

“CURRENT PRACTICE OF MEDICAL PRACTITIONERS REGARDING MANAGEMENT OF AUTISM SPECTRUM DISORDER IN BANGLADESH”

By

Syed Imran Ahmad

Session: 2014-2015

BHPI, CRP, Chapain, Savar, Dhaka-1343



Bachelor of Science in Speech and Language Therapy

Bangladesh Health Professions Institute (BHPI)

(The academic institute of CRP)

Faculty of Medicine, Affiliated by

University of Dhaka

[February, 2019]

**“CURRENT PRACTICE OF MEDICAL PRACTITIONERS
REGARDING MANAGEMENT OF AUTISM
SPECTRUM DISORDER IN BANGLADESH”**

**A research presented to the
Bachelor of Science in Speech and Language Therapy
Bangladesh Health Professions Institute (BHPI)
(The academic institute of CRP)
University of Dhaka**

Syed Imran Ahmad

Imran71095@gmail.com

**Supervisor
Md. Sazzad Hossain
Assistant Professor & Head of
Department of Speech & Language Therapy, BHPI**

**In partial fulfillment of the requirements for the degree of
B.Sc in Speech and Language Therapy**

[February, 2019]

Approval

We the under signed certify that we have carefully read & recommended to the Faculty of Medicine, University of Dhaka, for the acceptance of this dissertation entitled-

**“CURRENT PRACTICE OF MEDICAL PRACTITIONERS REGARDING
MANAGEMENT OF AUTISM SPECTRUM DISORDER IN BANGLADESH”**

Submitted by- **Syed Imran Ahmad**

B.Sc. in Speech and language Therapy

Signature of Supervisor:

.....

Md. Sazzad Hossain

Assistant Professor & Head

Department of Speech & Language Therapy

BHPI, CRP, Savar, Dhaka-1343

DECLARATION

I Syed Imran Ahmad, declare that, the study is not intended to harm others. I would also like to declare that all the sources in this study have been cited appropriately. Any mistakes or inaccuracies are my own responsibility.

Signature & Date

Syed Imran Ahmad

4th year B.Sc. In Speech & Language Therapy

Session: 2014-2015

BHPI, CRP, Savar, Dhaka-1343

Bangladesh

DEDICATION

*Dedicated to
my beloved little sister and everyone who made this study possible.*

TABLE OF CONTENT

<i>Table of Contents</i>	I-II
<i>List of Figure</i>	III
<i>List of Annexure</i>	IV
<i>List of Acronyms</i>	V
<i>Acknowledgement</i>	VI
<i>Executive Summery</i>	VII

Content

SN	Chapter	Topic	Page No
01	Chapter 1	INTRODUCTION	1-7
		1.1 Introduction	1-2
		1.2 Literature Review	3-4
		1.3 Significance of the Study	5
		1.4 Objective	6
		1.5 Operational Definition	7
02	Chapter 2	METHEDOLOGY	8-12
		2.1 Study Design	8
		2.2 Study Location	8
		2.3 Study Population	8
		2.4 Sample Size	8-9
		2.5 Sampling Procedure	9
		2.6 Inclusion Criteria	9
		2.7 Exclusion Criteria	9
		2.8 Rationale for Inclusion & Exclusion	9
		2.9 Data Collection Tools	10
		2.10 Data Collection Procedure	10
		2.11 Data Analysis	10
		2.12 Ethical Consideration	10
03	Chapter 3	RESULT	11-30
		3.1 Gender of Participants	11
		3.2 Age Range of Participant	11
		3.3 Institution Where Participants Earned Their MBBS Degree	12

		3.4	Highest Medical Degree Attained by Participants	13
		3.5	Area of Specialization of Participants	14
		3.6	Clinical Experience of Participants	14
		3.7	Time Participants Claimed to Have Spent Studying ASD & Neurodevelopmental Disorders As a Student	15
		3.8	Participants' First Encounter with ASD Patient	16
		3.9	Participants' Caseload of ASD Patient	17
		3.10	Special Training Regarding ASD Received by Participants	18
		3.11	Participants' Views About ASD	19-21
		3.12	Method of Diagnosis Used By Participants to Assess Autism	22
		3.13	Traits Important for diagnosis of Autism	23
		3.14	Treatment Approach Used by Participants	24
		3.15	Drugs Prescribed By Participants	25-26
		3.16	Participants' Treatment Target for Patient's With ASD	27
		3.17	Interventions Prescribed by Participants to ASD Patient	28
		3.18	Participants' Perception of SLT	29
		3.19	Participants' Assumption About the Length of the SLT Course	30
		3.20	Participants' Willingness to Work in an MDT With SLT as Leader	30
04	Chapter	4	DISCUSSION	31-33
05	Chapter	5	LIMITATION & RECOMENDATION	34-35
06	Chapter	6	Conclusion	36
07	Chapter	7	Reference	37-39

List of Figure

Figure No	Topic	Page No
Figure 1	Gender of Participant	13
Figure 2	Age Range of Participant	14
Figure 3	Institution Where Participants Earned Their MBBS Degree	15
Figure 4	Highest Medical Degree Attained by Participants	16
Figure 5	Area of Specialization of Participants	17
Figure 6	Clinical Experience of Participants	18
Figure 7	Time Participants Claimed to Have Spent Studying ASD & Neurodevelopmental Disorders As a Student	19
Figure 8	Participants' First Encounter with ASD Patient	20
Figure 9	What Percentage of Total Patients are Have ASD	21
Figure 10	Special Training Regarding ASD Received by Participants	22
Figure 11	Participants' Views About ASD	23-25
Figure 12	Averages of Participants' Views	26
Figure 13	Method of Diagnosis Used By Participants	27
Figure 14	Traits Important for diagnosis of Autism	28
Figure 15	Treatment Approach Used by Participants	29
Figure 16	Drugs Prescribed By Participants	30-31
Figure 17	Participants' Treatment Target for Patient's With ASD	32
Figure 18	Interventions Prescribed by Participants to ASD Patient	33
Figure 19	Participants' Perception of SLT	34
Figure 20	Participants' Assumption About the Length of the SLT Course	35
Figure 21	Participants' Willingness to Work in an MDT With SLT as Leader	36

List of Annexure

Annexure	Topics	Page
Annexure 1	Permission Letter	40
Annexure 2	Permission Letter	41
Annexure 3	Consent Form	42
Annexure 4	Questionnaire	43-47

List of Acronyms

Abbreviation	Elaboration
BHPI	Bangladesh Health Professions Institute
ASD	Autism Spectrum Disorder
WHO	World Health Organization
SLT	Speech and Language Therapists

Acknowledgement

I want to express my gratitude to Almighty Allah for blessing me with the skills, knowledge and intelligence to conduct this study. I am also grateful to my friends & family members for supporting me and encouraging me without their support I would not have been unable to complete this study.

I would like to thank my honourable supervisor **Sazzad Hossain** for guiding me throughout this study. Without his unwavering guidance the dissertation would not have been possible. I also express thanks to my respected teacher **Nahid Pervez** for inspiring me to conduct a study in this field.

I would also like to thank all the participants for their willingness to sacrifice their valuable time to make this study possible.

Lastly special thanks to friends Iqram Zaman, Nizam Uddin Khan Ridoy & Abul Kashem Shihab as well as my parents for supporting me throughout this study.

Executive Summary

Autism Spectrum Disorder (ASD) a difficult challenge for anyone who is effected by it. Family members of children suspected of ASD seek help from medical practitioners to treat and diagnose ASD. However there in no standard for treatment and management of ASD in Bangladesh. This study was conducted to see current practice of Health Practitioners.

This study was a cross sectional survey which was conducted in Dhaka and Sylhet district. The participants were given questionnaires and the data was analyzed through descriptive statistics.

This study implicates a necessity to improve the clinical practice of medical practitioners in Bangladesh in regards with ASD.

1.1 Introduction

Autism Spectrum Disorder (ASD) is a complex developmental disorder involving delays and problems understanding social interaction, problems understanding language, difficulties with emotional expression and problems with cognitive-motor and sensory issues. There is no specific issue that is present in all cases of Autism. Various people fall in various places in the spectrum (Greenspan & Wieder, 2009). Medical practitioners provide medication that is effective in treating the associated behavioral symptoms of autism (DeFilippis & Wagner, 2016).

The effect of Autism is noticeable worldwide. At least 1% of the population of the world has affected by ASD. It is more likely to occur in boys. And in the USA the prevalence can be as high as 1 in every 59 children (Baio et al. 2014).

Early intervention is crucial for treatment and management of ASD. The symptoms are usually present by 3 years of age. However, that does not guarantee that all children will be diagnosed at that point. In severe cases, the symptoms are more noticeable and can be diagnosed early. However less severe cases are harder to tell. It is also important to note that the evaluation of Autism Spectrum Disorder is done through clinical means, not through laboratory findings (Batshaw, 1999). Mundy 2005, suggest that early signs of Autism can be noticed as early as 24 months of age. In most cases, autism is diagnosed at 3 years of age, which would suggest that the signs of Autism can be noticed as early as 2 years before most formal assessment takes place.

Autism has long term negative effects on the lives of the people who suffer from it. Research conducted in the United States have suggested that revealed that after young adults with ASD left the public school system, 80% continued to live at home, 32% studied beyond post-secondary education, 6% had attained competitive jobs, and 21% has no employment or education. Lastly, 40% reported having no friends (Taylor & Seltzer 2011).

In Bangladesh, certain steps have been taken to ensure the betterment of people with Autism Spectrum Disorder. Child Development Centers have been established in medical hospitals (Khan, Sultana, Ahmed, Shilpi, Sultana, & Darmstadt, 2017).

Suchona foundation has created programs to develop and train mothers and caregivers, train professionals in the fields of Autism Spectrum Disorder (ASD) and Neurodevelopmental Disorder (NDD, create employment for people with ASD, train teachers for inclusive education (Suchona, 2019).

Institute For Pediatric Neuro disorders And Autism also known as IPNA is a project undertaken by Bangabandhu Sheikh Mujib Medical University. It provides services in the form of assessment and early intervention as well as teams of skilled Multidisciplinary professionals who provide comprehensive services (Institute of Paediatric Neuro disorders & Autism, 2018).

Proyash is an organization provides services catered towards children with special needs and is working under the prioritization of the Bangladesh Army. It provides medical and therapeutic services. (Proyash, 2018).

Clinical practice of medical practitioners of Bangladesh is important to the betterment of autism treatment. Overall we need more data regarding Autism Spectrum Disorder and its management so that we can make necessary improvements in our health care system.

1.2 Literature Review

Persons with Disabilities Rights And Protection Act 2013 defines people with the following symptoms to have characteristics of Autism. The person must have verbal or nonverbal communication disorders, limitations in the ability to engage in social interactions and must engage in repetitive behavior for certain limited actions. Aside from this they must have one or more of the following traits; over-sensitivity to sound, touch, vision, taste, hearing, balance and movement; intellectual disability or any other form of disability or seizures; uneven development and expertise in specific skills; difficulty maintaining eye contact; hyperactivity and irrational behaviour; unnatural body language; adherence to the same routine and lastly any trait mentioned in a government gadget.

Based on the Persons with Disabilities Rights And Protection Act 2013, The Rights and-Protection of Persons with Disability Rules 2015 indicates that Upazilla comity or the Town comity of the place where a person with autism resides will register them as a person with a disability and provide appropriate information.

In more developed countries it is very common for the management of Autism Spectrum Disorder (ASD) to have guidelines. In the United Kingdom, while there are multiple guidelines for the diagnosis of ASD and varied in their use of tools, assessment through a multi-disciplinary team is considered the ideal form of assessment. However, some guidelines suggested assessment by one professional is sufficient (Hayes, Ford, Rafeeqe & Russell 2018).

Physicians have an important role in the early identification and treatment of ASD. In many instances, they are the first person to notice the symptoms of ASD in their patient. It is very important that they identify ASD as quickly as possible since early intervention has the most result. In the case of managing ASD, specific strategies such as applied behavior analysis, structured teaching, developmental models, speech & language therapy, occupational therapy, and other models can be utilized. (Johnson & Myers 2007).

A study conducted in South Korea concluded that the most commonly used ASD diagnosis method was “Organ system, Qi, Blood, Yin, Yang, Fluid and Humor diagnosis.” and applied acupuncture (Lee, Lee, Lee, Yang & Chang, 2018).

However, a study conducted in Pakistan, a developing country similar to Bangladesh assessed the knowledge and attitudes of Healthcare Professionals towards ASD. It was found that healthcare professionals active in the country had an unbalanced understanding of autism. Another piece of information noted from the study is that medical physicians, in general, were less knowledgeable about ASD (Imran, Chaudry, Azeem, Bhatti, Choudhary, & Cheema 2011).

1.3 Significance of the study

Autism Spectrum Disorder is often diagnosed first through clinical physicians. However there is little to no information as to how physicians manage Autism Spectrum Disorder in Bangladesh. The lack of information presents multiple issues. For example it is difficult to assess how effective the current practices employed by physicians for management of Autism Spectrum Disorder is. This makes it difficult for all involved parties to make decisions regarding management of Autism Spectrum Disorder.

The current facilities and services provided by the various health professions that deal with Autism Spectrum Disorder in Bangladesh lack a cohesive whole. Many improvements need to be made regarding assessment and management of Autism Spectrum Disorder. The various challenges Autism Spectrum Disorder presents such as behavioral, language, motor, sensory and education related issues are all worked on by different professionals. Not one professional can treat Autism Spectrum Disorder. However the first respondents in the case of Autism Spectrum Disorder in Bangladesh is almost always Physicians. Because of this data on the practices of physicians is vital. It will allow us to further refine the management process of Autism Spectrum Disorder by comparing it to other more effective management processes employed abroad. It will also determine any lacking or strengths of the current practices. Above all else, it will open up a gateway to further research that could aid in the betterment of ASD management.

1.4 Objective

General objective

- To explore current practice of medical practitioners about management of ASD in Bangladesh.

Specific objective

- Understanding general management and execution of Medical Treatment of ASD cases in Bangladesh.
- Discover paradigm of Bangladesh Medical practitioners in cases of ASD patients.

1.5 Operational Definitions

Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is a lifelong neurodevelopmental disorder appearing during early childhood. Typically occurring before three years of age, ASD is characterized by significant social difficulties associated with varying degrees of communication, behavioural problems and sensory. In the *DSM-IV*, autistic disorder is defined by three distinct domains: impairment in social interaction skills, impairment in communication, restrictive or repetitive behaviour or interests (Psych central professional, 2014). In this study Autism Spectrum Disorder (ASD) refers to any condition that falls under the spectrum according to DSM.

Medical Practitioners

The World Health Organization (2008) classifies General Medical Doctors as Generalist Medical Practitioners and Specialist Medical Doctors as Specialist Medical Practitioners. In this study they are collectively referred to as Medical Practitioner.

Multidisciplinary Team

A Multidisciplinary team is a team made up of various healthcare professionals who work to create a comprehensive program that can manage various challenges caused by Autism Spectrum Disorder. Every Autism Spectrum Disorder patient has differing levels of issues in differing areas. Because of this a multidisciplinary team that works together can more effectively deal with Autism Spectrum Disorder than any individual professional. (Hayes et al, 2018) In this study Multidisciplinary Team refers to teams consisting of health care professionals such as Medical Practitioners, Speech and Language Therapists, Occupational Therapists, Psychologists etc.

This section outlines the methodological process of the study designed by the investigator to meet the study aim and objectives. The aim is to explore Current Practice of Medical Practitioners about Management of Autism Spectrum Disorder (ASD) in Bangladesh. This chapter will discuss the methodology behind this study.

2.1 Study Design:

In consideration of the aim and objectives of the project the investigator made the decision to use the quantitative cross-sectional survey design model. It has been chosen because it is appropriate for gathering the information required in the study. (Hicks, 2000). The study will be survey study design in nature. (Bailey, 1997).

2.2 Study Location:

The study will be conducted in Dhaka and Sylhet district.

2.3 Study Population:

The target population of this study includes currently active medical practitioners currently practicing in Dhaka and Sylhet district.

2.4 Sample Size:

Sample size:

$$n = \frac{z^2 p(1 - p)}{d^2}$$

$$n = \frac{(1.96)^2 \times (0.5) \times (1 - 0.5)}{(0.05)^2}$$

$$n = 384.16$$

Where,

n= Required sample size,

z = confidence level at 95% (standard value of 1.96),

P = 0.5 (The estimated prevalence of subject)

d= margin of error at 5% (standard value of 0.05)

A larger sample is more representative of the population in a survey study, but in many situations, it is not possible for the researcher both real life practicalities and financial reasons (Hicks, 2000). The equation the investigator will use to determine the sample size is as follows-

This is not realistically feasible for in a limited budget and access to resources. Putting that into consideration the investigator use convenience sampling procedure and will select 64 samples.

2.5 Sampling Procedure:

In this study convenience sampling method will be used. (Hicks, 1999) It is an easy, cheap and quick method of subject selection. This it is the most realistic approach because of limited time and resources (Bailey, 1997). The investigator selected samples that matched the inclusion and exclusion criteria.

2.6 Inclusion criteria:

- Medical Practitioners who are currently in active practice and registered under BMDC.
- Medical Practitioners with an MBBS degree with a licence issued by BMDC.

2.7 Exclusion criteria:

- Medical Practitioners with a BDS Degree.
- Medical Practitioners who are unwilling to participate in the study.

2.8 Rationale for Inclusion & Exclusion

The purpose of this study is to investigate the current practice of all medical practitioners that are involved in treatment and management of ASD. All medical practitioners with an MBBS degree are considered eligible to be general practitioners (Andalib, Amin & Arafat, S.M. 2016). Practitioners who are currently inactive will not reflect current practice. Medical practitioners with BDS degree are not considered general practitioners.

2.9 Data Collection Tools

A self-inventory questionnaire was made for the purpose of the study.

2.10 Data collection procedure:

The investigator contacted medical practitioners currently active in Dhaka and Sylhet district. The investigator had received permission to conduct the study from The Speech & Language Department of Bangladesh Health Professions Institute. The investigator had distributed the questionnaires to medical practitioners by hand or asked them to distribute questionnaires to their peers. Because of their tight schedule the participants were asked to fill out the questionnaires at their leisure and to contact the investigator when they were done. The investigator later collected the questionnaires that were filled out.

2.11 Data analysis:

The data analysis method used in this study is Descriptive Statistical Analysis. This type of approach allowed the investigator to describe a massive amount of information. (Franekel & Wallen, 2000). The investigator used statistical package for social services 25 (SPSS-25) to conduct statistical data analysis. The investigator established data record file that consists of a list of variables. The investigator named each variable, in the variable view of SPSS and defined types, width, decimals, values, alignment, measure and role of data. Then the data was transcribed into SPSS data view. Afterwards the data was analyzed through descriptive statistics and was later calculated as percentages using bar charts and tables.

2.12 Ethical Consideration:

This research project was submitted to Speech and Language Therapy Department, Bangladesh Health Professions Institute and obtained approval. Written permission was taken from Centre for Rehabilitation of Paralyzed (CRP) and Dhaka Shishu Hospital. The participants had the right to refuse participation in the research at any point. The participants were informed that information might be published in any presentation or writing but their personal identity such as their name or address was not shared by others except supervisor. The participants were informed that all data was obtained through questionnaires. Afterwards the supervisor also checked the consent form and the questionnaires.

3.1 Gender of Participants

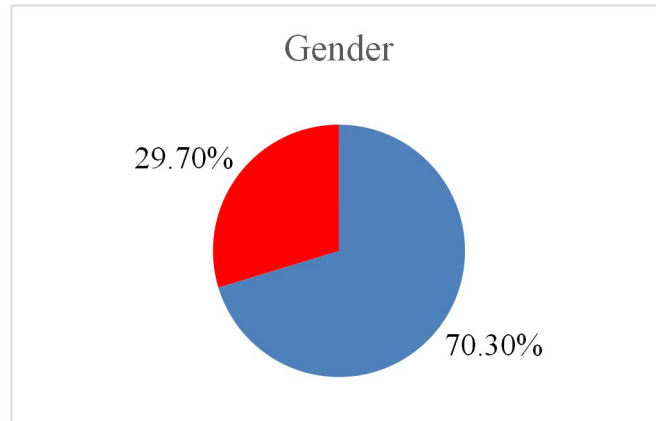


Figure 1: Gender of Participant

In this chart we can see the gender of the participants. In the study 70.3% (45) are male where as 29.7% (19) are female.

3.2 Age Range of Participant

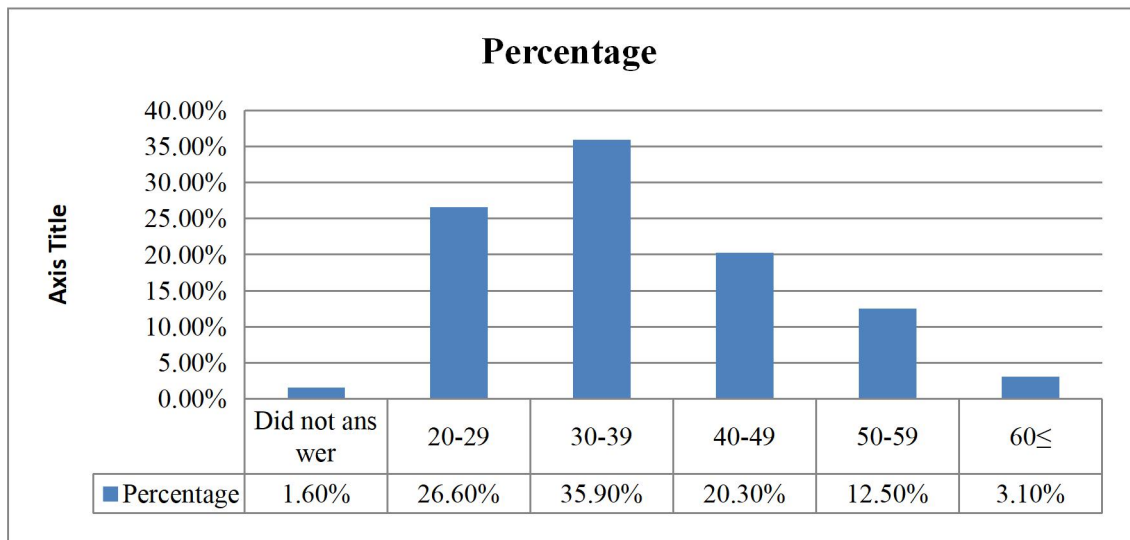


Figure 2: Age Range of Participant

In this chart we can see the age range of the participants. 1.6% (1) did not provide information regarding his/her age. 26.6% (17) are between the age of 20-29, 35.9% (23) are between the age of 30-39, 20.3% (13) are between the age of 40-49, 12.5% (8) are between the age of 50-59 and 3.1% (2) are 60 or older.

3.3 Institution Where Participants Earned Their MBBS Degree

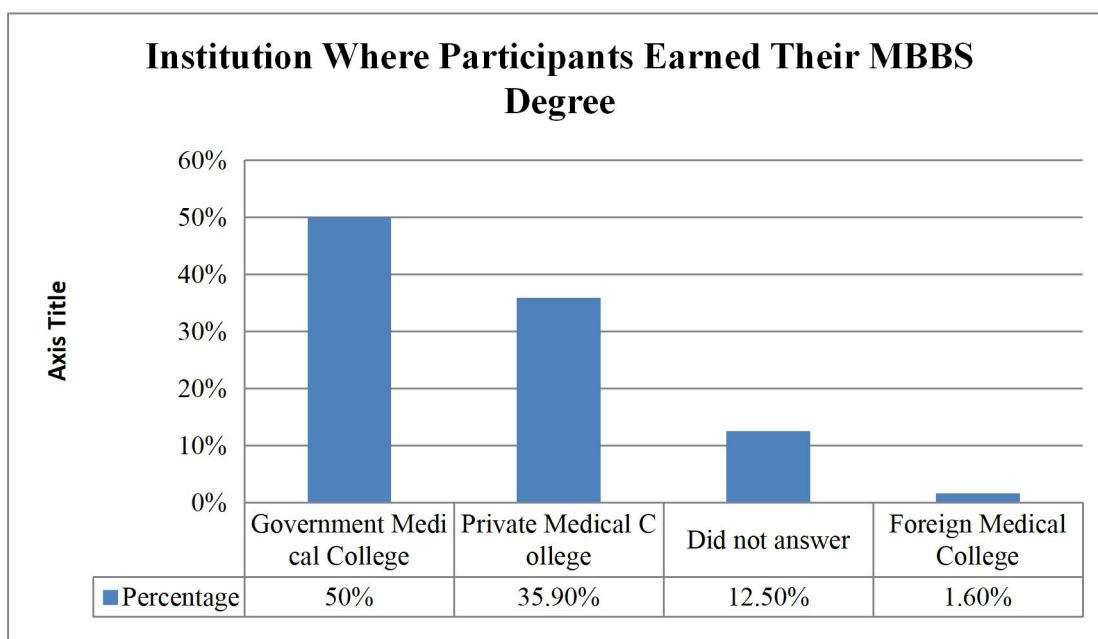


Figure 3: Institution Where Participants Earned Their MBBS Degree

In this chart we can see where the participants had earned their MBBS degree. 50% (32) earned their MBBS degree in Government Medical Colleges, 35.9% (23) earned their degree in Private Medical Colleges, 1.6% (1) earned his/her degree in an Overseas Medical College and lastly 12.5% (8) did not answer.

3.4 Highest Medical Degree Attained by Participants

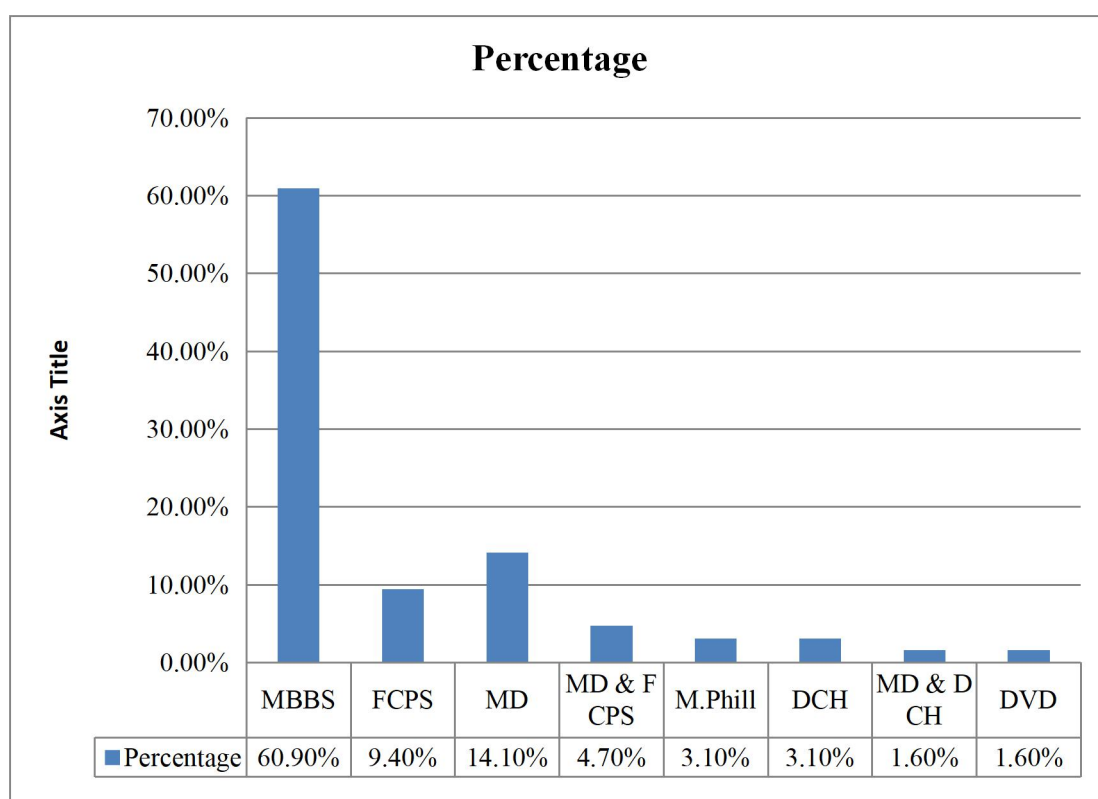


Figure 4: Highest Medical Degree Attained by Participants

In this chart we can see the highest medical degree attained by the participants. 60.9% (39) had only attained their Bachelor of Medicine and Bachelor of Surgery (MBBS) degree and are the majority. 9.4% (6) had attained their Fellow of College of Physicians & Surgeons (FCPS) degree, 14.1% (9) had attained their Doctor of Medicine (MD) degree, 4.7% (3) had attained their Doctor of Medicine (MD) & FCPS (Fellow of College of Physicians & Surgeons) degree, 3.1% (2) earned their Master of Philosophy (M.Phil degree), 3.1% (2) had attained their Diploma in Child Health (DCH), 1.6% (1) had earned his/her Doctor of Medicine (MD) & Diploma in Child Health (DCH) degree and lastly 1.6% (1) had earned his/her Diploma in Venerology and Dermatitis (DVD) degree.

3.5 Area of Specialization of Participants

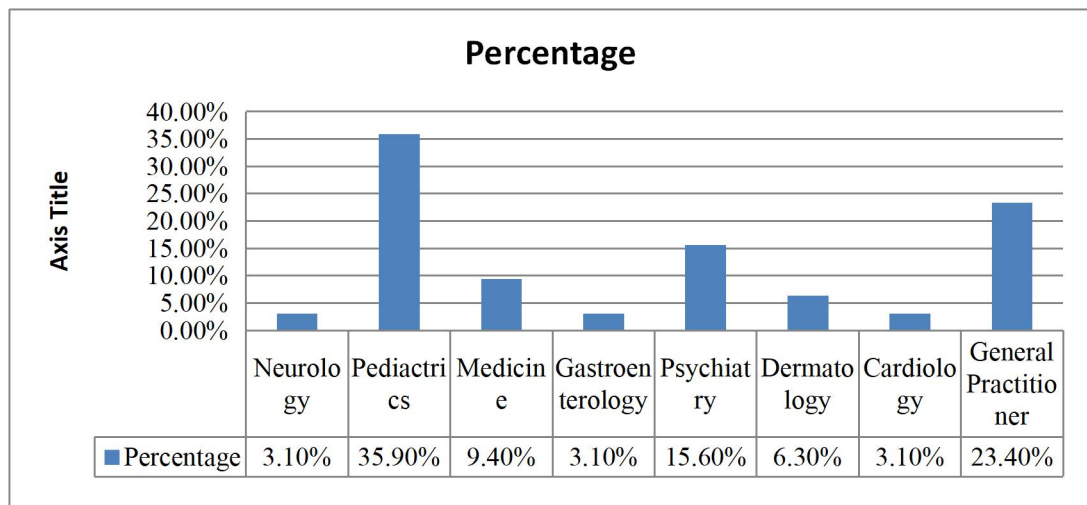


Figure 5: Area of Specialization of Participants

In this chart we can see which field the participants of this study specialize in. 3.1% (2) specializes in Neurology, 35.9% (23) specializes in Pediatrics, 9.4% (6) specializes in Medicine, 3.1% (2) specializes in Gastroenterology, 15.6% (10) specializes in Psychiatry, 6.3% (4) specializes in Dermatology, 3.1% (2) specializes in Cardiology and lastly 23.4% (16) are General Practitioners.

3.6 Clinical Experience of Participants

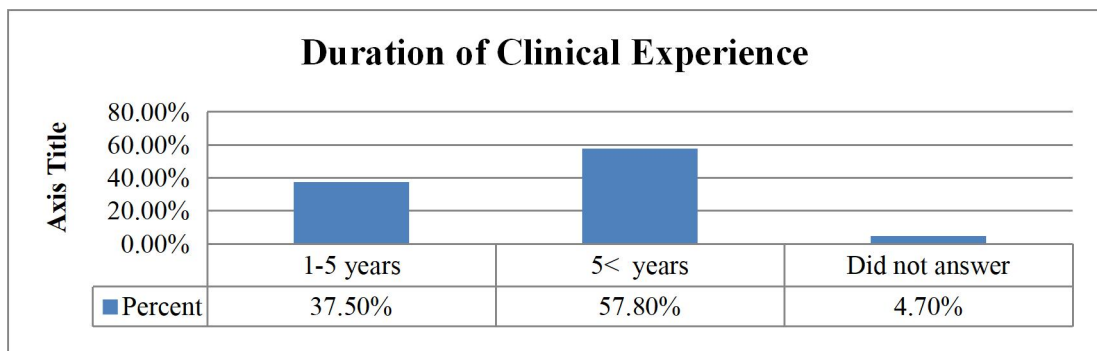


Figure 6: Clinical Experience of Participants

In this chart participants are separated according to their clinical experience. 37.5% (24) have 1-5 years of clinical experience meanwhile 57.8% (37) have more than 5 years of clinical experience working as Medical Practitioners. 4.7% (3) did not answer.

3.7 Time Participants Claimed to Have Spent Studying ASD & Neurodevelopmental Disorders As a Student

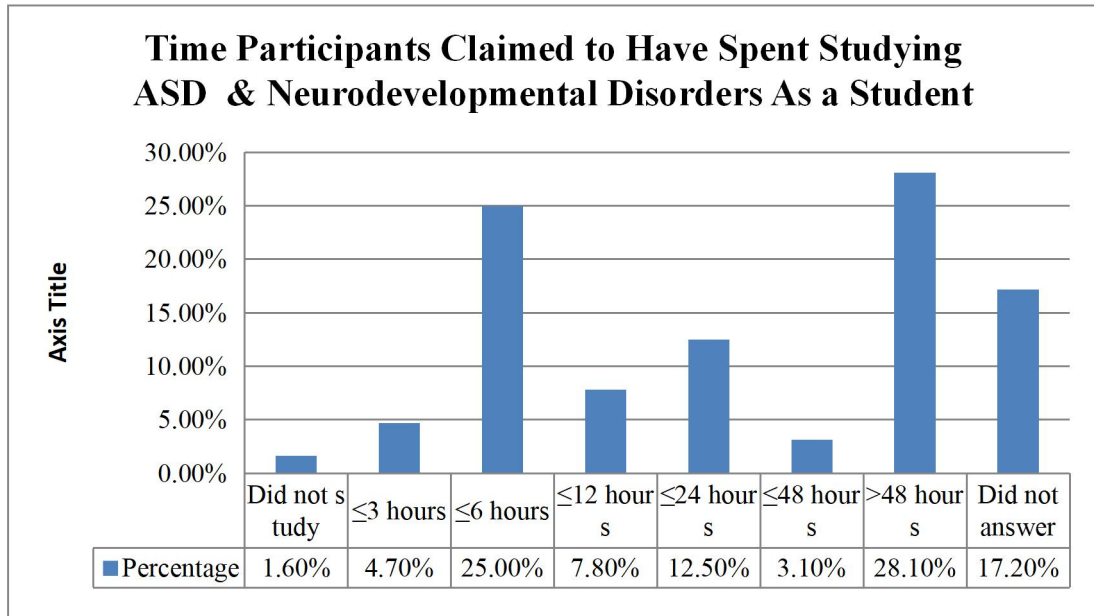


Figure 7: Time Participants Claimed to Have Spent Studying ASD & Neurodevelopmental Disorders As a Student

In this chart participants are categorized according to time they claimed to have spent studying ASD and neurodevelopmental disorders as a student. 1.6% (1) did not study, 4.7% (3) studied for ≤3 hours, 25% (16) studied for ≤6 hours, 7.8% (5) studied for ≤12 hours, 12.5% (8) studied for ≤24 hours, 3.1% (2) studied for ≤48 hours, 28.1% (18) studied for more than 48 hours. 17.2% (11) did not answer,

3.8 Participants' First Encounter with ASD Patient

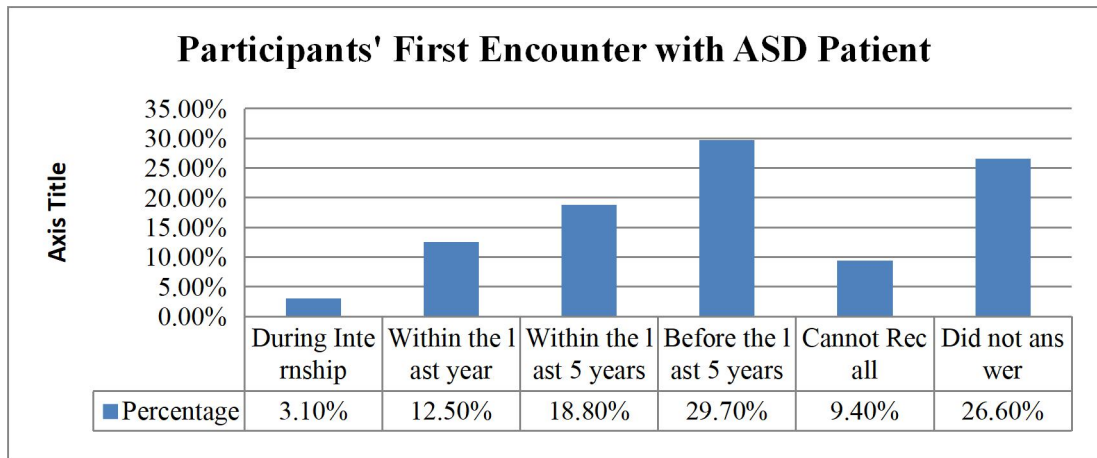


Figure 8: Participants' First Encounter with ASD Patient

In this chart participants are categorized according to their first encounter with ASD patient. 3.1% (2) encountered their first patient during internship, 12.5% (8) encountered their first patient within the last year, 18.8% (12) encountered their first patient within the last 5 years, 29.7% (19) encountered their first patient before the last 5 years and 9.4% (6) cannot recall when they encountered their first patient. 26.6% (17) did not answer.

3.9 Participants' Caseload of ASD Patient

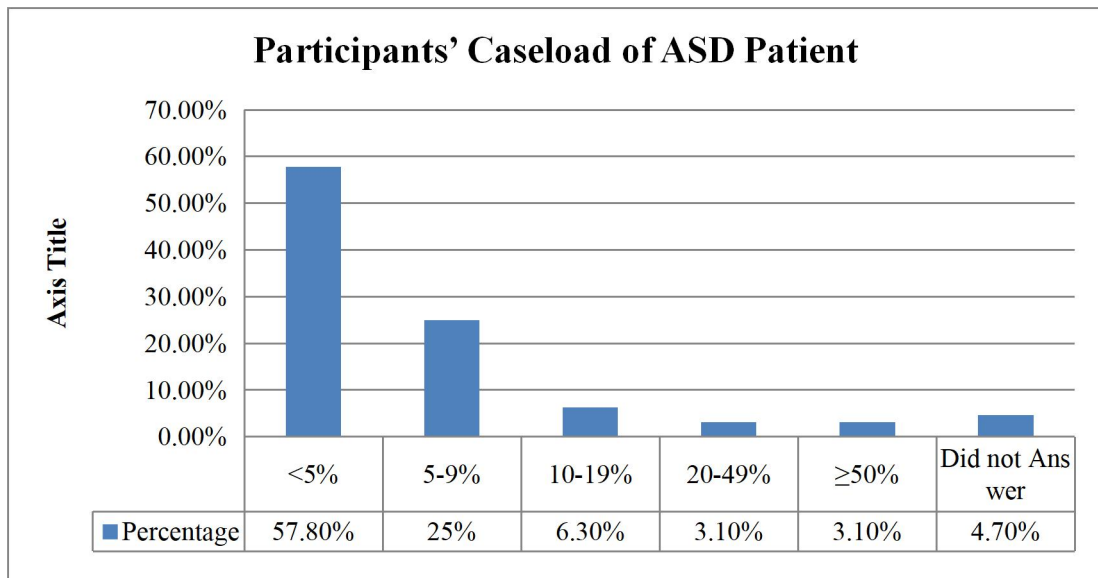


Figure 9: What Percentage of Total Patients are Have ASD

In this chart participants are categorized according to what percentage of ASD patient caseload. 57.8% (32) have <5% of patients who have ASD, 25% (16) participants have 5-9% of patients who have ASD, 6.3% (4) have 10-19% of patients who have ASD, 3.1% (2) have 40-49% of patients who have ASD and 3.1% (2) have ≥50 of patients who have ASD. Lastly 4.7% (3) did not answer.

3.10 Special Training Regarding ASD Received by Participants

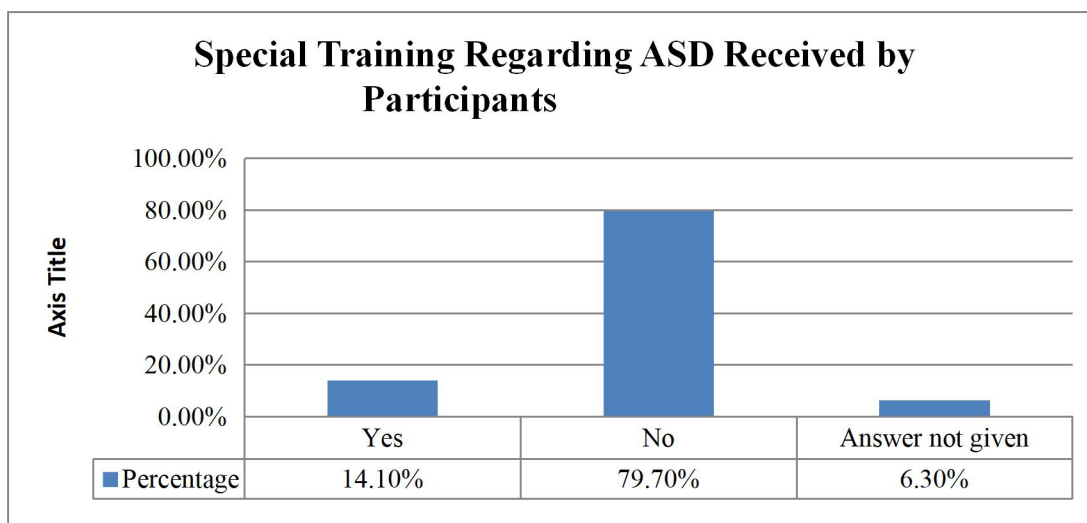


Figure 10: Special Training Regarding ASD Received by Participants

In chart participants Table 10 categorizes the participants according to whether or not they have received special training. 14.1% (9) had received some form of specialized training. 79.7% (51) had not received any special training. 6.3% (4) did not answer. The special training received by participants include training during post graduate program, attending seminars, participating in workshops and training from Bangabandhu Sheikh Mujib Medical University (BSMMU)

3.11 Participants' Views About ASD

Views About Autism Spectrum Disorder		Yes	No	Not Sure	Did not answer
01	Autism can occur in mild as well as extreme forms	93.8%	3.1%	3.1%	0%
02	Autistic children usually grow up to be schizophrenic adults	7.8%	73.4%	17.2%	1.6%
03	Autism is an emotional disorder	32.8%	60.9%	4.7%	1.6%
04	Most Autistic children are also mentally retarded	51.6%	42.2%	4.7%	1.6%
05	It is difficult to distinguish between Autism and childhood schizophrenia	32.8%	39.1%	23.4%	4.7%
06	Autism occurs more commonly among higher socioeconomic and educational levels	51.6%	32.8%	12.5%	3.1%
07	Autistic children's withdrawal is mostly due to cold, rejecting parents	35.9%	34.4%	26.6%	3.1%
08	Most autistic children have special talents or abilities	57.8%	25%	12.5%	4.7%
09	Autism is a rare condition in this country as compared with the West	15.6%	67.2%	14.1%	3.1%
10	Autism is under-recognized and often missed in general practice	85.9%	7.8%	3.1%	3.1%
11	There is a lack of awareness regarding	84.4%	10.9%	1.6%	3.1%

	Autism among professionals in Bangladesh				
12	Autism is a communication disorder	64.1%	28.1%	6.3%	1.6%
13	Autistic children do not show social attachments, even to parents	73.4%	18.8%	4.7%	3.1%
14	It is impossible to tell if a child is Autistic before 4 years of age	14.1%	62.5%	20.3%	3.1%
15	Autism exists only in childhood	10.9%	71.9%	12.5%	4.7%
16	Even with early intervention, the prognosis for independent community functioning of Autistic individuals is poor	25%	57.8%	12.5%	4.7%
17	Autism is a developmental disorder	81.3%	10.9%	3.1%	4.7%
18	With the proper treatment, most autistic children eventually “outgrow”autism	50%	23.4%	20.3%	6.3%
19	Autism is a lifelong condition	82.8%	7.8%	7.8%	1.6%
20	Autistic children are “untestable”	14.1%	56.3%	23.4%	6.3%
21	Parental counseling on training is one effective treatment of autism	92.2	4.7%	0%	3.1%
22	Dietary intervention is one of treatment options	54.7%	26.6%	14.1%	4.7%
23	Autism is more common in the societal elite	50%	32.8%	14.1%	3.1%

24	Autism can be cured through the use of Drugs	7.8%	79.7%	7.8%	4.7%
25	Speech & Language Therapists are essential in management of autism	95.3%	1.6%	0%	3.1%
26	Occupational Therapists are essential in management of autism	90.6%	6.3%	1.6%	1.6%
27	Psychologists are essential in management of autism	87.5%	10.9%	0%	1.6%
28	Physiotherapists are in management of autism	78.1%	18.8%	1.6%	1.6%

Figure 11: Participants' Views About ASD

In this chart participants' views about ASD is presented. Statement 1,5, 11, 12, 17, 19, 21, 22, 25, 26 and 27 are true. Meanwhile 2, 3, 4, 6, 7, 8, 9, 10, 13, 14 , 15, 16, 18, 20, 23, 24 and 28 are false.

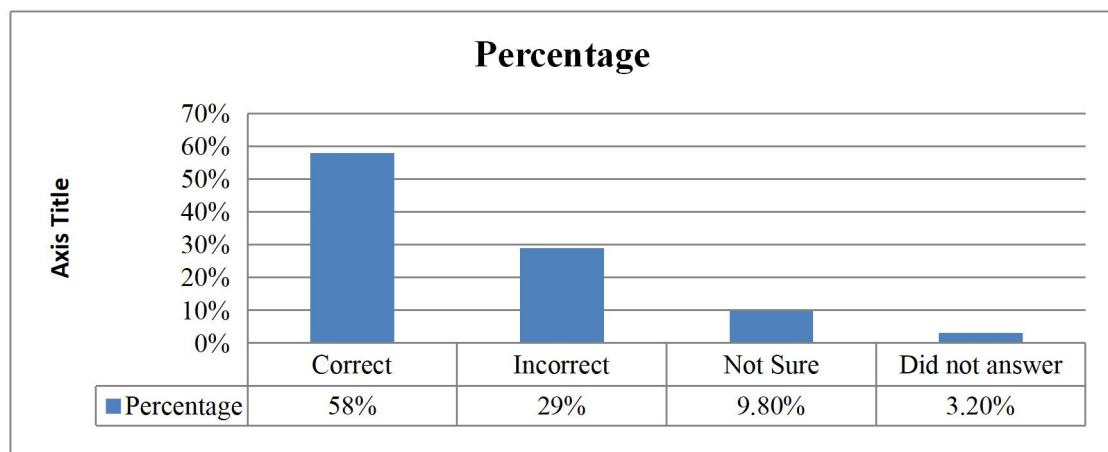


Figure 12: Averages of Participants' Views

In this chart we can see the averages of participants' views. On average the participants answered correctly 58% of the of the time, incorrectly 29% of the time, were not sure 9.8% of the time and did not answer 3.2% of the time.

3.12 Method of Diagnosis Used By Participants to Assess Autism

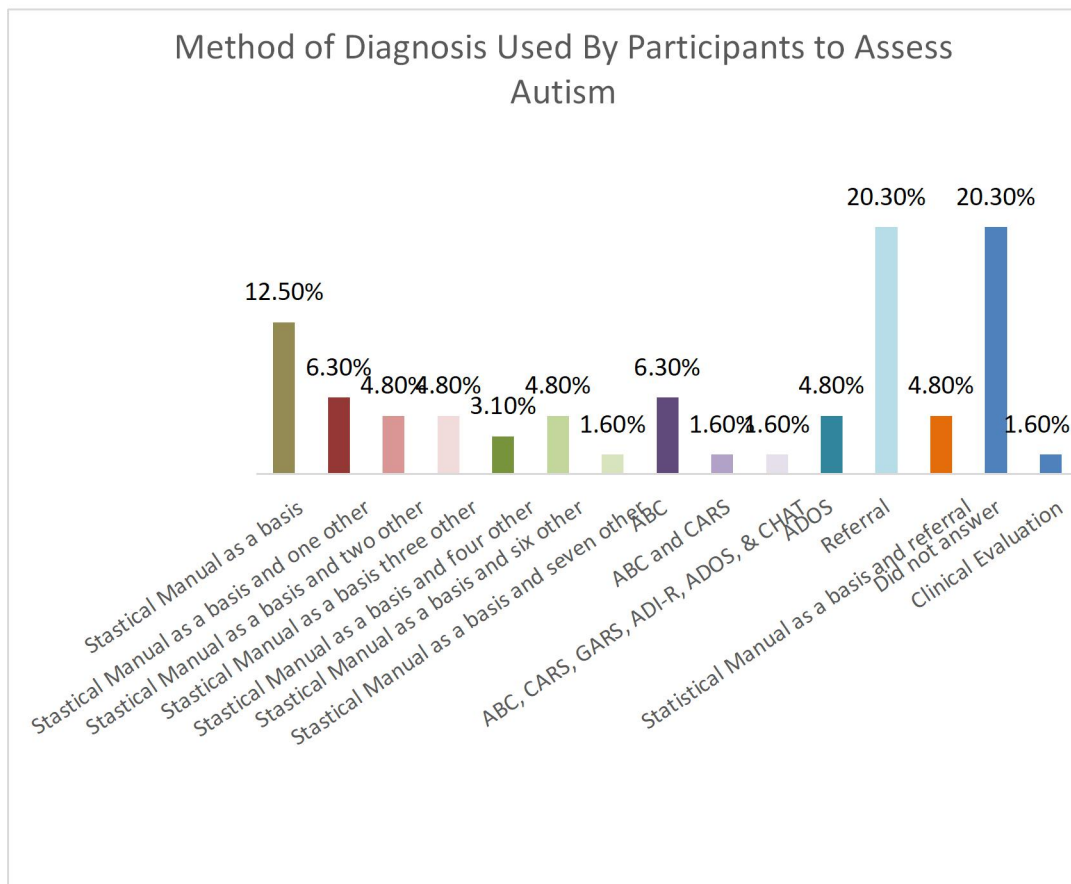


Figure 13: Method of Diagnosis Used By Participants

In this chart the methods used by the participants to assess ASD. 12.5% (8) participants use Statistical Manuals (DSM IV, DSM V and ICD-10) as a basis, 6.3% (4) use Statistical Manual and one other diagnosis tool out of ABC, CARS, GARS, ADI-R, ADOS and CHAT, 4.8% (3) use Statistical Manuals as well as 2 other diagnosis tool as a basis, 4.8% (3) use Statistical Manuals as well as 3 other diagnosis tool as a basis, 3.1% (2) use Statistical Manuals as well as 4 other diagnosis tool as a basis, 4.8% (3) use Statistical Manuals as well as 3 other diagnosis tool as a basis, 1.6% (1) use Statistical Manuals as well as 7 other diagnosis tool as a basis. 6.3% (4) participant uses the ABC diagnosis tool. 1.6% (1) uses ABC & CARS diagnosis tools. 1.6% (1) participant uses ABC, CARS, GARS, ADI-R, ADOS, & CHAT diagnosis tools. 4.8% (3) uses ADOS diagnosis tool. 4.8% (3) participant uses Statistical Manual as a basis as well as referral to other professionals while 20.3% (13) simply refer to other professionals. 1.6% (1) uses clinical evaluation. Lastly 20.3% (13) did not answer.

3.13 Traits Important for diagnosis of Autism

Traits important for diagnosis of Autism	Necessary	Helpful but not Necessary	Not Necessary	Did not Answer
Language Delays	68.8%	21.9%	1.6%	7.8%
Lack of eye contact	82.8%	14.1%	0%	3.1%
Need for sameness, resistance to change in routine	59.4%	29.7%	4.7%	6.3%
Peculiar speech characteristics	54.7%	35.9%	3.1%	6.3%
Lack of social responsiveness	81.3%	15.6%	0%	3.1%
Rigid or stereotyped play activities	65.6%	26.6%	3.1%	4.7%
Onset of symptoms before 36 months	39.1%	39.1%	15.6%	6.3%
Unusual mannerisms such as finger flicking	29.7%	57.8%	6.3%	6.3%
Preoccupation with objects	34.4%	48.4%	9.4%	7.8%
Social interaction difficulties	79.7%	4.7%	10.9%	4.7%

Figure 14: Traits Important for diagnosis of Autism

In this chart traits the participants' consider necessary for diagnosis of Autism is presented. Lack of eye contact is considered necessary by the most participants (82.8%). Meanwhile unusual mannerisms such as finger licking is are considered helpful but not necessary by the most participants (57.8%). Lastly onset of symptoms before 36 months was considered Not Necessary by the most participants (15.6%).

3.14 Treatment Approach Used by Participants

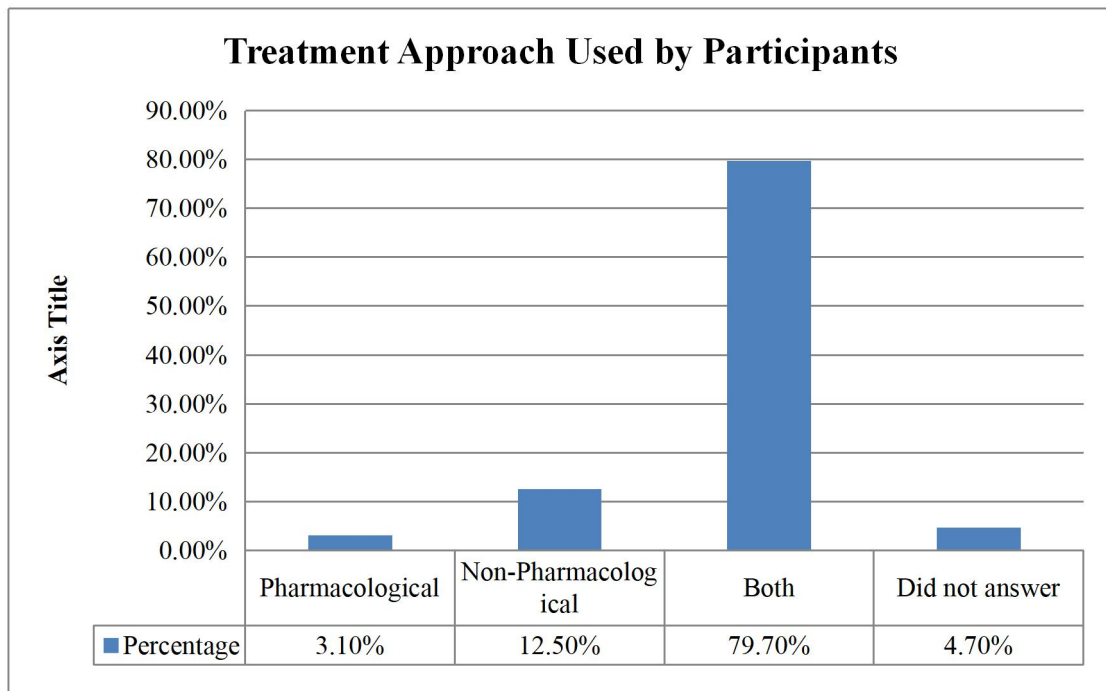


Figure 15: Treatment Approach Used by Participants

In this chart the treatment approaches used by participants are presented. 3.1% (2) use pharmacological treatment approaches. 12.5% (8) use non pharmacological treatment approaches. 79.7% (51) use both pharmacological and non pharmacological treatment approaches. 4.7% (3) participants did not answer.

3.15 Drugs Prescribed By Participants

Prescribed Drugs	Percentage
Antipsychotics	10.9%
Antidepressant	1.6%
Mood stabilizers	17.2%
Mood stabilizers & Hypnotics	1.6%
Antidepressant & Mood Stabilizers	3.1%
Mood stabilizers & Psychostimulants	1.6%
Antipsychotics, Antidepressant & Mood Stabilizers	6.3%
Antipsychotics, Antidepressant, Mood Stabilizers, Psychostimulants & Others	4.7%
Antipsychotics, Antidepressant, Mood Stabilizers, Psychostimulants & Hypnotics	3.1%
Antipsychotics, Antidepressant, Mood Stabilizers, Psychostimulants, Hypnotics & Others	1.6%
Antidepressant, Mood Stabilizers & Psychostimulants	1.6%
Antipsychotics, Antidepressant, Mood Stabilizers & Hypnotics	3.1%
Antipsychotics & Mood stabilizers	18.8%
Antipsychotics, Antidepressant, Mood Stabilizers, Psychostimulants & Hypnotics	1.6%
Mood Stabilizers, Psychostimulants & Hypnotics	1.6%
Antipsychotics & Antidepressant	4.7%

Symptomatic Management	1.6%
No Medication	1.6%
Did not answer	14.1%

Figure 16: Drugs Prescribed By Participants

In this chart the combination of drugs prescribed by participants is presented. A combination of Antipsychotics & Mood stabilizers is the most popular drug prescription among the participants. Meanwhile the use of just Mood stabilizers is the second most popular drug prescription among participants.

3.16 Participants' Treatment Target for Patient's With ASD

Treatment Target for Patient's With ASD	Yes	No	Did not answer
To improve social interaction ability	89.1%	6.1%	4.7%
To relieve behavior characteristics	82.8%	12.5%	4.7%
To improve verbal and nonverbal communication skills	85.9%	9.4%	4.7%
To improve cognitive ability	71.9%	23.4%	4.7%
To improve sensory integration	51.3%	42.1%	4.7%
Self care skills	82.8%	12.5%	4.7%
To reduce emotional problems	67.2%	28.1%	4.7%
To improve physical health	71.9%	23.4%	4.7%
Other	4.7%	90.6%	4.7%

Figure 17: Participants' Treatment Target for Patient's With ASD

In this chart the participants' treatment target for patient's with ASD is presented. "To improve social interaction ability" was selected as a treatment target by the highest percentage of participants (89.1%). Meanwhile "To reduce emotional problems" was selected by 67.2% of participants. Other treatment targets selected by participants consist of special schooling for academic learning, family intervention and special needs schooling.

3.17 Interventions Prescribed by Participants to ASD Patient

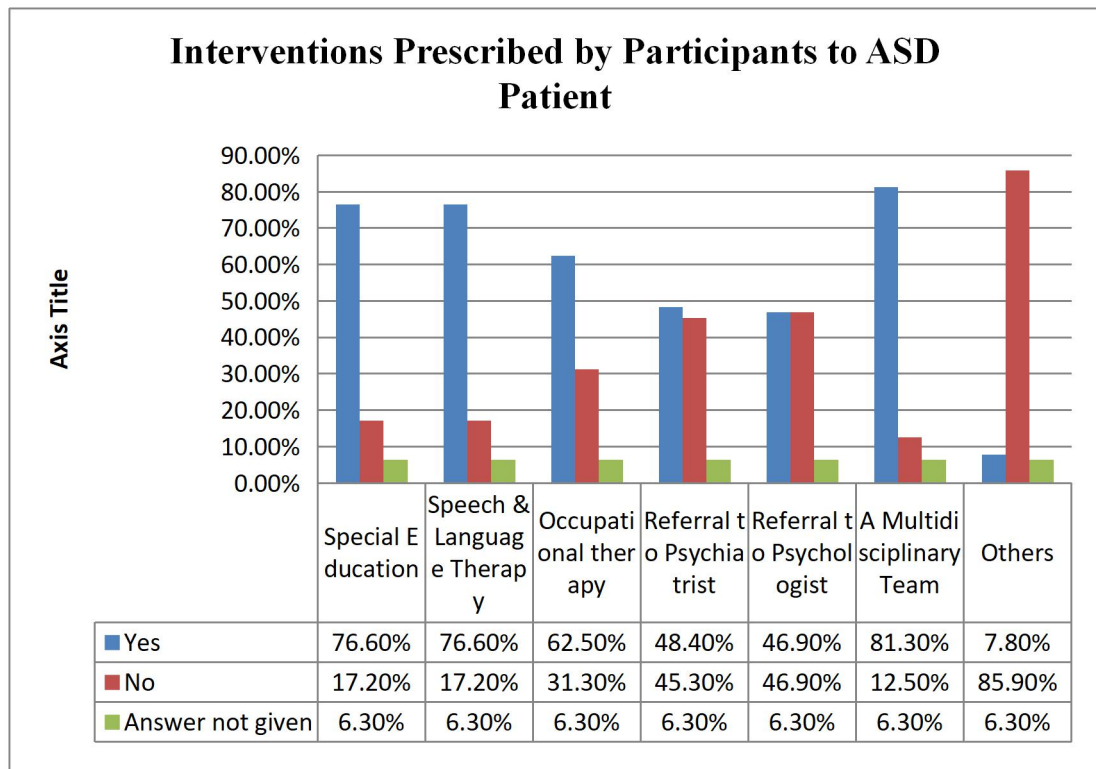


Figure 18: Interventions Prescribed by Participants to ASD Patient

In this figure we can see which interventions participants prescribe to patients with ASD. 76.6% (49) prescribe Special education, 17.2% (11) would not prescribe special education. 6.3% (4) did not answer. 76.6% (49) prescribe Speech & Language Therapy, 17.2% (11) would not prescribe Speech & Language Therapy and 6.3% (4) did not answer. 62.5% (40) prescribe Occupational Therapy, 31.3% (20) would not prescribe Occupational Therapy and 6.3% (4) did not answer. 48.4% (31) prescribe Referral to Psychiatrist, 45.3% (29) would not prescribe Referral to Psychiatrist and 6.3% (4) did not answer. 46.9% (30) prescribe Referral to Psychologist, 46.9% (30) would not prescribe Referral to Psychologist and 6.3% (4) did not answer. 81.3% (52) prescribe A Multidisciplinary Team, 46.9% (30) would not prescribe A Multidisciplinary Team and 6.3% (4) did not answer. Lastly 7.8% (5) would not prescribe A Multidisciplinary Team and 6.3% (4) did not answer. 85.9% (55) did not list any other treatment approaches they would prescribe to patients. 7.8% (5) would prescribe other treatment approaches. 6.3% (4) did not answer. These other treatment approaches include specialized institutions, Physiotherapy, Behavioral Therapy and referral to Dietitian.

3.18 Participants' Perception of SLT

Perception of SLT	Percentage
Allied Health Professional	45.3%
All of the options	1.6%
Allied Health Professional, Complementary Health Professional & Autonomous health professional	1.6%
Complementary Health Professional	17.2%
Autonomous health professional	10.9%
Allied Health Professional, Technician, Complementary Health Professional & Autonomous health professional	4.7%
Allied Health Professional & Complementary Health Professional	3.1%
Allied Health Professional, Technician, Complementary Health Professional, Autonomous health professional & Paramedic	1.6%
Did not answer	14.1%

Figure 19: Participants' Perception of SLT

In this figure we can see what the participants perceive SLT professionals to be. The 45.3% (29) perceive SLT to be Allied Health Professional while 14.1% (9) did not answer.

3.19 Participants' Assumption About the Length of the SLT Course

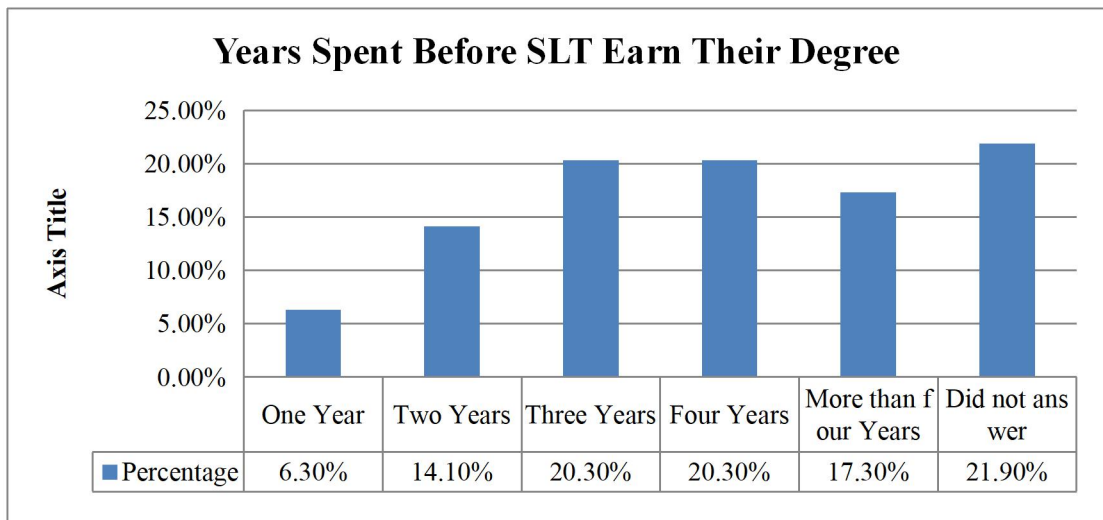


Figure 20: Participants' Assumption About the Length of the SLT Course

In this chart the participant's assumption about the length of the SLT course is presented. 6.3% (4) assume the SLT course is one year long, 14.1% (9) assume the SLT course is two years long, 20.3% (13) assume the SLT course is three years long, 20.3% (13) assume the SLT course is four years long and 17.3% (11) assume the SLT course is longer than four years. 21.9% (14) did not answer.

3.20 Participants' Willingness to Work in an MDT With SLT as Leader

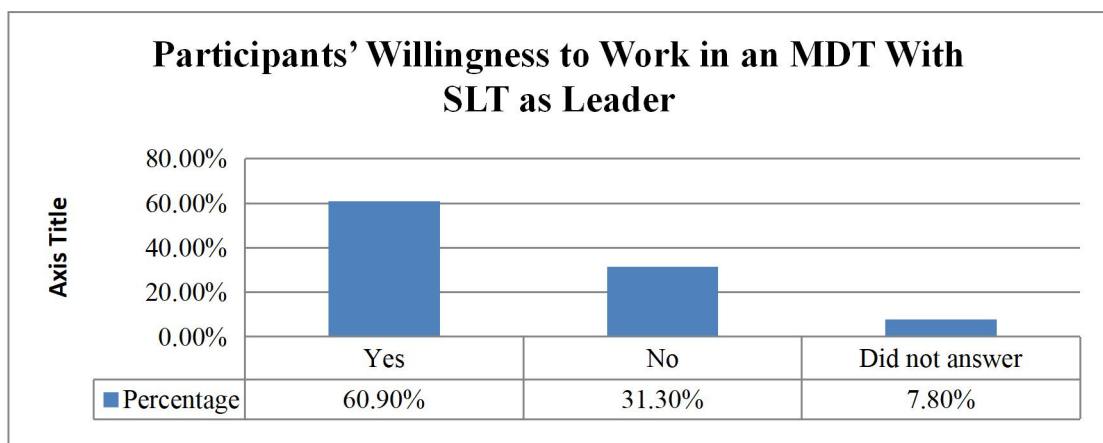


Figure 21: Participants' Willingness to Work in an MDT With SLT as Leader

In this chart we can see the participants' willingness to work in an MDT with an SLT as Leader. 60.9% (39) answered yes and 31.3% (20) answered no. 7.8% (5) did not answer.

According to the The Rights and Protection of Persons with Disability Rules 2015 based on Persons with Disabilities Rights And Protection Act of 2013 persons with disabilities are, a hospital physician is responsible for registering person with disabilities and is given access to necessary training and equipment by the Department of Social Services and the Department of Health. From the information gathered in the study we can see that medical practitioners of various specializations as well as general practitioners encounter ASD patients. Out of the medical practitioners that have participated in the study very few participants had undergone specialized training. Those that have undergone specialized training are all currently employed in Government Medical Hospitals. They have undergone this training through various seminars and through post graduate program. None of the participants had received any internationally standardized training regarding ASD. Thus creating a lack of proper, up to date ASD management in the current system.

In the study we can see that there is a vast difference between the time medical practitioners claimed to have spent studying Autism. With the two largest groups being participants who studied autism for more than 48 hours (28.1%) and the participants who studied less than 6 hours but more than 3 hours (25%). But in the latest MBBS curriculum 2012 Autism Spectrum Disorder is taught for 1 hour alongside Child Behavioral Disorders, Somatoform Disorder & Enuresis. The learning objective is “At the end of the sessions the students will be able to state the common behavioral disorders of children, describe the risk factors & management of nocturnal enuresis, differentiate true seizure from pseudo-seizure, describe causes, early identification management & counseling of autism spectrum disorder (ASD), describe child abuse and neglect.”

In the older MBBS curriculum 2002 Autism was taught as an addition alongside HCR, Juvenile delinquency and Child Abuse with Enuresis and behavioral disorders as the core subject for 1 hour. The learning objective is to learn causes and management of Autism. The learning objective was “Students will be able to: Describe common Psychological & Psychiatric disorder of children, Causes & management of Enuresis, Describe common behavioral disorder & management & counselling, Describe causes

& management of Autism, Describe the underlying causes of HCR & Juvenile delinquency & management, Counsel the patients & parents about the disease”.

From this we can see that the time officially allotted to studying ASD is very little. This would indicate that the participants had learned about ASD through self learning. Making it difficult to ensure a standard of quality.

In the study when asked to provide their views on ASD the medical practitioners who participated in the study were, on average able to answer correctly 58% of the time. They answered incorrectly 29% of the time and were not sure about the answer 9.8% of the time. Meanwhile 3.2% of the time they did not answer. This suggests an incomplete understanding of Autism Spectrum Disorder.

A significant percentage of the participants use statistical manuals such as Diagnostic and Statistical Manual IV (DSM IV) Diagnostic and Statistical Manual V (DSM V), International Statistical Classification of Diseases and Related Health Problems (ICD -10) for their method of diagnosing autism, while another significant percentage refers to other professionals. While the Diagnostic and Statistical Manual is a useful tool, it is not enough to confirm psychological or neurodevelopmental conditions. Lack of eye contact was considered necessary to diagnosing ASD by the highest number of participants (82.6%). It is concerning because firstly lack of eye contact and it's relation to autism is a common social myth. And secondly because lack of eye contact is a common aspect of various pediatric conditions. Both of these factors might result in misdiagnosis of Autism. American Academy of Neurology and Child Neurology Society gives two recommendations to diagnose Autism Spectrum Disorder based on the at present impartial evidence. 1) Routine developmental surveillance and screening 2) To diagnose and evaluate autism so that they can differentiate autism from other developmental disorders. For primary assessment CHAT, Autism Screening Questionnaire (Australian Scale for Asperger's Syndrome, PDDST-II-Stage 1). If they are positive in this the next steps include Formal Diagnostic Procedures by experienced clinician, History & Neurological Evaluation, Specific Evaluations to Determine Developmental Profile and Expanded Laboratory Evaluation only if indicated (American Academy of Neurology 2014).

A thing to note about the study is that only 51.3% selected “To improve sensory integration” as a treatment target. On the other hand only 62.5% of participants would

prescribe referral to occupational therapist. The most important role of occupational therapist in management of ASD is sensory integration. About 60-70% of patients with ASD have impairments in sensory modulation (Adamson, O'hare & Graham 2006). This would indicate that medical practitioners are not well aware of the sensory impairment children with ASD face.

Out of the participants only 67.2% of participants consider emotional problems a treatment target for ASD patients. However as study on specialist autism schools show that there are high levels of behavioral problems present in children studying there in those schools (Salomone, E et al. 2014). And in the case of children with high functioning ASD 72% and 86% of children are diagnosed with some form of behavioral problem (Ooi, Y et al. 2011).

81.3% of the participants would prescribe A Multidisciplinary Team (MDT) to treat ASD. However in Bangladesh a Multidisciplinary Team is very rare in even key government hospitals. Most government hospitals do not have qualified Speech and Language Therapists and Occupational Therapists. However the interest to refer to a multidisciplinary team indicates that medical practitioner would it if opportunity arose.

When asked if willing to work in an MDT with an Speech and Language Therapists (SLT) as the leader only 60.9% answered that they are willing. These factors can become an issue when medical practitioners are in a situation where they have to work alongside Speech and Language Therapists (SLT).

5.1 Limitations

There were limitations with the questionnaire as well as situational limitations while considering the results of the study. They are as follows:-

- The participants are all currently employed in metropolitan area. Thus the study will not reflect the current status of medical practitioners in rural areas.
- Data for the study was conducted over the course of four months, thus limiting the number of participants the investigator could access.
- A purposive sampling was used. That was not reflective of the wider population under the study.
- In the part of the questionnaire where participants are asked to list their specialization, instructions to include whether or not they are undergoing specialization training or if they have already finishing undergoing specialization training was not mentioned.
- In the part of the questionnaire where participants are asked to list how many hours they spent studying ASD as a student, they were not instructed to list how many hours they spent studying ASD while attaining a specific degree.

5.2 Recommendations

- This is the first primary study on the Current Practice of Medical Practitioners Regarding the Management of Autism Spectrum Disorder. In Bangladesh. So there were some limitations while conducting the study.
- The Study was done in a short period of time and with a minimal budget. A longer time period and more financial support can result in a more comprehensive study.
- Data was collected using a self-reported questionnaire based on prior studies. A future study developed using professional consultation can lead to better results.
- Purposive Sampling was used in this study. Future studies can use more reliable sampling method.

Autism Spectrum Disorder (ASD) is still not a widely understood condition in the country of Bangladesh. Rumors and incorrect stigma regarding it is still common in the country. Family members of patients with ASD seek services from medical practitioners regarding it's treatment and management. This study attempted to understand the current status of the services medical practitioners provided regarding ASD. Through this study it became evident that there are multiple areas in the current services provided by medical practitioners. The diagnosis method used to identify ASD is not standardized. The medical practitioners' current understanding of autism is somewhat lacking, specialized training regarding autism spectrum disorder needs to become more accessible, co-operation between medical practitioners and other health practitioners who are integral in treatment and management of ASD needs to be improved. This study implicates a necessity to improve the clinical practice of medical practitioners in Bangladesh in regards with ASD.

- American Academy of Neurology. (2014). *Autism Guideline for Clinicians*
Retrieved from http://tools.aan.com/professionals/practice/guidelines/guideline_summaries/Autism_Guideline_for_Clinicians.pdf
- Andalib, Amin & Arafat, S.M.. (2016). *Practicing Pattern of Physicians in Bangladesh*. International Journal of Perceptions in Public Health. 1. 13-20.
- Bangladesh Medical and Dental Council (2002) MBBS Curriculum
- Bangladesh Medical and Dental Council (2012) MBBS Curriculum
- Bailey, D.M. (Ed.). (1997). *Research for the Health Professional: a practical guide* (2nd ed.). Davis Company: USA.
- Baio, J., Wiggins, L., Christensen, D. L., Maenner, M. J., Daniels, J., Warren, Z., . . . Dowling, N. F. (2018). *Prevalence of Autism Spectrum Disorder Among Children Aged 8 Years — Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2014*. *MMWR. Surveillance Summaries*, 67(6), 1-23.
doi:10.15585/mmwr.ss6706a1
- Batshaw, M. L. (1999). *Children with disabilities* (4th ed.). Baltimore: Paul H. Brookes.
- DeFilippis, M., & Wagner, K. D. (2016). *Treatment of Autism Spectrum Disorder in Children and Adolescents*. *Psychopharmacology bulletin*, 46(2), 18-41.
- Greenspan, S. I., & Wieder, S. (2009). *Engaging autism: Using the floortime approach to help children relate, communicate, and think*. Philadelphia, PA: Da Capo Lifelong Books.
- Fraenkel, J. R., & Wallen, N. E. (2000). *How to design and evaluate research in education*, 4th ed. (4th ed.). United States: MCGRAW-HILL COMPANIES (OH).

- Hayes, Jennie & Ford, Tamsin & Rafeeqe, Hateem & Russell, Ginny. (2018). *Clinical practice guidelines for diagnosis of autism spectrum disorder in adults and children in the UK: A narrative review*. BMC Psychiatry. 18. 222. doi:10.1186/s12888-018-1800-1.
- Hicks, C. M. (2000). *Research methods for clinical therapists* (3rd ed.). London: Churchill Livingstone.
- Imran, N., Chaudry, M. R., Azeem, M. W., Bhatti, M. R., Choudhary, Z. I., & Cheema, M. A. (2011). *A survey of Autism knowledge and attitudes among the healthcare professionals in Lahore, Pakistan*. BMC Pediatrics, 11(1). doi:10.1186/1471-2431-11-107
- Johnson, C. P., & Myers, S. M. (2007, December). *Identification and Evaluation of Children With Autism Spectrum Disorder*. Retrieved October 25, 2018, from http://dls.virginia.gov/commissions/aac/files/AAP_Autism_ID.pdf
- Khan, N. Z., Sultana, R., Ahmed, F., Shilpi, A. B., Sultana, N., & Darmstadt, G. L. (2017). Scaling up child development centres in Bangladesh. *Child: Care, Health and Development*, 44(1), 19-30. doi:10.1111/cch.12530
- Lee, J., Lee, S. H., Lee, B., Yang, I. J., & Chang, G. T. (2018). A survey of Korean medicine doctors' clinical practice patterns for autism spectrum disorder: Preliminary research for clinical practice guidelines. *BMC Complementary and Alternative Medicine*, 18(1). doi:10.1186/s12906-018-2162-4
- Mundy, P. (2005, September 21). *Autism and Its Impact on Child Development: Comments on Charman, Stone and Turner, and Sigman and Spence*. Retrieved October 18, 2018, from <http://www.child-encyclopedia.com/autism/according-experts/autism-and-its-impact-child-development-comments-charman-stone-and-turner>
- Neuro-Developmental Disability Protection Trust Act of 2013
- Persons with Disabilities Rights And Protection Act of 2013

- Ooi, Y. P., Tan, Z. J., Lim, C. X., Goh, T. J., & Sung, M. (2011). Prevalence of Behavioural and Emotional Problems in Children with High-Functioning Autism Spectrum Disorders. *Australian & New Zealand Journal of Psychiatry*, 45(5), 370-375. doi:10.3109/00048674.2010.534071
- Proyash. (2018). Institute of Special Education. Retrieved October, 2018, from <http://proyash.edu.bd/>
- Rahbar, M. H., Ibrahim, K., & Assassi, P. (2010). Knowledge and Attitude of General Practitioners Regarding Autism in Karachi, Pakistan. *Journal of Autism and Developmental Disorders*, 41(4), 465-474. doi:10.1007/s10803-010-1068-x
- Rahman, Fazlur & Akhter, Shaheen & Biswas, Animesh & Abdullah, Abu-Sayeed. (2016). *Study on Prevalence of Autism in Bangladesh*. 10.13140/RG.2.2.33709.33765.
- Salomone, E., Kutlu, B., Derbyshire, K., McCloy, C., Hastings, R. P., Howlin, P., & Charman, T. (2014). Emotional and behavioural problems in children and young people with autism spectrum disorder in specialist autism schools. *Research in Autism Spectrum Disorders*, 8(6), 661-668. doi:10.1016/j.rasd.2014.03.004
- Suchona. (2019). Shuchona Foundation. Retrieved January, 2019, from <https://www.shuchona.org/>
- Taylor, J. L., & Seltzer, M. M. (2011). *Employment and Post-secondary Educational Activities for Young Adults With Autism Spectrum Disorders During the Transition to adulthood*. *Journal of autism and developmental disorders*, 41(5), 566-74.
- The Rights and Protection of Persons with Disability Rules 2015
- Wallen, N. E., & Fraenkel, J. R. (2000). *Educational research: A guide to the process* (2nd ed.). New York, NY: Routledge.
- Wieder, S., & Greenspan, S. (2009). *Engaging Autism: Using the Floortime Approach to Help Children Relate, Communicate, and Think* (1st ed.). Da Capo Lifelong Books.

Annexure 1

Permission Letter


বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)
(The Academic Institute of CRP)
CRP-Chapain, Savar, Dhaka, Tel: 7745464-5, 7741404, Fax: 7745069
BHPI-Mirpur Campus, Plot-A/5, Block-A, Section-14, Mirpur, Dhaka-1206. Tel: 8020178, 8053662-3, Fax: 8053661

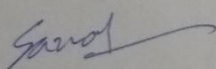
তারিখ : ২৪.০৯.২০১৮

প্রতি
হেড অব মেডিকেল সার্ভিসেস উইং
সিআরপি, সাতার, ঢাকা।

বিষয় : রিসার্চ প্রজেক্ট (dissertation) প্রসঙ্গে।

জনাব,
বিএইচপিআই'র ৪র্থ বর্ষ বিএসসি ইন স্পীচ এন্ড ল্যাঙ্গুয়েজ থেরাপি কোর্সের ছাত্র সৈয়দ ইমরান আহমেদকে তার রিসার্চ সংক্রান্ত কাজের জন্য আগামী ২৫.০৯.২০১৮ তারিখ থেকে ১০.১০.২০১৮ তারিখ পর্যন্ত সময়ে আপনার নিকট প্রেরণ করা হলো। তার রিসার্চের শিরোনামঃ
“ Current practice of medical practitioners regarding management of Autism Spectrum Disorder in Bangladesh”.

তাই তাকে সার্বিক সহযোগিতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদান্তে

মোঃ সাজ্জাদ হোসেন
সহকারী অধ্যাপক ও বিভাগীয় প্রধান
স্পীচ এন্ড ল্যাঙ্গুয়েজ থেরাপি বিভাগ
বিএইচপিআই।



*Formed by
Dr. Hossain
M. A. Hossain
M. A. Hossain
M. A. Hossain*

*THE SAYED UDDIN Hossain
M. A. Hossain
M. A. Hossain
M. A. Hossain*

Annexure 2

Permission Letter

ঢাকা শিশু হাসপাতাল
শেরেবাংলা নগর
ঢাকা-১২০৭।

নং প্রশাসন/২৪৮০/২০১৮/ চাশিহাঃ তারিখঃ ২৫.১১.২০১৮

দপ্তরাদেশ

BHPI, CRP-Chapain Savar, Dhaka এর Syed Imran Ahmad, Student কর্তৃক “Current Practice of Medical Practitioners Regarding the Management of Autism Spectrum Disorder in Bangladesh” এর গবেষণার অনুমতি চাহিয়া আবেদনের প্রেক্ষিতে তাহার মূল গবেষণা পত্রে ঢাকা শিশু হাসপাতালকে স্বীকৃতি প্রদান করার শর্তে এবং হাসপাতাল এর Ethical Committee ছাড়পত্র প্রদান করায় তাহাকে ০৫/১০/২০১৮ইং তারিখ হইতে ০৫/১২/২০১৮ইং তারিখ পর্যন্ত উক্ত গবেষণার অনুমতি প্রদান করা হইল।

অধ্যাপক (ডাঃ) সৈয়দ সফি আহমেদ, পেডিয়েট্রিক গ্যাসট্রোএন্টারোলজি, হেপাটোলজি এন্ড নিউট্রিশন বিভাগ এর সহিত সমন্বয়ের মাধ্যমে এবং হিসাব বিভাগে ফি বাবদ ১,০০০/- (এক হাজার) টাকা প্রদান সাপেক্ষে গবেষণার কাজ শুরু করিতে হইবে।

অধ্যাপক (ডাঃ) মোঃ আব্দুল আজিজ
পরিচালক
ঢাকা শিশু হাসপাতাল

নং প্রশাসন/২৪৮০/২০১৮/ চাশিহাঃ তারিখঃ ২৫.১১.২০১৮

অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য অনুলিপিঃ

- ১। অধ্যাপক (ডাঃ) সৈয়দ সফি আহমেদ, পেডিয়েট্রিক গ্যাসট্রোএন্টারোলজি, হেপাটোলজি এন্ড নিউট্রিশন, চাশিহা।
- ২। সদস্য-সচিব, ইথিক্যাল রিভিউ কমিটি, চাশিহা।
- ৩। উপ-পরিচালক (হাসপাতাল), চাশিহা।
- ৪। ইপিডিমিওলজিস্ট, চাশিহা।
- ৫। সহকারী পরিচালক (অর্থ), চাশিহা।
- ৬। প্রশাসনিক কর্মকর্তা, চাশিহা।
- ৭। পরিচালক মহোদয়ের একান্ত সচিব, চাশিহা।
- ৮। কোয়ালিটি, চাশিহা।
- ৯। সৈয়দ ইমরান আহমেদ, ছাত্র, বিএইচপিআই।
- ১০। সংস্থার কপি।

সহকারী পরিচালক (প্রশাসন)

Annexure 3

Consent Form

This research is part of Speech & Language Therapy course and the name of the researcher is Syed Imran Ahmad. He is a 4th year student of B. Sc in Speech & Language Therapy in Bangladesh Health Professions Institute (BHPI). The study will entitle as **“CURRENT PRACTICE OF MEDICAL PRACTITIONERS REGARDING MANAGEMENT OF AUTISM SPECTRUM DISORDER IN BANGLADESH.”**

In this study I am a participant and I have been clearly informed about the purpose of the study. I am willingly participating in this study. I will have the right to withdraw from this study at any stage and I will not be bounded to answer to anybody. I understand that there will be no impact receiving treatment at present or in the future by participating in this study.

I am also informed that, all the information will collect from the interview that use in the study will be kept safe and maintain confidentiality. Only the researcher will be eligible to access in the information for his publication of the research result. My name and address will not published anywhere in this study. I can consult with the researcher and the research supervisor about the research process or get answers to any questions regarding the research project. I have been informed about the above-mentioned information and I am willing to participate in the study with consent.

Signature of the study Participate:	Date:
Signature of the Researcher:	Date:

Annexure 4

Questionnaire

Age: _____

Gender: Male / Female

Qualifications: _____ (MBBS, MSc, MS, FCPS etc)

Area of speciality: _____ (*Psychiatrist, Pediatrician, Gen. Practitioner etc.*)

Under which institution did you earn your educational degrees?

Duration of clinical experience: 0-1 year ☐ 1-5 years ☐ more than 5 years ☐

What institution(s) are you currently affiliated with? And where is it's location?

Give an approximation of how many hours in your academic life did you spend studying about ASD/Neurodevelopmental Disorders

_____ (hours)

When did you encounter your first ASD patient?

What percentage of total patients does ASD patients account for?

☐ <5

☐ 5-9

☐ 10-19

☐ 20-49

☐ ≥50

Do you have any special training for management of assessment of ASD? If yes please specify.

No ☐ Yes ☐ Specify _____

For each of the following statements, check the box best represents your views.

	Agree	Disagree	Not Sure
1. Autism can occur in mild as well as extreme forms.-----	☐	☐	☐
2. Autistic children usually grow up to be schizophrenic adults-----	☐	☐	☐
3. Autism is an emotional disorder.-----	☐	☐	☐
4. Most Autistic children are also mentally retarded-----	☐	☐	☐
5. It is difficult to distinguish between Autism and childhood schizophrenia.---	☐	☐	☐
6. Autism occurs more commonly among higher socioeconomic and educational levels.-----	☐	☐	☐
7. Autistic children's withdrawal is mostly due to cold, rejecting parents-----	☐	☐	☐
8. Most autistic children have special talents or abilities.-----	☐	☐	☐
9. Autism is a rare condition in this country as compared with the West.-----	☐	☐	☐
10. Autism is under-recognized and often missed in general practice.-----	☐	☐	☐
11. There is a lack of awareness regarding Autism among professionals in Bangladesh.-----	☐	☐	☐
12. Autism is a communication disorder. -----	☐	☐	☐
13. Autistic children do not show social attachments, even to parents-----	☐	☐	☐
14. It is impossible to tell if a child is Autistic before 4 years of age.-----	☐	☐	☐
15. Autism exists only in childhood.-----	☐	☐	☐
16. Even with early intervention, the prognosis for independent community functioning of Autistic individuals is poor.-----	☐	☐	☐
17. Autism is a developmental disorder.-----	☐	☐	☐
18. With the proper treatment, most autistic children eventually "outgrow" autism.	☐	☐	☐
19. Autism is a lifelong Condition.-----	☐	☐	☐
20. Autistic children are "untestable."-----	☐	☐	☐
21. Parental counseling on training is one effective treatment of Autism.-----	☐	☐	☐
22. Dietary intervention is one of treatment options.-----	☐	☐	☐
23. Autism is more common in the societal elite -----	☐	☐	☐
24. Autism can be cured through the use of Drugs-----	☐	☐	☐
25. Speech & Language Therapists are essential in management of autism-----	☐	☐	☐
26. Occupational Therapists are essential in management of autism-----	☐	☐	☐
27. Psychologists are essential in management of autism-----	☐	☐	☐
28. Physiotherapists are in management of autism-----	☐	☐	☐

How do you diagnosis a patient with ASD? [multiple responses allowed]

- ☐ Assessment using Statistical Manuals as basis (DSM-IV, DSM-5, ICD-10)
- ☐ ABC (Autism Behavior Checklist)
- ☐ CARS (Childhood Autism Rating Scale)
- ☐ GARS (Gilliam Autism Rating Scale)
- ☐ ADI-R (Autism Diagnostic Interview-Revised)
- ☐ ADOS (Autism Diagnostic Observation Schedule)
- ☐ CHAT (Checklist for Autism in Toddlers)
- ☐ Not using diagnostic tools but referral to other hospital or specialist
- ☐ Other (Please Specify) _____

For the following, check one box for each behaviour or characteristic, you think are 1- Necessary, 2- Helpful but not necessary and 3- Not helpful for autism diagnosis.

Behaviours/Characteristics	Necessary	Helpful but not necessary	Not Helpful
Language Delays -----	☐	☐	☐
Lack of eye contact -----	☐	☐	☐
Need for sameness, resistance to change in routine -----	☐	☐	☐
Peculiar speech characteristics -----	☐	☐	☐
Lack of social responsiveness -----	☐	☐	☐
Rigid or stereotyped play activities -----	☐	☐	☐
Onset of symptoms before 36 months -----	☐	☐	☐
Unusual mannerisms such as finger flicking -----	☐	☐	☐
Preoccupation with objects -----	☐	☐	☐
Social interaction difficulties -----	☐	☐	☐

What is your treatment approach?

- ☐ Pharmacological
- ☐ Non Pharmacological
- ☐ Both

What is your treatment target for patient's with ASD? [multiple responses allowed]

- ☐ To improve social interaction ability (e.g. the ability to form personal relationships, eye contact, the ability to put yourself in another's shoes, imagination play, etc.)
- ☐ To relieve behavior characteristics (e.g. stereotyped, self-stimulatory behavior, or inappropriate behavior, etc.)
- ☐ To improve verbal and nonverbal communication skills
- ☐ To improve cognitive ability
- ☐ To improve sensory integration
- ☐ Self care skills (e.g. maintaining personal hygiene, self feeding, performing everyday tasks)
- ☐ To reduce emotional problems (e.g. anxiety, irritation, moodiness, etc.)
- ☐ To improve physical health (e.g. food intake, digestion, defecation, sleep problems, etc.)
- ☐ Other (Please specify: _____)

For those diagnosed with autism, what medication would you prescribe a patient with ASD.

Check all the boxes that apply.

- | | | |
|---|---|---|
| ☐ Antipsychotics | ☐ Antidepressant | ☐ Mood stabilizers |
| ☐ Psychostimulants | ☐ Hypnotics | ☐ Others /Please specify _____ |

For those diagnosed with autism, what interventions would you prescribe a patient with ASD.

Check all the boxes that apply.

- ☐ Special Education
- ☐ Speech & Language Therapy
- ☐ Occupational therapy
- ☐ Referral to Psychiatrist
- ☐ Referral to Psychologist
- ☐ A Multidisciplinary Team
- ☐ Others Please specify _____

What do you perceive Speech & Language Therapists to be?

- ☐ Allied Health Professional ☐ Technician ☐ Complementary Health Professional
- ☐ Autonomous health professional ☐ Paramedic ☐ Other (please specify) _____

How long do Speech & Language Therapists study before attaining their degree?

- ☐ One Years ☐ Two Years ☐ Three Years ☐ Four Years ☐ More than Four Years

Are you willing to work in a Multidisciplinary team with a Speech & Language Therapist as the leading professional?

- ☐ Yes ☐ No