, CRP within the data collection period.
- Those with experience of working in an interdisciplinary team.
- The interdisciplinary team members who gave voluntary consent to the study.

#### **3.5.2 Exclusion Criteria:**

- Participant not given concern to participate in the study.

### **3.6 Sampling Techniques**

Two method of sampling technique as qualitative and quantitative methods was applied for the data collection.

For quantitative data collection, comprehensive sampling technique was used. It is a probability sampling. This study was conducted in the Pediatric unit of CRP, between August 2017 to February 2018. At the time of the study, approximately 38 professionals worked in the Pediatric

unit with direct involve in providing care. The professionals were doctor, Physiotherapists, Occupational Therapists, and Speech & Language Therapists including assistant OT, PT, SLT & intern therapists.

Furthermore, for qualitative data collection from inter-professional team members, simple random sampling was used to select three participants from Occupational Therapy, three participant from Physiotherapy, three participant from Speech& Language therapy and one Doctor working in Pediatric unit. This random sampling was done by lottery on the basis of voluntary consent given by the participants.

### **3.6.1 Sample Size Calculation**

Purposive sampling was chosen in this study and purposive depends on the judgment of the researcher. As well as purposefully selected approximately 38 numbers of professional working on Pediatric unit were included in the study, which was divided into four (Occupational Therapy, Physiotherapy, Speech and Language Therapy) professionals.

### **3.7 Study Area**

In South-Asian region Centre for the Rehabilitation of the Paralyzed is the largest rehabilitation centre. CRP focuses on a holistic approach to rehabilitation. K.Priya, 2010, stated that eight-five children with disabilities live in developing countries, and <5% receive rehabilitation services. Regardless, Centre for the Rehabilitation of the Paralyzed is a NGO which treats and rehabilitates people with disabilities regardless of their socioeconomic status and aims to improve the quality of life of Person with Disabilities (PWD) in Bangladesh. The CRP at Savar is the only rehabilitation center in Bangladesh that specializes in the treatment of spinal cord injuries.(47) In addition, CRP has outdoor unit facilities for PWD such as, pediatric unit, neuro musculoskeletal unit, stroke rehabilitation unit, and hand therapy unit. At Centre for the Rehabilitation of the Paralyzed , Pediatric unit provides services to the children with disability at different branches of CRP. Multi-professionals (which includes physiotherapist, occupational therapist, speech and language therapist & doctor) practicing at Pediatric setting in providing services to children with disability. The pediatric unit has inpatient and outpatient areas. The inpatient pediatric unit is a residential program which provides two weeks of intensive service for children with disabilities and their caregivers.

For a goal to be appropriate, it needs to meet the minimal standards, clearly stated, prioritized, and regularly evaluated and adapted, all prerequisites of optimal collaboration and critical development of an integrated treatment plan. (De moor et al, 1999; Fleming and Monda-Amay,

2001). Unfortunately, no studies have been identified that directly described the relationship between different goal setting procedures and their effect on collaboration practices.

### **3.8 Data collection tool**

#### **3.8.1 Information sheet and consent form**

Joffe et al, 2001 stated that information sheet and consent form is a vital part for any kind of study, because it is a formal conciliation or agreement of participation which was taken from the participants before preclusive the interview. And information sheet including the details information on study aim and objectives, study design, study duration, institute affiliation , identify investigator, participant's confidentially, participant's rights and responsibilities, potential risk, benefit and further information related to study, will prepare for participants to provide prior to take informed consent.

A written consent form was also prepared for the participants to verify the level of understanding of the information sheet, awareness about the potential benefit and risk of the participants and their volunteer participation with signature. Rather it was a written document from the participant that reduces data bias and error. So it was significant to take consent from them who are interested to participate on the study. Before starting the interview, signatures were obtained from each participant on a consent form.

#### **3.8.2 Collaboration practice assessment tool**

Schroder, 2011 stated that as a model of health care delivery collaborative practice is receiving attention that positively influences efficiency and effectiveness of patient care while improving the work environment of health care providers. The Collaborative Practice Assessment Tool (CPAT) was developed from the literature to enable interdisciplinary team to assess their collaborative practice. It is also used to collect data from the participants to measure the level of collaboration among the members of interdisciplinary team.

The Collaborative practice Assessment Tool (CPAT) is a 56-item tool with a 7-point likert-scale that assesses collaborative practice. The tool has 8 subscales: mission, meaningful purpose and goals, general relationships, team leadership, general role, responsibilities and autonomy, communication and information exchange, community linkages and coordination of care, decision-making and conflict management and patient involvement.

This tool is available in open access network with the permission to use in research. A study aimed to identify the psychometric properties of the CPAT revealed that it can be used as simple valid tool to measure level of collaborative practice (Schroder, 2011).

For data collection a conceptually similar Bangla version of the CPAT was prepared. For translating CPAT into Bengali, the investigator followed the translation guidelines of World Health Organization (WHO 2017).

### **3.8.3 Qualitative interview questions**

For qualitative study, investigator formed semi-structured questions in relation to the CPAT to validate information of the participants regarding their collaborative knowledge, practice style in the clinical setting. As phenomenological study design was incorporated to understand in depth experience, opportunities and barriers thus investigator aims find out in-depth information about the participants knowledge about collaboration as well as practice values from their experience. This question was also verified by a field test to found similarity of question findings, accuracy of word and sentence meaning.

### **3.9 Data collection Process**

To conduct the study an ethical approval of the study protocol was taken from the institutional review board (IRB) of the Bangladesh Health Professions Institute (BHPI). A written permission was approved to conduct the study from the authorities of Pediatric unit of center for the rehabilitation of the paralysed. Before data collection a convenient time schedule was consulted with the participant to avoid interruption in the flow of patient's treatment. The authority permitted participant to conduct interview at their suitable time. After confronting time, the eligible participants were informed about the contents of the consent form through information sheet. Then participants were asked to fill up written consent form to ensure volunteer participation.

After that participants were asked to complete self-administrative questionnaire which may need half an hour to fill. This questionnaire contains some specific questions on eight domains of inter-professional collaboration practice( for example:- in which extent you agree or disagree, neutral with the statement- "our team's goals are clear, useful and appropriate to our practice'. A reminder was sent two weeks later and the questionnaire was taken from additional one week. Every survey questionnaire was coded with a Serial number for record keeping.

### **3.10 Data Analysis and Management**

As mixed methodology, in quantitative part, baseline demographic was used to calculate descriptive statistic and related factor of interdisciplinary team approach. Independent test was

done for investigating the association among level of interdisciplinary team approach dependent variables.

In qualitative section, data was analyzed through statements, meanings, themes, and general descriptions of experiences. Open-ended question response about barrier and strengths to practice and additional comments were grouped according to theme. The data files were transferred into English, and then data were first analyzed across the entire data set and then separately by different profession, such as: Physiotherapist, Occupational Therapist and others. The data was analyzed by conventional context analysis theory through coding categories from direct text data, Hseih, 2005. The initial and final response analysis of the qualitative question will be done by same researcher.

The initial analysis of the responses to qualitative question was completed by senior professionals. First, coding units were defined as separate ideas. Since most responses to this question were simple lists separate idea were readily identified by new line. Each unit was than assigned one or more codes.

### **3.9.1 Quantitative data**

All statistical analyses conducted using IBM SPSS version 21 (IBM Corporation, Chiago, IL, USA) with alpha set at  $p < 0.05$ . Descriptive statistics included measures of central tendency for continuous variables and frequency and proportion for categorical variables. Data were managed through data entry and analyses were performed by using the statistical package for social Science (SPSS) version 21, and Microsoft Excel Spreadsheet. The presentation of data was organized in SPSS and in Microsoft Office Word. All data were inputted within the variables of SPSS. The SPSS was used to calculate all statistical data. Data was analyzed through descriptive statistical analysis and it was presented by using tables, figures and bar charts. The Chi-Square test ( $\chi^2$ ), also called Person's Chi- Square ( $\chi^2$ ) test of association, was used to discover if there is association between two categorical variables. In addition, Kruskal-Wallis test was done to identify difference in level of collaboration among the different kind of professionals of interdisciplinary team.

### **3.9.2 Qualitative data analysis**

Qualitative data was analyzed by using Interpretative phenomenological analysis (IPA). This systemic tool was used to guide the analysis of participant's transcripts. The transcript of one participant was analyzed prior to moving onto the next transcript to ensure each participant's perspective was noted prior to looking for patterns across participants with a commitment to detailed and in-depth analysis, preventing the pre-mature formulation of themes and generalizations during data analysis.

The data analysis process was divided into five steps. At first, the transcript of one participant was read multiple times to create familiarity with the story. After that the interview was

transcribed into Bangali by the researcher. The researcher was reviewed the interviews with the transcript to ensure all the data will be presented within the text. After formulating the transcription, it will be given to 2 different individuals who are competent in English to translate the data from Bangla to English. The researcher completed two copies of data where all two copies will be translated by the volunteer group. After that the researcher verified those two different data sets and also read it several times to recognize what the participants wanted to say in the interviews. At the same time, the researchers listened to the audio record to ensure the validity of data. In step two, descriptive and linguistic notes made to summaries/highlight key and interesting points. In step three, these notes were used to identify emergent themes, with similar themes eventually being grouped together. In step four, the previous steps were repeated with each participant's transcript without reference to already analyzed transcripts; and last step when analysis of each transcript was completed; emergent themes were compared and contrasted between the participant's transcripts to develop overarching super-ordinate themes.

### **3.10 Quality control and quality assurance**

With the concern of respective supervisor all data collection was accurately done as well followed all instructions. The researchers ensure that the methods have been validated as fit for the purpose.

The researcher have completed field test through conduct four face-to-face interviews in different setting (Neuromusculoskeletal unit and Spinal Cord Injury unit) to ensure whether the questions were understood by the participants than start the data collection. Cook, 2007 stated that it is important to carry out a field test before collecting the final data because it helps the researcher to refine the data collection plan and to justify the reliability and validity of the questionnaire and also to fit with the context. This field test is performed to identify any difficulties that exist in the questionnaires. It also gives a chance to researcher to rearrange the questionnaires to make it more understandable, clear enough for the participants.

### **3.11 Ethical Consideration**

Firstly, the investigators obtained permission to conduct research from the Institutional Review board of Bangladesh Health Professions as well as from the responsible head of Occupational Therapy department, in-charge of Pediatric department and respected supervisor to collect information from the inter-disciplinary team members of pediatric unit.

An information sheet was provided to participants containing information relating to ethical issues. The research-related information was discussed with both professionals and each person with pediatric throughout the information sheet before taking signature on the consent form. The participants were well instructed that if they do not wish to answer the question included in the survey, they may skip them and move on to the next question. The information recorded was

## CHAPTER IV: RESULTS

confidential; their name was not included on the forms. Only a number was given to identify, and no one else except Supervisor of the study had have access to that survey.

The participant can change their mind at any time of the data collection process even throughout the study period. Participants had also right to refuse their participation even if they agreed earlier. The investigator also ensured that at the end of the interview they would have opportunity to review the remarks and participants can ask to modify or remove portions of those, if they do not agree with investigator's notes.

There were some personal and confidential information needed to share by participants, do not need to answer any question or take part in the discussion/interview/survey if you don't wish to do so, and that is also okay. You do not have to give us any reason for not responding to any question, for refusing take part in the interview.

The participants was informed that they may not have any direct benefit by participate in this research, but their valuable participation is likely to help me to find out more about exist situation of the inter-professional collaborative practice on particular context. The researcher was adherent to answer any study related question or inquiry to the participants.

### 4.1 Characteristics of the participants of interdisciplinary team (N=34)

Variables	Frequency	Percentage
-----------	-----------	------------



<b>Sex of Professionals</b>		
Male	14	41.2
Female	20	58.8
<b>Age of Professionals</b>		
24-31 years	20	58.8
32-39 years	14	41.2
Mean±SD	1.4118±0.4995	
<b>Kind of Profession</b>		
Physiotherapist	15	44.1
Occupational Therapist	10	29.4
Speech and Language Therapist	9	26.5
<b>Educational Background</b>		
HSC	5	14.7
B.Sc	24	72.5
M.Sc	5	12.8
<b>Position of Professional</b>		
Intern	10	29.4
Junior	13	38.2
Senior	11	32.4
<b>Years of Professional Experience</b>		
2-6y	19	55.9
7-12y	10	31.4
13-18y	5	12.8
Mean±SD	1.5588±.70458	
<b>Extra time Service</b>		
No	30	88.2
1-2Hours	2	5.9
3-4Hours	2	5.9
Mean±SD	1.1765±0.52052	

**Table 1: Characteristics of the inter-professional Team Members**

Table 1 show that this interdisciplinary team consistent with more female participants than male. Among the 34 participants of the study, 58.8% were female whereas 41.2% were male.

The majority of participants were Physiotherapists 41.1% (n=15). Among the others participants were Occupational therapists 29.4% (n=10) and Speech & Language therapist 26.5% (n=9).

41.2% (n=14) of the professionals experience in between 1year whereas 5.9% (n=2) experience below 18years. 38.2% (n=13) of the professionals worked in junior position and 29.4% (n=10) of

the professionals worked in senior position. Among others 29.4% (n=10) worked as intern and whereas 2.9% (n=1) were working as In-charge of Subgroup. The team members worked as hours in every day except Thursday.

#### 4.2 Characteristics of Interdisciplinary Team

Variables	Frequency(n)	Percentage (%)
<b>Interdisciplinary Team Meeting</b>		
Daily	0	0
Weekly	16	47.1
Monthly	14	41.2
Irregular	4	11.8
<b>Any Training IPCP</b>		
No	33	97.1
Yes 1-12Hours	1	2.9

**Table 2: Characteristics of Interdisciplinary Team**

There were 38 professionals includes physiotherapist, Occupational therapist and speech & language therapist who are currently working at pediatric unit in the selected hospital.

Overall 34 professionals had responded in the study. Among the 34 participants 47.1 % (n=16) mentioned they involved in weekly meeting, however 11.8% (n=4) irregular in meeting. The most interesting thing is that without any training. 97.1% of the participants involved in inter-professional practice.

#### 4.3 Percentage of participants regarding their level of collaboration in each domain of collaborative practice assessment tool

Domain	Overall Response of Participants in Each Domain n (%)			
	<i>Poor</i>	<i>Mild</i>	<i>Moderate</i>	<i>High</i>

Mission, Meaning Purpose, Goals	1(2.9)	5(14.7)	13(38.2)	15(44.1)
General Relation Ship	1(2.9)	4(11.8)	20(58.8)	9(26.5)
Team Leadership	-	13(38.2)	16(47.1)	5(14.7)
General role, Responsibilities Autonomy	1(2.9)	8(23.5)	11(32.4)	14(41.2)
Communication & Information Exchange	1(2.9)	7(20.6)	12(35.3)	14(41.2)
Community Linkages and Coordination of Care	1(2.9)	4(11.8)	10(29.4)	19(55.9)
Decision Making and Conflict Management	2(5.9)	8(23.5)	17(50.0)	7(20.6)
Patient Involvement	1(2.9)	3(8.8)	11(32.4)	19(55.9)

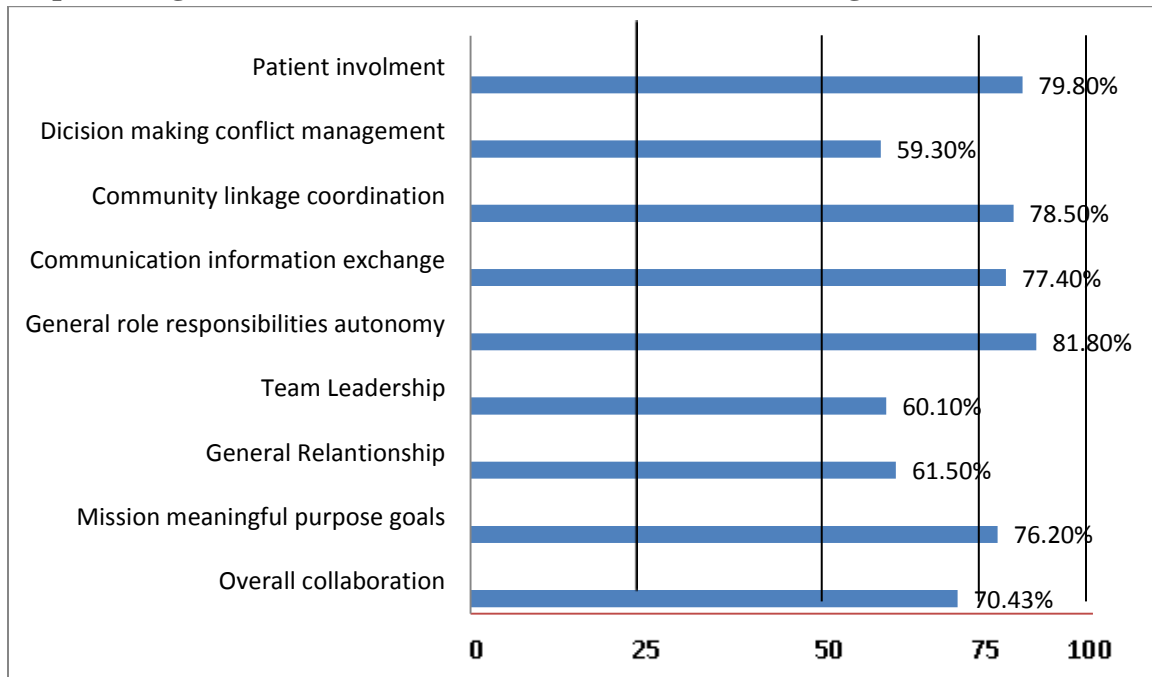
**Table 3: Level of collaborative in eight domains among the inter-professional team members**

As collaborative practice assessment tool has eight domains and each domain has different numbers of items & score options( for example: In mission, meaningful purpose and goals-items, community linkage- 4 items and patient involvement - 5 items) & score was( strongly disagree, mostly disagree, somewhat disagree, neutral, somewhat agree, mostly agree, strongly agree). There was a need to calculate overall level, level of collaboration was defined in scale data (0-100) as if overall response approaching toward ‘zero’ indicates poor level of collaboration while ‘hundred’ percent was pointed to high level of collaboration.

To make their total score same, the total items score of each domain was calculated in 100% and then, it was divided into four categories (e.g. \*Poor (strongly disagree, mostly disagree &

somewhat disagree), \*Mild(neutral), \*Moderate(somewhat agree, mostly agree) and \*High(strongly agree). That means the overall domain score was in-between 0-25% is was indicated the team collaboration ‘poor’, 26-50% ‘mild’, 51-75% ‘moderate’ and 76-100% ‘high’ level of collaboration.

**4.4 percentage of overall collaboration level score in each of eight domains.**

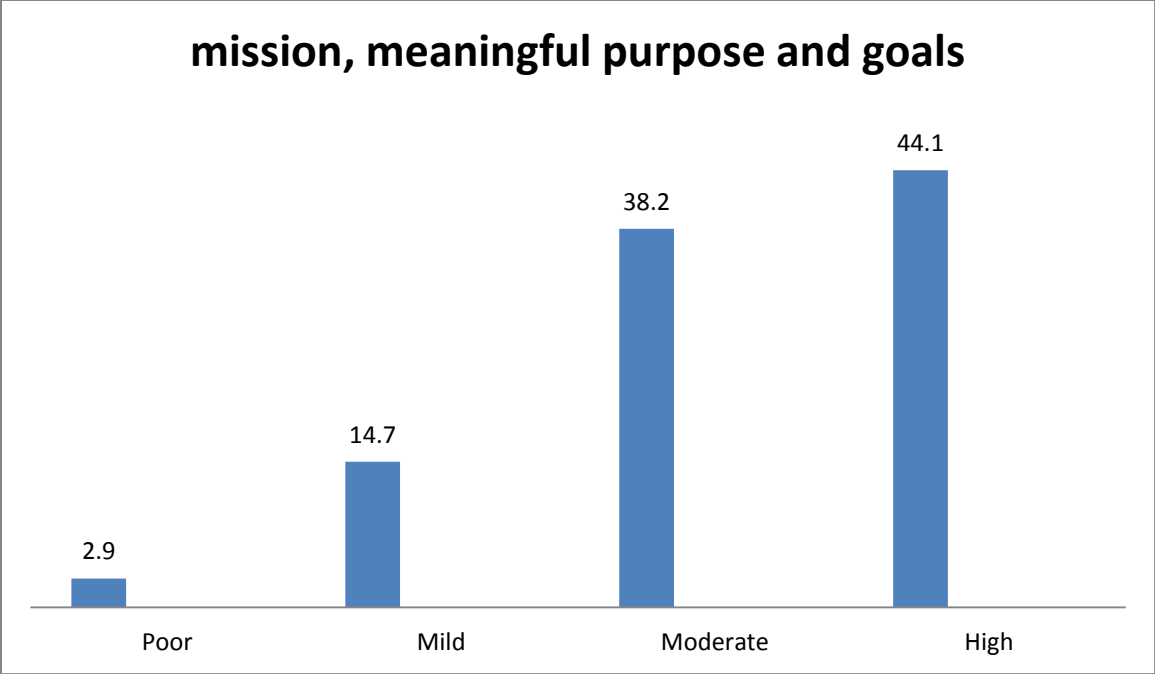


\*Note; Level of collaboration 0-25 “Poor level” 26-50 “Mild level” 51-75 “Moderate level” 76-100 “High level”

**Figure 1: Level of Collaboration among the Interdisciplinary Team Member**

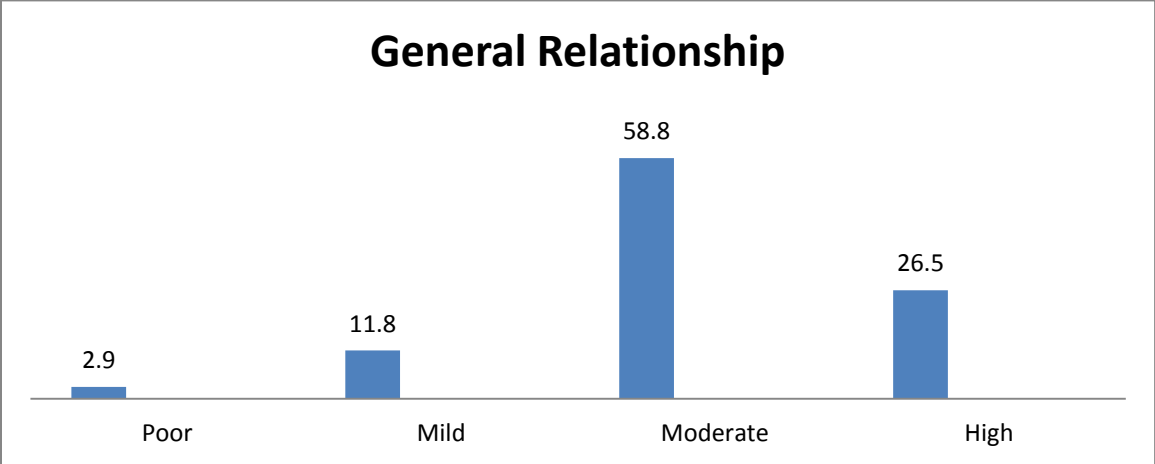
Table 3 and figure 1 show that most of the team members of pediatric unit were highly collaborative in maintaining “General role, Responsibilities, Autonomy” (81.80%) and “Patient Involvement”(79.80%) “Community linkage and coordination (78.50%)” and “Mission Meaningful Purpose Goals (76.20%)” domain as they had responded strongly agree according to 76-100% score category of high level (strongly agree). On the other hand “General relationship (61.50%)” showed moderate level of collaboration in domain as they had responded somewhat agree or mostly agree according to 51-75% score category of moderate level (somewhat or mostly agree).The lowest score was in “Decision making Conflict Management” domain (59.30%).That indicates moderate level of collaboration within team.

That overall level of collaboration was further described as individual domain below

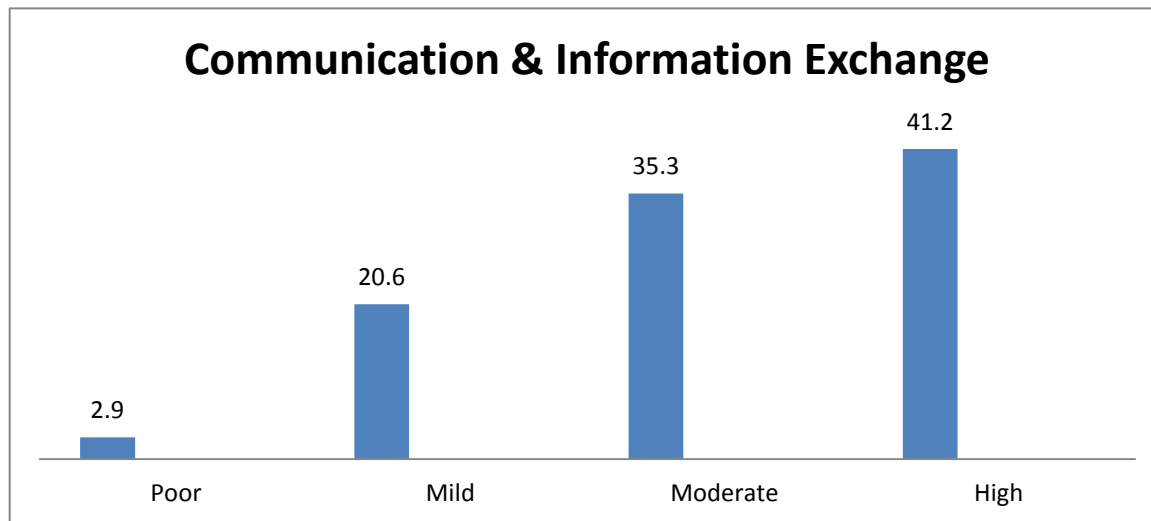


**Figure 2: Percentage of Participants regarding level of collaboration in mission, meaningful purpose and goals domain**

This figure 2 shows percentage of participants regarding the level of collaboration in mission domain. However, this indicates that most of the participants involved in high level of collaboration. Where the team’s highest priority is to achieve treatment goals through being committed to collaborative practice with a clear, useful, appropriate goal.

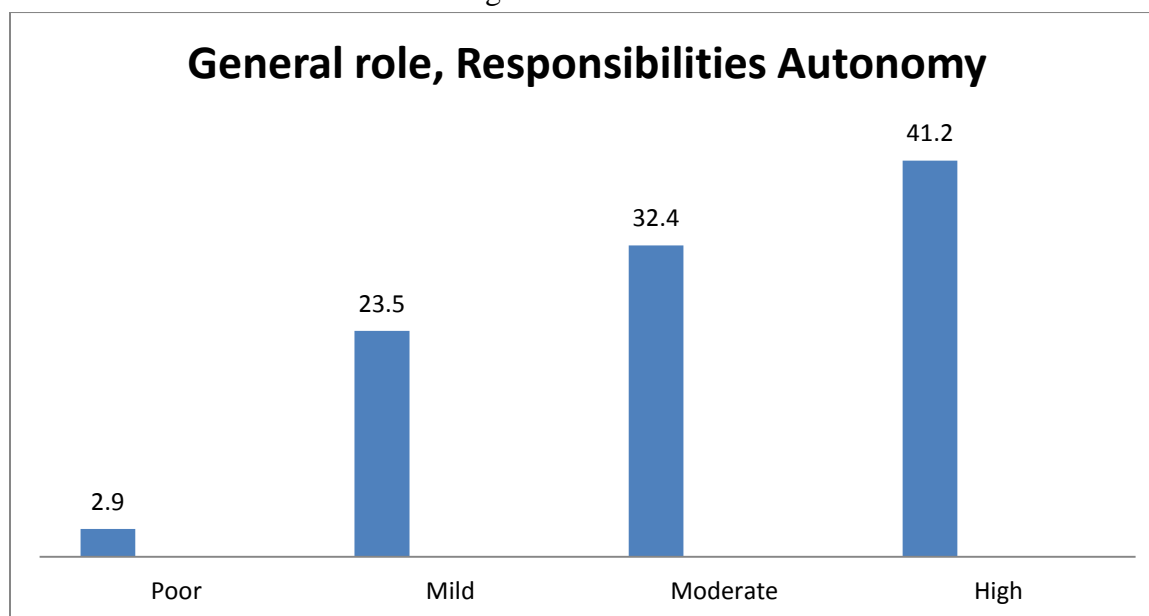


**Figure 3: Percentage of Participants regarding level of collaboration in General Relationship domain**



**Figure 4:**  
Percentage of Participants regarding level of collaboration in Team Leadership domain.

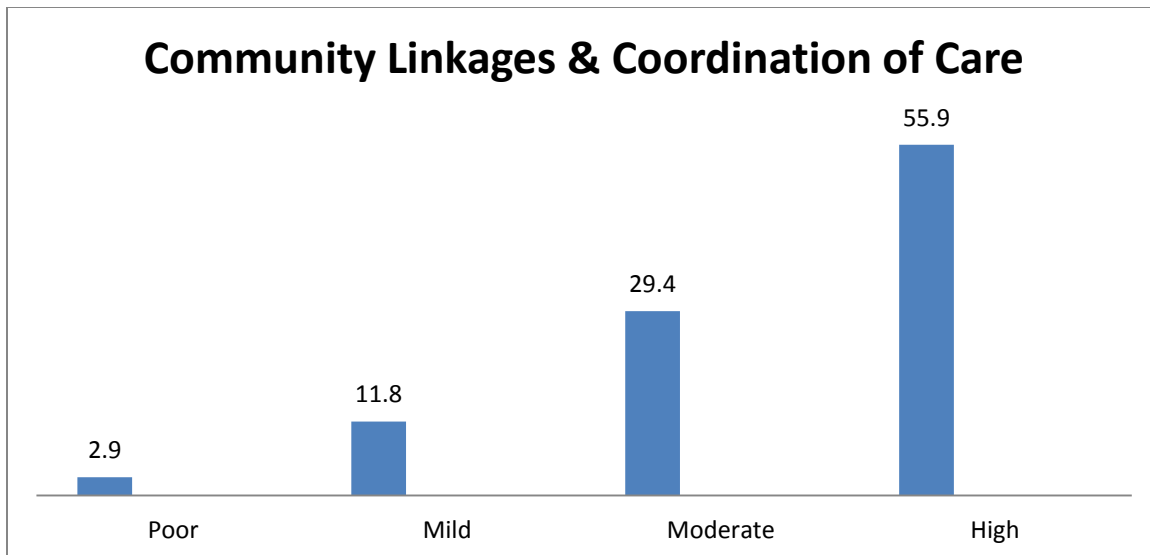
In figure 3 and 4, it has been illustrated the percentage of participants regarding moderate level of collaboration in general relationship and team leadership domain. Both domain indicates moderate level of collaboration among team members.



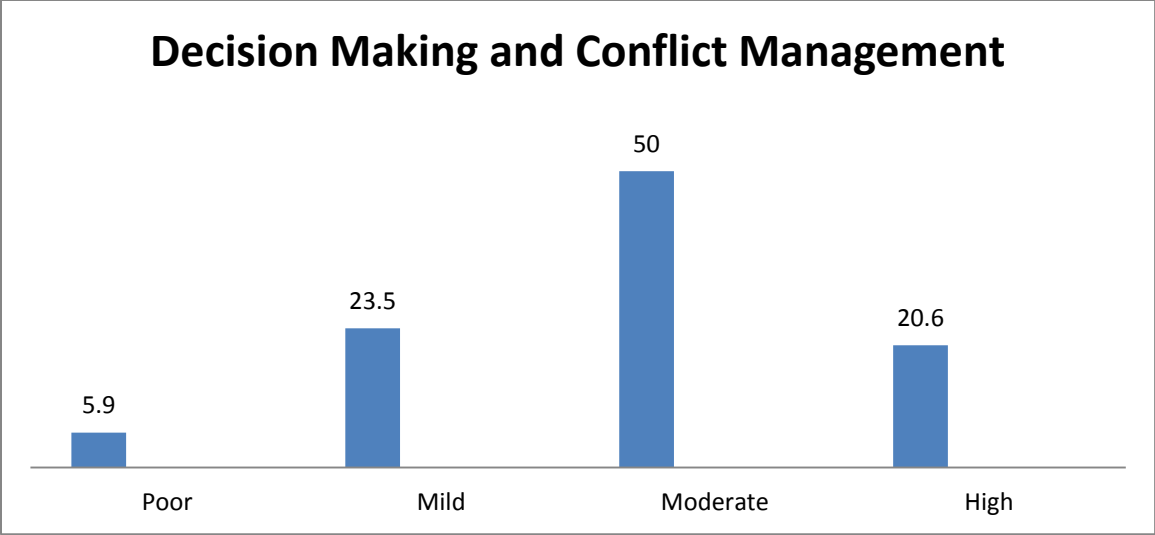
**Figure 5:** Percentage of Participants regarding level of General role, Responsibilities Autonomy domain.

**Figure 6: Percentage of Participants regarding level of Communication & Information Exchange domain**

Regarding both communication and general role, responsibilities domain is was found that a great portion of participants showed high level of collaboration.. Both domain indicates moderate level of collaboration among team members. Whereas only 2.9% showed poor level of collaboration.

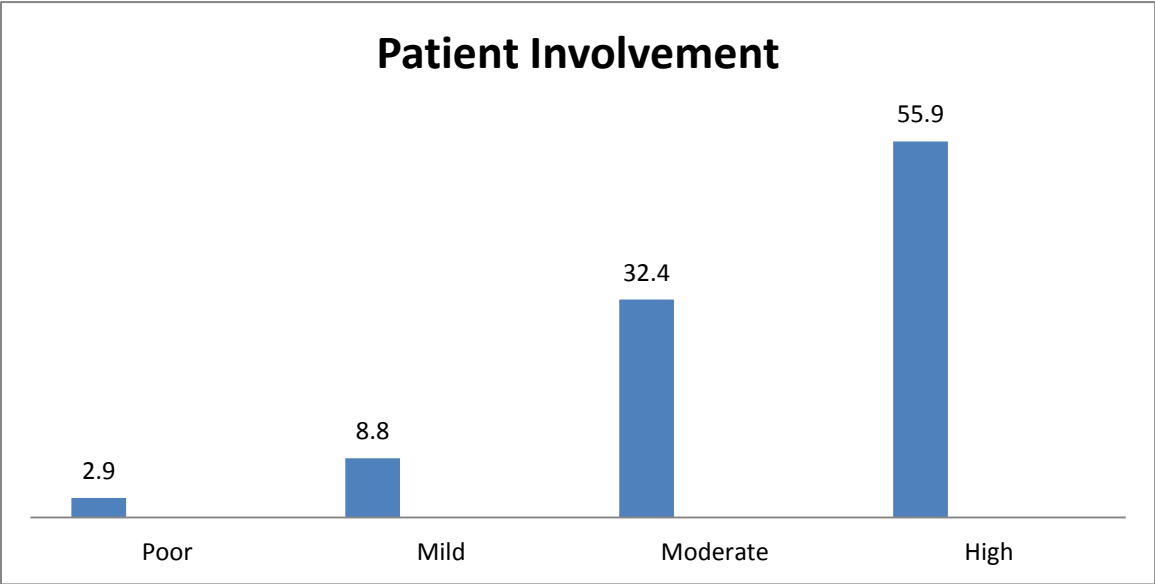


**Figure 7: Percentage of Participants regarding level Community Linkages & Coordination of Care domain**



**Figure 8: Percentage of Participants regarding level Decision Making and Conflict Management domain**

This figures (7&8) illustrated that just below 50% of the participants had high level of collaboration in community linkage whereas 50% had moderate level of collaboration in conflict resolution domain.



**Figure 9: Percentage of Participants regarding level Patient Involvement domain**

In the patient involvement domain most of the participant showed highly collaborative attitudes towards building rapports with patients and families.

Among the eight domains of collaborative practice most of the participants specified five domains where they showed high level of collaboration includes ‘mission, meaningful purpose, goals’; ‘community linkages and coordination of care’; ‘communication & information exchange’; ‘general role, responsibilities autonomy’; ‘patient involvement’; domain. Whereas rest of the three domains includes moderate level collaboration ‘General Relation Ship’; ‘Team



Leadership'; 'Decision Making and Conflict Management'; reported by the significant percentage of participants.

**4.5 Association with collaboration level in each domain by sex, age, kind of profession, educational background and position profession.**

Variables	Overall Collaboration		$\chi^2$ Value	P Value
	Moderate level	High level		
<b>Sex of Professional</b>			1.0	.419
Male	8(57.2%)	6(42.8%)		
Female	12(60%)	8(40%)		
<b>Age of Professionals</b>			.272	.472
24-31 years	11(57.89%)	8(42.10%)		
32-39 years	6(39.1%)	9(59.9%)		
<b>Kind of Profession</b>			.148	.690
Physiotherapist	8(53.3%)	7(46.7%)		
Occupational Therapist	5(50%)	5(50%)		
Speech and Language Therapist	9(100%)			
<b>Educational Background</b>			.253	.338
HSC	5(100%)			
B.Sc	13(54.2%)	11(45.8%)		
M.Sc		5(100%)		
<b>Professional Experience</b>			.084	.887
1-6 years	11(57.8%)	8(42.2%)		
7-12years	5(50%)	5(50%)		
13-18years		5(100%)		
<b>Position of Professional</b>			.061	.938
Intern	5(50%)	5(50%)		
Junior	7(53.8%)	6(46.2%)		
Senior	6(54.6%)	5(45.4%)		

**Table 4: Association with socio-demographic factor and level of collaboration**

According to age,  $\chi^2$  value was 1.0 and there was no significant association ( $p > .419$ ) was found between the professionals age range and their overall collaboration level. There was no significant association between occupation and their overall collaboration, Regarding the profession occupation,  $\chi^2$  value was 5.54.

In case of professionals educational background no significant association was found,  $\chi^2 = .253$  and  $p = .338$ .

In addition, no significant association with position of professionals,  $\chi^2 = .061$  and  $p = .938$ .

From 34 participants more than half participants were female (n=20) and half of them collaboration was high whereas low for the rest half. Sex was not significantly associated with level of collaboration.

Finally we can come to a conclusion that socio demographic characteristic were not significantly associated with level of collaboration.

#### 4.6 Independent groups difference regarding level of collaboration using Kruskal-Wallis Test

Kind of Profession	N	Mean Rank	Mean±SD	Sig.
Physiotherapist	15	8	8±4.47	.467
Occupational therapist	10	29.50	29±3.27	
Speech & Language Therapist	09	20	20±2.74	
Total(N)	34		17±9.96	

**Table 5: Mean difference in professionals of Collaborative Practice by Kruskal-Wallis test.**

\*Note: Test result is to retain the null hypothesis.

According to non-parametric test (Table 5) three different professional groups mean rank was 8, 29.50,20 and total Mean±SD was 17±9.96. As  $\chi^2$  value was 0.467 less than <5 null hypothesis was correct.

	Kind of Profession
Chi-square	28.739
df	2
Asymp. Sig	.000

**Table 6: Significant different among professionals of Collaborative practice by Kruskal-Wallis test.**

According to table 6,  $\chi^2$  value(28.739) and a value (0.00).That means there was no significant difference on reaction time to the stimulus between 3 groups.

#### **4.7 Perceived strengths, Weakness, Opportunity and Threats in Collaborative Practice**

From the qualitative analysis six major themes has been emerged from the categories. Under categories, there are some codes to interpret the findings more systematically from the perspective of the participants of this study.

---

Theme-1: Most of the professional had good knowledge about inter-professional collaborative Team and MDT (Issued from category 1 and 2)

Theme-2: Most of the professionals mentioned about specific knowledge and importance of IPCT (Issued from category 3 and 4)

Theme-3: Most of the professionals mentioned that there are no opportunities in improving IPCT in that Rehabilitation Centre (Issued from category 5)

Theme-4: Most of the professionals believed that there are potential strength as well as weakness in accomplishment of inter-professional collaborative team in that Rehabilitation center (Issued from category 6 and 7)

Theme-5: Most of the professional believe that there are some barriers and need some strategies to improve inter-professional collaborative team in that Rehabilitation center (Issued from category 8 and 9)

Theme-6: Most of them mentioned that there experience of IPCT improves their professional potentiality (Issued from category 10)

---

**Table 6: Theme of the qualitative study at a glance**

##### **4.7.1 Details of the qualitative findings**

This qualitative interview was performed with twelve members of interdisciplinary team. Among the twelve participants, 90% of the professionals reported that interdisciplinary team usually consists of common purpose and miserable goals. Now participants a mention during interview “Ainter-professional collaborative team consists of professionals work together discuss and plane together for a patient”.100% of the professionals reported that IPCT has changes their workplace experience.It was found that around 75% professionals had no training facilities from the organization.

**Category 1: Understanding about Inter-Professional collaborative team**

Coding	P <sub>1</sub>	P <sub>2</sub>	P <sub>3</sub>	P <sub>4</sub>	P <sub>5</sub>	P <sub>6</sub>	P <sub>7</sub>	P <sub>8</sub>	P <sub>9</sub>	P <sub>10</sub>	P <sub>11</sub>	P <sub>12</sub>	Total
Work collaboratively to achieve a common goal	√	√	√	√	√	√	√	√	√	√	√	√	12
Patient benefit is a mission of team members	√	√	√	√	√	√	√	√	√	√	√	√	12
Teamly appreciation to achieve better success	√	√	√	√	√	√	√	√	√	√	√	√	12
Similarities in thinking between team members	-	√	√	√	√	√	-	√	√	√	√	√	10
Team members ensure client centered practice	√	√	√	√	√	√	√	√	√	√	√	√	12

**Table 1: professional understands about Inter-professional collaborative team**

One of the participants s/he thinks that Collaborative work towards common goal fulfill its purpose to the fullest and it’s easier to achieve. Team member’s decision as well as leader’s role important in inter-professional team. Team work facilities by team member’s roles and responsibilities.

Other participant said that “*Different professional work from their own place and combindly work for client progress that refers to Inter-professional collaborative team (IPCT)*”.

Most of the participant talked about collaborative working environment. In about 88% percent did mention about their similar thinking process regarding patient benefit and how it’s better to work together on same goal.

**Category 2: Differences between Inter-Professional collaborative team and Multidisciplinary Team**

Coding	P <sub>1</sub>	P <sub>2</sub>	P <sub>3</sub>	P <sub>4</sub>	P <sub>5</sub>	P <sub>6</sub>	P <sub>7</sub>	P <sub>8</sub>	P <sub>9</sub>	P <sub>10</sub>	P <sub>11</sub>	P <sub>12</sub>	Total
Inter-professional team members more collaborative	√	√	√	√	√	√	√	√	√	√	√	√	12
Multidisciplinary team also work together but on their own role	√	√	√	√	√	√	√	√	√	√	√	√	12
MDT members has less collaboration	√	√	√	-	-	√	√	-	√	√	√	√	9
MDT provides decisions about patient from their own professional base	√	√	√	√	√	√	√	√	√	√	√	√	12

**Table 2: Inter-professional and Multidisciplinary team’s differences**

Participants said that IPCT members collaboratively work for achieve a specific goal. There are different professional but their goal are same. In other case of MDT every professional work for some individual motive goal.

One of the participant said that *“I think there is a different between two team. IPCT members make decision more collaboratively. They work for patient progress and to achieve a goal. In case of MDT professional work from own place. For ex. In pediatric department we follow MDT, if we follow IPCT than we will share our ideas plans collaboratively ina team for patient treatment.”*

**Theme-1: Most of the professional had good knowledge about inter-professional collaborative Team and MDT (Issued from category 1 and 2)**

Mostly every one of the participant shared that their working environment is more than capable to have IPCT practiced under the CRP roof. They are different professional working here providing treatment according to their baseline professional. They think it will be very beneficial for patient if they could work together with the one patient. Their decision taking procedure would be easy and better than before. They would resolve conflict quickly. Manage a tough or problematic case easily.

**Category 3: Importance of Inter-professional collaborative team in workplace**

<b>Coding</b>	<b>P<sub>1</sub></b>	<b>P<sub>2</sub></b>	<b>P<sub>3</sub></b>	<b>P<sub>4</sub></b>	<b>P<sub>5</sub></b>	<b>P<sub>6</sub></b>	<b>P<sub>7</sub></b>	<b>P<sub>8</sub></b>	<b>P<sub>9</sub></b>	<b>P<sub>10</sub></b>	<b>P<sub>11</sub></b>	<b>P<sub>12</sub></b>	<b>Total</b>
Professional work as a team work collaboratively for patient benefit	√	√	√	√	√	√	√	√	√	√	√	√	12
Works become simpler	√	√	√	√	√	√	√	√	√	√	√	√	12
Multiple members perspectives, knowledge accomplices	√	√	√	√	√	√	√	√	√	√	√	√	12
Patient become more satisfied	√	√	√	√	√	√	√	√	√	√	√	√	12
Conflict resolves and gap reduces	√	√	√	√	√	√	√	√	√	√	√	√	12
Combined work treatment becomes more easier	√	√	√	√	√	√	√	√	√	√	√	-	11

**Table 3: workplace importance of Inter-professional collaborative team**

Most of the participant agreed they all set a goal to work that must bring better outcome. When work in done teamly works become simpler. Patient related problems are easily found and solved, communication gap decreased.

One of the participant said that *“I think this is absolutely important because when we work in team and take decision collaboratively for a patient than s/he become more satisfied. Others communication, job satisfaction improves. Conflict between professional resolve more. Planning for patient become easier other decision can take easier too etc.”*

**Category 4: Need of special knowledge for Working in Inter-professional collaborative team**

<b>Coding</b>	<b>P<sub>1</sub></b>	<b>P<sub>2</sub></b>	<b>P<sub>3</sub></b>	<b>P<sub>4</sub></b>	<b>P<sub>5</sub></b>	<b>P<sub>6</sub></b>	<b>P<sub>7</sub></b>	<b>P<sub>8</sub></b>	<b>P<sub>9</sub></b>	<b>P<sub>10</sub></b>	<b>P<sub>11</sub></b>	<b>P<sub>12</sub></b>	<b>Total</b>
Knowledge required for working in IPCT	√	√	√	√	√	√	√	√	√	√	√	√	12
Special knowledge needed	√	√	√	-	√	√	√	√	√	√	√	-	10
Techniques conflict management style, leadership, collaborative techniques needed	√	√	√	-	√	√	√	√	√	√	√	-	10
Communication skills needed	√	√	√	√	√	√	√	√	√	√	√	-	11

**Table 4: Inter-professional collaborative team required special need of knowledge**

Some of the participant s/he thinks that gained specific topic knowledge related to the IPCT team is important to understand the work of IPCT. Gained knowledge on some specific areas like conflict management style, rules regulation to maintain IPCT work etc.

Participant said that *“Hmm. Not like special knowledge but some knowledge in needed. For ex, have to understand professional difference knowledge style. Working style of an individual. How to share opinion collaboratively.”*

**Theme-2: Most of the professionals mentioned about specific knowledge and importance of IPCT (Issued from category 3 and 4)**

**Category 5: Facilities for working in Inter-professional collaborative team**

<b>Coding</b>	<b>P<sub>1</sub></b>	<b>P<sub>2</sub></b>	<b>P<sub>3</sub></b>	<b>P<sub>4</sub></b>	<b>P<sub>5</sub></b>	<b>P<sub>6</sub></b>	<b>P<sub>7</sub></b>	<b>P<sub>8</sub></b>	<b>P<sub>9</sub></b>	<b>P<sub>10</sub></b>	<b>P<sub>11</sub></b>	<b>P<sub>12</sub></b>	<b>Total</b>
No training facilities	√	√	√	√	√	√	√	√	√	√	√	√	12
Patient referring facility	-	√	√	√	√	-	-	√	√	√	-	√	8
Different professional working together	-	-	-	√	-	√	-	-	-	-	-	√	3

**Table 5: Facilities Inter-professional collaborative teammembers’ need**

Some participant s/he thinks that all kind of professional working in same team with the same motive for the betterment of the client is a great facility. Some claimed that patient referral facilities are well in their team.

On the other side, maximal participant said that *“No types of training facilities I had.”*

Facilities has different meaning to person to person. Other participant said that *“Yes absolutely! Example; We all are different professional working together for our professional that is a facility.”*

**Theme-3: Most of the professionals mentioned that there are no opportunities in improving IPCT in that Rehabilitation Centre (Issued from category 5)**

**Category 6: Current strength for maintain Inter-professional collaborative practice**

<b>Coding</b>	<b>P<sub>1</sub></b>	<b>P<sub>2</sub></b>	<b>P<sub>3</sub></b>	<b>P<sub>4</sub></b>	<b>P<sub>5</sub></b>	<b>P<sub>6</sub></b>	<b>P<sub>7</sub></b>	<b>P<sub>8</sub></b>	<b>P<sub>9</sub></b>	<b>P<sub>10</sub></b>	<b>P<sub>11</sub></b>	<b>P<sub>12</sub></b>	<b>Total</b>
Resolve conflict and solving problems together	√	√	√	√	√	√	√	√	√	√	√	√	12
Manage patient tamely	√	√	√	√	√	√	√	√	√	√	√	√	12
Communication with higher authority about patient	√	√	√	√	√	√	√	-	√	√	√	√	11



become easier														
Maintain same and their own roles	√	√	√	√	√	√	√	√	√	√	√	√	√	12
More development of mutual understanding between professionals	√	√	√	√	√	√	√	√	√	√	√	√	√	12
Knowledge gathered and conflict doesn't occur easily	√	√	√	√	√	√	√	-	√	√	√	√	√	12

**Table 6: Inter-professional collaborative team current strengths**

One of the participant said that *“Yes strength present. Because we are working in the team and in this team leader and other members are working together. When a problem arise that solved easily is strength.”*

Most of the participant talked about their strength accordingly. They seems to clear about their strength. In about 90% professional agreed on their strength would be resolve of conflict, working in a team manner. They said they gather different and important knowledge while working in IPCT. For them it's easier to work in IPCT team.

**Category 7: Weaknesses of current Inter-professional collaborative team**

Coding	P <sub>1</sub>	P <sub>2</sub>	P <sub>3</sub>	P <sub>4</sub>	P <sub>5</sub>	P <sub>6</sub>	P <sub>7</sub>	P <sub>8</sub>	P <sub>9</sub>	P <sub>10</sub>	P <sub>11</sub>	P <sub>12</sub>	Total
Team works isn't performed properly	√	√	√	√	√	√	-	√	√	√	√	-	10
Lack of combine work	√	√	√	√	√	-	-	√	√	√	√	-	9
Overpower authorities creates problems	√	√	√	√	√	√	-	√	√	√	√	-	10
Not prioritizing others decisions immediately	√	√	√	√	√	√	-	√	√	√	√	-	10
No training facilities combine	√	√	√	√	√	√	-	√	√	√	√	-	10
Lack of development of guidelines	√	√	√	√	√	√	-	√	√	√	√	-	10

**Table 7: Inter-professional collaborative team current weaknesses**

Some of the participant s/he thinks that some of the members put their dictions first and less prioritize other members. They don't combined work at a time. Team works isn't performed properly.

Other participant said that *“No I think no weakness present.”*

Mostly they think there is just strength in IPCT no room for weakness. Some of them think lack of training facility is a bit of weakness for the IPCT. They also believe there's a lack of guideline development.

**Theme-4: Most of the professionals believed that there are potential strength as well as weakness in accomplishment of inter-professional collaborative team in that Rehabilitation center (Issued from category 6 and 7)**

**Category 8: Barriers of Inter-professional collaborative team in workplace**

<b>Coding</b>	<b>P<sub>1</sub></b>	<b>P<sub>2</sub></b>	<b>P<sub>3</sub></b>	<b>P<sub>4</sub></b>	<b>P<sub>5</sub></b>	<b>P<sub>6</sub></b>	<b>P<sub>7</sub></b>	<b>P<sub>8</sub></b>	<b>P<sub>9</sub></b>	<b>P<sub>10</sub></b>	<b>P<sub>11</sub></b>	<b>P<sub>12</sub></b>	<b>Total</b>
Arise of personal ego between members	√	√	√	√	√	√	-	-	√	√	√	√	10
Organization doesn't provides facilities	√	√	√	√	√	√	-	-	√	√	√	√	10
Rough patient schedule reduces communication thus collaboration	√	√	√	√	√	√	-	-	√	√	√	√	10
Lack of training on IPCT	√	√	√	√	√	√	√	√	√	√	√	√	12
Lack of guidelines on Inter-professional collaborative team	√	√	√	√	√	√	√	√	√	√	√	√	12

**Table 8: Workplace barriers of Inter-professional collaborative team**

Most of the participant s/he thinks that there are two types of barriers mainly organizational barrier and workplace barriers. They think they don't get any training facility any specific guideline on Inter-professional collaborative team.

One of the participant said that *“Yes faces barriers differently from workplace, co-workers. When I was junior faces many barriers. Other than that no training facility I had, no guideline had still now these are barriers I think. Barriers are maximum from workplace.”*

**Category 9: Strategies follows to facilitate work of Inter-professional collaborative team**

<b>Coding</b>	<b>P<sub>1</sub></b>	<b>P<sub>2</sub></b>	<b>P<sub>3</sub></b>	<b>P<sub>4</sub></b>	<b>P<sub>5</sub></b>	<b>P<sub>6</sub></b>	<b>P<sub>7</sub></b>	<b>P<sub>8</sub></b>	<b>P<sub>9</sub></b>	<b>P<sub>10</sub></b>	<b>P<sub>11</sub></b>	<b>P<sub>12</sub></b>	<b>Total</b>
Follows conflict management style	√	√	√	-	√	√	√	√	√	√	√	-	10
Collaborative tem decisions	√	√	√	-	√	√	√	-	√	√	√	-	9
Manage difficult problems immediately	√	√	√	-	√	√	√	√	√	√	√	-	10
Maintain communication collaborative technique	√	√	√	√	√	√	√	√	√	√	√	-	11
Prioritize patient improvement	√	√	√	√	√	√	√	√	√	√	√	-	11
Follows leadership style	√	√	√	-	√	√	√	√	√	√	√	-	10

**Table 9: Inter-professional collaborative team follows strategies in workplace**

One of the participant said that *“Actually to say about strategy Yes I follow conflict management style other collaborative technique, Prioritize improvement of the client, tamely decision and leadership style.”*

Many of them believe without following any strategies the work of IPCT would not be any good. There is plenty of strategies to follow and maintain while working in IPCT. Not being getting the training to get this strategies causing problem for the different professional to work together. They thinks they all members together needs training to maintain these strategies like conflict management style, communication collaborative technique and most importantly conflict resolve/management technique.

**Theme-5: Most of the professional believe that there are some barriers and need some strategies to improve inter-professional collaborative team in that Rehabilitation center (Issued from category 8 and 9)**

**Category 10: Experience of working in Inter-Professional collaborative team changes work experience**

<b>Coding</b>	<b>P<sub>1</sub></b>	<b>P<sub>2</sub></b>	<b>P<sub>3</sub></b>	<b>P<sub>4</sub></b>	<b>P<sub>5</sub></b>	<b>P<sub>6</sub></b>	<b>P<sub>7</sub></b>	<b>P<sub>8</sub></b>	<b>P<sub>9</sub></b>	<b>P<sub>10</sub></b>	<b>P<sub>11</sub></b>	<b>P<sub>12</sub></b>	<b>Total</b>
Team work changes, working capabilities	√	√	√	√	√	√	√	√	√	√	√	√	12
Communication gap reduces among professionals	√	√	√	√	√	√	√	√	√	√	√	√	12
Work flexibility increased	√	√	√	√	√	√	√	√	√	√	√	√	12
Level of patient satisfaction improved	√	√	√	√	√	√	√	√	√	√	√	√	12
Work management skills improved	√	√	√	√	√	√	√	√	√	√	√	√	12
Positive work environment grows	√	√	√	√	√	√	√	√	√	√	√	√	12

**Table 10: Inter-Professional collaborative team changes work experience**

Most of them thinks that their experience of IPCT has changes their workplace experience. Mostly their thinking about team work changes working capability. Communication gap reduced, positive thinking grows. Patient level of satisfaction improved, work management skill improved.

One of the participant thinks that *“Yes defiantly changes have, e.g. previously I thought about myself only now I think about others and thinks tamely, if others professional suggested something than I think about that and if that’s good. I try to follow that plan. I really think these changes are very positive.”*

**Theme-6: Most of them mentioned that there experience of IPCT improves their professional potentiality (Issued from category 10)**

## **5.1 Discussion**

This study provides valuable insight provided by participant with average interest and experiences of IPCT, into issues there the organization and professional can learn from this study about professional understanding about IPCT practice.

This study result shows that an Inter-professional collaborative team member (IPCT) has average level collaboration and understanding of ten domain of Inter-professional team practice. Study participant's shows great deal of understanding about IPCT.

Research stated that In recent 20years many approaches emerged on collaboration among health and social care professionals for safe and effective patient care delivery. This aims encouraging professions work together to coordinate care, better services, and optimize treatment. Inter-professional education accomplishes this purpose through that enables mutual understanding and appreciation of professional roles, team development strategies, implementation of communication tools, and also establishment of different protocols that make best use of professional expertise and specialization (Boyce; Moran; Nissen;&Brooks, 2009). Enhance health professional efforts to involve patients in decision-making process about care and largely ignore the inequitable social, political, and economic conditions in which health care providers work, assume that patients want and take on the responsibilities that come with that role.

One of the important outcomes to measure in relation of Inter-professional collaborative (IPCT) team among the different professional group they find the idea of this team building precious. Professional's understanding about IPCT is more than clear even they understand the value of working together. They believed on the fact that working together is always best for the patient benefit.

As mentioned above the teamwork and collaborative practice can be influential medium to inter-professional collaborative team practice. Study participants shared that working together can be beneficial to the patient group. Study participants recognized that positive aspects of teamwork

in working together that can translate to improvement of care include clarity of purpose/goal, well-defined roles, communication and opportunities for practice and team development.

Study research suggest that Inter-professional collaboration happens when different health professions communicate individually and make decisions about a patient's health care based on shared knowledge and skills. Thus Collaboration with Medical Staff, Physiotherapy, Collaboration with Other Health Care Professionals, and Nurses ensures patient safety.

Moreover study participants know about the importance and strength of this team, they have clear idea about how IPCT can be helpful to the patient group. They know how the team practice works holistically.

Research suggest that Now-a-days the need for effective inter-professional collaboration team (IPCT) to reduce duplication of effort, clinical error restriction, improve safety and enhance the quality of patient care is widely acknowledged by all (Farrell: Schmitt& Heinemann 2001).This study utilized a comparative ethnographic approach through gathering observation, interview and documentary data relating to the behaviors and attitudes of healthcare providers and family members across several sites. Patients and family members are expressing the desire to participate and be recognized as constituents of the patient care.

Participants in the study found that the barriers to collaboration had a higher interpersonal locus. This is understandable because structures are easier to modify than the "hearts and minds" of the persons that contribute to organizational and system culture. They identified inter-professional communication, understanding of role and level of value, priorities own self, commitment, purpose of the patient; in either the athletic or healthcare context. The descriptor "social contract" was also mentioned by healthcareprofessional where team members commit to their role pursuing the common goal. However, an inter-professional team can be weakened through lack of communication and incongruence of values and ethics toward IPCP and teamwork.

Study research state that Inter-professional collaboration happens when different health professions communicate individually and make decisions about a patient's health care based on shared knowledge and skills.Thus social care professionals can work in an effective manner in a variety of inter-professional teams spread across the continuum of care (Schmitt 2001; Zwarenstein 2009). Health and social care professions has generated a number of tensions for their ability to collaborate in an efficacious manner.

Study participants explain about how they don't get any chance for training or have any workshop on IPCT. They explain about the importance of these training in their practice very clearly. The training on IPCT would be very beneficial for practice with IPCT. Training on leadership development, conflict resolution, communication management etc.

Study participants also mentioned their gaps in conflict resolution and maintaining proper communication within the team. They explain about how they busy with tight patient schedule etc.

This kind of research will be very beneficial to the indicated specialized rehabilitation organization and to the different professional to improve their practice and ensure better service to the client group. This research will help the patient to get quality service in collaborative method.

## **5.2 Limitation:**

The study has some limitation that should be taken into account when considering its findings. Although the interviews provided in-depth data, but the size of the sample is a small one, confined to one region of Bangladesh.

As well there is limited source of published data from the perspective of situation of inter-professional collaborative team approach at Pediatric sector in Bangladesh's health system to contextualize the findings with literature support.

Permission for data collection was difficult as investigator was a student and participants are professionals. Some professionals had probability to provide bias answer due to fear of exploration. In this case, information sheet and consent form was detailed with the information including confidentiality, rights to withdrawal, risk and benefit and voluntary consent assumed to reduce the uncertainty in sharing proper information and sensitive issue with investigator.

## **CHAPTER VI : CONCLUSION & RECOMMENDATION**

### **6.1 Conclusion:**

This study provides an idea that there are collaborative between the interdisciplinary team member who is not only beneficial for patient but also essential for organization and care provides. In addition, collaboration within team is effective and efficient in team of patient satisfaction, motivation as well as it is less time consuming approach.

This study has supports to highlight the areas of strength as well as opportunities that will give insight about how can the inter-professional collaborative practice capitalize on internal strength that correlate with opportunities. It also gives idea about what are some ways to minimize weakness especially if they may be exacerbate by outsider threats.

Overall, this information is useful for improve communication, decision making and shared knowledge of leadership practice as it points to areas requiring special attention when implementing collaborative practice and undertaking strategies and also give idea about label of knowledge of professionals. The professional's strategies are intended to make the competencies of individual, team and system levels to support the proper implementation of collaborative of practice

### **6.2 Recommendation:**

Recommendation is based on the study findings and literature review. Therefore need provide extensive support regarding enhancement of inter-professional education and training for the professionals from, institution to clinical setting. The organization should improve their resource capacity to enhance the collaboration in rehabilitation setting for greater patient improvement, satisfaction of professionals thus improving quality of service.

Cerebral palsy and thus other child condition are increasing day by day specially in rural areas to a large number. Therefore, the inter-professional collaborative practice should be acknowledged in every hospital and rehabilitation center. The government can work for including inter-professional collaboration practice in all health and medical curriculum especially in rehabilitation science education to educate the care providers. This study explains the importance of inter-professional collaborative practice in the pediatric setting by addressing the importance of collaborative practice.



## REFERENCE

- Reeves, S., Pilon,F., Harrison, R., Goldman, J., Zwarenstein,M., Inter-professional collaboration to improve professional practice and healthcare outcome. Cochrane Database of systematic review of 2017.
- Reeves, S., Fletcher, S., McLoughlin, C., Yim, A., Patel, D.k., 2017. Inter-professional online learning for primary healthcare: findings from a scoping review.*BMJ the journal online*.e016872.
- Fournier, C., Reeves, S., 2012. Professional status and inter-professional collaboration: A view of massage therapy, *Journal of Inter-professional Care*, 26(1), pp. 71-72.
- Chatalalsingh, C., Reeves, S., 2014. Leadingteamlarning:what makes inter-professional teams learn to work well?.,*Journal of Inter-professional Care*,28(6), pp. 513-518.
- Curley, C., McEachern J.E., Speroff, T. A., 2009.a firm trial of interdisciplinary round:an intervention designed using continuous quality improvement, *Journal of Med care*,36(8).
- Bazeley, P.,2015. Mixed methods in management research: Implications for the field *Electronic Journal of Business Research Methods*, 13(1), pp.27-35.
- O’Leary, K.J., Haviley, C., Slade, M.E., Shah, H.M., Lee, J., Williams, MV.,2011.Improving teamwork: impact of structured interdisciplinary rounds on a hospitalist unit, *Journal of Hosp Med*, 6(2), pp.88-93.
- Martin, J.s., Ummenhofer, W., Manser, T. and Spirig, R., 2011. Inter-professional collaboration among nurses and physicians: making a difference in patient outcome. *Swiss Med Wkly*,140,p.w.13062.

- Suter, E., Arndt, Arthur, M., Parboosingh, J., Taylor, E. and Deutschlander, S., 2009. Role understanding and effective communication as core competencies for collaborative practice. *Journal of Inter-professional Care*.
- Silva, J.A.M.D., Peduzzi, M., Orchard, C. and Leonello, V.M., 2016. Inter-professional education and collaborative practice in Primary Health Care. *Revista da Escola de Enfermagem da USP*, 49(SPE2), pp.15-23.
- Stocker, M., Pilgrim, S.B., Burmester, M., Allen, M.L. and Gijsselaers, W.H., 2016. Inter-professional team management in pediatric critical care: some challenges and possible solutions. *Journal of multidisciplinary healthcare*, p.47.
- Hamlan, N.M., 2015. *The Relationship Between Inter-Professionals Collaboration, job Satisfaction, and Patient Safety Climate-Acute Care Hospital*.
- Shaller, D., 2007. *patient-centered care: what does it take?* (pp.1-15). Commonwealth Fund.
- Mueller, C.A., Tetzlaff, B., Theile, G., Fleischmann, N., Cavazzini, C., Geister, C., Scherer, M., Weyerer, S., Bussche, H. and HummersPradier, E., 2015. Inter-professional collaboration and communication in nursing homes: a qualitative exploration of problems in medical care for nursing homes residents-study protocol. *Journal of advanced nursing*, 71(2), pp.451-457.
- McCallin, A. McCallin, M. and BA, R., 2009. Factors influencing team working and strategies to facilitate successful collaborative teamwork. *NZ Journal of Physiotherapy*, 37(2), p.62-65.
- Maria, M.K., Heike, w., Luica, C., Lucas, L., Fabio, V., Verena, F., Reeves, S., 2015. The state of inter-professional collaboration in Northern Italy: a mixed methods study. *Journal of Inter-professional care*, 29(1), pp.79-81.
- Vanessa, R.D. and Nichols, Q., 2016. Inter-professional practice in healthcare: experiences of a faculty learning community. *Journal of Inter-professional care*, Available at: <http://dx.doi.org/10.3109/13561820.2016.1150259>.report. Accessed May 23, 2016.

- Thannhauser, J., Russell, S.M. and Scott, C., 2010. Measures of inter-professional education and collaboration. *Journal of Inter-professional care*, 24(4),pp. 336-349.
- Fox, A., Reeves, S., 2015. Inter-professional collaborative patient-centred care: a critical exploration of two related discourses. *Journal of Inter-professional care*, 29(2), pp. 113-118.
- Jones, A. and Jones, D., 2011. Improving teamwork, trust and safety: An ethnographic study of an inter-professional initiative. *Journal of Inter-professional Care*, 25(3), pp. 176-182.
- Tomizawa, R., Shigeta, M., Reeves, S., 2017. Framework development for the assessment of inter-professional teamwork in mental health settings. *Journal of Inter-professional care*, 31(1), pp. 43-50.
- Kelling, M.M., Weiser, H., Cavada, L., Lochner, L., Vittadello, F., Fink, V., Reeves, S., 2015. The state of inter-professional collaboration in Northern Italy: a mixed methods study. *Journal of Inter-professional care*, 29(1), pp. 79-81.
- Reeves, S., Carole, C., 2014. Leading team learning: what makes inter-professional teams learn to work well?. *Journal of Inter-professional care*, 27(6), pp. 514-518.
- Styron, J. and Dearman, C., 2015. Inter-professional Collaborative Practice to Improve Patient Outcomes: A Pilot Study.
- Lachmall, H., Ponzer, S., Johansson, U.B., Karlgren, K. and Fossum, B., 2013. Students' experiences of collaboration during and after inter-professional training ward course: a mixed methods study. *International Journal of Medical Education*, 4, p170.
- Le'gare, F., Stacey, D., Pouliot, S., Gauvin, P.F., Desroches, S., & Graham, et al., 2011. Inter-professionalism and shared decision-making in primary care: a stepwise approach towards a new model. *Journal of Inter-professional care*, 25(1), pp. 18-25.

- Stocker, M., Pilgrim, S.B., Burmester, M., Annlem,M.L. and Gijsselaers, W.H., 2016. Inter-professional team management pediatric critical care: some challenges and possible solutions. *Journal of multidisciplinary healthcare*, 9, p. 46.
- Reeves, S., Fox, A., Brian,D., Hodges.,2009. The competency movement in health professions: ensuring consistent standards or reproducing conventional domains of practice? *Adv in health sci edu*,14, pp. 451-461.
- Fournier, C., Reeves, S., 2012. Professional status and inter-professional collaboration: A view of massage therapy. *Journal of Inter-professional care*, 26(1), pp. 71-72.
- Brumfitt, S.M. and Baxter, S.K., 2008. Professional differences in inter-professional working. *Journal of Inter-professional care*, 22(3), pp.239-251.
- Rice, k., Zwarenstein,L., Conn, G.L., Kenuschuk, C., Russel, A., Reeves, S., 2010. An intervention to improve inter-professional collaboration and communication: a comparative qualitative study. *Journal of Inter-professional care*, 24(4), pp. 350-361.
- Reeves, S., McMillan, E.S., Kachan, N., Paradis, E., Leslie, M., Kitto, S., 2015. Inter-professional collaboration and family member involvement in intensive care units: emerging themes from a multi-sited ethnography. *Journal of Inter-professional care*, 29(3), pp. 230-237.

**Appendix 1B**  
**Permission Letter from Occupational Therapy Department**

---

Date: October 17, 2017  
The Chairman  
Institutional Review Board (IRB)  
Bangladesh Health Professions Institute (BHPI)  
CRP-Savar, Dhaka-1343, Bangladesh

**Subject: Application for review and ethical approval.**

Sir,

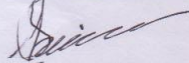
With due respect I would like to draw your kind attention that I am a student of B.Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI)- an academic institute of Centre for the Rehabilitation of the Paralysed(CRP) under Faculty of Medicine of University of Dhaka (DU). In this course thesis is a part of 4<sup>th</sup> year curriculum, I have to conduct a thesis entitled, **“Understanding Knowledge, Attitude and Practice of Health Professionals on Interdisciplinary Team Approach in the Provision of service in Pediatric Unit at Selected Rehabilitation Centre** “under honorable supervisor **Shamima Akter**, Assistant professor of Occupational Therapy Dept, BHPI, Centre for the Rehabilitation Paralysed(CRP). The purpose of the study is to identify the level of collaboration among professionals at Pediatric unit. Self-administered Collaborative Practice Assessment Tool (CPAT) will be used for the team members. Following this, an in-depth interview will be conducted with the team members, require 35-40minutes to gather in-depth data. Data will be collected for about one month. Data collectors will receive informed consents from all participants as written or verbal record. Any data collected will be kept confidential.

Therefore I look forward to having your kind approval for the thesis proposal and to start data collection. I also assure you that I will maintain all the requirements for study.

Sincerely yours,

Nurjahan Shampa  
Session: 2013-2014  
Student ID122130124  
Student of B.Sc. in Occupational Therapy  
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Recommendation from the thesis supervisor:



Shamima Akter  
Assistant Professor of the Occupational Therapy Department  
Bangladesh Health Professions Institute  
CRP, Chapain-1343, Savar, Dhaka, Bangladesh



**Appendix 1C**  
**Permission Letter from Ethical Board**



**বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)**  
**Bangladesh Health Professions Institute (BHPI)**  
(The Academic Institute of CRP)

Ref.

CRP-BHPI/IRB/12/17/162

Date: 13/12/2017

To  
Nurjahan Shampa  
B.Sc. in Occupational Therapy  
Session: 2013-2014, Student ID: 122130124  
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

**Subject: "Understanding Knowledge, Attitude and Practice of Health Professionals on Interdisciplinary Team Approach in the Provision of service in Pediatric Unit at Selected Rehabilitation Centre"**

Dear Nurjahan Shampa,

Congratulations!

The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application on 02/10/2017 to conduct the above mentioned dissertation with yourself, as the Principal investigator. The Following documents have been reviewed and approved:

Sr. No.	Name of the Documents
1	Dissertation Proposal
2	Questionnaire (English and Bengali version)
3	Information sheet & consent form.

Since the study involves interview of health professionals of the pediatric unit of Centre for the Rehabilitation of the Paralyzed (CRP) with "Collaborative Practice Assessment Tool (CPAT)" questionnaire that takes 35 to 40 minutes, having permission from the In Charge of the unit and have no likelihood of any harm to the participants. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 9:00 AM on October 08, 2017 at BHPI.

The institutional Ethics committee expects to be informed about the progress of the study, any changes occurring in the course of the study, any revision in the protocol and patient information or informed consent and ask to be provided a copy of the final report. This Ethics committee is working accordance to Nuremberg Code 1947, World Medical Association Declaration of Helsinki, 1964 - 2013 and other applicable regulation.

Best regards,

*Muhammad Millat Hossain*

Muhammad Millat Hossain  
Assistant Professor, Dept. of Rehabilitation Science  
Member Secretary, Institutional Review Board (IRB)  
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

সিআরপি-চাপাইন, সাভার, ঢাকা-১৩৪৩, বাংলাদেশ, ফোন : ৭৭৪৫৪৬৪-৫, ৭৭৪১৪০৪ ফ্যাক্স : ৭৭৪৫০৬৯

CRP-Chapain, Savar, Dhaka-1343, Tel : 7745464-5, 7741404, Fax : 7745069, E-mail : contact@crp-bangladesh.org, www.crp-bangladesh.org

**Appendix 1D**  
**Permission Letter from Pediatric Unit**

Date: 13/12/17

To

In- charge of Pediatric Unit

CRP, Savar, Dhaka-1343

Subject: Regarding permission for data collection for B. Sc thesis at Pediatric Unit.

Sir,

With due respect, I am Nurjhan Shampa, 4<sup>th</sup> year B. Sc in Occupational Therapy student of Bangladesh Health Professions Institute (BHPI)-an academic institute of CRP, under faculty of Medicine of University of Dhaka (DU). As a part of occupational therapy course curriculum, I have to conduct a thesis entitled, **"Understanding Knowledge, Attitude and Practice of Health Professionals on Interdisciplinary Team Approach in the Provision of service in Pediatric Unit at a Selected Rehabilitation Centre"** under thesis supervisor, Shamima Akter, Assistant Professor, Occupational Therapy Department, BHPI. The purpose of the study is to explore the level of the Interprofessional collaborative practice among the professionals at Pediatric unit. Data will be collected from professionals of Pediatric unit. Self-administered Collaborative Practice Assessment Tool (CPAT) will be used for the team members. Following this, an in-depth interview will be conducted with the team members at their convenient time, require 35-40 minutes to gather in-depth data. Data will be collected for about one month. Data collectors will receive informed consent from all participants as written or verbal record. Any data collected will be kept confidential.

Therefore, I look forward to your cooperation by giving permission for data collection at your reputed hospital. Please don't hesitate to ask me if you have any queries regarding any issues.

Best regards,

*Nurjhan Shampa*  
13.12.17

Nurjhan Shampa

4<sup>th</sup> Year Student of B. Sc in Occupational Therapy

Department of Occupational Therapy

Bangladesh Health Professions Institute (BHPI)

CRP-Savar, Dhaka-1343, Bangladesh

*Forwarded for  
consideration and approval  
to conduct the mentioned  
thesis in your department.*

*Su. M. P. D.*  
13/12/2017  
**SK. MONIRUZZAMAN**  
Asst. Professor & Acting Head  
Dept. of Occupational Therapy  
BHPI, CRP Savar, Dhaka-1343

*Approved to conduct  
research in  
paediatric unit.*  
*[Signature]*  
13-12-17

**HOSNEARA PERVEEN**  
Incharge Paediatric Unit  
CRP, Savar, Dhaka.

**HOSNEARA PERVEEN**  
Incharge Paediatric Unit  
CRP, Savar, Dhaka.



**Appendix 1E**  
**Permission Letter from Speech & Language Therapy Department**

---

Date: 05/02/18

To

Head of Speech and Language Therapy department  
CRP, Savar, Dhaka- 1343

Subject: Regarding permission for data collection for B.sc thesis at Pediatric Unit

Sir,

With due respect, I am Nurjahan Shampa, B.sc in Occupational Therapy student of Bangladesh Health Professionals Institute(BHPI)-an academic institute of CRP, under faculty of Medicine of University of Dhaka(DU). As a part of Occupational Therapy course curriculum, I have to conduct a thesis entitled."Understanding Knowledge, Attitude and Practice of Health Professionals on Interdisciplinary Team Approach in the provision of service in Pediatric Unit at a Selected Rehabilitation Centre" under thesis supervisor, Shamima Akter, Assistant Professor, Occupational Therapy Department, BHPI. The purpose of the study to explore the level of the Interprofessional collaborative practice among the professionals at Pediatric unit. Data will be collected from professionals of Pediatric unit. Self-administered Collaborative Practice Assessment Tool (CPAT) will be used for the team members. Following this, an in-depth interview will be conducted with the team members at their convenient time, require 35-40 minutes to gather in-depth data. Data will be collected for about one month. Data collectors will receive informed consent from all participants as written or verbal record. Any data will be kept confidential.

Therefore, I look forward to your cooperation by giving permission for data collection at your reputed hospital. Please don't hesitate to ask me if you have any queries regarding any issues.

Best regards,

Nurjahan Shampa

Nurjahan Shampa  
4<sup>th</sup> Year Student of B.sc in Occupational Therapy  
Department of Occupational Therapy  
Bangladesh Health Professions Institute(BHPI)  
CRP-Savar, Dhaka-1343, Bangladesh

*Forwarded for  
your consideration to  
conduct her thesis in  
your department.*

*05/02/18*  
**SK. MDNIRUZZAMAN**  
Asst. Professor & Acting Head  
Dept. of Occupational Therapy  
BHPI, CRP Savar, Dhaka-1343

*forwarded to  
head of SLT  
for kind consideration.*  
*5/2/18*

**SHARMIN HASNAT**  
Asst. Professor of SLT  
Dept. of Speech & Language Therapy  
CRP Savar, Dhaka.



## **Appendix 2A**

### **Informed Consent Form for the Interdisciplinary Team Members**

---

**Title: “Understanding Knowledge, Attitude and Practice of Health Professionals on Interdisciplinary Team Approach in the Provision of service in Pediatric Unit at Selected Rehabilitation Centre”**

**Investigator:** Nurjahan Shampa, Student of B.Sc. in Occupational Therapy, Bangladesh Health Professions Institute (BHPI), CRP- Savar, Dhaka- 1343

**Place:** Pediatric Unit, Centre for the Rehabilitation of the Paralysed (CRP), Savar, Bangladesh.

---

#### **Part I: Information Sheet**

##### **Introduction**

I am Nurjahan Shampa, student of B.sc in Occupational Therapy, Bangladesh Health Professions Institute (BHPI), have to conduct a thesis as a part of this Bachelor course, under thesis supervisor, Assistant professor, Shamima Akter. You are going to have details information about the study purpose, data collection process, ethical issues.

You do not have to decide today whether or not you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research. If this consent form contain some words that you do not understand, please ask me to stop. I will take time to explain.

##### **Background and Purpose of the study**

You are being invited to be a part of this research because effective and efficient collaboration strategies within the rehabilitation sectors among the interdisciplinary team members are key to positive rehabilitation outcomes for any group of patients. However, how interdisciplinary team members collaborate with each other, whether they face any barriers or not, what are the strategies of collaboration are not clear in this context. Your experience as medical/health professionals (doctor /physiotherapist/ occupational therapist/speech and language therapist professional) will be best suited to reveal this knowledge, practice gap through you voluntary participation in this study. The general purpose of the study is to know the level of the collaboration among professionals at Pediatric unit. We also want to learn what are the potential knowledge, understanding, attitude and Practice in implementing collaborative practice.

### **Research related information**

The research related information will be discussed with you throughout the information sheet before taking your signature on consent form. After that participants will be asked to complete a self-administrative questionnaire which may need half an hour to fill. In this questionnaire there will be questions on socio-demographic factors (for example: Age, sex, experience). It will also contains some specific questions on six domains of inter-professional collaboration practice (for example: whether you agree or not with the statement- our team's mission and goals are supported by sufficient resources- skills, funding, time, space).Particularly, in his research we have selected all of the professionals, working in the interdisciplinary team for the benefit of patient on Pediatric unit. However, we will also select participants for in-depth interview randomly from the current interdisciplinary team of Centre for the Rehabilitation of the Paralysed.The data collection period will be one month followed by the date of approval. During that time, the questionnaire will be distributed among you to self-administer. Investigator will give you a reminder at day three/five and finally will come to collect data during sixth working day. The survey questionnaire will be distributed and collected by Nurjahan Shampa. If you do not wish the questions included in the survey, you may skip them and move on to the next question. The information recorded is confidential, your name is not being included on the forms, only a number will identify you, and no one else except Shamima Akter, Supervisor of the study will have access to this survey.

### **Voluntary Participation**

The choice that you make will have no effect on your job or on any work-related evaluation or reports. You can change your mind at any time of the data collection process even throughout the study period. You have also right to refuse your participation even if you agreed earlier.

### **Right to Refuse or Withdraw**

I will give you an opportunity at the end of the interview to review your remarks, and you can ask to modify or remove portions of those, if you do not agree with my notes or if I did not understand you correctly.

### **Risks and benefits**

We are asking to share some personal and confidential information, and you may feel uncomfortable talking about some of the topics. You do not need to answer any question or take part in the discussion/ interview/survey if you don't wish to do so, and that is also okay. You do not have to give us any reason for not responding to any question, or for refusing to take part in the interview. On the other hand, you may not have any direct benefit by participating in this research, but your valuable participation is likely to help us finding out more about existing situation of the inter-professional collaborative practice in this context.

### **Confidentiality**

Information about you will not be shared to anyone outside of the research team. The information that we collect from this research project will be kept private. Any information about you will have a number on it instead of your name. Only the researchers will know what your number is and we will lock that information up with a lock and key. It will not be shared with or given to anyone except Shamima Akter study supervisor.

### **Sharing the Results**

Nothing that you tell us today will be shared with anybody outside the research team, and nothing will be attributed to you by name. The knowledge that we get from this research will be shared with you before it is made widely available to the public. Each participant will receive a summary of the results. There will also be small presentation and these will be announced. Following the presentations, we will publish the results so that other interested people may learn from the research.

### **Who to Contact**

If you have any questions, you can ask me now or later. If you wish to ask questions later, you may contact any of the following: Nurjahan Shampa, B.sc in Occupational Therapy, Department of Occupational Therapy, e-mail: shampa.ot.bd@gmail.com, Cell phone- 01778821388. This proposal has been reviewed and approved by Institutional Review Board (IRB), Bangladesh Health Professions Institute (BHPI), CRP-Savar, Dhaka-1343, Bangladesh, which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the IRB, contact Bangladesh Health Professions Institute (BHPI), CRP-Savar, Dhaka-1343, Bangladesh. You can ask me any more questions about any part of the research study, if you wish to. Do you have any questions?

**Part II: Certificate of Consent**

**Statement by Participants**

I have been invited to participate in research titled “Understanding Knowledge, Attitude and Practice of Health Professionals on Interdisciplinary Team Approach in the Provision of service in Pediatric Unit at Selected Rehabilitation Centre”.

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Name of Participant \_\_\_\_\_

Signature of Participant \_\_\_\_\_ Date \_\_\_\_\_

**Statement by the researcher taking consent**

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:

- 1.
- 2.
- 3.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A -copy of this ICF has been provided to the participant.

Name of Researcher taking the consent\_\_\_\_\_

Signature of Researcher taking the consent\_\_\_\_\_

Date \_\_\_\_\_

**Appendix 2B**  
**Collaborative Practice Assessment Tool (CPAT) - English**

---

<b>Mission, Meaningful Purpose, Goals</b>	Strongly Disagree	Mostly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Mostly Agree	Strongly Agree
1. Our team mission embodies an inter-professional collaborative approach to patient/client care.							
2. Our team's primary purpose is to assist patients/clients in achieving treatment goals.							
3. Our team's goals are clear, useful and appropriate to my practice.							
4. Our team's mission and goals are supported by sufficient resources (skills, funding, time, space).							
5. All team members are committed to collaborative practice.							
6. Members of our team have a good understanding of patient/client care plans and treatment goals.							
7. There is a real desire among team members to work collaboratively.							
<b>General Relation Ship</b>	Strongly Disagree	Mostly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Mostly Agree	Strongly Agree
9. Respect among team members improves with our ability to work together.							
10. Socializing together enhances team work effectively.							
11. It is enjoyable to work with other team members.							

12. Team members respect each other's roles and expertise.							
13. Working collaboratively keeps most team members enthusiastic and interested in their job.							
14. Team members trust each other's work and contributions related to patient/ client care.							
15. Our team's level of respect for each other enhances our ability to work together.							

	Strongly Disagree	Mostly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Mostly Agree	Strongly Agree
<b>Team Leadership</b>							
16. Team leadership assures that roles and responsibilities for patient/ client care are clearly defined.							
17. Team Leadership discourages professionals from taking the initiatives to support patient care goals.							
18. Our team leader models, demonstrates and advocates for patient / client- centered best practice.							
19. Our team leader encourages members to practice with in their full professional scope.							
20. Our team has a process for peer review.							
<b>General Role, Responsibilities, Autonomy</b>							
21. Team members Acknowledge the aspects of care where members of my profession have more skills and expertise.							
22. Physicians assume the ultimate responsibility for team decisions and outcomes.							
23. Team members negotiate the role they want to take in developing and implementing the patient/ client care.							
24. Physicians usually ask other team members							

foropinions about patient/ client care.							
25. Each team member shares accountability for team decisions and outcomes.							
26. Team members have the responsibility to communicate and provide their expertise in an assertive manner.							
27. Patient/ client concerns are addressed effectively through regular team meetings and discussion.							
<b>Communication &amp; Information exchange</b>	Strongly Disagree	Mostly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Mostly Agree	Strongly Agree
28. Our team has developed effective communication strategies to share patient/ client treatment goals and outcome of care.							
29. Relevant information relating to change in patient/ client status or care plan is reported to the appropriate Team member in a timely manner.							
30. Our team meetings provide an open, comfortable, safe place to discuss concerns.							
31. The patient/ client health record is used effectively by all Team members as a communication tool.							
<b>Community Linkages and Coordination of Care</b>	Strongly Disagree	Mostly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Mostly Agree	Strongly Agree
32. Our team has established partnerships with community organizations to support better patient/ client outcomes.							
33. Members of our team share information relating to community resources.							
34. Our team has a process to optimize the coordination of patient / client care with community service agencies.							
35. Patient/ client appointments are coordinated so							

they can see multiple providers in a single visit.							
<b>Decision---making and Conflict Management</b>	<b>Strongly Disagree</b>	<b>Mostly Disagree</b>	<b>Somewhat Disagree</b>	<b>Neutral</b>	<b>Somewhat Agree</b>	<b>Mostly Agree</b>	<b>Strongly Agree</b>
36. Processes are in place to quickly identify and respond to a problem.							
37. When team members disagree, all points of view are considered before deciding on a solution.							
38. Disagreements among team members are ignored or avoided.							
39. In our team, there are problem that regularly need to be solved by someone higher up.							
40. Our team has an established process for conflict management.							



**Appendix 2C**  
**Collaborative Practice Assessment Tool (CPAT)**  
সম্মিত সহযোগিতা মাত্রা নিরূপণের উপকরণ

---

**Part I: Information of the participants**

(অংশগ্রহনকারীর তথ্যাবলি)

1. Kind of profession (পেশা) .....
2. Highest educational background(সর্বোচ্চ শিক্ষাগত যোজ্ঞতা).....
3. Years of professional experience(কর্ম দক্ষতা ).....
4. Age of professional(বয়স).....
5. Position of professional within the team (head of sub-group, junior, senior etc)[দলের মধ্যে পদবি(অন্তর্ভুক্ত দলের প্রধান/ কনিষ্ঠ/ জৈষ্ঠ্য ইত্যাদি)].....
6. Sex of professional(পেশাদারীর লিঙ্গ).....
7. Interdisciplinary team meetings (daily, weekly, monthly, irregular, ...) [ইন্টার ডিসিপ্লিনারি দলের আলোচনা ( দৈনিক, সাপ্তাহিক, মাসিক অনিয়মিত)].....
8. Working hour (কর্ম সময়) .....
9. Extra- time service- Yes/ No..... hours.....(অতিরিক্ত সময় সেবা প্রদান হ্যাঁ/না .....ঘন্টা..... )
10. Have any training regarding inter-professional collaborative practice- Yes/ No..... hours.  
(আন্তঃপেশাদারি সহযোগিতা মূলক মনোভাবের উপর প্রশিক্ষণ পেয়েছেন-  
হ্যাঁ/না..... ঘন্টা.....)

**Part II- Determine the level of collaboration among the members of Inter-professional team**

<p style="text-align: center;"><b>Mission, Meaningful Purpose, Goals</b> (উদ্দেশ্য, তাৎপর্যপূর্ণ উদ্দেশ্য, লক্ষ্যগুলো)</p>	Strongly Disagree (মোটের একমত নই)	Mostly Disagree (প্রায়ই একমত নই)	Somewhat Disagree (কিছুটা একমত নই)	Neutral (নিরপেক্ষ)	Somewhat Agree (কিছুটা একমত)	Mostly Agree (মোটামুটি একমত)	Strongly Agree (পুরোপুরি একমত)
1. Our team mission embodies an inter-professional collaborative approach to patient/client care (আমাদের দলের লক্ষ্য হচ্ছে রোগীদের চিকিৎসা সেবার জন্য আন্তঃপেশাদারী সহযোগিতাপূর্ণ দলগত পদ্ধতির প্রয়োগ করা).							
2. Our team's primary purpose is to assist patients/clients in achieving treatment goals (আমাদের দলের প্রাথমিক উদ্দেশ্য হচ্ছে রোগীদের চিকিৎসার লক্ষ্য অর্জনে সহযোগিতা করা).							
3. Our team's goals are clear, useful and appropriate to our practice (আমাদের দলের লক্ষ্য আমাদের কাজের জন্য স্বচ্ছ, কার্যকারী এবং উপযুক্ত).							
4. Our team's mission and goals are supported by sufficient resources- skills, funding, time, space (আমাদের দলের লক্ষ্য ও উদ্দেশ্য অর্জন করার জন্য পর্যাপ্ত সম্পদ, দক্ষতা, অর্থ, সময় ও জায়গা ব্যবহার করা হয়).							
5. All team members are committed to collaborative practice (দলের সব সদস্যরা সমন্বিত সহযোগিতাপূর্ণ কর্ম অনুশীলনে দৃঢ়প্রতিজ্ঞ).							
6. Members of our team have a good understanding of patient/client care plans and treatment goals (রোগীদের সেবার পরিকল্পনা এবং চিকিৎসার লক্ষ্য সম্পর্কে আমাদের দলের সদস্যরা পরিষ্কার ধারণা রাখে).							
7. Patient/client care plans and treatment goals incorporate best practice guidelines from multiple professions (রোগীদের চিকিৎসার লক্ষ্য ও সেবার পরিকল্পনা সমন্বিত হয় পেশাজীবীদের সার্বিক অনুশীলনের দিক নির্দেশনা থেকে).							
8. There is a real desire among team members to work collaboratively (একসাথে কাজ করার জন্য দলের সদস্যদের সত্যিকার অর্থে ইচ্ছা আছে).							

<b>General Relation Ship (সাধারণ সম্পর্ক)</b>							
9. Respect among team members improves with our ability to work together (দলের সদস্যদের সম্মান করা আমাদের একসাথে কাজ করার ক্ষেত্রে উন্নতি সাধন করে).							
10. Team Members care about one another's personal well being (দলের সদস্যরা একে অপরের ব্যক্তিগত বিষয়গুলোর ব্যাপারে যত্নশীল).							
11. Socializing together enhances team work effectively (সহকর্মীদের সাথে সামাজিকীকরণ প্রক্রিয়া দলের কার্যক্ষমতা বাড়ায়).							
12. It is enjoyable to work with other team members (দলের অন্য সদস্যদের সাথে কাজ করা আনন্দের).							
13. Team members respect each other's roles and expertise (দলের সদস্যরা একে অপরের ভূমিকা ও দক্ষতাকে সম্মান করে).							
14. Working collaboratively keeps most team members enthusiastic and interested in their job (সহযোগিতাপূর্ণ কাজ দলের অধিকাংশ সদস্যদের তাদের নিজের কাজে উদ্যোগী এবং আগ্রহী করে তোলে).							
15. Team members trust each other's work and contributions related to patient/ client care (দলের সদস্যরা একে অপরের কাজ এবং রোগীর চিকিৎসা সেবা সম্পর্কিত অবদানে বিশ্বাস করে).							
16. Our team's level of respect for each other enhances our ability to work together (দলের সদস্যদের একে অপরের প্রতি সম্মানের মাত্রা একসাথে কাজ করার সামর্থ্যকে ত্বরান্বিত করে).							
<b>Team Leadership (দলের নির্দেশনা)</b>							
17. Procedures are in place to identify who will take the lead role in coordinating patient/ client care (রোগীর সমন্বিত চিকিৎসা সেবা প্রদানের জন্য কে প্রধান ভূমিকা পালন করবে তা কার্যপ্রণালিতে সঠিকভাবে নির্দেশিত আছে).							
18. Team leadership ensures all professionals needing to participate have a role on the team (দলীয় নেতৃত্ব সকল পেশাজীবীদের দলে একটি ভূমিকা রাখতে নিশ্চিত করে).							
19. Team leadership assures that roles and responsibilities for patient/ client care are clearly defined (দলীয় নেতৃত্ব সুনিশ্চিত করে যে রোগীকে সেবা প্রদানের ভূমিকা ও দায়িত্বগুলো পরিষ্কার ভাবে সুনির্দিষ্ট করা আছে).							
20. Team Leadership discourages professionals from taking the initiatives to support patient care goals (দলীয় নেতৃত্ব রোগীদের সেবার লক্ষ্য অর্জনে পেশাজীবীদের							

সহায়ক উদ্যোগ গ্রহণে নিরুৎসাহিত করে).							
21. Team leadership supports inter-professional development opportunities (দলীয় নেতৃত্ব আন্তঃপেশাজীবীদের অগ্রগতির সুযোগ গ্রহণে সাহায্য করে থাকেন).							
22. Our team leader advocates for patient / client-centered practice (আমাদের দলনেতা রোগী কেন্দ্রীক চিকিৎসা সেবা অনুশীলন করার জন্য আমাদেরকে অনুপ্রাণিত করে থাকেন).							
23. Our team leader is out of touch with team members concerns and perceptions (আমাদের দলনেতা সদস্যের বিষয়ে এবং তাদের ধারণা সম্পর্কে খেয়াল রাখেন না).							
24. Our team leader encourages members to practice with in their full professional scope (আমাদের দলনেতা সদস্যদেরকে তাদের সম্পূর্ণ পেশাগত দক্ষতা অনুযায়ী কাজ করার জন্য উৎসাহিত করে).							
<b>General Role, Responsibilities, Autonomy(সাধারণ নিয়ম, দায়িত্বসমূহ, স্বাভাবিকতা)</b>							
25. Team members acknowledge the aspects of care where members of my profession have more skills and expertise (যেখানে আমার পেশার বেশি দক্ষতা ও যোগ্যতা দলের সদস্যরা সেই দিকগুলোতে স্বীকৃতি প্রদান করে).							
26. Physicians assume the ultimate responsibility for team decisions and outcomes (দলের সিদ্ধান্ত এবং মূল্যায়নের ক্ষেত্রে ডাক্তার চূড়ান্ত দায়িত্ব গ্রহণ করে থাকেন).							
27. Team members negotiate the role they want to take in developing and implementing the patient/ client care (দলের সদস্যরা রোগীর সেবা প্রদান ও বাস্তবায়নে যে ভূমিকা পালন করতে চায় তা মধ্যস্থতা করে নেয়).							
28. Team members are held accountable for their work (দলের সদস্যরা তাদের কাজের জন্য জবাবদিহিতা করে থাকেন).							
29. It is clear who is responsible for aspects of the patient/ client care plan (রোগীর সেবা চিকিৎসা পরিকল্পনার করার দায়িত্ব কে গ্রহণ করবে এটা পরিষ্কার).							
30. Physicians usually ask other team members for opinions about patient/ client care (ডাক্তার রোগীর সেবা প্রদানের জন্য দলের সদস্যদের কাছ থেকে মতামত জিজ্ঞাসা করে থাকেন).							
31. Team members feel comfortable advocating for the patient/ client (রোগীকে চিকিৎসাসেবার পরামর্শ দিতে দলের সদস্যরা স্বস্তি অনুভব করে থাকেন).							
32. Each team member shares accountability for team decisions and outcomes (দলের প্রত্যেক সদস্য দলীয় সিদ্ধান্ত এবং ফলাফলের জন্য জবাবদিহিতা ভাগ করে নেয়).							

33. Team members have the responsibility to communicate and provide their expertise in an assertive manner (দলের সদস্যরা দায়িত্ব আছে যোগাযোগ আছে এবং ইতিবাচক মনোভাবের মাধ্যমে তাদের দক্ষতা প্রকাশ করে).							
34. Team members feel limited in the degree of autonomy in patient/ client care that they can assume (দলের সদস্যরা রোগী রক্ষণাবেক্ষণে স্বাধীনতার ব্যাপারে তারা সীমাবদ্ধতা অনুভব করে).							
35. Patient/ client concerns are addressed effectively through regular team meetings and discussion (নিয়মিত দলের বৈঠক এবং আলোচনার মাধ্যমে রোগীর সভায় রোগীর বিষয়গুলো কার্যকারী ভাবে মূল্যায়ন করা হয়).							
<b>Communication &amp; Information exchange(যোগাযোগও তথ্যের আদান-প্রদান)</b>							
36. Our team has developed effective communication strategies to share patient/ client treatment goals and outcome of care (আমাদের দল একটা কার্যকরী যোগাযোগের কৌশল তৈরি করেছে যা রোগীর চিকিৎসার লক্ষ্য এবং সেবার মান মূল্যায়নে সহযোগিতা করে).							
37. Relevant information relating to change in patient/ client status or care plan is reported to the appropriate Team member in a timely manner (রোগীর অবস্থা অথবা সেবার পরিকল্পনা সম্পর্কে তথ্য যদি পরিবর্তন করার প্রয়োজন হয় দলের সদস্য তা সঠিক সময়ে সঠিক দলের সদস্যকে অবহিত করে থাকেন).							
38. I trust the accuracy of information reported among team members (দলের সদস্যদের মাঝে যে তথ্য জানানো হয় তা সঠিক বলে আমি বিশ্বাস করি).							
39. Our team meetings provide an open, comfortable, safe place to discuss concerns (আমাকে দলের সভাগুলো আলোচনার জন্য উন্মুক্ত, স্বস্তিদায়ক এবং নিরিবিলি পরিবেশ হয়).							
40. The patient/ client health record is used effectively by all Team members as a communication tool (রোগীর/ সেবাহীতাদের স্বাস্থ্য তথ্য দলের সকল সদস্যগণের মধ্যে যোগাযোগের কার্যকারী মাধ্যম হিসাবে ব্যবহার হয়ে থাকে).							
<b>Community Linkages and Coordination of Care (সম্প্রদায়ের সম্পর্ক এবং রক্ষণাবেক্ষণের সমন্বয়)</b>							
41. Our team has established partnerships with community organizations to support better patient/ client outcomes (আমাদের দল রোগীর তুলনামূলক ভাল উন্নতির জন্য স্থানীয় সংস্থাগুলোর সাথে অংশীদারীত্ব প্রতিষ্ঠা করেছে).							

42. Members of our team share information relating to community resources ( আমাদের দলের সদস্যরা স্থানীয় সম্পদসমূহের তথ্য সম্পর্কে অবহিত করে থাকে).							
43. Our team has a process to optimize the coordination of patient / client care with community service agencies (রোগীর রক্ষণাবেক্ষণের সাথে সম্প্রদায়ের সেবা প্রতিনিধির মধ্যে সমন্বয় করার জন্য আমাদের দলের একটি প্রক্রিয়া / পদ্ধতি আছে).							
44. Patient/ client appointments are coordinated so they can see multiple providers in a single visit (রোগীর এপয়েন্টম্যান্টগুলো সমন্বয় করা হয় যাতে করে তারা একটি পরিদর্শনে অনেক উপার্জনকারীদেরকে দেখতে পারে).							
<b>Decision---making and Conflict Management (সিদ্ধান্ত গ্রহণ এবং দ্বন্দ্ব নিয়ন্ত্রণ / ব্যবস্থাপনা)</b>							
45. Processes are in place to quickly identify and respond to a problem (সমস্যা তাড়াতাড়ি সনাক্ত করা এবং সমাধান করার জন্য একটি প্রক্রিয়া ঠিক করা আছে).							
46. When team members disagree, all points of view are considered before deciding on a solution (যখন দলের সদস্যরা একমত হয় না তখন একটা সমাধানের সিদ্ধান্ত নেওয়ার পূর্বে সকল বিষয়গুলো বিবেচনা করা হয়).							
47. Disagreements among team members are ignored or avoided (দলের সদস্যদের মাঝে মতভেদ তৈরি হলে তা অগ্রাহ্য করা হয়).							
48. On our team, the final decision in patient/ client care rests with the physician (আমাদের দলে যে রোগীর সেবার জন্য যে সিদ্ধান্ত নেওয়ার প্রয়োজন হয় তা ডাক্তার সহজে নিয়ে থাকে).							
49. In our team, there are problem that regularly need to be solved by someone higher up (আমাদের দলে যে সমস্যাগুলো নিয়মিত সমাধান করার প্রয়োজন হয় সেগুলো উচ্চ পর্যায়ের কর্তৃপক্ষের মাধ্যমে সমাধান করা হয়)..							
50. Our team has an established process for conflict management (দ্বন্দ্ব নিয়ন্ত্রণে আমাদের দল একটি প্রক্রিয়া প্রতিষ্ঠিত করেছেন).							
<b>Patient Involvement (রোগী অংশগ্রহণ)</b>							
51. Team Members encourage patients/ clients to be active participants in care decisions (দলের সদস্যরা রোগীদেরকে উৎসাহিত করে রক্ষণাবেক্ষণের সিদ্ধান্তে তাদেরকে সক্রিয়ভাবে অংশগ্রহণ করার জন্য).							
52. Team members meet face to face with patients/ clients cared for by the team (দলের মাধ্যমে দলের সদস্যরা রোগীর সেবার জন্য সরাসরি দেখা করে থাকেন).							

53. Information relevant to health care planning is shared with the patients/ clients (স্বাস্থ্য রক্ষণাবেক্ষণ / দেখাশুনা পরিকল্পনা সম্পর্কীয় তথ্য রোগীদের সাথে আলোচনা করা হয়).							
54. The patient/ client is considered a member of their health care team (রোগীকে তাদের স্বাস্থ্য রক্ষণাবেক্ষণ দলের একজন সদস্য হিসেবে বিবেচনা করা হয়).							
55. The patients/ clients family and supports are included in care planning, at the patients request (রোগীর অনুরোধে তার পরিবার সেবার পরিকল্পনাতে যুক্ত করা হয়).							

## Appendix 2D

### Qualitative Question for In-depth Interview

#### আন্তঃপেশাদারী সহযোগীতাপূর্ণ দল সম্পর্কে সদস্যদের ধারণা নিরূপণের জন্য প্রশ্নপত্র

১. আপনি আন্তঃপেশাদারী সহযোগীতাপূর্ণ দল বলতে কি বোঝেন- বিস্তারিত বলবেন কি?
২. আপনার কাছে কি মনে হয় আন্তঃসম্পর্কিত সহযোগীতামূলক দল (IPCT) এবং বহুনিয়মানুবর্তিক সহযোগী দল(MDT) এর মধ্যে কোন পার্থক্য আছে? থাকলে কি ধরনের পার্থক্য- বিস্তারিত বলবেন কি?
৩. আপনার কাছে আন্তঃপেশাদারী সহযোগীতাপূর্ণ দলে কাজ করা কি গুরুত্বপূর্ণ মনে হয়?  
হ্যাঁ/ না  
যদি হ্যাঁ হয়, তবে কেন গুরুত্বপূর্ণ মনে হয় - বিস্তারিত বলবেন কি?  
যদি না হয়, তবে কেন গুরুত্বপূর্ণ মনে হয় না - বিস্তারিত বলবেন কি?
৪. আন্তঃপেশাদারী সহযোগীতাপূর্ণ দলে কাজ করতে গিয়ে কি আপনার কোন ধরনের বিশেষজ্ঞান (Knowledge) বেশী প্রয়োজন হয়েছে?  
হ্যাঁ/ না  
যদি প্রয়োজন হয়ে থাকে, তবে তা কি ধরনের জ্ঞান - বিস্তারিত বলবেন কি?
৫. আপনি আন্তঃপেশাদারী সহযোগীতাপূর্ণ দলে কাজ করতে গিয়ে আপনার প্রতিষ্ঠান/ কর্মস্থান থেকে কি কোন সুবিধা (Opportunity) পেয়ে থাকেন?  
হ্যাঁ/ না  
যদি কোন সুবিধা পেয়ে থাকেন, তবে কি ধরনের সুবিধা- বিস্তারিত বলবেন কি?
৬. আপনি বর্তমানে যে দলটির সাথে কাজ করেন বা যে প্রতিষ্ঠানে কাজ করেন সেই দলটির আন্তঃপেশাদারী সহযোগীতা নিয়ন্ত্রন এর কি কোন কি সার্মথ্য (Strength) বিদ্যমান?  
হ্যাঁ/ না  
যদি কোন সার্মথ্য থেকে থাকে, তবে সার্মথ্যসমূহ সম্পর্কে বিস্তারিত বলবেন কি?  
যদি না হয়, তবে সে কারণসমূহ- বিস্তারিত বলবেন কি?
৭. বর্তমানে আপনি যে দলটির সাথে কাজ করেন, সেই দলটির আন্তঃপেশাদারীতে সঠিক ভূমিকা পালন করার ক্ষেত্রে কি ধরনের দুর্বলতা (Weakness) আছে?  
হ্যাঁ/ না  
যদি হ্যাঁ হয়, তবে দুর্বলতা সমূহ বিস্তারিত বলবেন কি?
৮. আপনি আন্তঃপেশাদারী সহযোগীতাপূর্ণ দলে কাজ করতে গিয়ে কি কোন বাঁধার (Barrier) সম্মুখীন হয়েছেন?  
হ্যাঁ/ না  
যদি কোন বাঁধার সম্মুখীন হয়ে থাকেন, তবে কি কি ধরনের বাঁধা- বিস্তারিত বলবেন কি?
৯. আপনি আন্তঃপেশাদারী সহযোগীতাপূর্ণ দলের কাজকে ত্বরান্বিত করার জন্য কোন পন্থা (Strategy) অবলম্বন করেন কি?  
হ্যাঁ/ না  
যদি কোন পন্থা ব্যবহার করে থাকেন, তবে তা বিস্তারিত বলবেন কি?
১০. আপনার কাছে কি মনে হয় আন্তঃপেশাদারী সহযোগীতাপূর্ণ দলে কাজ করার অভিজ্ঞতা থেকে আপনার কর্মক্ষেত্রে কোন বিশেষ পরিবর্তন হয়েছে?  
হ্যাঁ/ না  
যদি কোন বিশেষ পরিবর্তন হয়ে থাকে, তবে তা বিস্তারিত বলবেন।



.....

ধন্যবাদ