Title: Factors influence to utilize the available service of speech & language therapy for the children with communication difficulties in Bangladesh

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Factors influence to utilize the available service of speech and language therapy for the children with communication difficulties in specialized rehabilitation centre in Bangladesh

By

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Approval of Research

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Supervisor's Statement

As supervisor of **Md. Shohidul Islam Mridha** M. Sc in Rehabilitation Science thesis work, I certify that I consider his thesis title "**Factors influence to utilize the available service of speech and language therapy for the children with communication difficulties in specialized rehabilitation centre in Bangladesh"** to be suitable for examination.

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Declaration Form

- This work has not previously been accepted in substance for any degree and is not concurrently submitted in candidature for any degree.

- This dissertation is being submitted in partial fulfillment of the requirements for the degree of MSc in Rehabilitation Science.

- This dissertation is the result of my own independent work/investigation, except where otherwise stated. Other sources are acknowledged by giving explicit references. A Bibliography is appended.

- I confirm that if anything identified in my work that I have done plagiarism or any form of cheating that will directly awarded me fail and I am subject to disciplinary actions of authority.

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Table of Contents

List of Tables & Figures

List of Figures

Glossary of Terms

ADHD=Attention Deficit & Hyperactive Disorder

ASHA=American Speech & Hearing Association

BHPI= Bangladesh Health Professions Institute

CP=Cerebral Palsy

CPD=Centre for Policy Dialogue

CRP=Centre for the Rehabilitation of the Paralysed

CRT= Community Rehabilitation Trainer

NFDDP=National Foundation for the Development of the Disabled Person

NGO= Non Government Organization

RCSLT= Royal College of Speech & Language Therapy

TV= Television

WHO= World Health Organization

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Abstract

The Speech and language therapy is a clinical based and scientifically practices oriented therapeutic intervention in all over the world. In consideration the scientific validity, the Centre for the Rehabilitation of the Paralysed (CRP) in Bangladesh to implements the Speech and language therapy for the patient with communication difficulties. A standard service always demands to measure its implementation components thus will be helpful to identify the barriers and access of service utilizations for further initiative. Due to insufficient service utilization, the study is aimed to identify the influencing factor to utilize the available speech and language therapy service for the children with communication difficulties.

This study was a cross sectional analysis consists of 152 respondents who are the parents or caregiver attend pediatric out patients for at least four consecutive sessions.

This study showed significant challenges for service utilization are distance from the therapy service centre (likelyhood ratio p.000), financial problem to afford speech therapy service (p.000), unavailable appointment, long waiting time (49.3%) Besides that perceived quality of speech therapy service found highly quality full (58.6%). However 60.5% respondent believes that lack of awareness were responsible for delayed improvement of the child.

The result interpreted in terms of influencing factors to utilize the existing speech therapy service which could be a potential resource for the service providers, policy makers to consider in order in improving the speech therapy service quality that ultimately helps to complete the treatment and successful rehabilitation.

Key word: Speech and language therapy, influencing factor, utilization of service, communication difficulties.

Introduction & Justification Chapter I

1.1 Introduction: Ability of successful communicate is the only a unique feature of human being. The ability of communication sometimes disturbed disordered which can occur form birt to late age at any time. The communication disorders and may require lifelong care after an incidence that affect communication skills and limit the communicative functioning. Communication disability often intervenes by speech and language therapy. Communication Rehabilitation is a process to enable and engage the person in to the mainstreaming society trough proper evidence based management (Davidson, et al. 2008). Access and utilize the existing intervention service communication disability are influenced by variety factors such as the attitude to service, perception of betterment, financial capacity to afford, distance of service facility, level of education of the person with communication disorder and his family members(Horne, et al. 2013). Besides that the intervention and rehabilitation service also depends on the availability of service, cost of service and professionals skills. Bangladesh is a developing country where speech and language therapy service is newly introduced. It is important to gradually expand the number of speech therapist to meet the needs against the number of incidence / case & prevalence of communication disorder is higher. Speech and Language Therapist of Bangladesh are facing a lot of barriers besides and the patients themselves too to carry out the successive rehabilitation. Both speech therapist and clients have different opinion and observation regarding the discontinuation and unsuccessful rehabilitation process. In this study the investigator would like to understand those influencing factor to continue the successful intervention or rehabilitation of how to overcome in future with proper management initiatives.

1.2 Justification and Background:

Bangladesh is a developing country where the majorities of people are leaving in average socioeconomic status (CPD, 2015) so that the proper health care and necessary rehabilitation process are challenging to access. The government offering the community level health care facilities to all but still the rehabilitation care are not enough and easy to access(NFDDP, 2014). Besides the government some nongovernmental organizations (NGO) are offering rehabilitation services for the person with communication disability. In government level the Bangladesh Protibondhi Unnoyon Foundation offering the rehabilitation services to community people in a limited range due to lack of enough qualified speech and language therapist.

Centre for the Rehabilitation of the Paralysed are one of the pioneer NGO leading in rehabilitation service. Many patients however dropped out from speech and language therapy department. Reasons of drop out could be explored in order to take action to ensure as a accessible speech therapy service. Besides speech therapist and speech therapy service that is offered in some NGOs like Centre for the Rehabilitation of the Paralysed (CRP) there are about thirty five (35) speech and language therapist who work independently to serve the child and adult with speech and language disorders. CRP speech and language therapy department is well structured and offering valid treatment but do not reach all patients that would need it .still a significant number of the patient are not attending to take service though a huge number of children / person need speech and language therapy service. Those who attend for service within them Many of these cases need a comprehensive rehabilitation service but speech and language therapist found that majority of the cases dropped out from CRP-SLT department and return to their home

without completing proper rehabilitation. Every year the CRPs serve at least six thousand (6,000) new patients with communication disorders (CRP annual Report, 2016). But there is no appropriate estimation of approximate dropout patient. The reason of dropout from CRP is a remarkable issue. Still speech and language therapist have knowledge gap regarding the reasons of dropout discontinued. So if we can explore the reason of dropout of patients from the SLT department though CRP have enough resources and facilities that would be a big achievement for future planning and development of speech and language therapy effective and efficient service.

So it is justified to know the scientific answer why the patients are not continuing the rehabilitation service. Speech therapy service is a newly introduced service in Bangladesh that's why its need to be explored the influencing factors to offer the complete intervention and rehabilitation service. So the study will help to explore the influencing factors from the stakeholders' perspective and thus the quality, effectiveness and efficacy will be improved.

1.3 Research Question: What are the factors influences to utilize the available service of speech therapy for the children with communication disability.

1.4 Operational Definition

1.4.1Influencing factor: In the study influencing factor interprets the facilitators of obstacles to continue the speech therapy intervention / rehabilitation service form the speech and language therapist (SLT). The confounding issue that prevents the patient, caregiver or the SLT's to carry out the rehabilitation process e.g. distance, financial problem could be a negative influence besides that the level of improvement, family

support could the facilitator of the study. It could be the service, service provider, financial status, knowledge, awareness, family system.

1.4.2 Service facility: In the study the investigator would use the term service facility in terms of communication intervention and rehabilitation as the speech therapy service that encompass from clinical assessment, intervention and extended to the home or workplace that helps to overcome the limitation and enhance the participation in to the community and social life. This are represents experience in service oriented difficulties, duration, waiting time, no of appointment, instrument quality, availability of instrument, organizational facilities for service, therapists quality, attitudes, cooperation, demonstration of therapy activities, clarity of advice, motivation by therapist, disclosure of patients treatment outcome, therapists professionalism, level of satisfaction. Those things are identified as to know intervention or rehabilitation status that focus on compensatory strategies that works on the residual functioning of the client to enable his communicative functioning through active participation in normal life.

1.4.3Communication disorder: Communication disorder refers to any disruption of communication process that may occur due to congenital or acquired neurological or non neurological disease or conditions. The communication disorder could be the speech difficulties, receptive and expressive language difficulties or voice disorders. The communication disorder could occur in association with some disease / condition such as cerebral palsy, down syndrome, cerebro-vascular accident (Stroke), meningitis or autism spectrum disorder.

1.4.4 Children: In this study the investigator used the term children that indicates those who have the communication disorder either congenital or acquired and age range from 1 months to twelve years. The children could be male or female.

1.4.5 Family member: The family member indicates who are responsible to deal with the patient in his daily life and who are involved in decision making of the child specially directly involved in the treatment target such as parents in case of child.

1.4.6 Speech and language therapist: speech and language therapist are health professionals who have completed the Dhaka university undergraduate program on B Sc in speech and language therapy and currently working as a clinical speech and language therapist at Centre for the Rehabilitation of the Paralysed (CRP), in any centre of CRP Bangladesh who are dealing with the children with communication disability.

Literature Review Chapter II

2.1 Speech &language therapy: Speech and language therapy provides life-changing treatment, support and care for children and adults who have difficulties with communication, or with eating, drinking and swallowing. Speech and language therapists (SLTs) are allied health professionals. They work closely with parents, carers and other professionals, such as teachers, nurses, occupational therapists and doctors. (RCSLT, 2015)

Speech-language therapist is a specialist sometimes called a speech pathologist or speech & language pathologist with a role to assess, diagnose, treat and help prevent speech, language, cognitive-communication, voice, swallowing, fluency and other related disorders. (Centre for Speech and Langauge Pathology, 2014)

2.2 Nature of the Work: A speech-language pathologist works with a full range of communication disorders including the following evaluate and diagnose speech, language, cognitive-communication and swallowing disorders. A variety of qualitative and quantitative assessment methods are utilized including standardized tests, and other special instruments, in order to analyze and diagnose the nature and extent of speech, language and other impairments. (ASHA, 2015)

Treat speech, language, cognitive-communication and swallowing disorders in individuals of all levels, from infancy to the elderly, utilizing an individualized plan with both long-term goals and short-term goals established for each individual's needs. (ASHA, 2015)

Clinical services may be provided individually or within groups, depending upon the work site and individual's diagnosis and needs.

Speech-language pathologists often work as part of a "team", which may include teachers, physicians, audiologists, psychologists, social workers, rehabilitation counselors and others. There are also corporate speech-language pathologists who work with employees to improve communication with their customers.(Centre for Speech and Langauge Pathology, 2014) (ASHA, 2015) (RCSLT, 2015).

2.3 Speech and language therapy (SLT) for Children

Speech and language therapist usually deals with mild, moderate or severe learning difficulties, physical disabilities, language delay, specific language impairment, , specific difficulties in producing sounds, hearing impairment, cleft palate, stammering, autism/social interaction, difficulties, dyslexia, voice disorders, selective mutism. SLT deals with the preventive, curative and rehabilitative aspects of those conditions. (RCSLT, 2015)

2.4 Speech and language therapy (SLT) for Adult

Besides the paediatric conditions speech and language therapist also deal with adults with communication or eating and swallowing problems following neurological impairments and degenerative conditions, including stroke, head injury, Parkinson's disease and dementia. Alongside head, neck or throat cancer, voice problems, mental health issues, learning difficulties, physical disabilities, stammering and hearing impairment also treated by speech & language therapist (RCSLT, 2015)

2.5 Work Sites of Speech and Language Therapist: Speech-language pathologists work in a variety of settings including Public and private schools, Hospitals, Rehabilitation centers, Short-term and long-term care facilities, Colleges or universities, Private practice offices, State and local health departments, State and governmental agencies, adult day care centers/Centers for developmental disabilities , Research laboratories and rehabilitation centers. (ASHA, 2015) (RCSLT, 2015)

2.6 Communication Difficulties: A communication disorder is impairment in the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems. A communication disorder may be evident in the processes of hearing, language, and/or speech. A communication disorder may range in severity from mild to profound. It may be developmental or acquired. Individuals may demonstrate one or any combination of communication disorders. A communication disorder may result in a primary disability or it may be secondary to other disabilities. (ASHA, 2015)

A **speech disorder** is an impairment of the articulation of speech sounds, fluency and/or voice.

An **articulation disorder** is the atypical production of speech sounds characterized by substitutions, omissions, additions or distortions that may interfere with intelligibility. (ASHA, 2015)

A **fluency disorder** is an interruption in the flow of speaking characterized by atypical rate, rhythm, and repetitions in sounds, syllables, words, and phrases. This may be accompanied by excessive tension, struggle behavior, and secondary mannerisms. (ASHA, 2015)

A **language disorder** is impaired comprehension and/or use of spoken, written and/or other symbol systems. The disorder may involve (1) the form of language (phonology, morphology, syntax), (2) the content of language (semantics), and/or (3) the function of language in communication (pragmatics) in any combination. (ASHA, 2015)

A **hearing disorder** is the result of impaired auditory sensitivity of the physiological auditory system. A hearing disorder may limit the development, comprehension, production, and/or maintenance of speech and/or language. Hearing disorders are classified according to difficulties in detection, recognition, discrimination, comprehension, and perception of auditory information. Individuals with hearing impairment may be described as deaf or hard of hearing. (ASHA, 2015)

Deaf is defined as a hearing disorder that limits an individual's aural/oral communication performance to the extent that the primary sensory input for communication may be other than the auditory channel. (ASHA, 2015)

Hard of hearing is defined as a hearing disorder, whether fluctuating or permanent, which adversely affects an individual's ability to communicate. The hard-of-hearing individual relies on the auditory channel as the primary sensory input for communication. (ASHA, 2015)

2.7 Rehabilitation: Rehabilitation of people with disabilities is a process aimed at enabling them to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional levels. Rehabilitation provides disabled people with the tools they need to attain independence and self-determination. (WHO, 2015) .

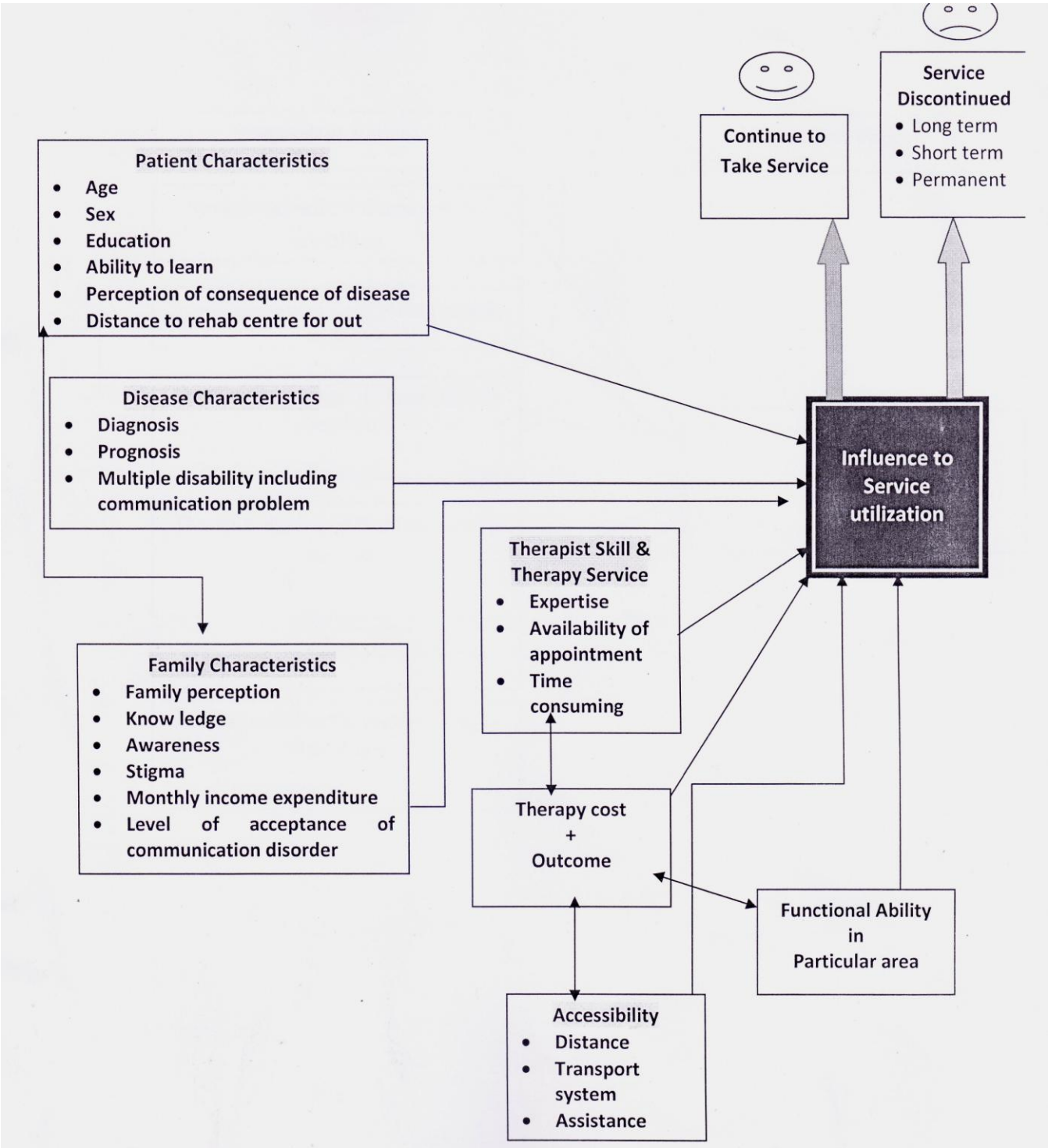
Rehabilitation in case of communication disorder is one of the challenging issues as its sometime time consuming (Davidson, et al. 2008).

Its estimated that the 15% of the total population of the world have any degree of disability where 8% of the them are living in developing third world countries where often access to basic health and social services is limited for all citizens. (WHO, Disabilities and rehabilitation, 2015)

2.8 Culture: Culture refers to the cumulative deposit of knowledge, experience, beliefs, values, attitudes, meanings, hierarchies, religion, notions of time, roles, spatial relations, concepts of the universe, and material objects and possessions acquired by a group of people in the course of generations through individual and group striving. (TAMU, 2015). In Bangladesh the culture has influence to the rehabilitation. As our own culture have traditional belief of treatment to the bonny doctors and other religious traditional healers. So it has a greater effect to the children with communication disability. Sometimes the children's are not attend the speech therapy intervention due to these traditional culture. Culture is closely linked to the awareness and attitude of an individual.

Methodology	Chapter III

3.1 Conceptual Framework



3.2 Study Objective

3.2.1 General objective:

The general objectives of the study are to assess the influencing factors to service utilization among children with communication disabilities from specialized rehabilitation centre in Bangladesh.

3.2.2 Specific objective

- To find out the socio demographic characteristics of participant.
- To assess the service facilities for the children with communication disabilities.
- To determine the physical environment barriers of the respondents.
- To assess the family and social support among children communication disabilities.
- To identify the association among influencing factors to utilize the speech therapy service.

3.3 Study Design:

A descriptive cross sectional study has conducted among children with communication disability to understand the factors influencing utilization the speech and language therapy service.

3.4 Study Population: Children with communication disability attend at SLT Dept, CRP

3.5Study Area

The study has been conducted in Centre for the Rehabilitation of the Paralysed (CRP), Head office at Savar, and all other divisional branches of it situated in Mirpur-Dhaka, Rajshahi, Barishal, Moulovibazar, and Chittagong.CRP was selected for the study as this CRP is one of the renowned rehabilitation centre in Bangladesh particularly for speech and language therapy and here a large number of qualified speech and language therapist

works. There are no other facilitieswithin Bangladesh for speech and language therapy where all types of communication problems are treated in the same professional and organizational standard.

3.6 Study Period:

Total study period is 5 months (January 2016 to May 2016)

3.7 Sample size

Sample Size Calculation

$$n = \left\{ Z\left(\frac{1 - \alpha/2}{d}\right)\right\}^2 \times pq$$

Here,

Z (1-α/2) = 1.96

P=50% = 0.50

q = 1- p = 1- 0.50 = 0.50

d = 0.08

n= $\frac{1.96\times1.96\times0.50\times0.50}{0.08\times0.08}$

=150.06

So according to the sample size determination, the numbers of the subjects are estimated 152number of participants. All the respondents had selected from CRP head office, CRP Mirpur and all branches of and attending of CRP attending as caregiver of the child. They could be parents or others who are responsible for financial liabilities, daily care, decision making.

3.8 Eligibility of Respondents

3.8.1 Inclusion criteria

- Children aged 1 month to 12 yearswith communication disabilitiesattending in outdoor facility of Speech and language therapy deportment of all divisional branches of CRP.
- Patients who attended at least 3 speech therapy sessions in CRP.
- The patient whois accompaniedbytheir care giver.
- As respondent father, mother, or any other relativewho are responsible for financial liabilities, daily care, decision making.
- Both male and female are eligible

3.8.2 Exclusion criteria:

- Those who are currently in door patients attending in CRP at all divisional branches.
- Paid care giver as respondents.
- All the adult patients.

3.9 Sampling Technique:

All the speech therapy outdoor attending clients care givers has be the selected purposively. A enumeration survey were conducted prior to the actual data collection to check the data collection tools and the nature of findings. A Enumeration checklist were developed to list eligible care giver of the child. The check list contained line number, name of the person, relationship with the child, nature of responsibilities with the child.

3.10 Survey / Data collection Instruments:

Data were collected at CRP premises using a self inventorysemi-structured questionnaire. The questionnaires were pre-tested on to two non-sample respondentsfrom CRP Savar, Dhaka with a draft Bangla version of the instrument to get feedback on the suitability, appropriateness and sequencing of the questionnaire. And thus the final version have developed

3.11 Data management and analysis: All eligible respondents werebeing selected for the interview from all different divisional branches of CRP within the data collection time. The face to face interview wasused to collect information from respondents. The response written in to the questioner by the interviewer and were stored in a secured place to maintain confidentiality. The questioner / data sheet were containing a code no. Data were stored in to the computer database and the database wereuse for further analysis and investigation.Finally the data were collected from a 10-15 minutes face to face interview with in the CRP premises.

The collected data were edited, coded and entered into a database using SPSS software. Analysis has done targeting the study objectives by considering the indicators. Descriptive analysis of all relevant variables has done using measures of frequency; association within /between variables were tested using chi square$\chi 2$ tests.

3.12 Quality control and quality assurance

The study was undertake with a pilot testing and peer reviewto ensure the quality of the study. Twelve voluntarily data collector recruited based on their experiences and educational qualifications. One day extensive training was held to train the field data

collectors. The field staffs were informed about the background of the study, objectives, methodology, individual section of the data collection instruments, interviewing techniques etc. Mock interviews were conducted among themselves to get acquainted with the questionnaire to ensure that the procedures under statically control. Field trial on the questionnaire. Field trail on the questionnaire were conducted in a CRPSavar from non sample. All data collection was accurate and interprets carefully according to supervisor guideline. Investigator strictly have tried to ensure to imply appropriate internal quality control measures and ensure that the data produced and reported are of known quality and uncertainty.

3.13 Ethical consideration:

The proposal has reviewed by the ethical board/committee of CRP and was approved by BHPI and Dhaka University. Permission were attained the patient records for participant contact address. A written information sheet were provided to participants informing them about the aims and significance of the study and the participants agreement to participate in the study then his or her consent have taken with written signatory/ finger print. Participants were also free to decline or withdraw in participating in the study. It was adhered to that data will be only accessed by the researcher and the supervisor of this study. Confidentiality was maintained strictly during the course of study and during every step of the research. No patients name and address was identified to the public domain and the entire document kept confidential. All data and relevant document was stored in a secured file cabinet.

The following variables were considered at the time of preparing data collection instrument.

Broad Category of the Variables	Selected Variables
Socio-demographic variables	Age, sex, academic qualification of parents, occupation of parents, living area, type of family, income – expenditure, treatment expense.
Disease related variables	Types, cause, duration of treatment.
Service Quality/ quality of care	Experience in service oriented difficulties, duration, waiting time, no of appointment, instrument quality, availability of instrument, organizational facilities for service, therapists quality, attitudes, cooperation, demonstration of therapy activities, clarity of advice, motivation by therapist, disclosure of patients treatment outcome, therapists professionalism, level of satisfaction.
Financial aspect	Difficulties in finance, treatment cost, treatment associated expenditure, paid care giver, financial burden, cost effectiveness.
Family and social support	experienced types of barriers, gender-age related discrimination, cooperation, stigma, attitudes, decision maker
Physical aspect	Distance, accessibility, transportation, physical disability of child, heaviness of child.
Knowledge and awareness	Expectation, level awareness toward service, self actualization.

Result Chapter IV

All the result of the analysis are shown in table, bar chart, pie chart as appropriate.

4.1 Table 1: Distribution of respondents by age, education, occupation, income and expenditure

	Frequency	Percent
Age category of child		
≤36 months (≤3 years)	42	27.6
37-72 months (3-6 years)	71	46.7
73-108 months (6-9 years)	17	11.2
108 through above (9 + years	22	14.5
Mean=60.84 months	SD± 36.27	
Mother's Educational Qualification		
No education	8	5.3
Primary level	20	13.2
Secondary	59	38.8
Higher Secondary	22	14.5
Graduate	26	17.1
Post Graduate	17	11.2
Father's Educational Qualification		
No education	6	3.9
Primary level	17	11.2
Secondary	46	30.3
Higher Secondary	23	15.1
Graduate	36	23.7
Post Graduate	24	15.8
Mother's Occupation		
House Wife	131	86.2
Service	20	13.2
Business	1	.7
Father's Occupation		
Agriculture	8	5.3
Service	79	52.0
Business	41	27.0
Day Labor	7	4.6
Others	15	9.9
No Job	2	1.3
Monthly Income		
≤5000 BDT	8	5.3
5001 BDT - 10000 BDT	33	21.7
10001 BDT - 15000 BDT	28	18.4
15001 BDT to 20000 BDT	22	14.5
20000+	61	40.1
Median:18500	SD: ± 26489.674	
Monthly Expenditure		
≤5000 BDT	7	4.6
5001 BDT - 10000 BDT	36	23.7
10001 BDT - 15000 BDT	22	14.5
15001 BDT to 20000 BDT	29	19.1
20000 +BDT	58	38.2
Median: 20000.00	SD: ± 135998.502	

Table 1.1 shows the demographic information of the respondent. The age range of the participant is below three to nine plus years. The 46,7% respondents child is in between 3-6 years of age where as lowest number of the respondent in 6-9 years of age. The mean age of the is 60.84 months Most frequent education and mothers 38.8% which are similar to fathers highest 30.3% in secondary level. 86.2% Mothers occupation is house wife where as the fathers occupation are mostly 52.2% of service. Where only 13.2% mother were involved in service. Monthly income of the participant was ranged from 5000BDT to 20000 plus. Maximum respondent 40.1% are in the range of above twenty thousand taka where as 21.7% are within 5001-10000BDT. On the other hand Motherly 38.2% expenditure are above 20000BDT.

4.2 Table 2: Distribution of the respondents according to their gender and living status

Living Area	Gender of the respondents				Total
	Male		Female		
	n	(%)	*n*	(%)	(%)
Urban	57	(37.5)	32	(21.1)	89(58.6)
Semi Urban	15	(9.9)	9	(5.9)	24(15.8)
Village	24	(15.8)	15	(9.9)	39(25.7)
Total	96	(63.2)	56	(36.8)	152(100)

The table shows the distribution of the total respondents according to their gender and living status where row represents three major leaving statuses category of respondents labeled as urban, semi urban and rural. Specifically (58.6%) are from urban area where as (25.7%) respondents are from village which is the almost double of the semi urban (15.8%). On the other hand the total numbers of male are (63.2%) whereas female (36.8%). More over the number of male is higher in all three living area where the male (37.5%) from urban, (9.9%) from semi urban and (15.9%) from rural besides that female are (21.1%) from urban, 9 (5.9%) from semi urban and (9.9%) from rural area.

4.3 Table 3: Distribution of the respondents according to their relationship with types of family

Most of the time who take care of the child	Type of Family		Total
	Nuclear Family	Joint Family	
	n (%)	*n* (%)	*n* (%)
Mother	82 (53.9)	51 (33.6)	133 (87.5)
Grand Mother	4 (2.6)	6 (3.9)	10 (6.6)
Father	4 (2.6)	0 (0.0)	4 (2.6)
Siblings	0 (0.0)	2 (1.3)	2 (1.3)
Paid Care giver	2 (1.3)	0 (0.0)	2 (1.3)
Parents	0 (0.0)	1 (.7)	1 (.7)
Total	92(60.5)	60(39.5)	152(100)

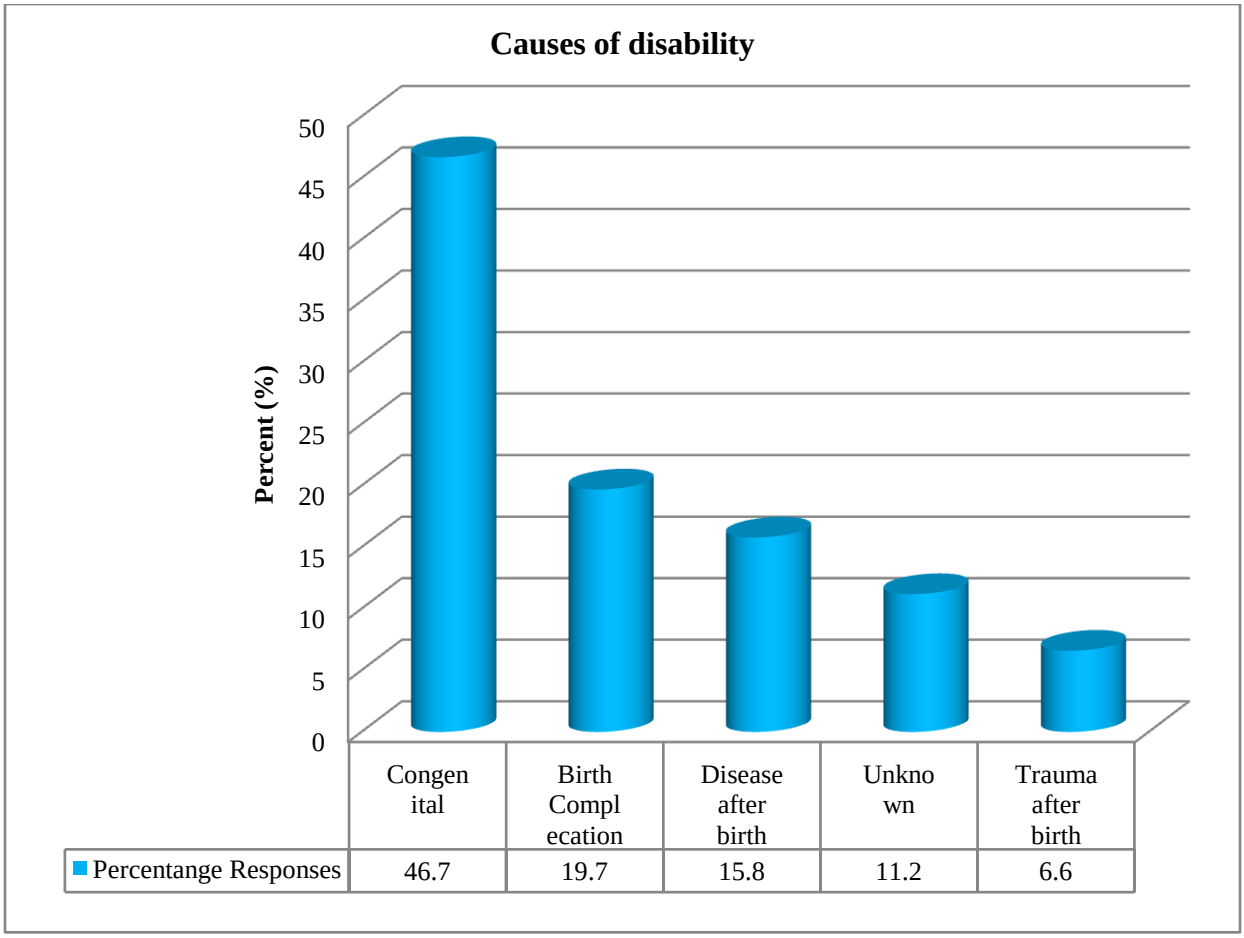
Table 3 shows types of care giver and family member. Among 152 respondents, there are 60.5%from nuclear family and 39.5% from joint family. Within all types of care giver, in most cases 87.5% mother takes care of child (which is the highest category) of which 53.9% mothers in nuclear family and 33.6% mothers in joint family. Besides that grandmother is in second highest frequency 6.6% who takes care of the child whilst in 3.9% cases of joint family grandmother involves in child's care. In 2.6 % cases father, 1.3% cases paid care giver and siblings, and .7% cases both father and mother takes care of the child.

4.4 Table 4: Distribution of the respondents according to their diagnosis and types of problem

Diagnosis criteria	Types of problem				Total	
	Communication problem		Communication problem & physical disability			
	n	(%)	*n*	(%)	*n*	(%)
Cerebral Palsy	19	(12.5)	75	(49.3)	94	(61.8)
Autism	17	(11.2)	6	(3.9)	23	(15.1)
Speech &Language Delay	10	(6.6)	2	(1.3)	12	(7.9)
Attention Deficit & Hyperactivity Disorder	7	(4.6)	0	(0.0)	7	(4.6)
Down syndrome	0.71	(.7)	4	(2.6)	5	(3.3)
Hearing Impairment	2	(1.3)	0.71	(.7)	3	(2.0)
Stroke	0.71	(.7)	2	(1.3)	3	(2.0)
Cleft lip and plate (Post operative)	0.71	(.7)	0.71	(.7)	2	(1.3)
Hydrocephalus	0	(0.0)	0.71	(.7)	0.71	(.7)
Learning Disability	0	(0.0)	0.71	(.7)	0.71	(.7)
Microcephalus	0	(0.0)	0.71	(.7)	0.71	(.7)
Total	**58(38.2)**		**94(61.8)**		**152(100.0)**	

The table 4 shows the distribution of the respondents according to their diagnosis and types of problem among all respondents. Among all respondents (61.8%) are diagnosed as having cerebral palsy which is highest in frequency whereas the second most frequent diagnosis is Autism 15.1%. Subsequently speech and language delay 7.9%, Attention deficit and hyperactive disorder is 4.6%, Down syndrome 3.3%, there are some other diagnosis that are below 2% these are hearing impairment, stoke, cleft lip and palate and times hydrocephalus, microcephalus, learning disability were found. Besides that (38.2%) subjects has only communication problem and (61.8%)

subjects have both communication and physical disability.(49.3%) children with cerebral palsy (CP) have both communication and physical disability where 19 children with CP having only communication problem. In case of autism (11.2%) child out of (15.1%) having only communication problem where as remaining 6 (3.9%) child have both communication and physical disability. In case of attention deficit & hyperactivity disorder (ADHD) 4.6% (7) only have communication problem. On the other hand there are some other less than 3% of response found in case of only communication disability and communication associated with physical disability in case of hearing impairment, stroke, cleft lip-palate, hydrocephalus, learning disability, microcephalys.



4.5 Figure 1: Distribution of respondents according to the causes of communication and physical disability

Figure 1 represents the causes of the disability among 152 subjects of the study. Among all cases, 46.7% had a congenital cause as top leading cause, whereas 19.7% times birth complication was the cause of disability which is second most leading cause. Subsequently the causes of disabilities are disease after birth (15.8%), unknown cause 11.2% and trauma after birth 6.6%, which is the least leading cause of disability in this research sample.

4.6 Table 5: Overall barriers regarding access to SLT Service and its Organizational Aspect

Problems to Service Utilization	Percentage response		Total	Mean, SD
	Yes	No		
	n (%)	*n* (%)		
Barriers to access SLT service				
Problem faced from organizational point of view to avail speech therapy service.	82(53.9)	70(46.1)	100%	1.46±500
Appointment is not available as per therapist advice	68(44.7)	84(55.3)	100	.45±.499
Appointment is not available according to caregiver's choice	54(35.5)	98(64.5)	100	.36±.480
Frequent change of Therapist	29(19.1)	123(80.9)	100	.19±.394
Time Consuming Treatment	20(13.2)	132(86.8)	100	.13±.339
Insufficient speech therapist	11(7.2)	141(92.8)	100	.13±.260
Barriers from Organizational Aspect				
Intolerable waiting time to get appointment.	75(49.3)	77(50.7)	100%	.49±.502
Lack of professional promotion activities for speech therapy	31(20.4)	121(79.6)	100%	.20±.404
No waiting room	30(19.7)	122(80.3)	100%	.20±.399
Insufficient ventilation in therapy room.	25(16.4)	127(83.6)	100%	.16±.372
No residential Facility	14(9.2)	138(90.8)	100%	.09±.290

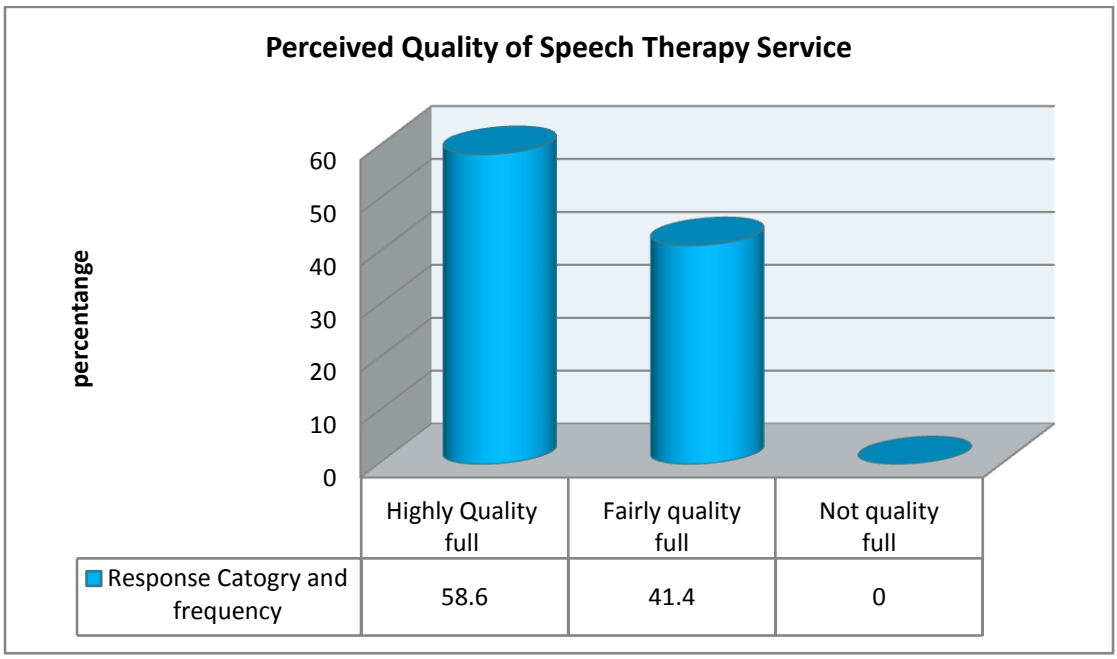
The table 5 shows the overall barriers to access speech therapy service and concerned organizational challenges. More than half of the respondent 82(53.9%) out of 152 have experienced with various barriers to access and utilize the speech therapy service from service and concerned organizational aspect. 44.7 % respondents has experienced with insufficient speech therapy session that has been recommended by concerned therapist more over 35.5% respondent have reported as they are not getting

time according to their choice. 19.1% respondent also claimed regarding frequent change of therapist that affects to get desired outcome from therapy. Besides that 13.2% respondent perceived that the duration of treatment program is lengthy where as 7.2% mentioned that that the number of speech therapist is insufficient so that they need to wait. on the other hand half of the respondent also faced barriers from organizational aspect. Major complain from the half of the total respondent (49.3%) is intolerable waiting time to get appointment. Other than this 20.4% respondent claimed that lack of professional promotional activities for speech therapy service that creates barrier to know about the existing service. Some of the respondent 16.4% perceived that the ventilation of therapy room is insufficient where as 9.2% respondent noted that there are no residential facilities for the outdoor patients.

4.7 Table 6: Barriers to receive services from speech therapists

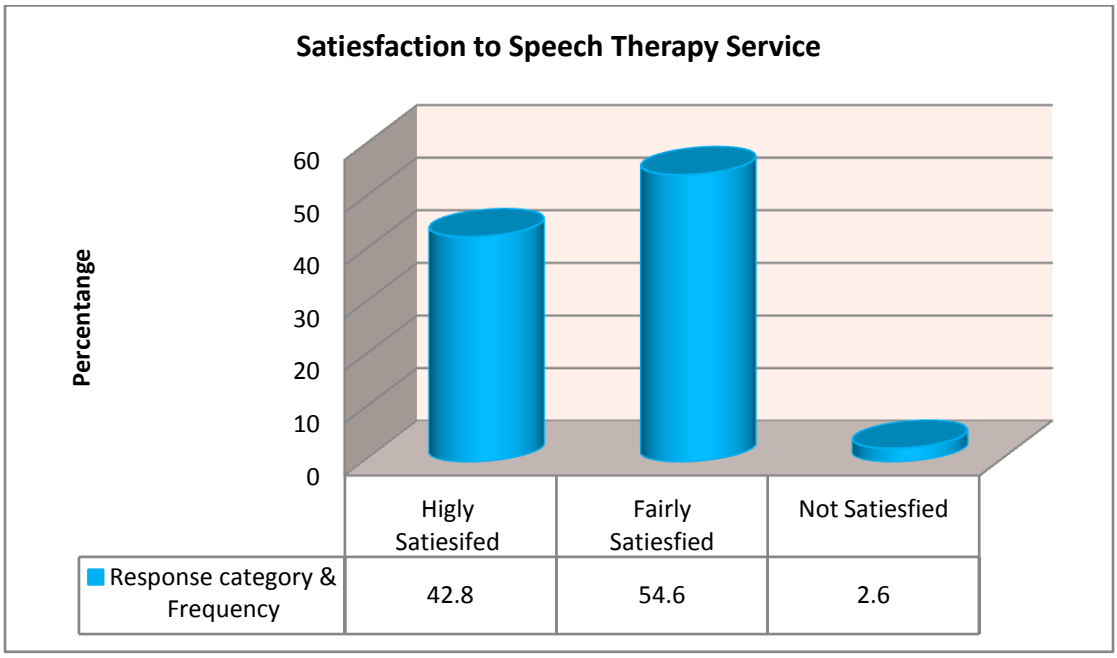
Specific criteria	Response (%)		Total	Mean , SD
	Yes	No		
	n (%)	*n* (%)		
Difficulties faced form directly from Speech and Language Therapist.	26 (17.1)	126 (82.9)	100%	8.53±1.734
Provide therapy less than 45 minutes (Standard Time)	14 (9.2)	138 (90.8)	100%	.09±.290
Don't set treatment goal by discussion with guardian	6 (3.9)	146 (96.1)	100%	.04±.195
Therapist's Behavioral Problem	3 (2)	149 (98)	100%	.02±140
Don't share clients progress / deterioration with care giver	2 (1.3)	150 (98.7)	100%	.01±114
Difficulty to understand therapists instruction	2 (1.3)	152 (98.7)	100%	.01±.114
Therapist engaged in personal work during therapy session	2 (1.3)	150 (98.7)	100%	.01±.114
Therapist's shows discriminatory behavior	1 (.7)	151 (99.3)	100%	.01±.081

The table represents the perceived barriers that has been creates form concern speech therapist. 17.1% respondent found who have faced challenges from directly speech therapists. Among all of the respondent 9.2% claimed as the major perceived barrier is speech therapist provide less time than expected. Besides that 3.9% respondent found the therapist did not set treatment goal with discussing guardian. There are some other perceived barriers found less than 2%, these are didn’t share clients improvement status, difficulties to understand therapists advice, engaged in personal work during session and very rarely only 1 respondent claimed that the therapist demonstrated discriminatory behavior.



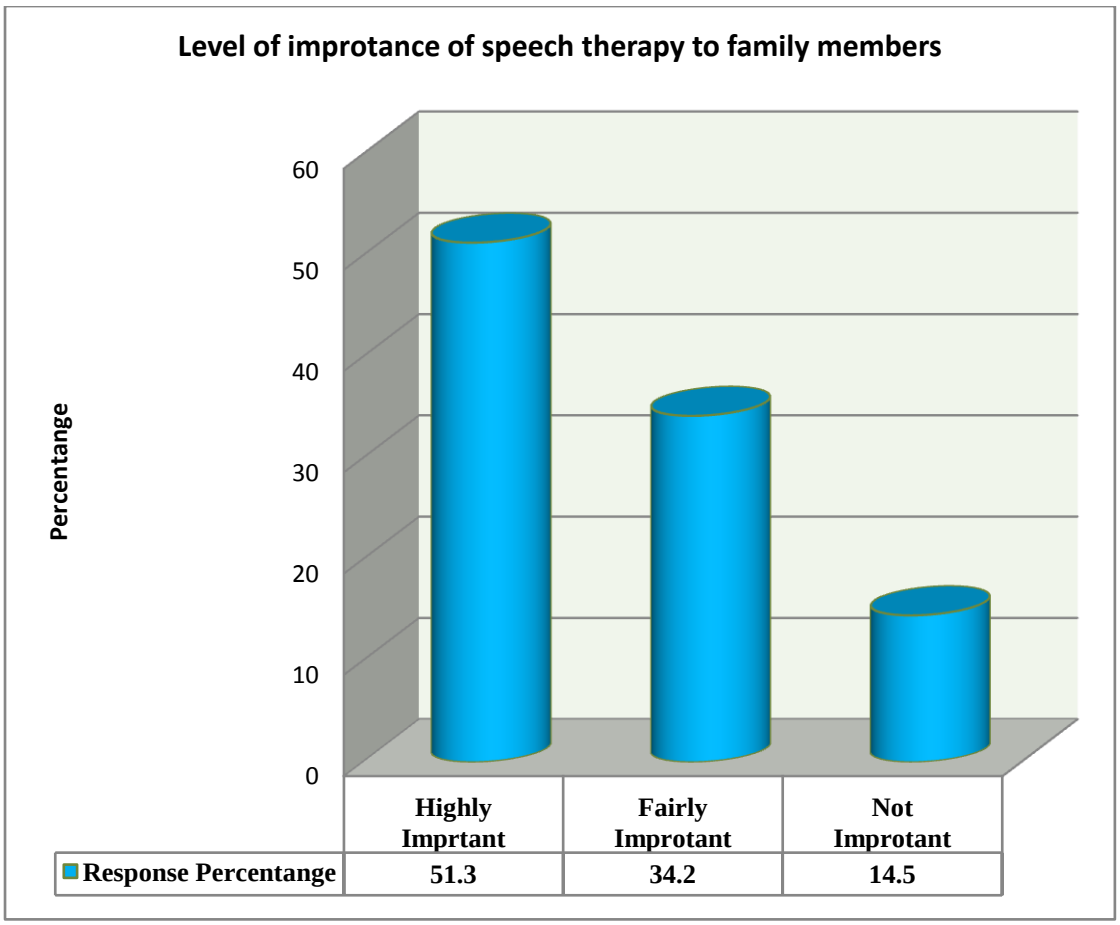
4.8 Figure 2: Perceived service quality of speech therapy service

The table represents the perceived service quality and the level of satisfaction from speech therapy service. More than half of the respondents 58.6% found the speech therapy as highly quality full and 41.4% found fairly quality full but no respondent found as not sure about the quality of speech therapy service. The mean and standard deviation is 1.41±.494.



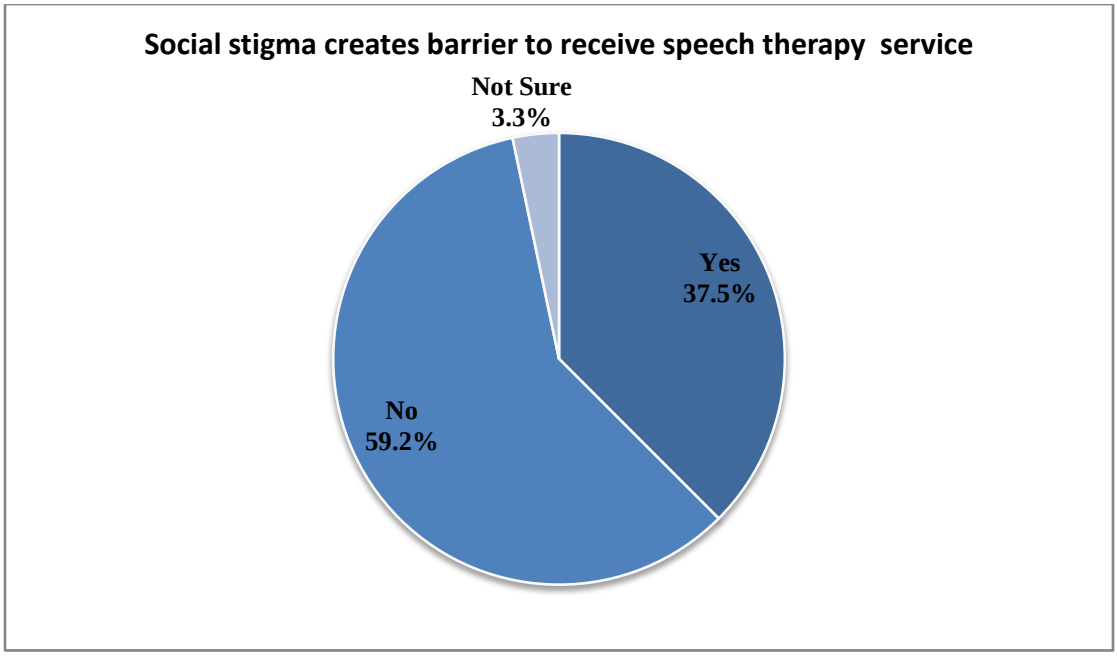
4.9 Figure 3: Satisfaction measures of respondents to speech therapy service

In case of level of satisfaction 42.8% respondents found highly satisfied to speech therapy service where as more than half of the total respondent respond as fairly satisfied to speech therapy service. Only a few 2.6% respondents claimed as not sure about the level of satisfaction. The mean and standard deviation is 1.60±.543.



4.10 Figure 6: Importance of speech therapy service to family member.

The figure shows that the 51.3% family member of the respondents found the speech therapy is highly important to the child whereas 34.2% found fairly important. On the other hand 14.5% family members found speech therapy is not important for the child where the mean and standard deviation is 1.63 ±.725.



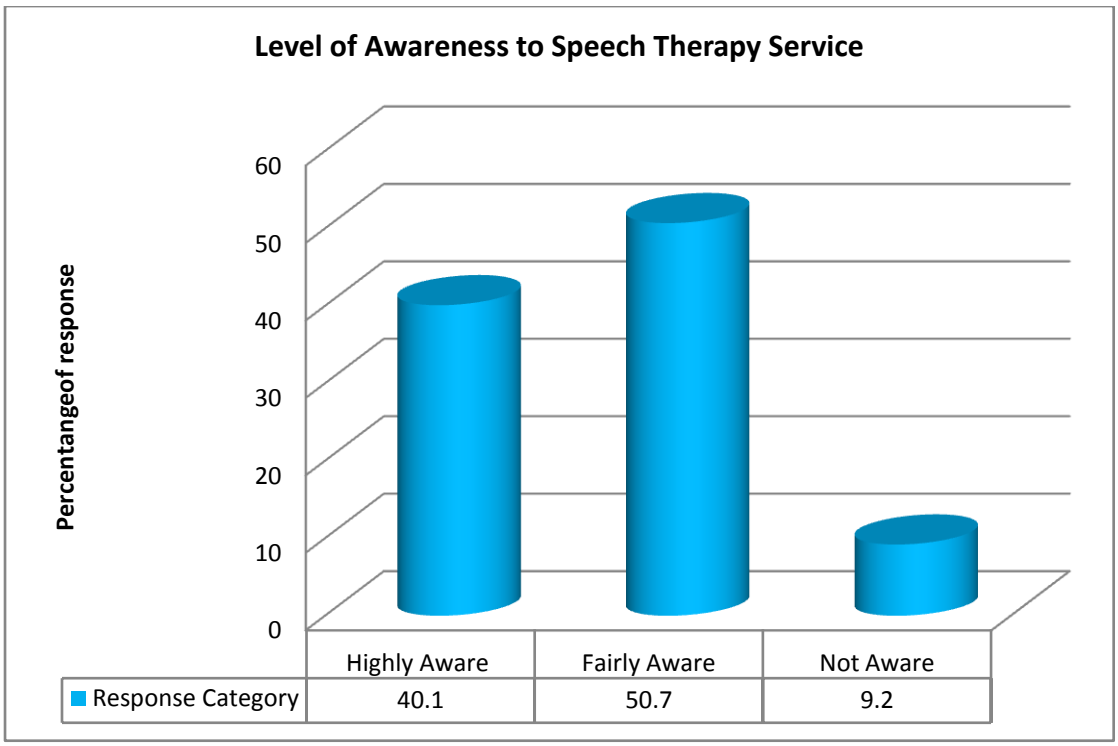
4.11 Figure 5: Social stigma related barriers of the respondents to avail speech therapy.

The figure represents the social stigma related barriers to receive the speech therapy service. Among the all respondent 37.5% found social stigma as a barrier to receive speech therapy service besides that more than half of the respondent did not found social stigma as a barrier to receive the speech therapy service. Only 3.3% respondent is not sure about the social stigma. The mean and standard deviation of the data is 1.66±.541.

4.12 Table 7: Physical barriers to access for speech therapy service

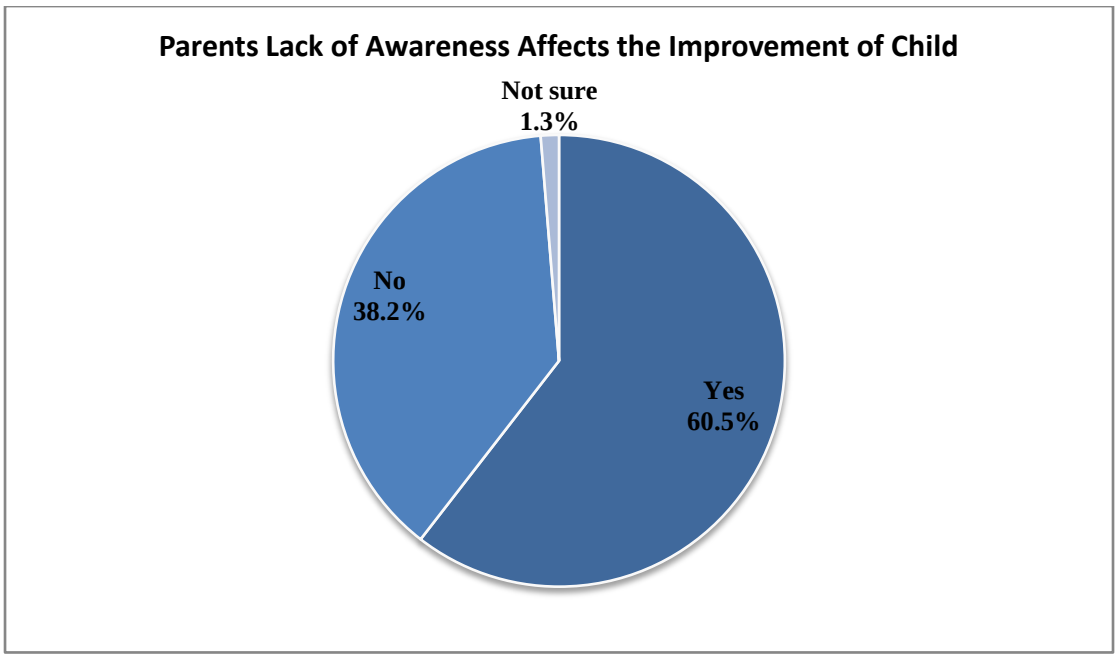
Physical barriers Aspect	Percentage response		Total	Mean & SD
	Yes	No		
The distance or transportation system interrupts to take Speech and Language Therapy service.	59.2%	40.8%	**100%**	1.41±.493
Using Multiple Transport	40.1%	59.9%	100%	.41±506
Time consuming journey	40.1%	59.9%	100%	.41±.492
Transport are not available	12.5%	87.5%	100%	.14±452
Accessibility Problem	11.2%	88.8%	100%	.11±.316

The table shows physical barriers of respondent where more than half of the respondents 59.2% have faced physical barriers to access speech therapy service centre. Among them the top most physical barriers are using multiple transport and time consuming journey by 40.1% respondent. Where the 12.5% respondent found is unavailability of transport as second most barriers. Besides that 11.2% faced physical accessibility problem along the way of home to hospital.



4.13 Figure 6: Level of awareness of family member to speech therapy service.

The above figure shows that level of awareness of the family members to speech therapy service. 40.1% respondents think that their family members are highly aware regarding speech therapy service where half of the total respondent's family 50.7% found fairly aware. Besides that 9.2 % found not aware of speech therapy service. Here the men and standard deviation is 1.69±.633.



4.14 Figure 7: Respondents self actualization on lack of awareness and knowledge contribute to child' delayed access to service.

The following table shows that a 60.5% of the total respondents found their lack of awareness and knowledge contribute to delayed access to service. Whereas 38.2% respondent found no relation to their knowledge and awareness with the access of speech therapy service. Besides that only 1.3% respondents found as having not sure about it. The mean and standard deviation is 1.41±.519.

4.15 Table: 8.1: Association between Monthly Income of respondent and ability to bear cost of Speech service

Monthly Income of respondent	Ability to bear service cost			
	With in Capacity	Moderately with in capacity	Beyond capacity	Total
Below 5000 BDT	0	3	5	8
5001 BDT - 10000 BDT	5	15	13	33
10001 BDT - 15000 BDT	3	12	13	28
15001 BDT to 20000 BDT	5	10	7	22
More than 20000	38	17	6	61
Total	51	57	44	152

Table 8.2: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	43.877[a]	8	.000
Likelihood Ratio	**47.425**	**8**	**.000**
Linear-by-Linear Association	33.581	1	.000
N of Valid Cases	152		

a. 3 cells (20.0%) have expected count less than 5. The minimum expected count is 2.32.

From the table 8 , thirty eight respondents were capable to provide the speech therapy service cost within their income range more than 20000 BDT and 17 was moderately capable from their sided within this range. Only 6 respondents were not capable of the above mentioned income range. Some respondents were allowed to show their ability to provide speech and language therapy service cost moderately with from the lower income range to 20000 BDT. Among the 152 participants, 44 was their beyond capacity with all income ranges. The above table 7.1 was showed the association between monthly income and bear to service cost of speech therapy which was statistically significant (likelihood ratio is p=0,000).

4.16 Table 9.1 Association between distance of therapy centre and physical barrier to take speech therapy

Distance from Therapy Centre	Distance or transportation system interrupts to take speech therapy service.		Total
	Yes	**No**	
less than 5 Km	8	24	32
5.1 km - 15km	15	10	25
15.1 km - 30 km	11	7	18
30.1 km - 45 km	4	2	6
More than 45 km	52	16	68
Total	90	59	149

Table 9.2: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.213[a]	4	.000
Likelihood Ratio	**24.525**	**4**	**.000**
Linear-by-Linear Association	20.392	1	.000
N of Valid Cases	149		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 2.38.

The above table 9 shows that 52 respondents were coming from more than 45 km to take therapy service from the centre. Only 16 respondents have not faced any problem within this distance. Besides, 15 respondents were faced difficulties within the range 5.1-15 km. From this analysis, 24 respondents out of 32 have not faced any problem due to distant less than 5 km. The above table 9.1 suggested the association (likelihood ratio, p=0,000) between the distance of therapy centre with physical barriers to take speech therapy service.

4.17Table 10.1: Association between service quality and level of satisfaction

Level of satisfaction	Service quality of speech therapy		Total
	Standard Quality	Below standard	
Highly satisfied	53	12	65
Fairly satisfied	36	47	83
Not Satisfied	0	4	4
Total	89	63	152

Table 10.2: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.682[a]	2	.000
Likelihood Ratio	**30.465**	**2**	**.000**
Linear-by-Linear Association	27.464	1	.000
N of Valid Cases	152		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.66.

The table 9 shows that 89 respondents were found the standard quality of speech therapy service from their maximum level of satisfaction and also some respondents involved with their less satisfaction from the quality of speech and language therapy services. Nearly one third of the respondents were found below standard regarding quality of speech therapy service. So finally we can conclude from the table 10.1 that level of satisfaction was highly association with quality of speech therapy and likelihood ratio was p=0,000.

4.18 Table 11.1: Association between discriminated for gender by family members and level of awareness regarding speech and language therapy service.

Discrimination for gender by family members to receive the speech therapy service.	Family members level of awareness regarding speech therapy service			Total
	Highly aware	Fairly Aware	Not aware	
Yes	6	15	8	29
No	55	48	6	109
No Comments	0	14	0	14
Total	61	77	14	152

Table: 11.2 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.471[a]	4	.000
Likelihood Ratio	**34.833**	**4**	**.000**
Linear-by-Linear Association	2.650	1	.104
N of Valid Cases	152		

a. 2 cells (22.2%) have expected count less than 5. The minimum expected count is 1.29.

From the table 10, about 103 respondents were aware to the speech therapy service and they do not discriminated based on their child by gender. Among the respondents, only 29 was discriminated due to their level of awareness within the categories of highly aware, less aware and not aware respectively. So finally the above mentioned table 11.1 shows association between non discrimination of the child by gender and awareness of family members regarding speech therapy service and likelihood ratio was p=0,000.

Discussion Chapter V

This study is mainly aimed to explore the influencing factors to utilize the available speech therapy service those who attend outdoor service facility at Centre for the Rehabilitation of the Paralysed (CRP) which is one of the renowned rehabilitation centre for the disability and rehabilitation service. Speech therapy service is also a unit of service which is available in all five divisional centres including main centre. There are 152 participants were attend the study where the parents and care giver attend as respondent. The age range of the respondents child those who attend for speech therapy service is ≤3 years to 13 years. 46.7% the highest percentage of respondents children are in between 3 to 6 years whereas 27.6% children aged between 27.6 % (table1). . The lowest number of children's are aged between 6-9 years. It represents that most of the time the children attend for the service after 3 years of age. Early intervention is not seen in child, early intervention helps to improve the child as evidence shows (McColl, 2005). The secondary level of education is the highest in percentage of both mothers 38.8% and fathers 30.3%. Whereas the lowest percentage of education with in total population is illiterate. Specifically 5.3% mother and 3.9% father are illiterate. The parent's educational status is a vital part for the improvement of the child. There less number of parents are available those who complete the higher education such 17.1% mother and 23.7% father have completed graduation. level of education is a contributing factor (Hartley,1998) . In case of occupation highest 86.2% mother are house wife where as fathers highest percentage is 52% for service besides that 13.2% mother are service holder.. Monthly income of the family is another vital factor for treatment or service utilization. In these study 40.1% respondent's monthly income is more than 20,000

thousand which is the highest in percentage among all respondent whereas 5001-10000 BDT is in second rank (table1). Besides that average monthly expenditure is also more than 20000 BDT of 38.2 % respondent. Alongside 5001-10000 is in second rank for expenditure. As the more than 20000 BDT is most people's income so the expenditure also in same level. It represents that people income and expenditure are equal. Though the 5000-10000 people are in second rand for both income and expenditure but they are the vulnerable group for drop out from service as they earn a very limited income. In this study the most of the participant came from urban 58.6 % and 15.8% from semi urban and only 25.7% from village. Recent years Bangladeshi per capita is increased. (World-Bank, 2016). There could be an influence of urban participant to show more income range. Ultimately the below average (≤5000) income people (5.3 %.) are very less in this study.

In this study total number respondents children male (96%) are double in comparison to the female (56%) and the ratio of male and female are always higher in urban 37.5% out of 58.6%, semi urban 9.9% out of 15.8% and village 15.8% out of 25.7% of children attended for speech therapy (table 2). 87.5% cases mother are the main care giver of the child whereas 86.2% mothers are house wife (table-3). Mothers are commonly highest in nuclear and joint family to take care of the child. It represents mother are closely attached for the child care and treatment. There is no evidence found that mother is important for childs therapy but it a common phenomena. In this study most of the responds children (61.8%). Research in developing country CP is more prevalent (Jhonson, 2002) have diagnosed as having cerebral palsy where both physical and communication problem are mostly seen as 49.3% out of total case 61.8% (Table-4). Some times its also seen in the

literature that cerebral palsy can affect the communication ability. Communication disorder can be seen in CP (Jhonson, 2002). Subsequently the number of congenital cause 46.7% of disability is highest.(figure-1). There could be a relation to the diagnosis of cerebral palsy and congenital cause and birth complication cause (19.7%). Major cause of cause of CP is congenital (Jhonson, 2002). Autism is second most frequent 15.1% diagnosis among the participant. There is exceptional features have found 3.9% children with autism have physical and communication problem. Autism may have physical disability (Jhonson, 2002). There are some. All other condition like down's syndrome mostly have only communication problem, speech delay, hearing impairment etc. speech and language delay, sown syndrome, have communication problem (Jhonson, 2002). There could be a relation to the unknown cause (11.2%) with autism because the cause of autism is unknown (Jhonson, 2002).

As a developing country we have several barriers to access and utilize the speech therapy service (Hartley, 1997). In this study the barriers faced from several source like organizational, speech therapy, speech therapist, economic, treatment cost, other aspect, awareness. The are several studies have found similar types of problem. In this study the more than half of the participant 53.9% had experienced with speech therapy service and organizational problem. There are 44.7% respondent have complained as appointment is not available and 35.5% claimed as appointment time is not available as per their choice. In a similar study explored in developing country the number of cases is higher in proportionate to the number of service provider (Hartley, 1998). So unavailable speech therapy appointment may be due to the insufficient therapist. Here other barriers found that 13.2% patients perceive that the speech therapy service is time consuming. In a study

of Daly et al. (2002) found the outcome duration is a predictor of drop out or discontinuation from treatment. Another study found that appointment timing is a major issue that creates barrier to access the service which is similar to these findings (Daly et al. 2002). Frequent change of therapist (19.1%) is also a barrier for the respondent where there is no evidence found in this regard but shortage of therapist is explored (Majnemer, 2001).

There are some specific organizational barriers also explored by the respondent. 49.3% respondent found problem in long waiting time for the speech therapy service which is the major perceived barrier from organizational point of view. A similar types of the study found the long waiting time is a major perceived barrier (Majnemer, 2001). A study conducted on 10898 participant where long waiting times is top most reason to discontinue the allied health service (McColl, 2005). In this study 20.4% respondent found lack of promotional activity of speech therapy service that may help them to know about speech therapy service early. A study found that awareness to service is a major barriers to access the service (Hartley,1998). Some other barrier predictors of service utilization are no waiting room 19.7%, ventilation problem 16.4% and insufficient 9.2% which have found in this study. In the same study of Hartley, (1998) found that hospital environment as a barrier to access the service.

The speech therapists also a vital part of service provision. In this study a few number of respondent 17.1% have faced difficulties form speech therapist. Within this respondent 9.2% claimed as the therapist attend therapy less 45 minutes. A study found that the timing of therapy session is factor that influence to receive the health care sercice (Hartley,1998). Besides that less than 2% respondent also claimed as difficulties to

understand therapist instruction. In the same study found language accent could be a barrier to understanding the instruction from therapist (Hartley,1998). In this study less than 2% respondent found the therapist shows discriminatory behavior to the client. On the other hand McColl, (2005) found that some time the health care professional show negative attitude to the clients that makes a negative impression to the service. It's a remarkable issue but it's not that a remarkable number. Due to professional skills some therapist may do below standard practice like setting target without sharing with the client which is seen in this study as 3.9% responded have experienced with it. In the study of Hartley(1998), Marshal & Tarar (1989) reported that less underdeveloped countries' speech therapist get less opportunity for training in order to develop their skills that helps to provide more standard service. As Bangladesh is one of the developing countries here also speech therapist found fewer opportunities to develop their professional skills. This ultimately creates a confounding barrier to the service utilization.

The in this study the more than half of the participant 58.6% respondent claimed speech therapy service as highly quality full. There is no similar study found where speech therapy service quality was measured. Majnemer, (2001) found that the educational status is confined with the level of satisfaction to the service. In this study more than half 59% of the participant has completed secondary level of education.

In this study 54.6 % are fairly satisfied with speech therapy service where as the 42.8% are highly satisfied. This level of satisfaction manifested due to variety of reasons like education, child's level of improvement, economica status etc. Majnemer (2001) mentioned socio economic status is a big predictor of level of satisfaction to rehabilitation. Daly et al. (2002) claimed in his study that level of satisfaction is related to

quality of improvement and service. In a study of McColl (2005), Blendon et al.(2001) dissatisfaction as third most prevalent barrier to access but in this study the most of the respondent are satisfied and fairly satisfied to the speech therapy service. So it indicates dissatisfaction is not a barrier identified in this study.

According to the respondents 51.1% family found the importance of speech therapy service where as 14.5% found those who think speech therapy is not important. It may be a because most of the participant of the study have diagnosed as cerebral palsy associated with both communication and physical disability (49.3%). So as the child have suffering from physical disability the family members may be influenced by this. As a result 14.5% are not found speech therapy as important service. Hartley (1998) explained in his study that in Tanzania and Pakistan speech therapy is in low priority in comparison with physical therapy.

Social stigma is not a major barrier in this study. Only 37.5% found have experienced as having stigma that creates barrier to access the service. As Hartley (1998) mentioned that social factor contribute to the different perception to service and poor literacy can contribute the stigma.

Physical barrier is one of the most identified barrier in this study. 59.2% respondent reported as they have problem with distance. The specific barrier times consuming journey (40.1%) and multiple transport (40.1%) unavailability of transport is 12.5% and accessibility problem is 11.2%. In a similar types of study of Daly et al. (2002) found that the distance, transportation system and traveling time are the major barrier. Hartley (1998) also found the transportation is one of the main barriers to access the service.

In this study the family member of the respondent awareness to speech therapy is not a major barrier. Almost 91% respondents are in between highly and fairly aware. Majnemer (2001) stated that the level of education is a indicator to the level of awareness. So the family members educational status or the perceived benefit may influence them to attend the service. McColl (2005) suggested that the perceived benefit are linked to level of improvement.

Parent's lack of awareness is a major barrier to the development of the child. 60.5% respondent believes that their lack of awareness confounds to the child's progress or improvement. The respondent may not come for early intervention for their speech problem which is seen in the age category of the child. Here 46.7% children 3-6 years range where as 0 to 3 years child are 27.6% in this study. In relation to that 46.7% child have congenital cause. That means due to lack of awareness the respondents may be not able to attend for early intervention that ultimately leads them less improvement. In a study of Daly et al. (2002) claimed self efficacy helps to access the health service. So the timely awareness may be a major problem to the respondents so that they are honestly declared their lack of awareness had negatively influence the child's improvement.

In this study, showed the association between monthly income and bear to service cost of speech therapy which was statistically significant (likelihood ratio is p=0,000). Daly et al. (2002) found in his study the financial cost of service is one of the major barriers to service utilization. He also told that income of the participant are also a major predictor of participation in service. McColl, (2005) found a total different scenario of where he claimed in his study that there is no significant relationship to the income and use of the

speech therapy service but the cost of is second most reason of service utilization. So the monthly income of the participant is a major influencing factor to utilize the service.

In the study there is a significant relationship as likelihood ratio, p=0.000 between the distance of therapy center physical barrier to take speech therapy (table 9). In the similar types of study has conducted Daly et. al. (2002), that distance is a major barrier to attend the heath service. Another study found that the physical barrier is a one of the main contextual factor to utilize the service. So in this regard the distance of the most significant influencing issue to attend the service. Though the maximum participant (40.1%) claimed more than 2000BDT income but on the other hand 38.2% have more than 2000BDT expenditure. So though the income is high but it depends on the expenditure.

In this study found that, level of satisfaction was highly association with quality of speech therapy and likelihood ratio was p=0,000 (Table 10). In the study of Daly et al. (2002) found that the perceived benefit from service is a major predictor of satisfaction. It indicates if a patient gets benefit from service his level of satisfaction would be high. This manse the CRP's speech therapy service quality is good enough to have satisfaction from patients. So it can be concluded that service quality is a major influencing factor to continue the speech therapy service.

In this study investigator found significant association between non-discrimination of the child by gender and awareness of family members regarding speech therapy service and likelihood ratio was p=0,000. Daly et al. (2002) claimed that after one month of the intervention phase, the female patients were reduced from 83% to 50%.

Nondiscrimination to the child is more likely to attend the speech therapy service. So gender is not considered in case of service utilization when the family members are aware of it.

5.2 Limitations of the Study

There are a number of limitations of the study that should be considered. The data was collected by data collector form different venue; however they were well trained prior to the data collection. As there was no estimation of exact prevalence of children with communication disability in Bangladesh, the sample size was determined in a hypothetical figure. Error level 7 considered as its statistically acceptable range of error. In the study the data was collected from only Centre for the Rehabilitation of the Paralysed (CRP) within its all branches to ensure that all the sample would exposed form same standard of service. Though the study would intend to explore influencing factor to from a specific group of people but there could be some other influencing factor to the different service centre apart from CRP. The data though shows the number of influencing factors but it may not be the exact representative of total population. The data was taken from the variety of diagnostic group, some time the influencing factors are depends on the types of diagnosis. Though the samples are from collected around CRP branches and the influencing factors were discussed commonly.

The investigator tried hardly to avoid biasness to select sample, data manipulation and miss interpretation. During the data collection most of the times the mothers were respondent but few were father and other caregiver. Alongside the level of challenge faced by father may vary from mother of an individual child. So there is a chance of missing some important challenges. Children with communication disability and both communication with physical disability may have different types of challenges. Apart from the limitations the study have so many unknown knowledge had explored that would help in future to improve and facilitate of service.

5.3 Policy Implication

As speech and language therapy is a newly established profession, the professional body should immediately consider the appropriate policy strategies to ensure the access of the person with communication disorders to the existing service by minimizing the challenges and facilitating the opportunities.

In addition Centre for the Rehabilitation of the Paralysed can also play a vital role on minimizing the barrier that face by the patients as the majority of speech therapist are working here as a practitioner and its wide spread branches. Though the challenges are distance, finance, awareness, knowledge, service quality, CRP can promote service access by providing financial support from social welfare support, promotional program by community rehabilitation trainer (CRT) in a specific area and advocacy to the government level, awareness raising program in national TV, Raio, Newspaper etc.

As an individual the speech therapist also can promote the awareness rising by facebook, youtube, writing article in news paper, arranging free speech therapy camp etc.

5.4 Conclusion

Speech therapy service is very proving a satisfactory and good quality service as per the respondent besides that there are number barriers contributes to discontinue or irregular service from specialized speech therapy centre. These influencing barriers are financial barrier, distance of therapy, centre family awareness, knowledge regarding existing service of speech and language therapy. Though the speech and language therapy is newly introduced but its demand is increasing over time. It's a big challenge to ensure the equal access by the entire service consumer. In order to provide successive intervention, it's important to consider the influencing factors which are major predictor of drop out or discontinuation. In this study several negatively influencing factor has identified which is not possible to manage by one single organization like CRP. Some of the factors beyond the concern of the institute like family attitude, awareness, financial solvency etc. besides the organization can take initiative to improve quality of care and number of therapists, reducing cost of service or offering the free of cost service. Besides that government also responsible to ensure the right to access for the health care service of the children with communication difficulties.

5.5 Recommendations

The investigator found some recommendation in for this study.

- The respondents recommend that CRP need to arrange residential facility for the long distance patients in all centers.
- The respondents also recommend to increase the number of therapist as they don't get enough therapy appointment
- Most of the respondent demands financial support or to reduce the therapy charge.
- The number of CRP branches was recommended to increase.
- The new updated therapy equipments also another big recommendation from patients.
- As per the findings its necessary to start huge awareness raising program by using variety of mass media to promote speech therapy service.
- I order to make accessible service the referral form other health professional also recommended.
- The number of the respondent could be increased, the randomization of the sample also need to be considered in future.
- In further study, living area and nature of challenges or influencing factor should be identified.
- However according to the different centre of service the nature of influencing factors could be identified.
- The homogeneous respondent would be much effective than in general.
- The study could be a mixed type of study, where the therapist and family members have got the chance to express in a qualitative manner.

- There could be 3-4 focus group discussion with the therapist and caregiver to identify the influencing factor.
- The duration of the similar types of study need to be increased e.g. for one year.
- Need to arrange fund to conduct the study in a successful manner.
- In order to identify the influencing factors, the existing service quality could be identified in future.

These are the major recommendation of the study for future readers.

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Annexure **permission Letter**

Date:
To
Center Manager,
Afsar Hossain CRP,
Rajshahi

Subject: Application for permission of data collection for master's thesis at CRP Sub Centre,

Sir,

With due respect I would like to draw your kind attention that I am a student of M.Sc. in Rehabilitation Science program at Bangladesh Health Professions Institute (BHPI)- an academic institute of CRP under Faculty of Medicine of University of Dhaka (DU). This is a 2-year full-time course under the project of "Regional Inter-pr ofessional Master's program in Rehabilitation Science" funded by SAARC Development Fund (SDF). I have to conduct a thesis entitled, " **Factors influence to utilize the available service of speech and language therapy for the children with communication difficulties."** under honorable supervisor, Dr. Shahjahan, Associate Professor and Head, Department of Public Health, Daffodils International University, Bangladesh. To assess the barriers of service utilization among children with communication disabilities in specialized rehabilitation centre in Bangladesh.

Data collection will require the Speech & Language Therapy (SLT) pediatric outpatients' care giver and a small space of your centre department. Data will be collected by trained volunteer data collector for 6 weeks from 12th March 2016 to 25th May 2016. A self inventory semi structured questionnaire will be used that will take about 15 to 20 minutes followed by asking question. Related information will be collected from the patients' hospital card. Data collectors will receive informed consents from all participants. Any data collected will be kept confidential. Ethical approval is received from the Institutional Review Board (IRB) of Bangladesh Health Profession's Institute (BHPI).

Therefore I look forward to having your permission for data collection at your sub centre. I am anticipating your kind cooperation in this regard.

Sincerely yours,

Md. Shohidul Islam Mridha
Speech & Language Therapist &
Student of M.Sc. in Rehabilitation Science (1st Batch)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh
Cell: 01719296691, email-shohidulslt@yahoo.com

For doing research permission granted.
07/05/16.

Date:
To
Center Manager,
CRP Moulvibazar
Sylhet.

Subject: Application for permission of data collection for master's thesis at CRP Sub Centre, Moulvibazar.

Sir,

With due respect I would like to draw your kind attention that I am a student of M.Sc. in Rehabilitation Science program at Bangladesh Health Professions Institute (BHPI)- an academic institute of CRP under Faculty of Medicine of University of Dhaka (DU). This is a 2-year full-time course under the project of "Regional Inter-professional Master's program in Rehabilitation Science" funded by SAARC Development Fund (SDF). I have to conduct a thesis entitled, "**Factors influence to utilize the available service of speech and language therapy for the children with communication difficulties.**" under honorable supervisor, Dr. Shahjahan, Associate Professor and Head, Department of Public Health, Daffodils International University, Bangladesh. To assess the barriers of service utilization among children with communication disabilities in specialized rehabilitation centre in Bangladesh.

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Therefore I look forward to having your permission for data collection at your sub centre. I am anticipating your kind cooperation in this regard.

Sincerely yours,

Md. Shohidul Islam Mridha
Speech & Language Therapist &
Student of M.Sc. in Rehabilitation Science (1st Batch)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh
Cell: 01719296691, email-shohidulslt@yahoo.com

Allow to collect data accroding to IRB, BHPI guidlines. but be careful about etical issues.

19-5-16.

CHOWDHURY MD KAMRUL HASAN
Centre Manager (Assistant Manager)
CRP-Moulvibazar

Date:
To
In-charge,
Speech & Language Therapy Department
AK Khan CRP,
Chittagong.

Subject: Application for permission of data collection for master's thesis at CRP Sub Centre,

Sir,

With due respect I would like to draw your kind attention that I am a student of M.Sc. in Rehabilitation Science program at Bangladesh Health Professions Institute (BHPI)- an academic institute of CRP under Faculty of Medicine of University of Dhaka (DU). This is a 2-year full-time course under the project of "Regional Inter-pr ofessional Master's program in Rehabilitation Science" funded by SAARC Development Fund (SDF). I have to conduct a thesis entitled, " **Factors influence to utilize the available service of speech and language therapy for the children with communication difficulties."** under honorable supervisor, Dr. Shahjahan, Associate Professor and Head, Department of Public Health, Daffodils International University, Bangladesh. To assess the barriers of service utilization among children with communication disabilities in specialized rehabilitation centre in Bangladesh.

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Therefore I look forward to having your permission for data collection at your sub centre. I am anticipating your kind cooperation in this regard.

Sincerely yours,

Md. Shohidul Islam Mridha
Speech & Language Therapist &
Student of M.Sc. in Rehabilitation Science (1st Batch)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh
Cell: 01719296691, email-shohidulslt@yahoo.com

Permission Given
Rafique 12.03.16
In-Charge SLT.

Date:
To
Center Manager,
CARSA Foundation-CRP Barisal,
Barisal

Subject: Application for permission of data collection for master's thesis at CRP Sub Centre,

Sir,

With due respect I would like to draw your kind attention that I am a student of M.Sc. in Rehabilitation Science program at Bangladesh Health Professions Institute (BHPI)- an academic institute of CRP under Faculty of Medicine of University of Dhaka (DU). This is a 2-year full-time course under the project of "Regional Inter-professional Master's program in Rehabilitation Science" funded by SAARC Development Fund (SDF). I have to conduct a thesis entitled, " **Factors influence to utilize the available service of speech and language therapy for the children with communication difficulties."** under honorable supervisor, Dr. Shahjahan, Associate Professor and Head, Department of Public Health, Daffodils International University, Bangladesh. To assess the barriers of service utilization among children with communication disabilities in specialized rehabilitation centre in Bangladesh.

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Therefore I look forward to having your permission for data collection at your sub centre. I am anticipating your kind cooperation in this regard.

Sincerely yours,

Md. Shohidul Islam Mridha
Speech & Language Therapist &
Student of M.Sc. in Rehabilitation Science (1st Batch)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh
Cell: 01719296691, email-shohidulslt@yahoo.com

Permitted for data collection.

Rubina Akter
Centre Manager
CRP, Barisal.

Date:

Abdullah Al Zubayer
Principal
Willium & Marie Taylor School
Centre for the Rehabilitation of the Paralysed (CRP)
Chapain, Savar, Dhaka-1343.

Subject: Application for permission of data collection for master's thesis at your school.

Sir,

With due respect I would like to draw your kind attention that I am a student of M.Sc. in Rehabilitation Science program at Bangladesh Health Professions Institute (BHPI)- an academic institute of CRP under Faculty of Medicine of University of Dhaka (DU). This is a 2-year full-time course under the project of "Regional Inter-professional Master's program in Rehabilitation Science" funded by SAARC Development Fund (SDF). I have to conduct a thesis entitled, **"Factors influence to utilize the available service of speech and language therapy for the children with communication difficulties."** under honorable supervisor, Dr. Shahjahan, Associate Professor and Head, Department of Public Health, Daffodils International University, Bangladesh. To assess the barriers of service utilization among children with communication disabilities in specialized rehabilitation centre in Bangladesh.

Data collection will require the patients care giver and a small space of your department. Data will be collected by volunteer data collector (Jay Proti Das, Mainul Hossain, Taukir Ahmed, Rokey Roushni, Disha, Afroza Sultana, Manajir Hasan Kafi, Umme Kulsum, AK Shihab and agreed volunteer form divisional branch) for 6 weeks from 12th March 2016 to 25th May 2016. A self inventory semi structured questionnaire will be used that will take about 15 to 20 minutes followed by asking question. Related information will be collected from the patients' hospital card. Data collectors will receive informed consents from all participants. Any data collected will be kept confidential. Ethical approval is received from the Institutional Review Board (IRB) of Bangladesh Health Profession's Institute (BHPI).

Therefore I look forward to having your permission for data collection at your school. I am anticipating your kind cooperation in this regard.

Sincerely yours,

Md. Shohidul Islam Mridha
Speech & Language Therapist &
Student of M.Sc. in Rehabilitation Science (1st Batch)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh
Cell: 01719296691, email-shohidulslt@yahoo.com

Permitted for Data collection at WMTS.
10-5-16
Md. Abdullah Al Zubayer
Principal (Acting)
William & Marie Taylor School (WMTS)
(The Inclusive School of CRP)
CRP-Savar, Dhaka-1343

Date:
To
Geetashree Das
Incharge,
Department of Speech & language Therapy
CRP-Mirpur
Mirpur-14, Dhaka

Subject: Application for permission of data collection for master's thesis at SLT dept and pediatric unit, CRP Mirpur Centre.

Sir,

With due respect I would like to draw your kind attention that I am a student of M.Sc. in Rehabilitation Science program at Bangladesh Health Professions Institute (BHPI)- an academic institute of CRP under Faculty of Medicine of University of Dhaka (DU). This is a 2-year full-time course under the project of "Regional Inter-professional Master's program in Rehabilitation Science" funded by SAARC Development Fund (SDF). I have to conduct a thesis entitled, **"Factors influence to utilize the available service of speech and language therapy for the children with communication difficulties."** under honorable supervisor, Dr. Shahjahan, Associate Professor and Head, Department of Public Health, Daffodils International University, Bangladesh. To assess the barriers of service utilization among children with communication disabilities in specialized rehabilitation centre in Bangladesh.

Data collection will require the Speech & Language Therapy (SLT) pediatric outpatients' care giver and a small space of your centre department. Data will be collected by trained volunteer (Final year Student of SLT namely Mainul Hossain, Taukir Ahmed & Afroza Sultana) data collector from 12th March 2016 to 25th May 2016. A self inventory semi structured questionnaire will be used that will take about 15 to 20 minutes followed by asking question. Related information will be collected from the patients' hospital card. Data collectors will receive informed consents from all participants. Any data collected will be kept confidential. Ethical approval is received from the Institutional Review Board (IRB) of Bangladesh Health Profession's Institute (BHPI).

Therefore I look forward to having your permission for data collection at your organization. I am anticipating your kind cooperation in this regard.

Sincerely yours,

Md. Shohidul Islam Mridha
Speech & Language Therapist &
Student of M.Sc. in Rehabilitation Science (1st Batch)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh
Cell: 01719296691, email-shohidulslt@yahoo.com

Allowed for data collection
Geeta
10.05.16

The image cannot be displayed. Your computer may not have enough memory to open the image, or the image may have been corrupted. Restart your computer, and then open the file again. If the red x still appears, you may have to delete the image and then insert it again.

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

Ref. CRP-BHPI/IRB/03/16/007 Date: 12.03.2016

To
Md. Shohidul Islam Mridha
Part – II, M.Sc. in Rehabilitation Science
Session: 2014-2015, DU Reg. No.:911/2006-07
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal – "Factors influence to utilize the available service of speech and language therapy for the children with communication difficulties." by ethics committee.

Dear Md. Shohidul Islam Mridha,

The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application on March 3, 2016 to conduct the above mentioned thesis, with yourself, as the Principal investigator. The Following documents have been reviewed and approved:

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

Since the study involves answering a questionnaire that takes 15 to 20 minutes, have no likelihood of any harm to the participants and have possibility of benefit for the children with communication difficulties to utilize the service, the members of the Ethics committee has approved the study to be conducted in the presented form at the meeting held at 08:30 AM on March 10, 2016 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,

S M Ferdous Alam
Assistant Professor, Dept. of MSc in Rehabilitation Science
Member Secretary, Institutional Review Board (IRB)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

প্রশ্নপত্র

হসপিটাল আই ডি | | | | | | | | | **গবেষণায় অংশগ্রহন কারীর আই ডি নংঃ** | | |

গবেষণায় অংশগ্রহন কারীর নাম ঃ **মোবাইল নং** | | | | | | | | | | |

ক্রমিক নং	প্রশ্ন সমুহ	কোডিং ক্যাটাগরি	কোড
১.১	সাক্ষাৎকার গ্রহনের স্থান	সাভার সি আর পি =১ মিরপুর সি আর পি =২ রাজশাহী সি আর পি=৩ বরিশাল সি আর পি =৪ চট্টগ্রাম সি আর পি = ৫ সিলেট সি আর পি = ৬	
১.২	রুগীরসাথে আপনার সম্পর্ক কি?	মা=১, বাবা=২, রুগির ভাই/বোন=৩, দাদি/নানি=৪ গৃহকর্মী =৫, অন্যান্য=৬-----(নিদ্রিস্ট করুণ)	
১.৩	রুগীর প্রকৃত বয়সঃ	বছর ও মাসে লিখুন	বছর মাস
১.৪	রুগীর লিঙ্গ	ছেলে =১ মেয়ে=২	
১.৫	রুগীর প্রতিবন্ধিতার ধরন	যোগাযোগ =১ যোগাযোগ ও শারীরিক=২ অন্যান্য =৩------(নিরদ্রিষ্ট করে বলুন)	
১.৬	রোগের কারন	জন্মগত =১ জন্মের সময় জটিলতা =২ জন্ম পরবর্তী অ্যাঘাত=৩ জন্ম পরবর্তীরোগ =৪ অজানা=৫	
১.৭	মায়ের শিক্ষাগত যোগ্যতা	অশিক্ষিত=১ প্রাথমিক=২ মাধ্যমিক =৩ উচ্চমাধমিক=৪ গ্রাজুয়েট=৫ পোস্ট গ্রাজুয়েট=৬ অন্যান্য=------(নিদ্রিস্ট করুণ)=৭	
১.৮	পিতার শিক্ষাগত যোগ্যতা	অশিক্ষিত=১ প্রাথমিক=২ মাধ্যমিক =৩ উচ্চমাধমিক=৪ গ্রাজুয়েট=৫ পোস্ট গ্রাজুয়েট=৬ অন্যান্য=------(নিদ্রিস্ট করুণ)=৭	
১.৯	মায়ের পেশা	গৃহিণী =১ চাকুরী =২ ব্যবসা=৩ দিন মুজুর=৪ অন্যান্য (নিদ্রিস্ট করুণ) =৫	
১.১০	পিতার পেশা	কৃষি= ১ চাকুরী =২ ব্যবসা=৩ দিন মুজুর=৪ অন্যান্য =৫ ------(নিদ্রিস্ট করুণ)	
১.১১	বসবাস করেন কোথায়	শহর =১ উপশহর =২ গ্রাম=৩	
১.১২	বেশির ভাগ সময় বাচ্চার দেখাশুনা কে করে?	মা=১, বাবা=২, রুগির ভাই/বোন=৩, দাদি/নানি=৪ গৃহকর্মী =৫, অন্যান্য=৬-----(নিদ্রিস্ট করুণ)	
১.১৩	পরিবারের ধরন কি?	একক=১ যৌথ= ২	
১.১৪	পরিবারের আনুমানিক মাসিক আয় কত হয়?	---------- পাশের ঘরে সংখ্যায় লিখুন	
১.১৫	পরিবারের আনুমানিক মাসিক ব্যয় কত হয়?	---------- পাশের ঘরে সংখ্যায় লিখুন	
১.১৬	পরিবারের অর্থ উপার্জনের উৎস কি?	পিতার চাকুরি /ব্যবসা =১ মায়ের চাকুরি / ব্যবসা =২ বসা ভাড়া=৩ অন্যান্য=৪ -----(নিরদ্রিস্ট করে বলুন)	
১.১৭	Diagnosis	কোডিং পরবর্তীতে করা হবে	

সেবা ও সেবার মান সম্পর্কিত

ক্রমিক	প্রশ্ন সমুহ	কোডিং ক্যাটাগরি	কোড

নং			
২.১	কত সেশন স্পীচ থেরাপি নিচ্ছেন? সংখ্যায় বলুন	----------সেশন	☐☐☐
২.২	স্পীচ থেরাপী সেবা গ্রহনে কি কোন ধরনের সমস্যার সম্মুখীন হচ্ছেন ?	হ্যাঁ = ১ , না = ২ **যদি হ্যাঁ হয় তবে পরবর্তী ২.৩ প্রশ্ন জিজ্ঞেস করুন অন্যথায় এড়িয়ে যান	☐
২.৩	স্পীচ থেরাপী সেবা গ্রহনে কি কি সমস্যার সম্মুখীন হচ্ছেন ?	থেরাপিস্টের উপদেশ মাফিক এপয়েন্টমেন্ট না পাওয়া =১ পছন্দ মত সময়ে থেরাপি না পাওয়া=২ ঘন ঘন থেরাপিস্টের পরিবর্তন =৩ সময় সাপেক্ষ চিকিৎসা =৪ অন্যান্য----------()=৫	1 2 3 4 5 **একাধিক উত্তর গ্রহণযোগ্য
২.৪	নিয়ম অনুযায়ী ৪৫-৬০ মিনিট স্পীচ থেরাপী প্রদান করাহয় তা যথেষ্ট মনে করেন কিনা	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
২.৫	আপনি কি সরাসরি স্পীচ থেরাপি প্রদানের সময় কি আপনি বাচ্চার সাথে উপস্থিত থাকেন?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
২.৬	স্পীচ থেরাপিষ্ট কি আপনাকে সেশনে উপস্থিত থাকার ব্যাপারে উৎসাহিত করে।	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
২.৭	স্পীচ থেরাপী সেবা নেয়ার জন্য কতক্ষন সময় অপেক্ষা করতে হয় ?	১-৫ মিনিট=১ ৬-১০ মিনিট =২ ১১ মিনিট এর অধিক = ৩	☐
২.৮	স্পীচ থেরাপী সেবার মান কেমন মনে করেন ?	মান সম্মত =১ মোটামুটি সম্মত =২ মান সম্মত নয় =৩	☐
২.৯	স্পীচ থেরাপি দেওয়ার জন্য ব্যবহৃত জিনিস/সরঞ্জাম কতটা সহজ লভ্য মনে করেন?	সহজ লভ্য =১ মোটামুটি সহজ লভ্য =২ খুবই কম সহজ লভ্য=৩ ধারনা নেই=৪	☐
২.১০	প্রতিষ্ঠানের সার্বিক ব্যবস্থাপনার ব্যাপারেকি কোন ধরনের সমস্যার সম্মুখিন হচ্ছেন?	হ্যাঁ = ১ , না = ২ **যদি হ্যাঁ হয় তবে পরবর্তী ২.১১ প্রশ্ন জিজ্ঞেস করুন অন্যথায় এড়িয়ে যান	☐
২.১১	প্রতিষ্ঠানের সার্বিক ব্যবস্থাপনার ব্যাপারেকি কি কোন ধরনের সমস্যার সম্মুখিন হচ্ছেন?	ওয়েটিং রুম নেই=১ এপয়েন্টমেন্ট নিতে কাউন্টারে দীর্ঘ সময় অপেক্ষা করা=২ রুম অনেক গরম =৩ স্পীচ থেরাপি সম্পর্কে প্রচারণা নেই=৪ অন্যান্য---------- (নিরদ্রিস্ট করে বলুন)=৫	1 2 3 4 5 **একাধিক উত্তর গ্রহণযোগ্য
২.১২	আপনি কি সি আর পি ছাড়া অন্য কোন সেবা কেন্দ্র থেকে স্পীচ থেরাপি চিকিৎসা গ্রহন করেছেন ?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩ **যদি হ্যাঁ হয় তবে পরবর্তী ২.১৩ প্রশ্ন জিজ্ঞেস করুন অন্যথায় এড়িয়ে যান	☐
২.১৩	অন্য সেবা কেন্দ্রের স্পীচ থেরাপি সেবার মান কেমন ?	খুব ভাল=১ মোটামুটি ভাল =২ ভাল নয়=৩ ধারনা নেই=৪	☐
২.১৪	আপনি কি মনে করেন সি আর পি ছাড়া বাংলাদেশে অন্য কোন সেবা কেন্দ্র এরচেয়েও মান সম্মত স্পীচ থেরাপি চিকিৎসা দিচ্ছে?	হ্যাঁ = ১ , না = ২ ধারনা নেই=৩ অন্যান্য-------(নিরদ্রিস্ট করে বলুন =৪	☐
২.১৫	থেরাপিস্টের রুগ ও থেরাপি সম্পর্কিত দক্ষতা কেমন?	দক্ষ =১ মোটামুটি দক্ষ=২ মোটেও দক্ষ নয় =৩	☐
২.১৬	থেরাপিস্টের দিক থেকে কি ধরনের সমস্যা সম্মুক্ষিন হন ?	থেরাপিস্টের উপদেশ বুঝতে সমস্যা=১ থেরাপিস্টের আচরণ জনিত সমস্যা =২ বাচ্চার উন্নতি/অবনতি কি হল তা বলেন না=৩ পরামর্শ করে থেরাপির লক্ষ্য ঠিক করে না=৪ ৪৫ মিনিটের চেয়ে থেরাপী কম সময় দেয় =৫ থেরাপি প্রদানের সময় নিজের কাজে ব্যস্ত থাকে=৬ বৈষম্যমূলক আচরণ করে থাকে=৭ অন্যান্য---------- (নিরদ্রিস্ট করে বলুন =৮	1 2 3 4 5 6 7 ৪ ** একাধিক উত্তর গ্রহণযোগ্য
২.১৭	থেরাপিস্ট কি বাচ্চার সাথে আন্তরিক	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
২.১৮	থেরাপিস্টে কি আপনাকে কিভাবে বাড়িতে থেরাপী দিবেন তা শিখিয়ে দেয়?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
২.১৯	থেরাপিস্টে কি আপনাকে বাড়িতে থেরাপী করানোর গুরুত্তের ব্যাপারে অবহিত করেছে?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐

☐

☐

☐

২.২০	সি আর পি তে আপনি স্পীচ থেরাপি সেবা নিয়ে কতটুকু সন্তুষ্ট ?	খুব সন্তুষ্ট =১ মোটামুটি সন্তুষ্ট =২ মোটেও সন্তুষ্ট নয় =৩ **যদি ৩ নং উত্তর (মোটেও সন্তুষ্ট নয়) হয় তবে ৩.২২ প্রশ্ন জিজ্ঞাস করুন , অন্যথায় এড়িয়ে যান।	
২.২১	আপনি স্পীচ থেরাপি সেবা নিয়ে সন্তুষ্ট নয় কেন?	১ ২ ৩ **মুল কথাটি ২-৩ শব্দে লিখুন	কোডিং পরবর্তীতে করা হবে
	আর্থিক প্রেক্ষাপট		
৩.১	আর্থিক দিক বিবেচনা করে আপনার কি স্পীচথেরাপি সেবা গ্রহন করতে কি কোন সমস্যা হচ্ছে?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
৩.২	স্পীচ থেরাপী চিকিৎসার ব্যয় আপনার জন্য কেমন বলে মনে করেন?	সাধ্যের মধ্যের মধ্যে =১ মোটামুটি সাধ্যের মধ্যে =২ সাধ্যের মধ্যে নয় =৩	☐
৩.৩	স্পীচ থেরাপি সেবা নিতে মাসিক কত টাকা খরচ হয়?	**টাকার পরিমান পাশের ঘরে সংখ্যায় লিখুন	☐☐☐☐☐☐
৩.৪	যাতায়াত ও আনুশাঙ্গিক খরচ কেমন হয় বলে মনে করেন?	সাধ্যের মধ্যের মধ্যে =১ মোটামুটি সাধ্যের মধ্যে =২ সাধ্যের মধ্যে নয় =৩	☐
৩.৫	বাচ্চার দেখাশুনা ও যত্নের জন্য বেতন ভুক্ত কর্মী নিয়োগ করেছেন?	হ্যাঁ = ১ , না = ২	☐
৩.৬	যতটুকু সময় থেরাপি প্রদান করা হয় সেই অনুপাতে যে খরচ হয় তা কেমন মনে করেন?	বেশি=১ যথাযথ =২ কম=৩	☐
৩.৭	বাচ্চা কি নিয়মিত অন্য কোন চিকিৎসায় / থেরাপি সেবা নিচ্ছে?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩ **যদি উত্তর হ্যাঁ হয় তবে ৩.৮ প্রশ্ন জিজ্ঞাস করুন , অন্যথায় এড়িয়ে যান।	☐
৩.৮	অন্যান্য চিকিৎসা সেবার খরচের কারনে স্পীচ থেরাপি সেবা কি বাধা গ্রস্থ হচ্ছে?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
৩.৯	সেবা গ্রহনের জন্য সি আর পি এর কাছাকছি বাসা / হোটেল ভাড়া নিয়ে থাকছেন? ** এই উত্তর **না** হলে ৫.৩ প্রশ্ন জিজ্ঞেস করতে হবেনা।	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩ **যদি উত্তর হ্যাঁ হয় তবে ৩.১০ প্রশ্ন জিজ্ঞাস করুন , অন্যথায় এড়িয়ে যান।	☐
৩.১০	বাড়ি / হোটেল খরচের কারনে স্পীচ থেরাপি সেবা কি বাধা গ্রস্থ হচ্ছে?		☐
	পারিবারিক এবং সামাজিক প্রেক্ষাপট		
৪.১	থেরাপি সেবা গ্রহনের ক্ষেত্রে পারিবারিক ভাবে আপনার বাচ্চা কি লিংগ বৈষম্যের শিকার হচ্ছে?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
৪.২	থেরাপি সেবা গ্রহনের ক্ষেত্রে সামাজিক ভাবে আপনার বাচ্চা কি লিংগ বৈষম্যের শিকার হচ্ছে?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
৪.৩	আপনার বাচ্চা কি বয়সের কারনে থেরাপি সেবা গ্রহনের ক্ষেত্রে পারিবারিক ভাবে বৈষম্যের শিকার হচ্ছে?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
৪.৪	আপনার বাচ্চা কি বয়সের কারনে থেরাপি সেবা গ্রহনের ক্ষেত্রে সামাজিক ভাবে বৈষম্যের শিকার হচ্ছে?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
৪.৫	আপনার প্রতিবেশিরা কি বাচ্চার স্পীচ থেরাপি গ্রহনের ব্যাপারে অবগত কিনা?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩ যদি উত্তর হ্যাঁ হয় তবে ৪.৬ প্রশ্ন জিজ্ঞাস করুন , অন্যথায় এড়িয়ে যান।	☐
৪.৬	বাচ্চার স্পীচ থেরাপি গ্রহনের ব্যাপারে আপনার প্রতিবেশিদের দৃষ্টিভঙ্গি কেমন বলে মনে করেন?	ভাল =১ মুটামুটি ভাল=২ ভাল নয়-৩	☐
৪.৭	বাড়িতে করণীয় স্পীচ থেরাপির উপদেশ সমুহ পালনের ক্ষেত্রে পরিবারের অন্যান্য সদস্যদের আন্তরিকতা কেমন?	যথেষ্ট =১ মোটামুটি যথেষ্ট =২ আন্তরিক নয় -৩ বাড়িতে অন্য কোন সদস্য নেই =৪	☐
৪.৮	আপনি কি মনে করেন পরিবারের অন্যান্য সদস্য রা আপনাকে আরও সহযোগিতা করলে বাচ্চার উন্নতি আরও বৃদ্ধি পেত?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
৪.৯	আপনার পরিবারের সদসসরা স্পীচ থেরাপি সেবার গুরুত্ব কিভাবে মুল্যায়ন করে?	যথেষ্ট =১ মোটামুটি যথেষ্ট =২ সহযোগীতা করে না =৩	☐
৪.১০	সামিজিক কুপ্রথার কারনে বাচ্চার স্পীচথেরাপী সেবা নিতে কোন বাধার সমুক্ষিন হচ্ছেন কিনা ?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐

৪.১১	বাচ্চার চিকিৎসার ব্যাপারে চুড়ান্ত সিধান্ত কে নেয় ?	মা=১, বাবা=২, উভয়ে=৩,অন্য কেউ=৪---- ---- (কে---নিদ্রিস্ট করুন)	☐
ফিজিক্যাল প্রেক্ষাপট			
৫.১	আপনার বাড়ি থেকে থেরাপি সেবা কেন্দ্রের দুরত্ব কেমন বলে মনেকরেন?	**অংশগ্রহন কারি যা বলবে পশের ঘরে সঙ্খায় লিখুন	☐☐☐ মি
৫.২	দুরত্ত বিবেচনায় থেরাপি সেবা গ্রহনের জন্য সি আর পি এর কাছাকছি বাসা / হোটেল ভাড়া নিয়ে থাকছেন?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
৫.৩	যাতায়াত ব্যবস্থার / দুরত্তের কারনে স্পীচ থেরাপি সেবা গ্রহনে বাধা সৃষ্টি করছে?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩ **যদি হ্যাঁ হয় তবে পরবর্তী ৫.৪ প্রশ্ন জিজ্ঞেস করুন	☐
৫.৪	আপনার বাড়ি থেকে থেরাপি সেবা কেন্দ্রের যযাতায়াত কি কি বাধার সম্মুখীন হচ্ছেন বলে মনেকরেন?	প্রবেসগম্মতার কারনে বাধা সৃষ্টি করছে=১ একাধিক জান বাহন ব্যবহার =২ সময় সাপেক্ষ=৩ অন্যান্য=৪-------(নিরদ্রিস্ট করে বলুন)	☐
জ্ঞান ও সচেতনতা সংক্রান্ত			
৬.১	স্পীচ থেরাপির মাধ্যমে আপনার বাচ্চার যোগাযোগ সমস্যার কততুকু উন্নতি হবে আপনি কি মনে করেন?	অনেক বেশি =১ মোটামুটি =২ অনেক কম= ৩ মুটেও হচ্ছে না=৪	
৬.২	স্পীচ থেরাপি সম্পর্কে আপনার পরিবার কততুকু সচেতন বলে মনেকরেন?	অনেক সচেতন=১ মোটামুটি সচেতন =২ সচেতন নয়=৩	☐
৬.৩	আপনি কি মনেকরেন আপনার সচেতনতার অভাবে বাচ্চার যোগাযোগ দক্ষতা বিকাশে বিলম্বনা হয়েছে কিনা?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
৬.৪	আপনি কি মনে করেন স্পীচ থেরাপি সেবা সম্পর্কে সবার মাঝে সচেতনতার অভাব রয়েছে ?	হ্যাঁ = ১ , না = ২ মন্তব্য নেই=৩	☐
সার্বিক বিবেচনা			
৭.১	স্পীচ থেরাপি সেবা গ্রহনের জন্য আপনার কি অন্যকোন সমস্যা আছে যা আপনি এই এখন বলতে পারেন নি? বলুন	১ ২ ৩ ৪ **মুল কথাটি ২-৩ শব্দে লিখুন	পরবরতিতে কোডিং করা হবে।
৭.২	আর কি কি সুবিধা থাকলে আপনার স্পীচ থেরাপই সেবা নিতে আরও সহজ হত বলে মনে করেন ?	১ ২ ৩ **মুল কথাটি ২-৩ শব্দে লিখুন	পরবরতিতে কোডিং করা হবে।
৭.৩	স্পীচ থেরাপি সেবা নিতে গিয়ে সি আর পির কোন দিক আপনাকে সন্তুষ্ট হয়েছেন	১ ২ ৩ **মুল কথাটি ২-৩ শব্দে লিখুন	পরবরতিতে কোডিং করা হবে।

উত্তর দাতার স্বাক্ষর / টিপসই	তথ্য সংগ্রাহকের নাম ও স্বাক্ষর	তত্তাবধায়কের নাম ও স্বাক্ষর

Questionnaire

Hospital ID No | | | | | | | Research ID: | | | |

Participant Name: Cell Phone No: | | | | | | | | | | | |

1. Socio-Demographic & Associate Information (1.1-1.17)			
S N	**Questions**	**Coding Category**	**Code**
1.1	Place of interview	1=CRP Savar 2=CRP Mirpur 3=CRP Rajshahi 4=CRP Borishal 5=CRP Chittagong 6=CRP Sylhet	
1.2	Relation with the client	1=Mother 2=Father 3=Siblings 4=Grand mother 5=Paid Caregiver 6=Other ……(Specifiy)	
1.3	Age of child	Write as per client say	
1.4	Sex	1= Male 2= Female	
1.5	Types of Problem	1=Communication 2= Communication & Physical 3= Other ……..(Specify)	
1.6	Cause of the disease	1=Congenital 2=Birth complication 3= Trauma after birth 4= Any disease of complication after birth 5= Unknown cause	
1.7	Mother's Educational Qualification	1=Illiterate 2= Primary 3= Secondary 4= Higher Secondary 5= Graduate 6=Post Graduate 7= Other ------(Specify)	
1.8	Father's Educational Qualification	1=Illiterate 2= Primary 3= Secondary 4= Higher Secondary 5= Graduate 6=Post Graduate 7= Other ------(Specify)	
1.9	Mother's Occupation	1= House Wife	

		2= Service 3= Business 4= Day Labor 5= Other …..(Specify)	
1.10	Father's Occupation	1= Farming 2= Service 3= Business 4= Day Labor 5= Other …..(Specify)	
1.11	Living Area	1=Urban 2= Semi Urban 3= Village	
1.12	Most of the time who take care of the child	1=Mother 2=Father 3=Siblings 4=Grand mother 5=Paid Caregiver 6=Other ……(Specifiy)	
1.13	Type of Family	1=Single family 2=Joint family	
1.14	Income of the Family (Approximately)	Write in number	_____
1.15	Expenditure of the Family (Approximately)	Write in number	_____
1.16	Source of Family Income Answer could be all 4 options	1=Fathers Service / Business 2=Mothers Service/Business 3= House rent 4= Other …..(Specify)	
1.17	Diagnosis Answer could be more than 1 option	1= Cerebral Palsy 2= Autism 3= Speech & Language Delay 4= ADHD 5= Hearing Impairment 6= Meningitis	

2. Service & Service Quality Aspect (2.1-2.21)			
S N	**Questions**	**Coding Category**	**Code**
2.1	How many sessions did you attended for Speech and Language therapy?	Write in number	_____
2.2	Do you face any problem to avail speech therapy service?	1= Yes , 2= No **If yes please ask 2.3 otherwise skip the question	
2.3	What are the specific problem you faced to avail speech therapy? (Only Therapy service perspective not therapist)	1 = Appointment is not available as per therapist advice 2 = Appointment is not available according to my	

		choice 3 = Frequent change of Therapist 4= Other	
2.4	Do you think according to organization policy, 45-60 minutes therapy time is enough?	1= Yes , 2=No 3= No comments	
2.5	Were you present during the therapy session?	1= Yes , 2=No 3= No comments/? Not always	
2.6	Do the therapist encourage you to be present during the session?	1= Yes , 2=No 3= No comments	
2.7	How long do you need to wait to attend the session at out door?	1= 1-5 Minutes 2= 6-10 Minutes 3= 11 or more minutes	
2.8	How do you think about the quality of provided speech & language Therapy?	1= Quality full 2= Moderately Quality full 3= Not Quality full	
2.9	How do you think about the availability of speech & Language Therapy materials in Market?	1= Easily Available 2= Moderately Available 3=Hardly Available 4= No Idea	
2.10	Do you face any problem from over all organizational management?	1= Yes , 2= No **If yes please ask 2.11 otherwise skip the question	
2.11	What types of difficulty do you face from over all organizational management?	1= No waiting room 2= Long serial in cash counter for appointment 3= High temperature in Therapy room 4= Other -----(Specify)	
2.12	Do you receive speech and language therapy from other therapy centre except CRP?	1= Yes , 2= No **If yes please ask 2.13 otherwise skip the question	
2.13	What do you think what is the quality of other therapy centre except CRP?	1= Very good 2= Moderately good 3= Not good 4= No Idea	
2.14	Do you think any other therapy centre provides more better quality Speech & Language Therapy service rather than CRP?	1= yes 2= No 3= No Idea	
2.15	How do you perceive the expertise of the therapist regarding Disease and treatment?	1= Expert 2=moderately Expert 3= Not expert at all	
2.16	What types of difficulties you faced form your Speech and Language Therapist?	1= difficulty to understand therapists advice	

		2= therapist's behavioral problem 3 = Don't share child's progress / deterioration with care giver 4 = Don't set treatment goal by discussion with me 5 = Provide therapy for less than 45 minutes (Standard Time)" 6 = Therapist engaged in personal work during therapy session 7 = Therapist's shows discriminatory behaviour 8= Other -------(specify) 9= I did not face any problem	
2.17	Was the therapist cordial with your child?	1= Yes , 2=No 3= No comments	
2.18	Does the therapist teach you how to practice therapeutic activities at home?	1= Yes , 2=No 3= No comments	
2.19	Does the therapist inform you the importance of home exercise of Speech Therapy?	1= Yes , 2=No 3= No comments	
2.20	How much satisfied you are to receive the speech and language therapy service from CRP?	1= Highly satisfied 2= Moderately satisfied 3= Not satisfied at all If answer is option 2 or 3, please ask question no 2.21	
2.21	Why you are not satisfied to Speech and Language Therapy service?	1---------- 2.---------- 3.---------- Write the main key words	

3. Economic & Financial Aspect (3.1-3.10)			
S N	**Questions**	**Coding Category**	**Code**
3.1	Economically do you have any problem to avail speech therapy service?	1= Yes , 2=No 3= No comments	
3.2	How do you think regarding the cost of Speech & Language therapy service to you?	1= With in capacity 2= Moderately with in capacity 3= beyond the capacity	
3.3	What is the monthly expenditure of speech &languagetherapy?	Write in number	
3.4	How do you think regarding the cost of transportation and associated expenditure to	1= With in capacity 2= Moderately with in	

	avail Speech & Language therapy service to you?	capacity 3= beyond the capacity	
3.5	Do you recruit any paid care giver for the child?	1= Yes , 2=No 3= No comments	
3.6	How do you think of the cost therapy in proportionate to the time?	1= Highly Cost 2= Appropriate cost 3= Less Cost	
3.7	Does the child currently receives any other treatment or therapy regularly?	1= Yes , 2= No **If yes please ask 3.8 otherwise skip the question	
3.8	Does the expenditure of other treatment interrupts the speech therapy service?	1= Yes , 2=No 3= No comments	
3.9	Do you rent a house or hotel nearby CRP to get the speech therapy?	1= Yes , 2= No **If yes please ask 3.10 otherwise skip the question	
3.10	Does the expenditure of hostel or rented house interrupts to received speech therapy service?	1= Yes , 2=No 3= No comments	

4. Family and Social Aspect (4.1-4.11)			
S N	**Questions**	**Coding Category**	**Code**
4.1	Is yourchild discriminated for gender by family members to receive the speech and Language therapy service?	1= Yes , 2=No 3= No comments	
4.2	Is yourchild discriminated for gender by society to receive the speech and Language therapy service?	1= Yes , 2=No 3= No comments	
4.3	Is yourchild discriminated for age by family members to receive the speech and Language therapy service?	1= Yes , 2=No 3= No comments	
4.4	Is yourchild discriminated for age by society to receive the speech and Language therapy service?	1= Yes , 2=No 3= No comments	
4.5	Does your neighbor know that your child received speech and language therapy?	1= Yes , 2= No **If yes, please ask 4.6 otherwise skip the question	
4.6	What is the attitude of your neighbors toward your child regarding the benefit of speech and Language therapy service?	1= Highly Positive 2= Moderately Positive 3= Not Positive at all	
4.7	How much cooperative are other family members to carry out the speech and Language therapy at home?	1=Fully Cooperative 2= Moderately cooperative 3= Not cooperative	
4.8	Do you think if other family members would help you more to carry out the speech and	1= Yes , 2=No 3= No comments	

	Language therapy at home, the improvement of the child would be much better?		
4.9	How your family membersfeel the importance of speech and Language therapy service?	1= Highly Important 2= Moderately Important 3= Not at all	
4.10	Does social stigma create obstacles to carry out the speech therapy service	1= Yes , 2=No 3= No comments	
4.11	Who is responsible to take final decision regarding Childs treatment?	1= Mother 2= Father 3= Both Father and Mother 4= Other------(Specify)	

5. Physical Aspect (5.1-5.4)			
S N	**Questions**	**Coding Category**	**Code**
5.1	What do you think is about the distance from your house to CRP?	Write in number	
5.2	Do you rent any house/hotel nearby CRP by considering the distance of your house?	1= Yes , 2=No 3= No comments	
5.3	Does the distance or transportation system interrupts to take Speech and Language Therapy service?	1= Yes , 2= No **If yes please ask 5.4 otherwise skip the question	
5.4	What type of barriers do you face for transportation system in order to go to therapy centre?	1=Accessibility problem 2= Multiple transport 3= Time consuming journey 4=Other ------(Specify)	

6. Knowledge & Awareness Aspect (6.1-6.4)			
S N	**Questions**	**Coding Category**	**Code**
6.1	How do you think about the extent of improvement of your child's communication by speech and language therapy	1= Full improvement 2= Moderately improvement 3=very little improvement 4= No improvement	
6.2	How do you think of your family members level of awareness regarding speech and language therapy	1=Highly Aware 2= Moderately Aware 3=Very poor aware 4= Not Aware at all	
6.3	Do you think that your lack of awareness contributes to delayed development of the child?	1= Yes , 2=No 3= No comments	
6.4	Do you think there is lack of awareness of regarding speech and language therapy among general people?	1= Yes , 2=No 3= No comments	

7. Additional Information (7.1-7.3)			
S N	**Questions**	**Coding Category**	**Code**
7.1	Do you have any other complaints, perceived barriers that you can't express yet in order to utilize speech and language therapy?	1---------- 2.---------- 3.---------- Write the main key words	
7.2	What else facilities can help you to utilize the speech and language therapy service?	1---------- 2.---------- 3.---------- Write the main key words	
7.3	In what aspect you are satisfied in order to take speech and language therapy at CRP?	1---------- 2.---------- 3.---------- Write the main key words	

Questionnaire for the SLT focus group members (has that questionnaire remained the same as your/my proposal per 23-11-2015?