Stuttering Treatment: What do Doctors do in Bangladesh

A Research presented to the

Bangladesh Health Professions Institute (The academic institute of CRP)

University of Dhaka

Syeda Tazkia Sultana

Session: 2010-2011

imaslt06@gmail.com

Supervisor: Md. Sazzad Hossain

Lecturer

Department of Speech and Language Therapy

BHPI, CRP, Savar, Dhaka-1343

In partial fulfilment of the requirements for the degree of

B. Sc in Speech and Language Therapy

February, 2015

Approved By

Supervisor

Md. Sazzad Hossain

Lecturer

Department of Speech and Language Therapy

BHPI, CRP, Savar, Dhaka-1343

Md. Jahangir Alam

Assistant Professor & Head

Speech and Language Therapy Department

BHPI, CRP, Savar, Dhaka-1343

Prof. Dr. M. A. Quader

Principal, BHPI

CRP, Savar, Dhaka-1343

Dedication

This study is dedicated to my dear daughters and sons

Shayon, Zaraan, Afnan, Afrin, Ihsan, Naveed

Love You all Dears....

Glossary of Terms

AIISH: All India Institute of Speech & Hearing

ASHA: American Speech-Language Hearing Association

BHPI: Bangladesh Health Professions Institute

CAM: Complementary and Alternative Medicines

CASLPA: Canadian Association of Speech-Language Pathologists and Audiologists

DSM: Diagnostic and Statistical Manual of Mental Disorder

ENT: Ear-Nose-Throat

FCM: Fluency Functional Communication Measure

GP: General Practitioner

MDT: Multi Disciplinary Team

NOMS: National Outcomes Measurement System

PWS: Person with Stuttering

SLP: Speech-Language Pathology

SLT: Speech &Language Therapy

SPSS: Statistical Package for the Social Sciences

TATS: Teachers Perception Towards Stuttering

Acknowledgement

Content

Abstract

The title of this study is "Stuttering Treatment: What do Doctors do in Bangladesh?" The aim of this study was 'To determine the current practice of doctors about the treatment of stuttering in Bangladesh.' The specific objectives were 'To identify the treatments of stuttering that are usually provided by doctors' and 'To identify the preferences of the doctors for the treatment of stuttering.'

The study is based on phenomenological design under qualitative research method. The sample of the study was the paediatricians or general physicians or medicine specialists who are continuing their practices for at least 2 years. The number of sample was 7 who were selected from the population through purposive sampling method. In this study, face to face interviewing technique was applied to collect data using a 13-item semi-structured questionnaire (includes both close ended and open ended questions). The data obtained were analysed through content analysis procedure.

The result of the study showed that the participating doctors use evidence based diagnosis procedure. In case of providing treatment, they often use medicine and strategies e.g. shaping, relaxation etc.separately. But there is no evident basis of their using treatment strategies as there is no part included in the main course curriculum. They prefer to use those simultaneously. Participating doctors agreed that there are underlying psychological and physiological impairments and also have personality trait characteristics among the PWS. The responses of the participants indicate that they prefer to treat the PWS in MDT approach. They have some basic ideas about SLTs e.g. who are they, how they work etc. but they do not know about the current practices of SLT in Bangladesh. They do know that SLTs play effective roles in the treatment of stuttering

CHAPTER I   **INTRODUCTION**

1.1 Introduction

Speech & language therapy (SLT) is a new and growing profession in Bangladesh. According to the American Speech-Language Hearing Association, speech-language pathologists practice in a wide variety of work settings including schools, hospitals, clinics, private homes, nursing homes and more. The professionals serve both children and adults with different disabilities. As a result of the diverse environments in which speech language pathologists (SLPs) are employed, they work in collaboration with people from many other professions. The most common settings that employ SLPs in Bangladesh are schools, hospitals, and clinics. While working in these settings SLPs interact with teachers, psychologists, doctors, nurses, social workers, and occupational and physical therapists.

Stuttering or disfluency is one kind of difficulties which is classified as a communication disorder by Diagnostic and Statistical Manual of Mental Disorder, 5th ed. (DSM-V). Stuttering foundation defined stuttering as a communication disorder that affects approximately 68 million people in the world, or about 1% of the world's population (Kittilstved, 2014). Craig, Hancock, Tran, Craig, & Peters (2002) estimated that the overall prevalence of 0.72% of the population in Australia has this fluency disorder, which mostly begins in childhood. Earlier in this century speech pathologists and others believed that fluency disorder only existed in industrialized countries but later on studies suggested that this disorder exists in every country and cultural group. In Canada, US, UK, Japan the prevalence is 1% of the population. In West-Indies it is 3-4% and in Africa 8-9%. In India no studies are documented but the All India Institute of Speech & Hearing (AIISH) suggested that 10% of all clients with communication disorders may have dysfluency (Pelletier, 1997). Gaskill (2007) mentioned that there may be up to 20% of people in developing countries like Bangladesh who have some kind of disability, and almost half of these have a communication disability.

All around the world there are many researches on stuttering that have been conducted from different perspective of views. Some of them were aimed to know different professionals', and also general publics' perception towards stuttering e.g. Betz, Blood & Blood (2007),

Hughes (2008), Nichollas (2013) etc. On the other hand for the treatment or management of stuttering, different professionals have been playing role from last few decades e.g. physicians, SLPs, educators etc. Their roles, treatment strategies etc. are different according to their perception about any condition as well as stuttering that are referenced in many e.g. Tanner (2003), Yairri & Carrico (1992) etc.

In this modern era, in order to remain relevant and effective, one needs to be more open and have a participatory model of interaction. According to Sukdev (1998) as cited in Khoosal (2007), the medical professional needs to reposition themselves in order to participate in the model of interaction.

So, the researcher's view is to work in this area, and to learn more about the current practice of the treatment or management of stuttering so that it helps to work collaboratively with other professionals.

1.1   1.2 Background and Literature Reviews

According to Marshell & Warner (1998), Stuttering refers to the inability to speak fluently or smoothly. Craig, Hancock, & Craig (1996), defined stuttering as a disorder in the rhythm of speech in which the individual knows what he/she wishes to say but at the same time is unable to say it. Stuttering facts and information (2010) defined dysfluency as a means of any disruptions with breaks, irregular flow, repetitive prolongation etc.

University of Rochester Medical Centre (2010), stated that basically there are three types of dysfluency- developmental, neurogenic and psychogenic. It has been argued (Turnbull & Stewart 1999) that there is no definite answer about the causes of dysfluency. Private Healthcare's website (2010) claims that the actual dysfluency is caused by an incoordination of the muscles and nerves involved in speech. Tanner (2003) classified the causes of dysfluency into three theories- psychological, learning and organic. Stuttering facts and information (2010) claimed that four factors may be responsible for stuttering- genetics, developmental delay, neurophysiologic disruptions and family dynamics.

In medical science, for the treatment of any conditions there are roles of different health professionals. Each and every professionals play role from their perspectives and philosophy.

Health professionals include doctors/ physicians, therapists, nurses etc. Doctors/ physicians usually provide drugs or surgical treatment. Until the 1st half of the 19th century there was an idea that dysfluency may be caused by a dysfunction of the tongue. At that time different types of intervention strategies attempted to remove the dysfluency by the phycians e.g. jumping in cold lakes, drinking tea etc. Even surgical treatment was also provided from the later part of 1800's to the early part of 1900's. (Tanner, 2003). According to Lawrence and Barclay (1998) as cited in Tanner (2003), dysfluency has also been treated by physicians with many drugs e.g. benzodiazepines, calcium channel blocker, beta blocker etc. but some drugs are addictive and some have serious negative side effects. In this modern era besides medicine based treatment and/or surgical treatment approach, there is ongoing another form treatment approach or health care system which is considered as complementary and alternative medicines (CAM). According to the National Institute of Health, South Africa (2007) as cited in Khoosal (2007), complementary and alternative medicines (CAM) are a group of diverse medical and health care systems, practices and products, which are not presently considered to be a part of conventional medicine though these are scientifically proved. These include homeopathic medicine, dietary supplements, therapeutic touch etc. Hospitals, health care organizations etc. of different countries have been providing both types of health care system. Greene (1935), a medical director of a New York national hospital for speech disorders, wrote in an article that if a person with fluency disorder comes to the hospital, they at first make a physical examination, then a speech test and finally they are examined by a psychologist. According to Tanner (2003), speech and language therapy is the best treatment approach to treat stuttering although doctors, psychologists etc. professionals also work with in this area. Result of the dissertation of Yairri & Carrico (1992) as cited in Hughes (2008) reported that parent who are concerned about stuttering in their child's speech, often turn to the child's pediatrician for advice. The study was conducted among 439 padiatricians of USA. About 62% o the participating paediatricians use both medicines and strategies. 59% of overall participants refer the child to SLPs. The dissertation was based on a questionnaire where the participants needed to state the pre-schoolers in terms of emotional stability, intelligence, maturity and also participating paediatricians practice pattern of treatment of stuttering.

This study is aimed to determine the preferences of the doctors for the treatment of stuttering. In that case it needs to take under consideration that, what the ideas, perceptions, knowledge etc. have among the doctors about the SLT. Not only for the doctors but also for other health

professionals it needs to know about other profession. Many researches have been conducted to know about each others' role, perception, knowledge etc. Marshell, Goldbart, and Phillips (2006) conducted a research that aimed to describe, explore and explain the thoughts, understandings, perceptions, beliefs and knowledge about SLT in a group of parents from East Manchester, UK, whose pre-school children had been referred with suspected language delay. The result showed that these parents had a variety of views about the role of SLT, and they believed that it could provide an effective service. On the other hand there is a research by Soomro et. al (2013), called 'Perception of Physicians About Physiotherapy in Shifa International Hospital Islamabad." The aim of the study was to raise awareness in physicians about the profession of physiotherapy. The result showed that 100% of the physicians knew about physiotherapy, and 74% of them agreed that physiotherapists should spend more time with doctors. 90% of physicians agreed that the lack of communication between physiotherapists and doctors can affect the patient condition. So the result of the study shows the importance in treating any condition of knowing about another professionals' role, their perception etc. Khoosal (2007) conducted a survey in South Africa about the perceptions of Homeopathy by registered Chiropractors. The objective of the study was threefold: to assess the perception chiropractors have regarding homeopathy, to assess the extent of the interaction and patient referral between chiropractors and homeopaths and to determine the presence of associates between variables. The result showed that the majority of chiropractors had a high level of knowledge of the status of homeopathic education in South Africa. 95.3% perceived that homeopathy is legally recognised in South Africa, 91% perceived that homeopathy has a scientific basis and 98% perceived that it is a legitimate form of medicine. 95.3% believed that homeopathy is suitable for use in conjunction with chiropractic treatment. Klassen & Kroll (2005) conducted a survey among Speech and Language pathologists on the opinions about stuttering and its treatment. The aim of the study was to track the shifts in opinion between a number of issues which had been raised in a previous study. Klassen & Kroll's study used 20 close-ended questionnaires to survey how SLTs work with stuttering and how they determine the client's positive outcome etc. Results of the survey indicated that a lower percentage (52.1 %) of the respondents are treating fluency disorders than had been reported in 1990.There have been no discernible shifts in opinions regarding academic and clinical preparation for fluency disorders since 1990. Several interesting differences between Canadian and American attitudes toward fluency disorders and their treatment were found including a greater emphasis placed on the psychological aspects of fluency disorders by clinicians practicing in the United States. Hobbs (2012)

conducted research on teachers' perceptions and knowledge about stuttering before and after their In-service training. Analysis of the study's results suggested that a statistically significant difference existed between teachers' overall knowledge about stuttering before and after the in-service training by which it was influenced. Irani and Gabel (2008) conducted a study to assess teachers' attitudes toward a person with stuttering (PWS) compared to fluent speakers. The results suggested that the participants did not have with negative attitudes toward PWS. Educational and experiential factors were found to have no systematic effect on the teachers' attitudes toward PWS.

1.3 Significance:

In Bangladesh Speech & Language Therapy is a new profession. It is not enough promoted countrywide either towards other health professionals or general people. By conducting the study, investigator aimed to know the doctor's current practice pattern and their preference that would be helpful for encouraging the cooperation between health professionals' for the benefit of patients. In this way multi-disciplinary treatment is more likely to be achieved. Doctors provide treatment to the people according to their point of view. For each new profession, it needs to determine the existing area where only the professionals can play role. Also it needs to know about possible sectors where there are others to give services but the new professionals have roles to play. 'Treatment of stuttering' in such an area where an SLTs can play role individually as well as collaboratively with other professionals e.g. doctors, psychologists etc. In context o Bangladesh, it is important to know about the treatment approaches that are provided by the doctors or other professionals in besides and/or absence or limited number of SLTs. This study is also helpful to know the perception of participating doctors about SLT. That will be helpful to get an idea about whether it is needed to educate or aware them or not. The result of the study will also be helpful to get an idea about the field of SLT, how they need to promote themselves, their professions etc. In future further research on the tertiary level of the topic will be helpful for all to get an overall treatment approaches that are practicing in Bangladesh. Moreover the research should be helpful to promote the SLT profession with evidence base.

1.4 Operational Definition:

1.4.1 Stuttering:

According to American Psychiatric Association, 5th ed (DSM-V) as cited in Kittilstved (2014), "Stuttering is classified as a communication disorder and is characterised by up to seven criteria including three key groups of stuttering behaviour: repetition, prolongation and blocks. Other criteria are pausing within a word, circumlocutions and producing words with excessive physical tension. Stuttering is considered to have two components: overt and covert."

In this study the word 'stuttering' is defined as a communication disorder which is characterised by repetition, prolongation, blocking which may occur in any time of a person's lifespan.

1.5 Objectives

1.5.1 General objectives

'To determine the current practice of doctors about the treatment of stuttering in Bangladesh.'

1.5.2 Specific Objectives

- To identify the treatments of stuttering those are usually provided by doctors.
- To identify the preferences of the doctors for the treatment of stuttering.

CHAPTER II   **METHODOLOGY**

2.1 Study design

The investigator chose phenomenological design under qualitative type of method to conduct the research. According to Bailey (1997), qualitative design can be implemented to any study where the investigator is concerned with people's views on their own life or the situation or their own views regarding existing circumstances such as how they are dealt with their disabilities or problems. According to Hicks (2000), qualitative techniques can be very usefully employed to describe phenomena of hospitals or health care centre or their practices and/or practitioner etc. On the other hand phenomenological design is the best approach that explores people's experiences (Depoy & Gitlin, 1998). In this study the method and the design was selected as it allows finding out in-depth information. Also this design was helpful to describe the overall phenomena of the practice of the participating doctors.

For analyzing, the investigator used content analysis procedure. For this, the investigator at first coded the answers of the each participant and then divided them into categories under theme.

2.2 Study Place

Researcher chose Mirpur, Dhaka to collect the data and the data were collected from the clinic or home of the doctors.

2.3 Sampling

2.3.1 Study population

The doctors who are continuing their services in Mirpur, Dhaka.

2.3.2 Sample Size

According to Depoy & Gatlin (1998), a small number of potential study participants are appropriate for qualitative methodology where they provide a representative picture of the study. In this study the number participants was 7. During the investigation when the investigator started to get similar answer from 3-4 participants at a time then she stopped to collect data.

1.2 **2.3.3 Sampling method**

The investigator chose purposive sampling method to select sample from the population who met with the criteria those were selected. According to Wallen & Frankel (2000) qualitative researches most often use purposive sampling rather than other e.g. random sampling strategies, it is designed to enhance the understanding of selected individual's or group's experience. It was used for the study because it is based on the predesigned criteria. As a result samples were select by considering a pre-defined inclusion criterion that made easier for the investigator to collect sample from the huge population.

2.4 Characteristics of the Participants

2.4.1 Inclusion criteria

Researcher has chosen as population

- General physician/ child specialist/ medicine specialist.
- Those who are continuing their practices for at least 2 years.

Reason for inclusion criteria: A general practitioner, also called a GP or generalist, is a physician who does not specialize in one particular area of medicine. GPs provide routine health care (e.g., physical examinations, immunizations) and assess and treat many different conditions, including illnesses and injuries. They often have regular, long-term patients and provide ongoing medical care to both male and female patients in all age groups. People who are seeking medical care usually contact a general practitioner first (What is general Practitioner GP, 2015). On the other hand Nicholls (2013) mentioned that person with fluency disorder generally go to general physician or child specialist and/or medicine specialist in absence/ unavailability of SLTs. So, for obtaining the aim of the study, the investigator has chosen the criteria of the population.

2.4.2 Exclusion criteria:

Researcher will exclude

- Neurologist/ ENT specialist/ Psychiatrist.

Reason for exclusion criteria: The exclusion criteria has been selected because the doctors provide higher level treatment than the general physician/child specialist/medicine specialist

specially in case of the treatment of stuttering. So various types of data will be gathered that will difficult to analysis and get the desirable outcome within the given short period of time.

2.5 Data collection Tool

Semi-structured questionnaire and face to face interview method were used to conduct the study to ensure some specific topics but also it should allow the researcher and participants to ask questions which may arise from the discussion and here participants obtain autonomy to explain their opinion and to share knowledge from their own point of view (Bailey, 1997). A 13-item questionnaire (includes both close ended and open ended questions) was designed that included 8 close-ended questions 5 open ended questions. Close-ended questions were taken from the survey instrument named as 'Teachers Perception Towards Stuttering (TATS)' used by Klassen & Kroll (2005) which were slightly modified (in the multiple options of the questions). Open-ended questions were selected through the study of different research papers and analyse the questionnaires of the papers. Khoosal (2007), surveyed about the perception of homeopathy treatment by registered Chiropractors in South Africa where he used a set of questionnaire includes both open-ended and close-ended questions modified from previous survey questions. To address the topic these set of questionnaires helped the investigator to get an idea to conduct the questionnaire.

1.2.1   2.6 Data collection Procedure

The investigator at first verbally described the reason for coming to the participating doctors, the aim of the study etc. and also showed the written permission letter from the authority to conduct and collect the data for the research. Then investigator took consent from the participating doctors through a consent form. A written questionnaire was used to conduct the study where 8 of the questions were answered through tick mark. 5 open ended questions were supposed to answer verbally. Researcher's opt was to record the verbal answer of the participating doctors with the consent of them. But most of the participants preferred written answer. As per aimed to get the best result, researcher also asked verbally the questions simultaneously, when participants were writing down where researcher also took verbal consent from them. Researcher took note of key point of the verbal answers and then matched with the written one. As six participants were comfortable to answer in English, researcher did not need to translate those but for the other participant it was needed. For translating the

answer, researcher used forward- backword translation method to be more reliable of the responses that was done through getting help from peers.

2.7 Pilot Study

According to Momin (2003), a pilot study is necessary to conduct before starting data collection because it helps the investigator to improve their data plans. On the other hand Anam (1996) suggested that from the pilot study investigator comes to know how much time is needed to complete the interview, helps to be ready for any unexpected happenings during the main study and if investigator would face any unexpected situation he/she would be aware during final data collection.

In the study the researcher conducted pilot study on to 3 doctors who did not considered as sample. Pilot study was conducted to ensure that the questionnaire will be enough understandable towards the participating doctors and also to ensure that the questionnaire will be enough to achieve the aim of the study. After conducting the pilot study, investigator decided that there was no needed to make changes in the questionnaire.

2.8 Ethical Consideration

At first the investigator submitted research proposal to the ethics committee of BHPI. Then the investigator took the permission from the course coordinator of the Department of Speech and Language Therapy at Bangladesh Health Professions Institute (BHPI) to conduct the study and data collection. When preparing the data collection tool, the investigator tried best not to use any questions that harm the profession of the participants. Before finalizing the data collection tool, investigator took approval from the supervisor. During data collection the investigator at first verbally described the participant about the aim, purpose etc. of the study, and a brief idea about the institute from where the investigator has come. Investigator also showed the permission letter to the participant. Then investigator took consent from participant through written form to take part in the study willingly. Participants were also informed that their information will be published but their name and address would remain anonymous. The participants were also informed that they have total right to stop at any during the study.

This section outlines the methodological process of the study designed by the investigator to meet the study aim and objectives. The aim was to investigate the understanding of teachers regarding the behavioural management strategies of children with autism. This chapter discusses the methodology behind this study.

3.1 Analysis, Interpretation and Discussion

In this study there were 7 participants. Three were child specialists, 2 were general physicians and the remaining 2 were medicine specialists. The male and female participant ratio was 5:2.

3.1.1 Theme-1

To find out the caseload & practice of participating doctors in case of referral/ providing treatment of stuttering.

  Category 1.1: Caseload.

  Category 1.2: Referral and treatment strategies

  Category 1.3: Diagnosis Procedure

3.1.2 Theme-2

To find out how much idea the participating doctors have about speech & language therapy for the treatment of stuttering.

  Category 2.1: Effectiveness of SLT in stuttering treatment.

  Category 2.2: SLT & its role in the treatment of stuttering.

  Category 2.3: Current practice of SLT in Bangladesh.

3.1.3 Theme- 3

To find out the perceptions of participating doctors on person with stuttering.

  Category 3.1: Presence of underlying impairment of stuttering.

  Category 3.3: Presence of personality trait characteristics.

3.1.4 Theme- 4

To find out the level of confidence of the participating doctors & what is the basis of their practice/ knowledge in case of providing the treatment of stuttering.

  Category 4.1: Confidence level and basis of it.

[Theme-1 : To find out the caseload & practice of participating doctors in case of referral/ providing treatment of stuttering.]

1.2.2 Discussion of Category 1.1: Caseload

From the result of the study, it appears that majority of the participating doctors rarely have the client who have stuttering problem. 5 out of 7 participants stated that they rarely deal with the person with stuttering (PWS), where rest 2 participants never had any case of stuttering. The participating doctors also stated that among the client group, 3-7 years old children are more frequent than of other ages. Only 1 of the participants said that he had the client group of all ages with stuttering. According to Bloodstein (1995), developmental stuttering is very common, and 80-90% of cases begin by age 6. In 75% of developmental stuttering cases, spontaneous recovery can be seen. On the other hand Hunsker (2011) reported in his research that though the prevalence shows that up to 6-7 year children are common to take part in treatment for stuttering but it needs to diagnose properly whether they really have stuttering or not and also investigation of the ratio of it is important to do. So, the age group of the client of participating doctors represents the fact that parents themselves are aware of their child as they take their child to the doctors. This also refers that there is awareness among the person with stuttering and their parents/ carers.

Discussion of Category 1.2: Referral and treatment strategies

From the result of this section of the study appears that the participating doctors preferred to refer the person with stuttering to other professionals or specialist instead of providing treatment by themselves. 3 out of 7 participating doctors preferred to refer the PWS to other specialists e.g. neurologist, psychologist, ENTs etc. On the other hand another 3 participating doctors preferred to refer the PWS to the Speech and language therapist (SLTs). Only 1 of the participating doctors refers the PWS to both other specialist and SLTs. As the participating doctors prefer to refer the PWS to others, it is important to consider the literature that suggests to the practice pattern of the neurologists, psychologists as well as speech-language therapists. Walker (2008) wrote about the neurological causes and treatment practice pattern of stuttering on the basis of previous researches. There the writer mentioned that different studies show that there is a neurological basis for stuttering, and also describe about the practice pattern of neurologists. Walker describes studies showing that stutterers may be

using the right hemisphere of their brain when they are talking, which means that the left hemisphere (the one usually responsible for speech) is being interrupted. This writer also reported that in the case of providing treatment, neurologists use different strategies e.g. Valsalva mechanism, electric anti-stuttering device, prescribing drugs etc.

There is also published literature providing information about the psychologists' practice pattern in stuttering and their preferences. Wilder (2013) wrote in her article, referencing different research studies, that psychologists sometimes believe that there are psychological reasons for stuttering e.g. anxiety, attention deficit disorder, avoidance behaviour. In these cases psychologists prescribe medicine for reducing and relaxing the brain. These medicines include, Dopamine blocker, Pagoclone etc. which have positive effects on reducing anxiety.But both the above articles, which were research based, suggested that a physician or a psychologist needs to work collaboratively with a speech-language therapist to get better outcomes, so in those cases they need to refer the PWS to SLTs.

In any case, if the participating doctors have to provide treatment, 5 out of 7 participants provide both medicine and strategies (e.g. shaping, relaxation etc.), whereas 1 participant provide only medicine and another 1 participant use only strategies. An article by Scott (2006), referring to Dr. Maguire's research, states that there is a chemical pathway which is responsible for communicating information, and influence one's mood and motor behaviour. In this article he first described the chemical properties of the drugs that have been tested for stuttering and how they bring benefit, although according to Turnbull & Stewart (1999), drugs or some medications which are prescribed by some physicians for the treatment of stuttering may also have side effects.

Discussion of Category 1.3: Diagnosis Procedure

The purpose of this category is to identify the diagnosis procedures of stuttering that are used by participating doctors. The result of the study clearly showed that the participating doctors diagnose the PWS mostly by obtaining the previous history, either from the patients themselves, parents or carers, and also through clinical examination. In clinical examinations doctors check whether there is any physical deformities e.g. tongue tie. Participant 6 answered the question 'how do you diagnose stuttering' (written format) as such,

> *"By history & clinical examination of the patient. Mostly family history."*
> *"By talking with patient and/or parents."* (Participant 2)

In some cases participating doctors' statements indicated that they also took information from direct observation in order to diagnose appropriately. Participant 5 answered that,

"By hearing the patient & takes the history from parents & relatives."

So, it is clearly indicated from the result that in order to make appropriate diagnoses, participating doctors use clinical examination, analysing previous history as well as direct observation. As stuttering is defined as the combination of overt and covert behaviour, the above procedures give a brief idea to anyone of the existence of stuttering. So, above diagnosis procedure can be recognized as evidence based. Therefore this confirms that doctors currently practice evidence based diagnoses. On the other hand they don't usually provide treatment themselves, they refer them to other specialists e.g. ENTs, Neurologists as well as SLTs. It indicates that they understand or believe that there are physiological and psychological bases for the condition.

[Theme-2: To find out how much idea the participating doctors have about speech & language therapy for the treatment of stuttering.]

Discussion of Category 2.1: Effectiveness of SLT in stuttering treatment

The aim of the category was to identify the participating doctors' opinion about how much the effectiveness of SLT in the treatment of stuttering. The result showed that all the participants think that speech and language therapy is effective in stuttering treatment, and while 5 out of 7 participants considered SLT is very effective, another 2 participant thought it is only somewhat effective. Not just that, the percentage of participating doctors, who thinks SLT is a better treatment approach than other approaches, is higher. They also gave their logic about why they think so.

"Yes, as it will enhance the activity of total system involved in producing speech." (Participant 1)

"Yes, because most of cases are related with intense psychological effect than physiological/ pathological effect." (Participant 5)

On the hand some of them don't think SLT as better one. Participant 6 (similarly mentioned by participant 7) answered,

"No, speech and language therapy is a part of treatment as any physical deformity can't be corrected only speech & language therapy."

It is clearly indicated from the result that participating doctors considered SLT as effective in the treatment of stuttering. Scott (2015) stated that speech-language therapy is a better treatment approach for stuttering than other treatment, because depending on the clients' needs, SLTs work collaboratively with the patients, carers, parents etc. Sometimes they also provide treatment intensively whereas other professionals do not.

Discussion of Category 2.2: SLT & its role in the treatment of stuttering

The result of the study showed that the participating doctors have some basic ideas about SLT and its role in the treatment of stuttering. All the participants had the knowledge that SLTs use a different form of treatment approach. They knew that internationally it is a recognized profession. Participants mostly thought that SLT use such an approach which based on exercise rather than medicine.

"Yes, its like an exercise of our brain & musculatures of mouth & tongue." (Participant 1)

"There is no use of medicine in this type of treatment." (Participant 2)

Participant 6 & 7 also shared their opinion that internationally there are very good approach and research centre on SLT.

On the other hand all the participants thought that SLT is an effective and a good modality for the treatment of stuttering.

"Speech & Language therapy is very much effective in fluency disorder..." (Participant 3)

There is some research on the perception of SLT amongst the general public and also practice pattern of SLT. According to Becker, Place, Tenzer, and Frueh (1991) as cited in Betz, Blood & Blood (2007) early intervention has become the backbone of services provided by SLPs. Facilitation and enhancement of language, speech and fluency skills can be achieved at very early ages. Once a negative stigma is placed on a child, he or she is less likely to receive the services he needs in order to cope with and/or rectify his difficulty, placing him at an academic and social disadvantage when compared to his peers. A study was conducted by

Greenwood, Wright & Bithell (2006) on the "Perception of speech-language therapy amongst UK school and college students: implication for recruitment". The data were analysed through both qualitative and quantitative methods. There they found that one-third of participants knew nothing about SLT, less than half of the participants were aware that SLT is a degree course. Even though SLT is an established profession in the UK there is still a lack of knowledge amongst their younger generation. In the context of Bangladesh, although the participant doctors knew about SLT, there is a need for research among the general population about the profession. The participant doctors think that SLT is effective, but depending on the causes of stuttering in different people, it should be considered as a part of total treatment approach along with other approaches. However scientific proofs have shown that SLT can be a unique and effective role in communication disorders including stuttering

The American Speech-Language Hearing Association (ASHA) published an article that provides evidence based data on their bulletin. They reported that clinical evidence shows that individuals who stutter can benefit from treatment provided by speech-language pathologists at any time in their life span. Treatment can be either intensive (several hours per day for several weeks), or extended (1–2 hours per week for several months or longer). Techniques that appear to have the greatest efficacy for reducing the frequency of stuttering in adults and older children include, changing the *timing* of speech (e.g., slowing down, stretching out sounds) and/or reducing physical *tension* during speaking (e.g., gentle onsets of speech movement). Comprehensive treatment approaches focus on improving the speaker's attitudes toward communication, and minimizing the negative impacts of stuttering on the speaker's life. Many speakers reported that they got greater benefits from comprehensive approaches than from other approaches which focus only on changes in speech fluency. More than 100 studies on adults who stutter concluded that significant improvement typically occurs as a result of treatment in 60 to 80% of cases. Studies of school aged children who stutter reveal an average reduction in stuttering frequency of approximately 61%. According to data from ASHA's National Outcomes Measurement System (NOMS), 79% of adults who stutter showed gains of one or more levels on the Fluency Functional Communication Measure (FCM) following speech-language pathology interventions. (American speech-language hearing association. n.d.).

The main aim of the study of Khoosal (2003) entitled 'A survey of the perceptions of homeopathy by registered chiropractors in south Africa" was to discover what perception chiropractors had about homeopathy. The result was that although chiropractors knew about the effectiveness of homeopathy, they did not think it was a more effective treatment. This

shows, it is always challenging for a new profession to establish their role in the new environment. Therefore in order for different professionals to understand each other, it is essential to provide scientific evidence.

Discussion of Category 2.3: Current practice of SLT in Bangladesh

The result of this section of the study refers that the participating doctors had many ideas about the practice of SLT in Bangladesh. But none of them had idea about from where in Bangladesh SLTs can qualify. All of them asked, is there any institute where SLT course is running? Among the participants, 2 of them stated that there is lack of proper institution in Bangladesh. Another 2 participants reported that there is no/ less service available in ground level. 1 participant mentioned that there is needed more awareness, early diagnosis and early intervention.

On the other hand 3 of them said that according to their knowledge speech and language therapies were available in some hospitals e.g. BSMMU and the Cancer Hospital etc. That's why they referred PWS to these hospitals.

> *"There is lack of proper institution or specialisation..."* (Participant 2)

> *".....needs more awareness, early diagnosis, early treatment."* (Participant 3)

From the result it is indicated that there is no definite idea about the current practice of SLT in Bangladesh among the participating doctors who are representing health professions. Although the Health Informatics Standards & Data Structure for Bangladesh cites the WHO-ISCO occupation list coded 101:2266.0 which states that SLTs are health professionals, and can practice legally, this is not generally acknowledged by other professionals in Bangladesh.

[Theme- 3: To find out the perceptions of participating doctors on person with stuttering.]

Discussion of Category 3.1: Presence of underlying impairment of stuttering

The category of the study was aimed to identify how much participating doctors agree with the statement that stutterers have an underlying impairment either psychological or physiological. The result showed that 5 out of 7 participants moderately agreed, and 2

participants strongly agreed with that PWS have psychological impairment. On the other hand 5 of the participants moderately agreed that PWS have physiological impairment. Whereas 1 participant strongly agreed and another 1 participant strongly disagreed with the statement.

From the result it is clearly indicated that participating doctors believe that the PWS have underlying psychological and/or physiological impairments. Yairi & Carrico (1992) resulted in their study on the perception and practice of paediatricians of USA in stuttering cited in Hughes (2008). Fifty-six percent of pediatricians thought that there was no difference between preschoolers who stutter and those who do not in terms of emotional stability, but the remaining 44% felt that preschool children who stutter are below normal for emotional stability. Ten percent of pediatricians felt that preschoolers who stutter possess above normal intelligence, 1% below normal intelligence, and 56% of pediatricians felt that there was no difference in intelligence between preschoolers who stutter and those who do not. Finally, for maturity, 2% of pediatricians thought that preschoolers who stutter have above normal maturity, 24% below normal maturity, and 74% of pediatricians felt that there is no difference in maturity between preschoolers who stutter and those who do not. These results appear to indicate that the majority of physicians believe that there is no difference between preschoolers who stutter and those who do not on the traits of emotional stability, intelligence, and maturity. Klassen & Kroll (2005) surveyed speech and language therapists of CASLP in order to discover their perceptions of PWS. The result of the study showed that only 17.4% of Canadian clinicians agreed with the statement that most people with fluency disorders have psychological problems. Also 60% agreed with the existence of an underlying physiological impairment, while only 14.7% disagreed. So the result of this study suggested that there is difference between the perception on person with stuttering among physicians of Bangladesh and USA while result is almost similar with the perception of SLPs.

Discussion of Category 3.2: Presence of personality trait characteristics.

The result of the study showed that the participating doctors agreed with the statement that there are personality trait characteristics among the PWS. Four of the participants moderately agreed and other 3 participants strongly agreed with the statement. Klassen & Kroll (2005) surveyed speech and language therapists of CASLP in order to discover their perceptions of PWS. The result of the study showed that only 27.8% of Canadian clinicians' perceived

common characteristics among PWS. So, it is indicated that there is variable information among the doctors in Bangladesh considering the result of the above study.

[**Theme- 4:** To find out the level of confidence of the participating doctors & what is the basis of their practice/ knowledge in case of providing the treatment of stuttering.]

Discussion of Category 4.1: Confidence level and basis of it

The result of the study showed that only 1 of the participating doctors was confident on his treatment strategies. He had such belief as he got positive feedbacks from the clients. He stated that *"Yes, got positive feedback from patient..."* (Participant 2). On the other hand 6 of the participants were not confident. They think such as they prefer to apply MDT approach and also they think they are not sufficiently specialist in the sector. They stated that

>*"..no, as I am not specialist on this subject."*(Participant 4)

>*"No, I am not fully confident about my treatment strategies because it needs multidisciplinary measure to treat this disorder."*(Participant 7)

The result of the study also indicated that there is no part about stuttering included in the medical teaching curriculum. 2 participants mentioned that there is a small part included in ENT reference books.

>*"No, sorry.."*(Participants 1,2,4,5)

>*"Yes, there are something about fluency disorder in our ENT reference books."*(Participant 7)

Among the participants there was only one who had taken diploma course in child health and the knowledge he gained helps him to treat stuttering. The others did not have any special course or formal education on it.

>*"I have diploma in child health which helps me work with the condition as it is closely relate with child condition."*(Participant 3)

>*"No, I did not participate this type of course......"* (Participant 6)

The result of theme-4 showed that the participants are not confident enough about their treatment strategies, because in their training course they did not learn about PWS, and also

that they prefer a MDT approach. In the study of Yairi & Carrico (1992) as cited in Hughes (2008), some physicians may take a "wait and see" approach that does not relate to current best practices in early childhood stuttering intervention. So, it needs to work in proper time by learned professionals.

3.2 Findings

From the overall result of the study there are some definite ideas that have come through. At first, the participating doctors use evidence based diagnosis procedure. In case of providing treatment, they often use medicine and strategies separately. But there is no evident basis of their using treatment strategies as there is no part included in the main course curriculum. They prefer to use those simultaneously. Participating doctors agreed that there are underlying psychological and physiological impairments and also have personality trait characteristics among the PWS. The responses of the participants indicate that they prefer to treat the PWS in MDT approach. Though they don't have clear idea about the role of other professional specially the SLTs'. They have some basic ideas about SLTs e.g. who are they, how they work etc. but they do not know about the current practices of SLT in Bangladesh. They do know that SLTs play effective roles in the treatment of stuttering

CHAPTER V   **LIMITATIONS**

During the study there always needed to keep in mind that there was limited time to conduct the study considering the fact that the study is an undergraduate research project. The study just took place in a small area of the country that does not represent the whole picture which was also a limitation of the study.

Considering the time limit, the investigator had to select few participants that again did not represent the whole phenomena. Lack of available literature was another limitation of this study. There was lacking of literature in the library and also in websites. It mostly caused because most of the related literatures were not permitted to open. Those were only available for the registered members. So, it was difficult for the investigator to collect those.

During the conduction of the study, investigator thought that it would be better to conduct the study more broadly using core questions that might be possible within the time period. So, she considered it as one of the limitation of the study.

Analysing the data using content analysis procedure, it seemed difficult to the investigator. Investigator assumed that there was needed more deep analysis of the gathered data that would provide more authentic conclusion. So, it was another limitation of the study.

CHAPTER VI   **RECOMMENDATIONS**

The result of the research suggested that awareness rising among the health professionals about SLT is needed for the huge client group. Practice of qualified SLTs in different organizations is also important to enhance. It is important to investigate further on the percentage of exactly having fluency problem before providing any treatment especially among children. The result of the study indicates that the participating doctors were ready to work collaboratively. So, SLTs can use the source for the promotion and provision of the profession. In future further study can be conducted on the practice pattern of neurologists, ENTs, Psychologist as well as SLTs of Bangladesh. Then comparison among the practice pattern will give an idea about each professional's that will be also helpful to raising awareness about SLT. This study also can be re-conducted by modifying the questionnaire which may need mixed methodology to analysis which should be helpful to get an entire view of participating group.

CHAPTER VII   **CONCLUSION**

The study was entitled "Stuttering Treatment: What do doctors do in Bangladesh." The aim of the study was 'To determine the current practice of doctors about the treatment of stuttering in Bangladesh.' The specific objectives were 'To identify the treatments of stuttering that are usually provided by doctors' and 'To identify the preferences of the doctors for the treatment of stuttering.' Considering the limitations of the study, investigator tried to conduct the study appropriately. As per the knowledge of the investigator, before conducting the study there was no research in Bangladesh as entitled. But there are studies on similar topics in worldwide with almost similar aim and objectives. Investigator hopes that the purpose of the study was gained and the significance of the study would be recognized by the readers. It would be a successful study if any part of the research helps the reader in any purpose.

REFERENCES

American speech-language hearing association. (n.d.). *Treatment efficacy summary.*Retrieved from http://www.asha.org/uploadedFiles/public/TESStuttering.pdf.

Anam, N. (1996). *The Generation of a Tool for Screening The Early Grammatical Development of Bangla-Speaking Children and the Potential Use of This Instrument in Classes of Hearing-Impaired Children*. PhD Thesis. The University of Birmingham Supervised by Brain Fraser.

Bailey, D. M. (1997). *Research for the health* professionals (2nd ed.). Philosophia: F.A. Davis Company.

Betz, I. R., Blood, G. W., & Blood, I. M. (2007). University students' perception of pre-school and kindergarten children who stutter. *Journal of communication disorders*. 41(2008), 259-273. Retrieved on 27th June, 2014 from http://www.sld.cu/galerias/pdf /sitios/rehabilitacion-logo/estudiantes_tm.pdf.

Bloodstein, O. (1995). *A handbook on stuttering (5th ed.).* San Diego, CA. Singular Publishing.

Craig, A., Hancock, K., & Craig, M. (1996). The lifestyle appraisal questionnaire: A comprehensive assessment of health & stress. *Psychology & Health,* 11, 331-343.

Craig, A., Hancock, K., Tran, Y., Craig, M., & Peters, K. (2002). Epidemiology of stuttering in the communication across the enteric life span. *Journal of Speech-Language Hearing Research,* 45, 1097-1105.

Daniels, D. E. (2007). *Recounting the school experiences of adults who stutter: A qualitative analysis.* (Ph.D Thesis, Bowling Green State University, USA). Retrieved from

https://etd.ohiolink.edu/!etd.send_file?accession=bgsu1182716198&disposition=inlin

Depoy, E., & Gitlin, L. N. (1998). *Introduction to research: Understanding and applying multiple strategies* (2nd ed.). Mosby: New York.

Gaskill, C. (2007). Development of Speech and Language therapy in Bangladesh. Retrieved on 12th July, 2014 from http://www.commtherapyint.com/newsletter_downloads/newsletter_oct_2007.pdf.

Greene, J. S. (1935). Treatment of the stutter type personality in a medical-social clinic. *Journal of the American Medical Association*, 22(1935), 2239-2242. Retrieved on 30th June, 2013 from http://hinarilogin.research4life.org/uniquesigjama.jamanetwork.com/uniquesig0/article.aspx?articleid=260292.

Greenwood, N., Wright, J. A., & Bithell, C. (2006). Perception of speech-language therapy amongst UK school and college students: implication for recruitment. *International journal of language and communication disorder,* 41(1), 83-94. Retrieved on 21st September, 2014 from http://www.ncbi.nlm.nih.gov/pubmed/16272004.

Hicks, C. M. (2000). *Research methods for clinical therapist* (3rd ed.). Sydney: Churchill.

Hobbs, M. L. (2012). *Teacher perceptions and knowledge about stuttering before and after an In-service training* (Master's Thesis, Eastern Kentucky University, Richmond, Kentucky).Retrieved on 12th July, 2014 from http://encompass.eku.edu/cgi/viewcontent.cgi?article=1078&context=etd.

Hughes, S. (2008). *Exploring attitudes towards people who stutter: A mixed model approach* (Ph.D Thesis, Bowling Green State University, USA). Retrieved on 1th Jan, 2014 from https://etd.ohiolink.edu/!etd.send_file?accession=bgsu1213188444&disposition=inlin

Hunsaker, S. A. (2011). *The social effects of stuttering on adolescents and young adults.*

(Master's Thesis, Southern Illions University, Carbondale). Retrieved on 5th Sep, 2014 from http:/opensiuc.lib.siu.edu/cg/viewcontent.cg?article=1061&context=gs_rp.

Informatics Standards & Data Structure for Bangladesh, Version 1.0 (2012). *Ministry of health and family welfare.* Retrieved from, www.mhhf.org.bd.

Irani, F., & Gabel, R. (2008). Schoolteachers' attitudes towards people who stutter: results of a mail survey. *Canadian Journal of Speech-language Pathology and Audiology,* 32(3), 129-134. Retrieved on 10th 10th October, 2014 from http://cjslpa.ca/files/2008_ CJSLPA_Vol_32/No_03_109-140/Irani_Gabel_CJSLPA_2008.pdf.

Khoosal, B. G. (2007). *A survey of the perceptions of homeopathy by registered Chiropractor in South Africa* (Master's Thesis, Durban University of Technology, South Africa). Retrieved on 24th November, 2014 from http://intqhc.oxfordjournals.org/Content /23/3/258.full.

Kittilstved, T. (2014). *Education and changing the perceptions of stuttering* (Thesis, Eastern Washington University, Cheney, USA). Retrieved on 24th November, 2014 from https://www.google.com.bd/?gws_rd=cr,ssl&ei=arXXVPTaOMqzuASTtIDYDw#q= Education+and+Changing+the+Perceptions+of+Stuttering.

Klassen, T. R., & Kroll, R. M. (2005). Opinions on stuttering and its treatment: A follow-up survey and cross-cultural comparison. *Journal of speech-language pathology and audiology,* 29(2): 73-82. Retrieved on 5th September, 2014 from http://www.asha.org/ Publications/leader/2005/051018/f051018a2.htm.

Lawrence, M. & Barclay, D. M. (1998). Stuttering: A brief review. *The American family physician,* 5(9), 2175-2178. Retrieved on 31st July, 2013, from https://www.google. com.bd/?gws_rd=cr,ssl&ei=arXXVSTtIDYDw#q= Stuttering+ A Brief Review.

Lewith, G. (2005). Complementary medicine research unit. *Evidence-Based Complementary and Alternative Medicine,* 2(3), 399-403. Retrieved on 27th December, 2013 from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1193549/

Livingston, Marshell, J. & Warner, J. (1998). *An introduction in communication disorder in children.* University of Manchester, UK.

Marshall, J., Goldbart, J. & Phillips, J. (2006). Parents' and speech and language thrapists' explanatory models of language development, language delay and intervention. *International Journal of Communication Disorder,* 42(5), 533-555. Retrieved from http://www.sld.cu/galerias/pdf/sitios/rehabilitacion-logo/intervencion_lenguaje.pdf.

Marshell, J., & Warner, J. (1998). *An introduction in communication disorders in children.* University of Manchester, UK.

Momin, A. K. M. (2003), *Disability,* CRP, Dhaka.

Nicholls, J. R. (2013). *Teacher perception of stuttering.* (MEdPsych Thesis, Massey University, Albany, New Zealand). Retrieved on 10th August, 2014 from http://www. annfammed.org/content/9/2/155.full.

Pelletier, T., (1997). *Who is likely to stutter?* Webmaster, USA.

Private Healthcare. (2010). *The private healthcare.* UK. Retrieved on 2nd April, 2014, from http://www.privatehealth.co.uk./disease/ear-nose-throat/stummaring-stuttering.

Scott, L. (2006). Genetic and neurological factors in stuttering. *The stuttering foundation.* Retrieved on 22nd December, 2013, from http://www.stutteringhelp.org/genetic-and-neurological-factors-stuttering.

Scott, L. (2015). Why go to speech therapy. *The stuttering foundation.* Retrieved on 3rd January, 2015, from http://www.stutteringhelp.org/why-go-speech-therapy.

Soomro, J., (2013). *Perception of Physicians About Physiotherapy in Shifa International Hospital Islamabad*. (Ph.D Thesis, University of Manchester, UK). Retrieved on 23rd December, 2014, from https://www.google.com.bd/?gws_rd=cr,ssl&ei=arXXVPTa OMqzuASTtIDYDw#q=Perception+Physicians+Physiotherapy

Stuttering facts and information. (2010). The Stuttering foundation, Retrieved on 1st May, 2013, from http://www.stutteringhelp.com/Default.aspx?tabid=17.

Tanner, D. C. (2003). *Explanatory communication disorder.* New York. Pearson education.

Turnbull, J. & Stewart, T. (1999). *The dysfluency resource book* (1st ed.). UK. Winslow Press Limited.

University of Rochester medical centre. (2010). *University of Rochester medical centre*. UK. Retrieved on 19th February, 2014, from http://www.stronghealth.com/services /speechpathology/condition/typesstuttering.efm.

Walker, C. (2008). *The neurological causes of stuttering,* Retrieved on 28th August, 2014, from http://serendip.brynmawr.edu/exchange/node/1683.

Wallen, N. E., & Frankel, J, R. (2000). *Hoe to design & evaluate research in education.* Megraw Hill: New York.

What is general practitioner GP. (2015). Retrieved on 3rd January, 2015, from http://www.healthcommunities.com/health-care-providers/what-is-a-general-practitioner- gp.shtml.

Wilder, S. (2013). An update of pharmacological treatments for stuttering. Retrieved on 4th April, 2014 from http://www.stutter.ca/articles/research/183-an-update-on-pharmacological-treatmentsfor-stuttering.html.

Annexure 1

Permission Letter from BHPI for Conduct the Research

Date: 24th September, 2014

To

Head (Acting)

Department of Speech & Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain

Savar, Dhaka

Subject: Prayer for seeking permission to conduct the Research Project.

Sir,

With due respect I state that I am Syeda Tazkia Sultana, 4th year student of B. Sc. in Speech and Language Therapy of Bangladesh Health Professions Institute (BHPI), the academic Institute of CRP. I am sincerely seeking permission to conduct the research project as the partial fulfillment of the requirements for the degree of B. Sc. in Speech and Language Therapy. The title of my research is **'Stuttering Treatment: What do Doctors do in Bangladesh?'** The main objective of the study is to find out the current practice pattern of doctors in case of stuttering treatment.

Now I am seeking your kindness to approve me to conduct the research project and I would like to assure that anything of my research project will not harmful for the participants.

So, I therefore pray and hope that your honor would be kind enough to grant me the permission of conduction the study as a part of my course.

Yours Obediently,

Syeda Tazkia Sultana

4th year student of B. Sc. in Speech and Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka

Course Coordinator	Comments and Signature
Md. Jahangir Alam Head (Acting) Department of Speech and Language Therapy BHPI, CRP, Chapain, Savar, Dhaka-1343	You are permitted to conduct the study. Good Luck!

Annexure 2

Permission Letter from BHPI for Data Collection

Date: 24th September, 2014

To

Head (Acting)

Department of Speech & Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain

Savar, Dhaka

Subject: Prayer for seeking permission to conduct the Data Collection.

Sir,

With due respect I state that I am Syeda Tazkia Sultana, 4th year student of B. Sc. in Speech and Language Therapy of Bangladesh Health Professions Institute (BHPI), the academic Institute of CRP. I am sincerely seeking permission to conduct the data collection of the research project as the partial fulfillment of the requirements for the degree of B. Sc. in Speech and Language Therapy. The title of my research is **'Stuttering Treatment: What do Doctors do in Bangladesh?'** The main objective of the study is to find out the current practice pattern of doctors in case of stuttering treatment.

Now I am seeking your kindness to approve me to start the data collection for research project and I would like to assure that anything of my research project will not harmful for the participants.

So, I therefore pray and hope that your honor would be kind enough to grant me the permission to conduct the data collection and will help me to conduct a successful study as a part of my course.

Yours Obediently,

Syeda Tazkia Sultana

4th year student of B. Sc. in Speech and Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka

Course Coordinator	Comments and Signature
Md. Jahangir Alam Head (Acting) Department of Speech and Language Therapy BHPI, CRP, Chapain, Savar, Dhaka-1343	You can proceed data collection.

Annexure 3

Questionnaire

<u>Close-ended:</u>

Please answer each question with the single response which best reflects your beliefs and experiences.

1. I treat fluency disorder (আমি তোতলামো রোগের চিকিৎসা প্রদান করে থাকি) :
   a. Regularly (wbqwgZ)
   b. Often (cÖvqB)
   c. Rarely (nVvr)
   d. Never (KLbB bq)

2. My fluency disorder caseload includes (আমার তোতলামো রোগীর তালিকায় অন্তর্ভূক্ত) :
   a. 3-7 years old (3-7 eQi eqmx)
   b. 7-18 years old (7-18 eQi eqmx)
   c. 18+ years old (18 eQ‡ii Dc‡i)
   d. All ages (mKj eqmx)
   e. I don't treat (আমি কখনো চিকিৎসা দেই নি)

3. When presented with a person with fluency disorder, I most often will (যখন একজন ব্যক্তি আমার নিকট তোতলামো সমস্যা নিয়ে আসে , তখন আমি বেশিরভাগ ক্ষেত্রে) :
   a. Assess and/or treat the individual myself (আমি নিজেই রোগ নির্ধারন এবং /অথবা চিকিৎসা প্রদান করে থাকি)
   b. Refer to other specialist/ professionals e.g. neurologist, psychologist etc. (অন্য বিশেষজ্ঞ / পেশাজীবির কাছে প্রেরন করে থাকি যেমন , নাক –কান –গলা বিশেসজ্ঞ , স্নায়ুরোগ বিশেষজ্ঞ , মনস্তত্ত্ববিদ প্রমুখ)
   c. Refer to Speech and Language Therapist (স্পীচ এ্যান্ড ল্যাংগুয়েজ থেরাপিস্টের নিকট প্ রেরন করে থাকি)

4. In my treatment, I usually employ (আমি নিজে চিকিৎসা প্রদানের ক্ষেত্রে সাধারনত e¨envi করি) :
   a. Medicine (Jla)
   b. Strategies e.g. shaping, relaxation etc. (wewfbœ †KŠkj †hgb †mwcs, wijv‡·kb BZ¨vw`)
   c. Both (DfqB)

5. In general, I believe speech and language therapy for fluency disorder is (mvavibZ Avwg wek¦vm Kwi স্পীচ এ্যান্ড ল্যাংগুয়েজ থেরাপি তোতলামো চিকিৎসা q):

   a. Very effective (AZ¨šÍ Kvh©Ki)

   b. Somewhat effective (wKQyUv Kvh©Ki)

   c. Ineffective (AKvh©Ki)

   d. No need (cÖ‡qvRb †bB)

6. Chances are that most people with fluency disorder have some psychological impairment (hv‡`i †ZvZjv‡gv mgm¨v _v‡K Zv‡`i †ewkifv‡Mi wKQzUv gb¯ÍvwËK mgm¨v we`¨gvb):

   a. Strongly agree (‡Rviv‡jvav‡e GKgZ)

   b. Moderately agree (wKQzUv GKgZ)

   c. Strongly disagree (†Kvbfv‡eB GKgZ bB)

7. Chances are that most people with fluency disorder have some physiological impairment (hv‡`i †ZvZjv‡gv mgm¨v _v‡K Zv‡`i †ewkifv‡Mi wKQzUv kvixie„Ëxq mgm¨v we`¨gvb):

   a. Strongly agree (‡Rviv‡jvav‡e GKgZ)

   b. Moderately agree (wKQzUv GKgZ)

   c. Strongly disagree (†Kvbfv‡eB GKgZ bB)

8. There are some personality traits characteristics of people with fluency disorder (†ZvZjv‡gv mgm¨vMÖ¯Í e¨w³‡`i we‡kl wKQz PvwiwÎK ‰ewkó¨ we`¨gvb):

   a. Strongly agree (‡Rviv‡jvav‡e GKgZ)

   b. Moderately agree (wKQzUv GKgZ)

   c. Strongly disagree (†Kvbfv‡eB GKgZ bB)

Open-ended:

Please explain the questions which best reflects your beliefs and experiences.

1. How do you diagnose fluency disorder? (Avcwb wKfv‡e †ZvZjv‡gv †ivM wbb©q K‡i _v‡Kb?)

2. Do you have any academic course part about fluency disorder? Have you participate in any course or formal education on it? (Avcbvi cvV¨m~Pxi †Kvb Ask wK †ZvZjv‡gv m¤úúwK©Z wQj? ev Avcwb wK †Kvb we‡kl †Kvm© ev wWMÖx wb‡q‡Qb ev Zv wK Avgv‡`i †`‡k Av‡Q?)

3. Are you confident enough about your treatment strategies? Why do you think so? (Avcwb wK Avcbvi cÖ‡q wPwKrmv e¨e¯'v/ †KŠkj wb‡q h‡_ó AvZ¥wek¦vmx? Avcwb †Kb Zv g‡b K‡ib?)

4. Your idea about Speech and Language therapy, its role in fluency disorder treatment and its practice in Bangladesh. Please explain.(স্পীচ এ্যান্ড ল্যাংগুয়েজ

থেরাপি , তোতলামো চিকিৎসা q Gi f'wgKv Ges evsjv‡`‡k Gi Abykxjb/ PP©v m¤ú‡K© Avcbvi avibv AbyMÖn K‡i e¨vL¨v Kiæb):

5. Do you consider Speech and Language therapy as better treatment approach than other approach in case of fluency disorder treatment? Why? (তোতলামো চিকিৎসা i †ÿ‡Î Avcwb wK স্ পীচ এ্যান্ড ল্যাংগুয়েজ থেরাপ x‡K Ab¨vb¨ wPwKrmv e¨e¯’vi †P‡q cÖavb¨ †`b? †Kb?):

Consent Form

Who is doing the Study?

The researcher named Syeda Tazkia Sultana is going to do the study for the partial fulfilment of the 4th year coursework of B. Sc in Speech and Language Therapy.

What is the purpose of the study?

Identification of the current practice pattern of doctors in case of stuttering treatment.

How long will it last?

The interview will take about 30-35 minutes.

What will I be asked to do?

To complete the study participants need to answer and/or tick some of the question that will be asked.

What are the possible risk and discomfort?

To the best of the researcher's knowledge the things will be doing have no more risk of harm.

Will I benefit from taking part in this study?

Honestly there is no guarantee that you will get any benefit.

Do I have to take part in the study?

It's up to you whether you want to take part or not. If you take part, you have total right to stop at any time during the study.

What will it cost me to participate?

You don't have to pay anything.

Who will see the information?

Your information will be combined with the other information that will be collected for the study. When the researcher will write up the study, she will write about the combined information and you will not be identified in the written material (your name should be included in another pages.)

Signature of person agreeing to take part in the study (with date): _____

Signature of person conducting the study (with date): _____