Behavioral Patterns of Self-injurious Behavior Among Children with Autism Spectrum Disorder (ASD): A Cross-sectional Study

By
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This thesis is submitted in total fulfilment of the requirements for the subject RESEARCH 2 & 3 and partial fulfilment of the requirements for the degree of

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Statement of Authorship

To affirm that the thesis entitled "Behavioral Patterns of Self-injurious Behavior Among Children with Autism Spectrum Disorder (ASD): A Cross-sectional Study" has been completed by Mansura Akter Mow , DU Roll No. 431 in the Department of B.Sc in Occupational Therapy, Bangladesh Health Professions Institute, Savar, Dhaka, Bangladesh Except where it is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis presented by me for any other degree or seminar. No other person's work has been used without due acknowledgment in the main text of the thesis. This thesis has not been submitted for the award of any other degree in any other tertiary institution. The ethical issue of the study has been strictly considered and protected. In case of dissemination of the findings of this project for future publication, the research supervisor will be highly concerned, and it will be duly acknowledged as an undergraduate thesis.

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Dedication

Dedicated to Almighty Allah who keep me well and helps me to keep patience during the work period. This thesis is dedicated to everyone who support me in completing my bachelor's degree & always encourage me particularly my family members, friends…

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List of Abbreviations

ASD	Autism Spectrum Disorder
AWF	Autism Welfare Foundation
BHPI	Bangladesh Health Professions Institute
CRP	Centre for the Rehabilitation of the Paralysed
MR	Mental retardation
RRB	Restricted and Repetitive behavior
RBS	Repetitive Behavior Scale-Revised
SIBs	Self-injurious behaviors
SPSS	Statistical Package for Social Science
SD	Standard Deviation

Abstract

Background: Self-injurious behaviors (SIBs) are a form of repetitive behaviors, that most commonly occur among children with neurodevelopmental disorders such as autism spectrum disorder. Many studies had well documented about various patterns of SIBs and also said different factors responsible for SIBs.

Aim: To identify the different patterns of self-injurious behavior among children with autism spectrum disorder

Method: The study was conducted by a cross-sectional quantitative study design through a face-to-face survey among 120 participants who are parents of children with ASD. All the participants were taken through a purposive sampling technique. All participants received services from the Centre for the Rehabilitation of the Paralysed (CRP), Savar, Mirpur branch and different special school of dhaka. Participants was including by different criteria such as- parents of children (age 2-17) with ASD reporting self-injurious behaviors & children's diagnoses were confirmed through health professionals. The exclusion criteria of the study were parents whose children with medical condition, medication related self-injury or coexisting developmental/psychiatric disorders. To identify different behavioral patterns of SIBs used Repetitive Behavior Scale-Revised and demographic factors. Descriptive statistics analysis was used for demographic factors and the Mann Whitney u test and Kruskal Wallis test was conducted to find out the association between demographic factors and SIBs.

Result: Results suggested that there was male participants was greater than female and most of the participants age. The age range of the children was 2-17 years, where 76.7 % (92) were male and 23.3% (28) were female. Child age range between 2-5 years

about 40.8% (49),6-9 years about 28.3% (34),10-13 years about 19.2% (23) and 14-17 years 11.7%(14). Their mean age was 7.79±4,084. Among seven SIBs the highest level of SIBs is hit self against surface or object with mean ± SD(0.90±0.965) and the lowest level of SIBs is insert finger or object with mean ± SD(0.04±0.201). Association between SIBs and demographic factors showed that SIBs were significantly not associated with a child's age, gender, attend in school and take any medication.

Conclusion: Self-injurious behaviors (SIBs) a repetitive behavior and nowadays it become a concerning issue in ASD children and effective intervention should be taken to reduce this behavior. As ASD children increase day by day, SIBs also show among children with ASD gradually. This study found that children with ASD show different patterns of SIBs. The current studies did not find other behavioral, somatic, environmental, or developmental factors that act as a risk factor. So, future research should be conducted on other factors and effective treatment of SIBs among children with ASD.

Keywords: Autism spectrum disorder, self-injurious behavior, repetitive restricted behavior, challenging behavior, self-injury

CHAPTER I: INTRODUCTION

1.1 Background

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by impairments of social communication and restrictive, repetitive behaviors and interests and persists in life-long (Oliphant et al., 2020). At present it is emerging into a serious global issue. World Health Organization reported, about 1 in 100 children has autism (WHO,2023). South Asia countries like India, Bangladesh, and Sri Lanka estimated ASD prevalence varies from 0.09% in India to 1.07% in Sri Lanka, with Dhaka city having an extremely high prevalence of 3%.In several research, Bangladesh found prevalence percentages of 0.2%, 0.84%, and 0.15%, but community-based investigations conducted in India showed rates of 0.09% and 0.23%(Hossain et al., 2017). The prevalence of ASD was found to be ranging from 0.15–0.8% in Bangladesh. A six-month thorough analysis of a study revealed that the prevalence of autism in Bangladesh is 8.5/1000 population. It is assumed that out of every 94 boys, one is affected by autism. In the case of girls, it is one in every 150, which depicts that boys are more affected by autism rather than girls (Akhter et al., 2018). Recently, the Bangabandhu Sheikh Mujib Medical University (BSMMU) in Bangladesh confirmed that nearly 2 out of every 1000 children in Bangladesh suffer from ASD in Bangladesh. Wherein, the prevalence is greater among urban areas than the rural areas (Hasan, 2020).

Children with ASD frequently engage in maladaptive behaviors & restricted or repetitive patterns of behavior. Restricted & repetitive behavior (RRB) is the main type of ASD and a severe form of RRB is self-injurious behaviors (SIB) that are observed

variety of neuro-developmental disorders such as autism. SIB refers to any type of action directed towards oneself that results in physical injury and is extremely challenging for caregivers and health care providers. It can be a devastating and distressing behavior for all involved. SIBs occur in rhythmic patterns & repetitive behavior which has mild to severe levels (Flowers et al., 2020; Duerden et al., 2012; Minshawi et al., 2014)Self-injurious behavior (SIB) is a form of repetitive motor behavior or a set of actions that a person inflicts on themselves that can potentially cause physical harm, more specifically tissue damage. Different types of self-injurious behavior found in autism includes head hitting, head banging, skin picking and pinching, hair pulling, and self-biting, face slapping, rubbing the skin, eye poking (Flowers et al., 2020; Laverty et al., 2020; Dimian et al., 2017; Soke et al.,2017; Akram et al., 2017). Several factors are responsible for occurring SIBs in children with autism. The factors may be associated with different characteristics of autism such as age, gender, degree of autism, atypical sensory processing, sleep problem, stereotype behavior, aggression, anxiety, maladaptive behavior, ritualistic and restrictive repetitive behavior, need for sameness, hyperactivity, irritability, adaptive skill-communication, daily living, socialization, IQ, cognitive functioning etc (Flowers et al., 2020; Soke et al.,2017; Soke et al.,2019; Duerden et al., 2012). In addition, there are also severe health concerns associated with SIB, including as cuts, fractures, recurring infections, physical deformities, detached retinas/blindness, and in severe cases, even death. Beyond just the physical effects, SIB can have detrimental effects that can include decreased possibilities for school and employment, increased social isolation, and restricted access to community-based activities, expensive medical and residential care, and, of course, restrictive treatment practices (Minshawi et al., 2014).

As the prevalence of autism is increasing day by day the prevalence of SIBs also

increasing continuously in autism. SIBs are a serious condition that affects up to 50% of individuals with autism (Flowers et al., 2020). The prevalence rate of SIBs is increasing gradually. Compared to the usually growing population, the incidence of self-harm among individuals with autism has been calculated to be 42%, substantially greater (Steenfeldt-Kristensen et al., 2020). The cohort study shows that self-injury was persistent in 44% of individuals over 10 years (Laverty et al., 2020). The prevalence of SIBs for individuals with ASD, prevalence estimates for SIB have been reported to be as high as 53% among children, and 69% among older children (Dimian et al., 2017). Over the course of three reporting years, the mean incidence of SIB in an investigation of ASD was 27.7%. This study evaluated the frequency of self-injurious behavior in a significant population-based sample of children with Autism Spectrum Disorder in the United States. (Soke et al., 2016). A study found that 74% of the participants were reported to display SIB by a caregiver, but only 25% engaged in daily SIB during hospitalization (Handen et al., 2018). Another study indicated that SIBs affected 50% of children and severely impacted 14.6% of children (Baghdadi et al., 2003). So, it's become an important issue to concern about different forms of SIBs in autism.

SIBs among children with autism aren't studied in Bangladesh and the form of SIBs isn't explored but the rate of SIBs of autism is increasing day by day. In this study, we highlight the different forms of self-injurious behavior & severity of SIBs. However, number of factors responsible for SIBs among autism, in this research we highlight the association between demographic factors that act as a risk for autism with SIBs. In the existing literature, most of the studies focus on different SIBs and factors of SIBs but the severity of SIBs and do not specify the factors that act as a risk factor for autism. The current study will help to identify different forms SIBs, the severity of SIBs, the association between SIBs and demographic factors for SIBs in autism.

1.2 Justification of the study

The incidence of SIBs in ASD continues to increase along with the prevalence of autism. SIBs occur among half of people with ASD at some point in their life and it can impact all ages with ASD. SIBs are rhythmic & repetitive activities that occur at different kinds of levels. Factors influence to occur SIBs in ASD and by doing this ASD engages in physical harm (Flowers et al., 2020; Duerden et al., 2012).SIBs not only put one individual at risk but also have great effects on parents or careers or those involved with them (Flowers et al.,2020; Vandewalle & Melia, 2021). So, it's an important area of research due to SIB is becoming a risk factor for autism & creating barriers to maintaining daily activities.

As occupational therapists in Bangladesh play a vital role in dealing with autism, they must concentrate on SIBs which can be a great risk factor for autism. Through this study, health professionals can be aware of different types and patterns of self-injurious behavior & relation with demographic factors in children with autism. This study will help practitioners to identify different strategies to address these behaviors & design preventive measures to control SIBs. This study will help to provide knowledge about how different forms of behavior are related to self-injurious behavior. Sometimes self-injurious behavior disrupts the improvement of autism children's condition, by doing this research, they will understand the reason for not improvement. It also works as evidence of SIBs among children with autism who working with autism in Bangladesh. Future research should be conducted about underlying factors and effective treatment for interpreting self-injurious behavior.

1.3 Operational Definition

1.3.1 Children

Any human being up to age 18 years is defined as children(Bäckström, 1989).

1.3.2 Autism Spectrum Disorder (ASD)

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that includes social and communication impairments, and restricted and repetitive patterns of behaviors, interests, or activities (Soke et al., 2017). ASD usually manifests before the age of three and can last the entirety of a person's life, however symptoms may gradually get better. Some children show symptoms of ASD in their first year of life, whereas others might not show symptoms until they are 24 months old or older (*Basics About Autism Spectrum Disorder (ASD) | NCBDDD | CDC*, 2022)

1.3.3 Self-injurious behaviors(SIBs)

SIB refers to a class of behaviors that the individual inflicts upon his/herself that have the potential to result in physical injury, more specifically tissue damage. Examples of SIB may include head banging, self-cutting, self-choking, self-biting, self-scratching, hair pulling, hand mouthing, and many others(Minshawi et al., 2014).

1.3.4 Self-harm

Self-harm is defined as a "deliberate attack on themselves in which those have a desire to die(Oliphant et al., 2020).

1.3.5 Non-suicidal self-injury (NSSI)

NSSI is defined as intentional self-directed body part damage without the desire to die(Oliphant et al., 2020).

1.3.6 Restrictive and repetitive behaviors (RRBs)

Restricted and repetitive behavior (RRB) refers to a pattern of behavior that is characterized by a limited range of activities, interests, or behaviors, as well as the repetition of certain actions or routines. This term is often associated with neurodevelopmental disorders, particularly Autism Spectrum Disorder (ASD), where individuals may exhibit various forms of restricted and repetitive behaviors.

(Restrictive and repetitive behavior,2024)

1.3.7 Stereotyped Behaviors

Stereotyped Behaviors are behaviors that motions that have no meaning or that are repeated in a comparable way (Lam, K. S. 2014).

1.3.8 Compulsive Behavior

Compulsive behavior involves repetitive actions that are driven by a need for precision or adherence to specific rules. Individuals engaging in compulsive behavior may feel compelled to perform actions in a way that alleviates anxiety or discomfort (Lam, K. S. 2014).

1.3.9 Ritualistic Behavior

Ritualistic behavior involves the consistent and structured performance of everyday activities. This can include specific routines or patterns followed in daily tasks, reflecting a preference for sameness (Lam, K. S. 2014).

1.3.10 Sameness Behavior

Sameness refers to a resistance to change and a strong preference for maintaining the current state of affairs. Individuals exhibiting sameness may resist alterations in their routine or environment, seeking stability and predictability in their surroundings (Lam, K. S. 2014).

1.3.11 Restricted Behavior

Restricted behavior involves a narrowed scope in terms of focus, interests, or activities. Individuals with restricted behavior may have a limited range of interests, preferring to engage in a narrow set of activities or topics (Lam, K. S. 2014).

1.4 Aim of the study

The aim of the study was to identify the different patterns of self-injurious behavior among children with autism spectrum disorder.

CHAPTER II: LITERATURE REVIEW

Self-injurious behavior is mostly occurring behavior among autism & different factors act as a risk for autism. In this chapter of the literature review, some findings are tried to demonstrate different pattern of SIBs in autism that are found in different studies.

Figure-2: Overview of different patterns of SIBs

2.1 Self-injurious behavior:

A study was conducted in USA over 14 sites of population where SIB was characterized by any type of self-directed action that could cause bodily harm or an indication or physical mark of the act, such as scratching fingers until bleeds, biting fingers until damaged, slapping oneself in the face, or head banging(Soke et al., 2019).An article was written based on a review of existing research on the epidemiology of self-injurious behaviors (SIBs) & also discussed the factors that act as a prediction of SIBs in children with ASD where the study explained SIB refers to a set of actions that a person inflicts

on themselves that can potentially cause physical harm, more specifically tissue damage. Self-injurious behaviors (SIBs) are more common in children with autism spectrum disorders (ASDs) compared to typically developing children or those with other neurodevelopmental disabilities. Also explained that the presence of SIBs leads to poorer outcomes than others who did not engage in SIBs (Minshawi et al., 2014).

2.2 Prevalence of SIBs

The prevalence of SIBs was increasing day by day. There was various literature about the prevalence of SIBs among children with ASD. Flowers et al., (2020) state that self-injurious behavior (SIB) is a serious condition that affects up to 50% of individuals with autism, impacting both the individual and their family. An investigation was conducted over 67 career of individual with autism where study on self-injurious behavior in people with autism using a longitudinal study design and a 10-year follow-up period. The study showed that self-injury was persistent in 44% of individuals over 10 years, providing valuable insight into persistent SIBs(Laverty et al., 2020). A meta-analysis of 37 primary studies analyzed the prevalence of SIBs about 42% among children with ASD(Steenfeldt-Kristensen et al., 2020). A cohort study was conducted in United States over 235 participants over 12-24 months of age. This article found that self-injurious behavior (SIB) at 12 months was associated with a higher likelihood of prevalence of 39% which continued SIB at 24 months in children at high familial risk for ASD was prevalence of 32%. Those children who were later diagnosed with ASD had a 1.85 times greater chance of getting involved in SIBs at 2 years of age. In children at risk for ASD, the study highlights the significance of early identification and preventative efforts for SIB. Within children with autism, they also found that head banging and self-bitting mostly occur in SIBs (Dimian et al., 2017). Another study showed that children experienced SIBs 50% whereas 14.6% had severe SIBs(Baghdadli et al., 2003).

2.3 Patterns of SIBs

A cohort study was conducted over 149 infants in the USA in which participants completed an assessment of 12,24,36 months where the result found that among different types of SIBs hitting self against the surface was the most common type of SIBs topographies "Hits self against surface" was the most frequent form of SIB in both the persistent and short-term SIB groups. At 36 months, the persistent group's frequency and intensity of "rubs/scratches and skin picking" .For both groups, "hits self with body part" (ASD = 24%; Non-ASD = 8%) and "inserts finger or object" (ASD = 22%; Non-ASD = 10%) were the most often endorsed intriguing types of SIB at 24 and 36 months. The non-ASD group's severity scores were higher at 12 months but declined by 36 months. The ASD group, on the other hand, exhibited an average 36-month increase in frequencies and severity ratings, with "hits self against surface" remaining high (Dimian et al., 2023). A meta-analytic study over 37 primary studies analyzed different SIBs topography where head hitting, skin picking & hitting self against object are most common whilst self-cutting was not as common form of SIBs and also analysed the prevalence of SIBs about 42% among children with ASD(Steenfeldt-Kristensen et al., 2020). An article by Minshawi et al., (2014) conducted a study on existing literature to gather information on the epidemiology of self-injurious behaviors (SIB) in children with autism spectrum disorders (ASDs), factors predicting SIB presence, and available behavioral treatments where showed that SIB is linked to a variety of adverse effects on the person that affect their level of life. Self-biting, self-scratching, skin picking or pinching, self-punching, and head banging are the most frequent forms of self-injurious behavior (SIB) in individuals with ASD. Eye pressing or gouging, pulling one's own hair, teeth, or fingernails, dislocation of joints (such as fingers, periorbital area, mandible), pica, and knee-to-head hitting are less common but still occur. An analytical

cross-sectional study in Pakistan using a convenience sampling technique over 83 children aged 8 to 18 years among children with ASD to determine frequency & risk variables of non-suicidal self-injury (NSSI) where results showed that the prevalence of NSSI observed moderate to severe was 33% and mild was 39.3%. This study also found that the majority of individuals (47%) reported self-harming behaviors such as beating or banging, while other prevalent self-harming activities included picking scabs (33%) biting (32%), pulling hair (30%), scratching (38%), pinching (35%), and rubbing skin against rough surfaces (19%). However, cutting hand, eating harmful substances, stabbing oneself with needles, and burning are less frequent actions(Akram et al., 2017).A study utilized a clinic-referred sample of 144 individuals with autism spectrum disorder (ASD) between the ages of 2.5 and 60.1 years in California in which result showed that The most frequent SIB was head banging 36.7%, which was followed by biting 11.2%, hitting the head 14.3%, and hitting the face 11.2%(Gulsrud et al., 2018).A cohort study over 250 children was conducted in Canada where self-injury occurred in substantially fewer than half (47%) of the participants aged 0-6 years child mostly involved and more than half (56%) of the participants aged range 7–19 years. In this study results found that a total of 241 parents filled out the report which shows that over half of the children 52.3% experience SIBs at the same point in their lives. The study showed that extreme types of self-injury were frequent in this study 34% hit by using body part, 30% hit against an object, or 26% bites. Of the sample, 25% and 23% engaged in other milder behaviors including skin picking and scratching, respectively. The incidence of children tugging their hair, hurting themselves with things, and sticking their fingers in objects was 19% (Duerden et al., 2012).

2.4 Demographic Factors

Few studies have found that demographic factors (age, gender, degree of autism) act as

a factor of SIBs. A meta-analytic study over 37 studies showed that females had higher prevalence rates of self-injury compared to males (Steenfeldt-Kristensen et al., 2020). A cross-sectional study over a secondary review of records from a clinic-based registry of children with ASD and a surveillance system showed that age was significantly associated with SIBs (Soke et al., 2017). An analytical cross-sectional study conducted in Pakistan where results showed that compared with their male counterparts, females seemed to display a higher prevalence of non-suicidal self-injury behavior. Additionally, compared to other age groups, adolescents participate in NSSI at a higher rate (Akram et al., 2017). A study on existing research showed that the severity of ASD acts a variable for SIBs (Minshawi et al., 2014). A cohort study over 250 children in Canada on seven factors of SIBs where the study found that older children were mostly engaged in SIBs in comparison to younger children with ASD. This study also showed that self-harm occurred in 52% of boys and slightly more frequently in girls (n = 38), with 55% of girls, and also explained young children (between the ages of 2 and 6) as exhibiting minor self-injury. Compared to younger children, adult children 12–19 years old had some moderate level or some severe levels of all SIBs (Duerden et al., 2012). A study of 222 children under 7 years conducted retrospective data collection in France where the study found that another risk indicator for SIB is the level of autism. Children with a higher level of autism within the group are probably going to exhibit more SIB. (Baghdadli et al., 2003).

2.5 Summary of Key Gap

- Maximum study was cross-sectional in nature, which limits the ability to determine whether self-injurious behavior persisted over time.
- Although some longitudinal studies show how persistent SIBs are throughout time but require some research that shows the development of SIBs from childhood through adolescence and into adulthood.

- Majority of research conducted in Western countries such as the USA, Canada, France, Pakistan, and the UK, limits the prevalence and manifestation of SIBs in children with ASD across different regions and societies.
- In different literature, most of the participants are male which may limit the generalizability of the findings to females with ASD
- Most of the studies on parents reported, which may have biases.
- Studies did not directly observe self-injurious behavior (SIB), which could provide more accurate information about the frequency and function of SIB
- In some studies sample size was small and the study methodology was not clearly defined.
- Studies explored various factors but some additional factors are not widely explored such as gastrointestinal issues, comorbid psychiatric conditions, genetic predispositions, and early life experiences

CHAPTER III: METHODS

3.1 Study Question(s), Aim, Objective(s)

3.1.1 Study Question

What are the behavioral patterns of self-injurious behavior among children with autism spectrum disorder?

3.1.2 Study Aim

The aim of the study was to identify the different behavioral patterns of self-injurious behavior among children with autism spectrum disorder.

3.1.3 Study Objective

- To examine the demographic factors of children with autism who engage in SIBs.
- To identify the different forms of self-injurious behavior & severity of self-injurious behavior in children with autism.
- To investigate the association between self-injurious behavior among autism & demographic factors of children with autism.

3.2 Study Design (Method, Approach)

3.2.1 Study method

This research was followed by a quantitative study design. A quantitative study is one kind of study that collect and analyze numeric data. It can be helpful to know patterns and averages, make predictions, test causal relationships, and generalize results to wider populations (Bhandari, 2023). It will help know the overall summary of my research. Student researchers used this method to find out different SIBs, their severity & factors responsible for SIBs in children with ASD and analyzed numerical data. This method

was the most applicable method according to the study's aim and objective.

3.2.2: Study Approach

A cross-sectional study approach used in this research to collect data from many different individuals at a single point in time. Cross-sectional study is a less time-consuming approach than many other types of study, they allow you to easily collect data that can be used as a basis for further research (Thomas, 2023). In this study, exposure was various factors responsible for SIBs among children with ASD and the outcome was self-injurious behaviors. The student researcher selected this study approach because it helps the researcher to achieve the aim of the study by capturing a specific moment in a short period and providing a snapshot of a condition through the analysis of different variables. As a student researcher, they had a short time to conduct their study and selected a specific population. So, the student researcher chose this study approach for this study.

3.3 Study Setting and Period

3.3.1 Study setting

There are many organizations and special schools for children with ASD. Student researcher collected data from eight settings, mentioned below:

- **Centre for the Rehabilitation of the Paralysed (Savar & Mirpur Branch)**

Centre for the Rehabilitation of the Paralysed (CRP) is a Bangladesh non-government organization that works for the rehabilitation of the paralysed in Bangladesh and is located in Savar, Bangladesh. CRP provides medical treatment, rehabilitation and support services focusing on physical, emotional, social, psychological and economic aspects. It promotes the development of skilled personnel in health care and rehabilitation in the country. CRP has developed centers in different parts of the country to expand the services for disabled people in collaboration with other organizations.

Different services are provided in CRP such as physiotherapy, Occupational therapy. Speech & language therapy. CRP is also famous for special children's treatment in paediatric settings. Many ASD patients are appointed every day to take therapy in the outpatient unit of paediatric setting. So that student researchers can easily assess them and collect their data. In Mirpur branch of CRP, there was an Autism corner where only children with ASD are given therapy. So the Student researcher takes frequent participants from Mirpur CRP. In a short time, student researcher tries to collect data as much as from near settings.

- **Prottasha Centre for Autism Care, Dogormora, CRP road, Savar, Dhaka**

A special school for individuals with autism and also has schooling activities and a therapy program. It is located near to CRP Savar branch in Dogormora, CRP road, Savar, Dhaka. Student researchers collect data from this setting for consuming time and expense.

- **Therapist Point & Shonirvor Special School for Autism and Neurodevelopmental Disorder, Dogormora, CRP road, Savar, Dhaka**

It is a special school for autism and neurodevelopmental disorders, which is located in Dogormora, CRP road, Savar, Dhaka. As the student researchers had short period, they tried to collect data nearer to their institution.

- **Autism Welfare Foundation, Modder char, keraniganj model thana, Dhaka-1312**

The Autism Welfare Foundation (AWF) is a volunteer, non-profit, non-governmental organization that was founded on April 4, 2004, with the goal of educating and training children to reach their full potential and pursue their hobbies while also preparing them for self-sufficiency. A greater variety of services and events aimed at enhancing the lives of children with ASD and their families are now the main focus of AWF's daily

operations. It is a specialized school for autism where a huge number of children admitted and regularly participate in school programs, therapy programs and other extracurricular activities. The student researcher took a great number of participants when they dropped their child at school (*Introducing AWF - Autism Welfare Foundation*, 2024)

- **Smiling Children Special School (SCSS), House no.40, Road no.6, Block E, Aftabnagar, Banasree, Dhaka**

Smiling Children Special School, situated in the Aftabnagar area of Dhaka, is a well-regarded institution specializing in tailored programs and services. These offerings are carefully crafted to meet the unique educational and developmental needs of diverse groups, including children with special needs and those on the ASD.

- **Therapy Station Autism Rehab Centre, 117, Shantinagar, Dhaka- 1217**

Therapy station is a renewed autism rehab center in Shantinagar, Dhaka- 1217 which has a special school program where autism child takes full-time and half-time school opportunities. Student researchers collect data from this setting because it is inside Dhaka city.

- **Autism Care Foundation Special School, House #13, Road #12/1, Block #G, South Banasree, Khilgaon, Dhaka**

Autism Care Foundation Special School is a special education school in South Banasree, Khilgaon, Dhaka.it is designed to support and empower children on the spectrum. Student researchers collect data from this setting.

3.3.2: Study Period

The study period was from April 2023 to February 2024.

Data collection period December 2023

3.4 Study Participant(s)

3.4.1 Study population

The study population for this study was the parents of children with autism in Dhaka, Bangladesh. The study sample was the parents or caregivers who remain close to the child and knows well their child's every activity so that they can answer properly of the research question. Hence the student researcher took 120 data from participants who gave their consent for participation

3.4.2 Sampling Techniques

The student researcher used a purposive sampling technique to collect the sample Purposive sampling (also known as judgment, selective or subjective sampling) is a sampling technique in which the researcher relies on his or her judgment when choosing members of the population to participate in the study(Jordan, M.2023). It is also the most cost-effective and time-effective method. In this study, the student researcher has set some inclusion and exclusion criteria for this study and had a short time to collect data. That’s why purposive sampling is the best way to select the population of the study.

3.4.3 Inclusion and Exclusion Criteria

Inclusion criteria

- Participants will be the parents of children with ASD who give information about their child.
- Include those participants whose child’s age range between 2 to 17 years will be studied and both male & female children with ASD will be included
- Participants' children must have a confirmed diagnosis of autism spectrum disorder (ASD) based on recognized diagnostic criteria (e.g., DSM-5 or ICD-10).

- Inclusion extends to those participants' children who exhibit self-injurious behaviors, such as hitting themselves, biting, head-banging, or other forms of self-harm.

Exclusion Criteria

- Participants' children with medical conditions that could contribute to self-injurious behavior will be excluded
- Exclusion applies to participants' children whose self-injurious behaviors may be caused by certain medications, and those currently taking such medications.
- Exclusion encompasses participants' children with coexisting conditions such as Down syndrome, intellectual disability, Attention-Deficit/Hyperactivity Disorder (ADHD), or other psychiatric disorder

3.4.4 Sample size

According to the standard formula,

Here,

n= sample size

z= the standard normal deviated usually set as 2.575 which correspondent to 99%

p=0.2% as well as prevalence of ASD children in Bangladesh is 2 per 1000 people

=0.002

q=1-p= 1-0.002=0.998

d= 0.01 degree of accuracy required

n= z^2*p*q / d^2

= z^2*p(1-q)/ d^2

= (2.575) ^2*0.002*0.998/ (0.01) ^2

= 0.0132347/0.0001

=132.347

After adding a 10% non-response rate for a face-to-face survey

Sample size, n=132.347/(1-0.1)

=132.347/0.9

=146.052

According to the equation, the sample size should be 146 population, but the student researcher could collect 120 data from the population of the study because of the short time duration cost limitation of the study. So, it was quite difficult to collect data from 120 samples. That's why the student researcher took 120 samples in a limited time frame.

3.5 Ethical Consideration

3.5.1 Ethical Clearance

The ethical clearance has been sought from the Institutional Review Board (IRB) by explaining the purpose of the research through the Department of Occupational Therapy, Bangladesh Health Professions Institute (BHPI). Then, the IRB approved its ethical approval. IRB form number is CRP-BHPI/IRB/10/23/745. Additionally, permission was taken from all study settings before collecting data from participants.

3.5.2 Informed consent

The student researcher provided an information sheet to all populations that has detailed information about the study's aim, objective and purpose of the study. After reading this form those who willingly wanted to participate, only their data was collected. Verbal and written consent was taken on consent forms from all autism child's parents.

3.5.3 Right to refusal to participate or withdraw

Participants have complete freedom to choose whether to participate or not this study. The withdrawal form was attached with the consent form so that the participants could

withdraw from the study within two weeks from the time of collecting data.

3.5.4 Unequal relationship

The student researcher ensured no unequal relationship between the participants and the researcher. Therefore, the power relationship has been strictly prohibited.

3.5.5 Risk and Beneficence

The participation in this study did not involve any risk and beneficence in participating in this study but his or her information would help in the research. There was no monetary or other benefit involved in this study.

3.5.6 Confidentiality

The student researcher was highly concerned about the confidentiality of the participants' information. The student researcher did not include any personal information such as name, address, or contact number with the questionnaire about their identity. Their information was not disclosed to anyone except from the supervisor which was clearly stated in the information sheet. Besides any identical information of participants will not be revealed for future use, such as report writing, publication, conference, media, or any written or verbal discussion. The participants were informed about the confidentiality by an information sheet.

3.6 Data Collection Process

3.6.1 Participant recruitment

The student researcher recruited children with autism from different special schools & organizations.

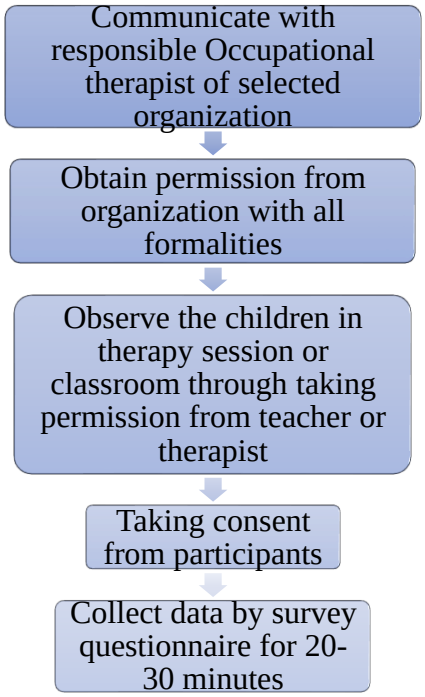

Figure-3: Overview of participants' recruitment process

The student researcher went to different schools & organizations and contacted the head and collected data about autism patients available in his or her organization & gathered information as much as possible from each organization & school.

This figure shows that the student researcher first communicates with a responsible occupational therapist of the organization or social school. After confirmation of the appropriate sample went to the institute with a data collection permission letter. After that, the student researcher communicates with all occupational therapists to complete the institutional formalities and identify the inclusion criteria of samples. Then student researcher met with the parents, described about study's purpose & gave consent to participate in the study. Then ask research questions when they are waiting for her child.

3.6.2: Data Collection Method

Student researchers collected data by face-to-face survey through a standardized questionnaire. At first student researcher introduced the participants before data collection. Student researcher informed all populations about the aim, objectives and

purpose of the study and clarified that the populations had the right to refuse to answer the questions during the data collection period. When the population agreed with the student researcher, took permission by using a written consent form and started to collect data through closed-ended questionnaire using The Repetitive Behavior Scale-Revised (RBS-R) from the parents through face-to-face survey.

3.6.3 Data Collection Instrument

Demographic factors

The researcher developed a questionnaire concerning demographic variables including age, sex, school placement, and taking psychiatric medication.

The Repetitive Behaviour Scales—Revised (RBS-R)

The RBS-R is an informant-reported scale of restricted & repetitive behavior (RRB). RBS-R are distributed into 6 different subscales items that include: (a) Stereotyped Behavior, (b) Self-Injurious Behavior, (c) Compulsive Behavior, (d) Ritualistic Behavior, (e) Sameness Behavior, (f) Restricted Behavior. In RBS-R, a 43-item questionnaire is described, and it was filled up by caregivers and includes questions on present behavior. This allows differentiating between distinct types of repetitive activities and assigning scores to them. Following a review of a list of behaviors, participants are asked to select a score that best represents how challenging the behavior has been over the past month. Items are rated on a four-point Likert scale from 0 ‘‘behavior does not occur’’ to 3 ‘‘behavior occurs and is a severe problem’’. (Mirenda et al., 2010). In the final question, respondents are asked to "lump together" all of the behaviors listed in the survey and rate, on a scale of 1-100, how serious these repetitive behaviors are taken as a whole: 1. Not at all an issue, to 100-Negative beyond description.

Table 3.6.3 Data collection instrument

Data collection tools	Types of tools	Subscale	Items	Scoring	Interpretation
The Repetitive Behaviour Scales—Revised (RBS-R)	Standardized scale	(a)Stereotyped Behavior (6) (b) Self-Injurious Behavior (8) (c)Compulsive Behavior (8) (d) Ritualistic Behavior (6) (e) Sameness Behavior (11) (f) Restricted Behavior (4)	43 items	4-point Likert scale: 0-Behavior doesn't occur 1-Behavior occurs & is a mild problem 2 -Behavior occurs & is a moderate problem 3-Behavior occurs & is a severe problem	There are no defined scores or cut points to determine mild to severe problems.

3.6.4 Field test

Before commencing data, the student researcher conducted a field test over 02 participants. Student researcher translated demographic questions and standardized questionnaires into Bengali, the native language of Bangladesh with the help of a supervisor. So, the student researcher conducted a pilot test to identify the appropriateness of the questionnaire for the sample participants. Through this field test, some grammar changes were found and those were fixed later, which helped to maintain the question's quality.

3.7 Data Management and Analysis

3.7.1 Data management

First, the student researcher was clearly defining the aim and objectives of this study.

Then select a standardized tool for achieving the study objective. After that, the Student researcher selected some settings for data collection and took permission from each setting. Student researchers collected data by face-to-face survey method and maintained all ethics of data collection. All data were stored in a cabinet and data security to maintain confidentiality and availability. Then, their data was translated into formal English and entered into the system. The data collection from participants and the data entry process was non-biased. All the data was initially stored in the SPSS for analysis. These were also stored in the Google Drive storage system. The cloud system is well protected by strong passwords on Google securities. The proper use of the data was ensured. Any unauthorized access never occurred. All data was used as it is. Student researchers were conscious of every data use and their analysis. Neither data modification nor data exploitation was done. All the data in Google Drive is archived. The student researcher and the supervisor believe in data archiving for future research works. The student researcher and responsible supervisor agreed upon the data destruction after five years. For proper data safety and valuation, All data used in this research will be destroyed. Then input data in SPSS and transform in a suitable format for data analysis. Data was backed up into mail to prevent loss. Prepare results from summarizing data analysis. Interpret the results in the context of existing literature and research on self-injurious behavior among children with autism. After the result, include a recommendation & discussion of the study.

3.7.2 Data Analysis

All data management and statistical analysis were carried out by using Statistical Package for Social Science (SPSS) version 20. Student researchers used descriptive statistics for data analysis. Descriptive statistics commonly used are frequency distribution, measure of central tendency (mean, median, mode) and measure of

dispersion (range standard deviation). This research used Descriptive statistic analysis to analyze demographic characteristics' frequency and measure mean, range, and Standard deviation. The descriptive statistical method is also used to analyze self-injurious behaviors severity level, SIBs pattern, etc. data. To check whether the data is normally distributed or not, there are two statistical tests for normality: the Kolmogorov-Smirnov test and the Shapiro-Wilk test. These tests are commonly used to assess whether a sample of data comes from a population with a normal distribution. After using the method results show that data are not normally distributed or not. As data is not normally distributed, a non-normal statistical test would be selected for testing association & correlation analysis. In the association between quantitative and a categorical variable, there were choose Mann Whitney u test because there are 2 levels of categorical variables and the cell counts are less than 5 & The Kruskal Wallis test was chosen for more than 2 levels of categorical variables. In this study, the Mann Whitney u test and the Kruskal Wallis test was used to find out the association between SIBs and demographic factors. In this study, correlation analysis was tested by using Spearman's correlation test to find out the correlation between two continuous variables as data are not normally distributed. Spearman's test was done to find out the correlation between SIBs and other repetitive behavior (Stereotype, compulsive, sameness, ritualistic & restricted behavior).

3.8 Quality Control and Quality Assurance

3.8.1 Quality Control

The study ensured data safety and quality by adhering to the five steps of data life cycle management. The entire study was conducted systematically by following research steps under the supervision of an experienced therapist. Student researchers used a standardized question and translated into the local language to maintain study quality.

To maintain proper quality student researcher conducted a pilot test with over 02 participants before starting formal data collection. After correcting the problem found in the field test, the student researcher started collecting data. These strategies helped discover and resolve ambiguities, inconsistencies, and understanding concerns in these instruments. Standardized measurement scales or approved instruments improved data comparability across investigations. Researchers collected data carefully to ensure quality. Regular sessions with the supervisor ensured survey consistency and reduced interviewer bias. The student researcher strictly maintains participant's confidentiality. Proper data management ensured data integrity and security.

3.8.2 Quality Assurance

The quality assurance had multiple components. First, researchers set specific research objectives and created study-related research questions. This kept the research on track and ensured the findings met the goals. Second, ethical research techniques and ethical permissions were followed. Participants were informed of the study's purpose, their voluntary participation, and their responses. Descriptive and inferential statistics were used to analyze the data. Finally, quality assurance included transparent research reporting. Documenting research methods, sampling, data collection, and statistical analysis was required. Discussing limitations and biases increased transparency and allowed other researchers to critically evaluate and replicate the study. Researchers sought to improve the credibility and generalization of their findings by using rigorous sampling methods, valid data gathering. and ethical practices.

CHAPTER IV: RESULTS

This chapter represents the findings of the study. This chapter contains the study findings as tables and figures focusing on demographic factors, SIBs severity level, SIBs pattern, and association between SIBs and demographic factors.

4.1 Demographic Factors

Table-4.1 Demographic factors

Variable	Category	Frequency(n=120)	Percent (%)
Child's age	2 years-5 years	49	40.8
	6 years-9 years	34	28.3
	10 years-13 years	23	19.2
	14 years-17 years	14	11.7
	Mean=7.79	St deviation=4.084	
	Median=6.75	Interquartile range=6	
Gender	Male	92	76.7
	Female	28	23.3
Child attend in school	Primary School	5	4.2
	Special school	92	76.7
	Don't attend school	23	19.2
Take medication	Yes	70	58.3
	No	50	41.7

Table 4.1 represents the overview of demographic information including age, gender, school placement and take medication. Among 120 children with ASD about 76.7 %(92) were male and 23.3%(28) were female. The result showed that maximum children with ASD are male and female children are a small population.

In table 4.1, the result showed that among 120 children maximum child age range in between 2-5 years about 40.8%(49),others child age range is between 6-9 years about 28.3% (34),10-13 years about 19.2% (23) and minimum child age range in between 14-17 years about 11.7%(n=14). Their mean±SD age was 7.79 ±4.084 and the

minimum age is 2 years and maximum age is 17 years. The result found that among 4 age group maximum child is between 2-5 years age range. The median of age is 6.675 and interquartile range 6.

Other findings of this study was that most of the children with ASD child attend in special schools 76.7% (92), medium-level of students don't attend school 19.2% (23) and minimum children attend in primary school 4.2% (5). The last demographic characteristic was child take any medication where 58.3% (70) children take medication and 41.7% (50) don't take any medication.

Overall demographic characteristics showed that male children are maximum compared to females and the highest age group is between 2-5 years. It also showed that most of the children attend special school rather than primary level and the highest number of children take medication.

4.2 Severity level of each Self-injurious Behaviors & patterns of self-injurious behavior

Table 4.2.1 Severity level of each Self-injurious Behaviors & patterns of self-injurious behavior

	Behavior doesn't occur	**Behavior occurs & is a mild problem**	**Behavior occurs & is a moderate problem**	**Behavior occurs & is a severe problem**	**Mean± SD**	**Median (IQR)**
	n (%)	n (%)	n (%)	n (%)		
Hits self with body parts	44 (36.7)	**51(42.5**)	20(16.7)	5(4.2)	0.88±0.832	1(1)
Hits self against surface or object	54(45)	32(26.7)	**26(21.7)**	**8(6.7)**	**0.90±0.965**	1(2)
Hits self with object	101(84.2)	16(13.3)	2(1.7)	1(0.8)	0.19±0.490	0(0)
Bites self	81(67.5)	20(16.7)	14(11.7)	5(4.2)	0.53±0.860	0(1)
Pulls	100(83.3)	14(11.7)	4(3.3)	2(1.7)	0.23±0.590	0(0)
Rubs or scratches	104(86.7)	11(9.2	5(4.2)		0.18±0.479	0(0)
Insert finger or object	**115(82.5)**	5(4.2)			0.04±0.201	0(0)
Skin picking	90(82.5)	14(11.7)	6(5)	1(0.8)	0.24±0.580	0(0)
Total (mean ± SD)SIBs=0.661±1.211						

The data presented in Table 4.2 provide insight into different types of self-injurious behaviors (SIBs). The results indicate varying degrees of severity for each behavior,

with mean severity scores ranging from 0.04 to 0.90.

This table represents the degree of severity level for SIBs among children with autism. Among the seven types of SIBs highest severe level of SIBs was found in hits self against surface or object which percentage of (6.7%), the highest moderate level of SIBs in hits self against surface or object which a percentage (21.7%), the highest mild level of SIBs in hits self with body parts which percentages (42.5%). Behind this, Hits self with body parts & biting self (4.2%), pulls (1.7%), hits self with object (0.8%) showed severe level problems occurred. The percentages of each SIBs in moderate level are hits self with body parts (16.7%), bites self (11.7%), rubs (4.2&), pulls (3.3%) & hits self with object (1.7%). Hits self against surface or object (26.7%), bites self (16.7%), hits self with object (13.3%), pulls (11.7%), rubs or scratches (4.2%), insert finger or object (4.2%) are mildly occurred SIBs. Lastly, the percentages of those behaviors that don't occur much are hitting self with body parts (36.7%), hits self against a surface or object (45%), hits self with an object (84.2%), bites self (67.5%), pulls (83.3%), rubs or scratches (86.7%), insert finger or object (82.5%).

According to the mean, this table also shows that the highest level of SIBs is hits self against a surface or object with mean ± SD (0.90±0.965) reported as a mild to moderate problem on average. The mean of this behavior is higher than the other mean score of SIBs. The lowest level of SIBs is insert finger or object which mean ± SD (0.04±0.201) reported as a problem with very low severity. Other SIBs among 120 children with ASD accordingly skin picking mean ± SD (0.24±0.580) hits self with body parts mean ± SD (0.88±0.832), bites self mean ± SD (0.53±0.86), pulls hair or skin mean ± SD (0.23±0.59), hits self with object mean ± SD (0.19±0.49), rubs or scratches mean ± SD (0.18±0.479). These mean values provide an overall summary of the perceived severity levels for each behavior, indicating their average impact within

the study population. The median scores indicate that for most behaviors, the most common response was behavior doesn’t occur and behavior occurs & mild problem. The result showed that hit self against surface and body parts score was 1 and other behavior score was 0. The total mean of SIBs is 0.661 among seven SIBs indicating that SIBs happen at a mild level among children with ASD.

4.3 Association between demographic factors and Self-injurious behaviors

Table 4.3.1 Association between age, child attend in school and Self-injurious behaviors

Association between age, child attend in school and Self-injurious behaviors					
Variable	**Self-injurious behavior**				
	Category	**n**	**Mean rank**	**df**	**p-value**
Child's age	2 years-5 years	49	54.51	3	0.279
	6 years-9 years	34	67.40		
	10 years-13 years	23	58.41		
	14 years-17 years	14	68.14		
Child attend in school	Primary school	5	68.20	2	0.343
	Special school	92	62.29		
	Don't attend school	23	51.65		

The table presents the association between age and self-injurious behaviors among children, as well as the association between school attendance and self-injurious behaviors.

The Kruskal-Wallis test was used to analyze the relationship between a child's age and self-injurious behavior. The p-value associated with the Kruskal-Wallis test is 0.279 which is greater than the commonly used significance level of 0.05, which indicates to fail to reject the null hypothesis. There was no significant difference in the mean ranks of child's age across the different age groups (2 years-5 years, 6 years-9 years, 10 years-13 years, and 14 years-17 years). This suggests that the child's age did not have a significant effect on Self-injurious behavior.

The association between school attendance and self-injurious behaviors was conducted by the Kruskal-Wallis test. Regarding the association between school attendance and self-injurious behaviors, the differences in mean ranks across these school attendance categories were not statistically significant ($p = 0.343$), indicating that there may not be a significant association between school attendance and self-injurious behaviors among children.

Table-4.3.2 Association between gender, take any medication and Self-injurious behaviors

Association between gender, take any medication and Self-injurious behaviors					
Variable	**Category**	**n**	**Mean rank**	**Mann-Whitney U Test**	**p-value**
Gender	Male	92	59.26	1173.500	0.460
	Female	28	64.59		
Take any medication	Yes	70	61.36	1690.000	0.740
	No	50	59.30		

The table illustrates the association between gender, medication intake, and self-injurious behaviors among the participants.

The analysis employed the Mann-Whitney U test to compare mean ranks across different categories and the association between gender and SIBs. Regarding gender, the mean rank for males was 59.26, while for females, it was slightly higher at 64.59. However, the difference in mean ranks between genders was not statistically significant p-value = 0.460 which is greater than the significant level p value=0.05. This suggests that there may not be a significant association between gender and self-injurious behaviors among children with ASD.

Concerning medication intake, participants who reported taking any medication had a mean rank of 61.36, whereas those who did not take any medication had a slightly lower mean rank of 59.30. The results of the analysis suggest that there is no significant difference in self-injurious behavior between medication intake as the p-value is 0.46, which is higher than the typical significance level of 0.05.

These findings suggest that gender and medication intake may not play a substantial role in influencing the occurrence of self-injurious behaviors among children with ASD.

CHAPTER V: DISCUSSION

The study was conducted in Bangladesh with over 120 children with ASD who engaged in SIBs. The study aimed to find out different forms SIBs and their severity level, the association between SIBs & demographic characteristics. For this study participants were recruited through a purposive sampling technique and Self-injurious behavior and factors of SIBs were measured by RBS-R questionnaire. The present study investigated self-injurious behaviors (SIBs) in children with Autism Spectrum Disorders (ASDs) by synthesizing existing literature and generating new empirical data. The literature review provided a foundation for understanding the prevalence, forms, and associated factors of SIBs in children with ASD. The study results contributed a nuanced perspective by investigating the severity of SIBs, discerning behavioral patterns, and exploring association with demographics and correlation with other behavioral factors.

Concerning this study purpose, the results from the SIBs pattern showed which SIBs patterns are the highest occurrence among other behaviors and identified that hits self against a surface or object was mostly occurred behavior among other SIBs and hitting self with body parts, biting self, pulling, hits self with object, etc. are also sequence highest occurred behavior. This result agreed with the previous study's results where hit self against the surface occurred frequently (Dimian et al.,2023). Other research also agreed that head banging mostly occurs in SIBs among other types of SIBs and bites self, hits with body parts, pulls, etc behaviors also frequently occur (Duerden et al., 2012;Gulsrud et al.,2018;Dimian et al., 2017).

In the association between SIBs and demographic factors, the result didn’t show a significant association between age, gender. Certain negative findings that emerged in the current study did not align with the existing literature. For instance, results

showed that the absence of a significant association between age and SIBs opposed findings from previous research suggesting a higher incidence in older children where adult children engage more in SIBs than younger (Duerden et al., 2012; Soke et al., 2017). Similarly, the non-significant association between gender and SIBs contradicts studies reporting higher prevalence rates in females (Steenfeldt-Kristensen et al., 2020; Akram et al., 2017; Duerden et al., 2012). In both associations, results are not significantly associated with previous findings.

From available research and current findings, it was highlighted that the majority of children with ASD engage in SIBs and revealed different types of SIBs patterns. Among SIB patterns, maximum behavior occurred in mild to severe levels. So, it was alarming to pay attention to different SIBs and early intervention should made to reduce these SIBs. Previous studies also found many factors act as a risk for SIBs. By performing association present study found many factors that are responsible for SIBs. In current study found demographic factors act as risk makers for occurring SIBs among children with ASD.

CHAPTER VI: CONCLUSION

6.1 Strengths and Limitations

6.1.1 Strength list of the study

- The study design perfectly matched with cross-sectional study design according to the study aim & objective
- This study used a standardized tool for data collection
- Gained deeper understanding by face-to-face surveys with parents of ASD
- Ethical approval for the study was granted by the Institutional Review Board (IRB),BHPI.
- The participants (parents of children with ASD) were very cooperative.

6.1.2 Limitation list of the study

- According to the Bangladesh context, Repetitive Behavior Scale-Revised reliability and validity were not checked before conducting the study due to time limitations.
- The availability and reliability of assessment tools for measuring self-injurious behavior may be limited, potentially impacting the accuracy of data collection and analysis.
- Parent's information wasn't included in the demographic factor in this study. This limits some findings of this study
- The study was conducted over 120 children which was very low in total sample size calculation which was not enough to generalize factors of SIBs among children with ASD.
- The sample was selected by purposive sampling, rather than randomly.
- Reliance on parent reports increases the potential risk of biases.

- Limited time of data collection & sources decrease the study's effectiveness.

6.2 Practice Implication & recommendation for future practice and research

6.2.1 Recommendation for future practice

- Self-injurious behaviors (SIBs) a repetitive behavior and nowadays it become a concerning issue in ASD children and effective intervention should be taken to reduce this behavior.
- Occupational therapists in Bangladesh, most of them work with ASD children. As ASD children increase day by day, SIBs also show among children with ASD gradually. This study will help to address the variety of factors leading to SIB. After knowing the current situation regarding SIBs among ASD, they will promote a multidisciplinary approach incorporating experts from many professions, such as psychology, speech therapy, occupational therapy, and behavior analysis for treating this behavior.
- By knowing the factors of SIBs, Occupational therapists can work to reduce SIBs in factor wise for not influencing ASD children to perform this type of behavior. This study reinforces the importance of adopting a holistic approach to understanding and addressing self-injurious behaviors in children with ASD.
- Improving the well-being of people with ASD and reducing the negative effects of self-injurious will require a dedication to personalized treatment that is based on a comprehensive understanding of various aspects and mitigating the impact of self-injurious behaviors on both individuals and their families.

6.2.2 Recommendation for future research

- A longitudinal study should be conducted to monitor the persistent of SIBs over time. This will help identify factors in the onset and maintenance of SIBs.

- Effectiveness of various interventions and treatments for addressing self-injurious behaviors in children with autism.
- Compare the frequency of SIBs between children and adults with autism.
- Explore different factors responsible for SIBs among children with ASD.
- Examine the relationship between specific sensory sensitivities or difficulties and the occurrence of SIB.
- Explore the impact of communication difficulties and social skill deficits on the development of self-injurious behaviors.
- Explore potential medical factors, such as gastrointestinal issues, sleep disturbances, or medication side effects, that may contribute to self-injurious behaviors
- Further study must be conducted with parent's socio-demographic information which help to find more association between parents' socio-demographic factors and self-injurious behavior.

6.3 Conclusion

Self-injurious behaviors (SIBs) are a set of actions that a person did to themselves that can potentially cause physical harm, more specifically tissue damage. Day by day SIBs are a more concerning issue among children with ASD. The study aimed to identify the underlying factors responsible for self-injurious behavior among children with autism spectrum disorder. This is the first study concerning issue of SIBs. This study found that children with ASD show different types of SIBs and severity levels range from mild to severe level. This current study also found a significant association between SIBs and other comorbid behavioral factors and found a positive correlation between SIBs and other repetitive behavior. The significant prevalence of mild problems emphasizes the necessity of early detection and focused interventions to deal with SIBs

before they worsen. The relationships shown between SIBs and related behavioral characteristics highlight the importance of creating an effective intervention strategy to support individuals with ASD. The severity level of SIBs acts as an alarming issue to create a holistic approach to dealing with SIBs and other factors such as stereotype behavior, compulsive behavior, ritualistic behavior, sameness behavior & restricted behavior which show association and correlation with SIBs can act as a risk factor of engaging in SIBs in children with ASD. From the study, the positive findings emphasize the potential for early interventions to address mild problems, preventing the escalation of SIBs over time. On the other hand, the negative findings underscore the variability within the ASD population, highlighting the need for personalized approaches and a recognition of the complex interplay of factors influencing SIBs.

The literature review and study results collectively emphasize the multifaceted nature of self-injurious behaviors in children with ASD. The SIBs forms and associated factors underscore the need for a holistic approach to intervention and support for individuals with ASD at risk for SIBs.

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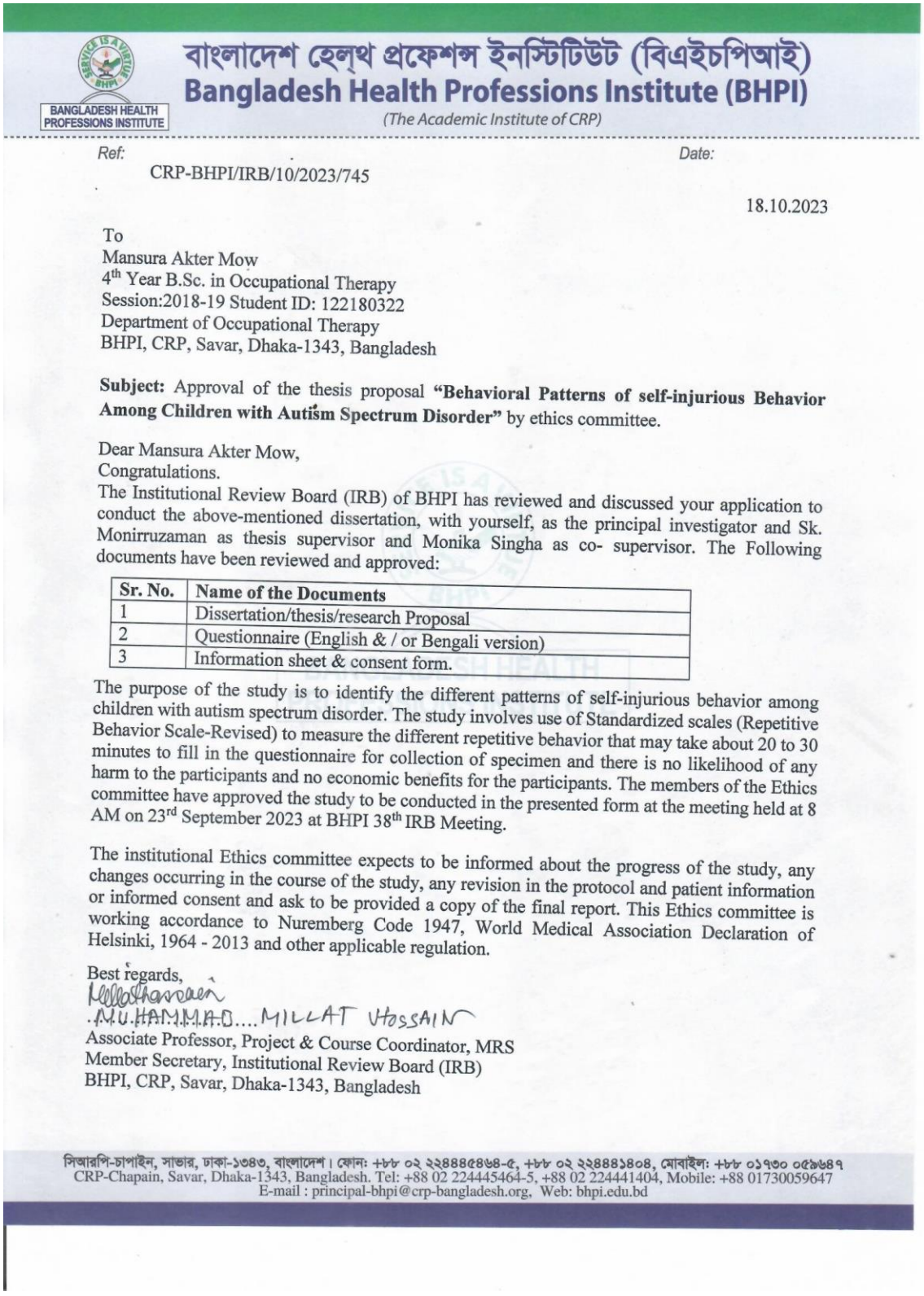
APPENDICES

Appendix A: Approval / Permission Letter

Part-I: IRB Letter



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

BANGLADESH HEALTH PROFESSIONS INSTITUTE

Ref: CRP-BHPI/IRB/10/2023/745

Date: 18.10.2023

To
Mansura Akter Mow
4th Year B.Sc. in Occupational Therapy
Session:2018-19 Student ID: 122180322
Department of Occupational Therapy
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal **"Behavioral Patterns of self-injurious Behavior Among Children with Autism Spectrum Disorder"** by ethics committee.

Dear Mansura Akter Mow,
Congratulations.
The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above-mentioned dissertation, with yourself, as the principal investigator and Sk. Monirruzaman as thesis supervisor and Monika Singha as co- supervisor. The Following documents have been reviewed and approved:

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

The purpose of the study is to identify the different patterns of self-injurious behavior among children with autism spectrum disorder. The study involves use of Standardized scales (Repetitive Behavior Scale-Revised) to measure the different repetitive behavior that may take about 20 to 30 minutes to fill in the questionnaire for collection of specimen and there is no likelihood of any harm to the participants and no economic benefits for the participants. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 8 AM on 23rd September 2023 at BHPI 38th IRB Meeting.

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

Best regards,
Millathareen
MUHAMMAD MILLAT HOSSAIN
Associate Professor, Project & Course Coordinator, MRS
Member Secretary, Institutional Review Board (IRB)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

সিআরপি-চাপাইন, সাভার, ঢাকা-১৩৪৩, বাংলাদেশ। ফোন: +৮৮ ০২ ২২৪৪৪৫৪৬৪-৫, +৮৮ ০২ ২২৪৪৪১৪০৪, মোবাইল: +৮৮ ০১৭৩০ ০৫৯৬৪৭
CRP-Chapain, Savar, Dhaka-1343, Bangladesh. Tel: +88 02 224445464-5, +88 02 224441404, Mobile: +88 01730059647
E-mail : principal-bhpi@crp-bangladesh.org, Web: bhpi.edu.bd

Part-II: Data Collection Permission Letter from Savar, CRP

Date:18 October, 2023
To
The head of the Pediatric Department
Bangladesh Health Professions Institute (BHPI)
Centre for the Rehabilitation of the Paralysed (CRP)
CRP-Chapain, Savar, Dhaka-1343
Subject: **Request for seeking permission to collect data for the research project.**

Sir,

I beg most respectfully to state that I am a student of 4th year, B. Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI) which is an academic institute of Centre for the Rehabilitation of the Paralysed(CRP), affiliated to Faculty of Medicine, University of Dhaka. I am interested to conduct a quantitative study. My thesis title is **"Factors of self-injurious behavior among children with autism spectrum disorder"** which is supervised by Sk. Monirruzaman, Associate Professor, Head of the Occupational Therapy Department & co-supervised by Monika Singha, lecturer of Occupational Therapy Department, Bangladesh Health Professions Institute (BHPI). The purpose of the study is to identify the underlying factors responsible for self-injurious behavior among children with autism spectrum disorder. Now I am looking for your kind approval to start my data collection and I would like to assure that anything of my research period will not be harmful for the participants.

I therefore pray and hope that you would be kind enough to give me the permission for collecting the data and oblige thereby.

Sincerely

Mansura Akter Mow
4th year, B.Sc. in Occupational Therapy
Session:2018-19
Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343, Bangladesh

She will collect data from this Department. please help her.
Thanks
19-10-23

Hosneara Perveen
Head of Department
Department of Paediatric
CRP, Savar, Dhaka

Signature and comments of head of the department

Sk. Monirruzaman
Associate Professor
Head of the Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343, Bangladesh

Part-III: Data Collection Permission Letter from Mirpur CRP

Date:19 October, 2023
To
Center Manager
Centre for the Rehabilitation of the Paralysed
CRP-Mirpur, Dhaka-1206

Subject: **Request for seeking permission to collect data for the research project.**

Sir,

I beg most respectfully to state that I am a student of 4th year, B. Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI) which is an academic institute of Centre for the Rehabilitation of the Paralysed(CRP), affiliated to Faculty of Medicine, University of Dhaka. I am interested to conduct a quantitative study. My thesis title is **"Factors of self-injurious behavior among children with autism spectrum disorder"** which is supervised by Sk. Monirruzaman, Associate Professor, Head of the Occupational Therapy Department & co-supervised by Monika Singha, lecturer of Occupational Therapy Department, Bangladesh Health Professions Institute (BHPI). The purpose of the study is to identify the underlying factors responsible for self-injurious behavior among children with autism spectrum disorder. Now I am looking for your kind approval to start my data collection and I would like to assure that anything of my research period will not be harmful for the participants.

I therefore pray and hope that you would be kind enough to give me the permission for collecting the data and oblige thereby.

Sincerely

Mansura Akter Mow
4th year, B.Sc. in Occupational Therapy
Session:2018-19
Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343, Bangladesh
CRP-BHPI/IRB/10/23/745

Signature and comments of head of the department

Sk. Monirruzaman
Associate Professor
Head of the Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343, Bangladesh

Part-IV: Data Collection Permission Letter from Prottasa,Savar,Dhaka

Date:18 October, 2023
To
Chairman
Prottasha Centre for Autism Care
Dogormora,CRP road,Savar, Dhaka

Subject: **Request for seeking permission to collect data for the research project.**

Sir,

I beg most respectfully to state that I am a student of 4th year, B. Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI) which is an academic institute of Centre for the Rehabilitation of the Paralysed(CRP), affiliated to Faculty of Medicine, University of Dhaka. I am interested to conduct a quantitative study. My thesis title is **"Factors of self-injurious behavior among children with autism spectrum disorder"** which is supervised by Sk. Monirruzaman, Associate Professor, Head of the Occupational Therapy Department & co-supervised by Monika Singha, lecturer of Occupational Therapy Department, Bangladesh Health Professions Institute (BHPI). The purpose of the study is to identify the underlying factors responsible for self-injurious behavior among children with autism spectrum disorder. Now I am looking for your kind approval to start my data collection and I would like to assure that anything of my research period will not be harmful for the participants.

I therefore pray and hope that you would be kind enough to give me the permission for collecting the data and oblige thereby.

Sincerely

Mansura Akter Mow
4th year, B.Sc. in Occupational Therapy
Session:2018-19
Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343, Bangladesh

Signature and comments of head of the department

Sk. Monirruzaman
Associate Professor
Head of the Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343, Bangladesh

Part-IV: Data Collection Permission Letter from Therapist Point,Savar,Dhaka

Date:18 October, 2023
To
Chairman
Therapist Point & Shonirvor Special School for Autism and Neurodevelopmental Disoder
Dogormora,CRP road,Savar, Dhaka

Subject: **Request for seeking permission to collect data for the research project.**

Sir,

I beg most respectfully to state that I am a student of 4th year, B. Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI) which is an academic institute of Centre for the Rehabilitation of the Paralysed(CRP), affiliated to Faculty of Medicine, University of Dhaka. I am interested to conduct a quantitative study. My thesis title is **"Factors of self-injurious behavior among children with autism spectrum disorder"** which is supervised by Sk. Monirruzaman, Associate Professor, Head of the Occupational Therapy Department & co-supervised by Monika Singha, lecturer of Occupational Therapy Department, Bangladesh Health Professions Institute (BHPI). The purpose of the study is to identify the underlying factors responsible for self-injurious behavior among children with autism spectrum disorder. Now I am looking for your kind approval to start my data collection and I would like to assure that anything of my research period will not be harmful for the participants.

I therefore pray and hope that you would be kind enough to give me the permission for collecting the data and oblige thereby.

Sincerely

Mansura Akter Mow
4th year, B.Sc. in Occupational Therapy
Session:2018-19
Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343, Bangladesh

Signature and comments of head of the department

Sk. Monirruzaman
Associate Professor
Head of the Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343, Bangladesh

Therapist Point AR Foundation Date: 18/10/23 Shonirvor Special School

Permission Granted

18/10/23

Mr. Nayem Nizam Majumder
B... (CRP, DU), MDS (JU-Incourse)
S... Occupational Therapist &
Therapist Point & Shonivor Special Scho...

Part-V: Data Collection Permission Letter from AWF

Date:19 October, 2023
To
Dr. Rownak Hafiz
Chairperson
Autism welfare Foundation (AWF)
Moddher Char, Shamlapur, Keranigonj Model thana, Dhaka-1312

Subject: **Request for seeking permission to collect data for the research project.**

Sir,

I beg most respectfully to state that I am a student of 4th year, B. Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI) which is an academic institute of Centre for the Rehabilitation of the Paralysed(CRP), affiliated to Faculty of Medicine, University of Dhaka. I am interested to conduct a quantitative study. My thesis title is **"Factors of self-injurious behavior among children with autism spectrum disorder"** which is supervised by Sk. Monirruzaman, Associate Professor, Head of the Occupational Therapy Department & co-supervised by Monika Singha, lecturer of Occupational Therapy Department, Bangladesh Health Professions Institute (BHPI). The purpose of the study is to identify the underlying factors responsible for self-injurious behavior among children with autism spectrum disorder. Now I am looking for your kind approval to start my data collection and I would like to assure that anything of my research period will not be harmful for the participants.

I therefore pray and hope that you would be kind enough to give me the permission for collecting the data and oblige thereby.

Sincerely

Mansura Akter Mow
4th year, B.Sc. in Occupational Therapy
Session:2018-19
Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343, Bangladesh
CRP-BHPI/IRB/10/23/745

Signature and comments of head of the department

Sk. Monirruzaman
Associate Professor
Head of the Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343, Bangladesh

Permission Granted
02.12.2023
Mariyam Monwar
Vice Principal
Autism Welfare Foundation

Part-VII: Data Collection Permission Letter from Smiling Children

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনষ্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)
(The Academic Institute of CRP)
CRP-Chapain, Savar, Dhaka, Tel: 02224445464 , 02224441404, Website: www.bhpi.edu.bd

Date: 10.12.2023

To
The Principal
Smiling Children Special School,
House No#39, Road- 05, Block - E, Aftabnagar,
Badda, Dhaka - 1212.

Subject: *Regarding Data collection for dissertation.*

Greetings from Bangladesh Health Professions Institute (BHPI). I would like to inform you that, BHPI, the Academic Institute of CRP is running B.Sc. in Occupational Therapy Course, under Faculty of Medicine, University of Dhaka.

According to the content of 4th year of University course curriculum, the students have to do Research and Course work in different topics to develop their skills. Considering the situation, your institute will be the most appropriate place to collect data.

4th year students of BHPI Mansura Akter Mou would like to collect data in your organization from 11.12.2023 to 30.01.2024. Her title: "Factors of self- injurious behavior among children with autism spectrum Disorder".

We shall remain grateful to you if you could kindly allow us in conducting the placement.

With regards

Sk. Moniruzzaman
Associate Prof. & Head
Dept. of Occupational Therapy
BHPI.

Bangladesh Health Professions Institute (BHPI) ★ Date.....

Approved
11.12.23

Part-VIII: Data Collection Permission Letter from Autism Care Foundation

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনষ্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)
(The Academic Institute of CRP)
CRP-Chapain, Savar, Dhaka, Tel: 02224445464 , 02224441404, Website: www.bhpi.edu.bd

Date: 10.12.2023

To
The Principal
Autism Care Foundation Special School,
House No#13, Road#12/1, Block # G, South Banasree,
Khilgaon, Dhaka.

Subject: *Regarding Data collection for dissertation.*

Greetings from Bangladesh Health Professions Institute (BHPI). I would like to inform you that, BHPI, the Academic Institute of CRP is running B. Sc in Occupational Therapy Course, under Faculty of Medicine, University of Dhaka.

According to the content of 4th year of University course curriculum, the students have to do Research and Course work in different topics to develop their skills. Considering the situation, your institute will be the most appropriate place to collect data.

4th year students of BHPI Mansura Akter Mou would like to collect data in your organization from 11.12.2023 to 30.01.2024. Her title: "Factors of self- injurious behavior among children with autism spectrum Disorder".

We shall remain grateful to you if you could kindly allow us in conducting the placement.

With regards

Sk. Moniruzzaman
Associate Prof. & Head
Dept. of Occupational Therapy
BHPI.

Bangladesh Health Professions Institute (BHPI) ★ Date.....

Md :Jasim Uddin
Principal
Autism Care Foundation Special School

Appendix B: Information Sheet & Consent Form

Part-I: Information Sheet (English version)
Title: Factors of self-injurious behavior among children with autism spectrum disorder

Investigator: Mansura Akter Mow, Student of B.Sc. in Occupational Therapy,

Bangladesh Health Professions Institute (BHPI), CRP-Savar, Dhaka- 1343

Place: Autism center and school in Dhaka.

Introduction

I am Mansura Akter Mow, B.Sc. in Occupational Therapy student at Bangladesh Health Professions Institute (BHPI), have to conduct a thesis as a part of this Bachelor course, under thesis supervisor Sk.Monizuzzaman, co-supervisor Monika Singha. You are going to have details information about the study purpose, data collection process and ethical issues. You do not have to decide today whether you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research. If this consent form contains some words that you do not understand, please ask me to stop. I will take the time to explain.

Background and Purpose of the study

You are being invited to be a part of this research because as a parent you have a better understanding of self-injurious behavior and associated factors related to your child. The purpose of my study is to identify the underlying factors responsible for self-injurious behavior among children with autism spectrum disorder. This study will be helpful to have a better understanding of the self-injurious behavior & severity of SIBs and factors related to SIBs among children with autism.

Research related information

The research-related information will be discussed with you throughout the information sheet before taking your signature on the consent form. After that participants will be asked to complete a standard questionnaire which may need 20-30 minutes. In this questionnaire, there will be questions on demographic factors (for example Age, sex, degree of autism). It will also contain some specific questions related to factors of SIBs. Particularly, in this research we select Caregivers of some children with autism spectrum disorder for the study. The information recorded is confidential and your identity will not be disclosed.

Risks and benefits

We are asking you to share some personal information if you feel uncomfortable giving information. You do not need to take part in the discussion interview/survey if you don't wish to do so, and that is also okay. On the other hand, you may not have any direct benefit by participating in this research, but your valuable participation is likely to help us to find out some valuable information about SIBs & factors of SIBs of children with an autism spectrum disorder. It is expected that there is no additional risk, inconvenience, or discomfort in participating in the relevant research.

Confidentiality

Information about you will not be shared with anyone outside of the research team. The information that we collect from this research project will be kept private. Only the researchers will know about your information and we will lock that information up with a lock and key. It will not be shared with or given to anyone except Sk.Moniruzzaman & Monika Singha, the study supervisor.

Sharing the Results

Nothing that you tell us today will be shared with anybody outside the research team and nothing will be attributed to you by name. The knowledge that we get from this research will be shared and widely available to the public.

Information withdrawal

You can cancel any information collected for this research project in a fixed time. After publishing the research, you can't withdraw any information. After the cancellation, we expect permission from the information whether it can be used or not.

Whom to Contact

If you have any questions, you can ask me now or later. If you wish to ask questions later, you may contact any of the following: Mansura Akter Mow, Bachelor of Science in Occupational Therapy, Department of Occupational Therapy, Cell phone-01911736937. This proposal is reviewed and approved by Institutional Review Board (CRP-BHPI/IRB/10/23/745), Bangladesh Health Professions Institute (BHPI), CRP-Savar, Dhaka-1343, Bangladesh, which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find out more about the IRB, contact Bangladesh Health Professions Institute (BHPI), CRP-Savar, Dhaka-1343, Bangladesh. You can ask me any more questions about any part of the research study if you wish to. Do you have any questions?

Part-I: Information Sheet (Bangla version)

তথ্য প্ত্র

গবেষণার শিরোনাম: অটিজম স্পেকট্রাম ডিসঅর্ডারে আক্রান্ত শিশুরা নিজেকে আঘাত করে এমন আচরণের কারণ

গবেষক: মানসুরা আক্তার মৌ, বিএসসি ইন অকুপেশনাল থেরাপির শিক্ষার্থী
বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট (বিএইচপিআই), সিআরপি-সাভার, ঢাকা-১৩৪৩

স্থানঃ ঢাকায় অটিজম সেন্টার ও স্কুল।

ভূমিকা

আমি্ মানসুরা আক্তার মৌ,অকুপেশনাল থেরাপির শিক্ষার্থীকে এই ব্যাচেলর কোর্সের অংশ হিসেবে থিসিস সুপারভাইজার এস.কে.মনিজুজ্জামান, কো-সুপারভাইজার মনিকা সিং-এর অধীনে একটি থিসিস পরিচালনা করতে হবে। আপনার কাছে অধ্যয়নের উদ্দেশ্য, ডেটা সংগ্রহের প্রক্রিয়া এবং নৈতিক সমস্যা সম্পর্কে বিশদ তথ্য থাকবে। আপনি গবেষণায় অংশগ্রহণ করবেন কিনা তা আজকে সিদ্ধান্ত নিতে হবে না। আপনি সিদ্ধান্ত নেওয়ার আগে, গবেষণা সম্পর্কে আপনি যার সাথে স্বাচ্ছন্দ্য বোধ করেন তার সাথে কথা বলতে পারেন। যদি এই সম্মতি ফর্মে এমন কিছু শব্দ থাকে যা আপনি বুঝতে পারেন না, দয়া করে আমাকে থামতে বলুন। আমি ব্যাখ্যা করতে সময় নেব।

অধ্যয়নের পটভূমি এবং উদ্দেশ্য

আপনাকে এই গবেষণার অংশ হতে আমন্ত্রণ জানানো হচ্ছে কারণ একজন অভিভাবক হিসাবে আপনি আপনার সন্তানের সাথে সম্পর্কিত স্ব-আঘাতমূলক আচরণ এবং সংশ্লিষ্ট কারণগুলি সম্পর্কে আরও ভালভাবে বুঝতে পেরেছেন। আমার অধ্যয়নের উদ্দেশ্য হল অটিজম স্পেকট্রাম ডিসঅর্ডারে আক্রান্ত শিশুদের মধ্যে স্ব-আঘাতমূলক আচরণের জন্য দায়ী অন্তর্নিহিত কারণগুলি চিহ্নিত করা। এই অধ্যয়নটি অটিজমে আক্রান্ত শিশুদের মধ্যে স্ব-আঘাতমূলক আচরণ এবং এর তীব্রতা এবং এর সাথে সম্পর্কিত কারণগুলি সম্পর্কে আরও ভালভাবে বোঝার জন্য সহায়ক হবে।

গবেষণা সম্পর্কিত তথ্য

সম্মতি ফর্মে আপনার স্বাক্ষর নেওয়ার আগে গবেষণা-সম্পর্কিত তথ্যগুলি তথ্য পত্র জুড়ে আপনার সাথে আলোচনা করা হবে। এর পরে অংশগ্রহণকারীদের একটি স্ট্যান্ডার্ড প্রশ্নাবলী সম্পূর্ণ করতে বলা হবে যার জন্য ২-৩০ মিনিট সময় লাগতে পারে। এই প্রশ্নাবলীতে, জনসংখ্যা বিষয়ক (উদাহরণস্বরূপ বয়স, লিঙ্গ, অটিজমের ডিগ্রি) বিষয়ে প্রশ্ন থাকবে। এতে স্ব-আঘাতমূলক আচরণ এর ফ্যাক্টর সম্পর্কিত কিছু নির্দিষ্ট প্রশ্নও থাকবে। বিশেষ করে, এই গবেষণায় আমরা গবেষণার জন্য অটিজম স্পেকট্রাম ডিসঅর্ডারে আক্রান্ত কিছু শিশুর যত্নশীলদের নির্বাচন করি। রেকর্ড করা তথ্য গোপনীয় এবং আপনার পরিচয় প্রকাশ করা হবে না।

ঝুঁকি এবং সুবিধা

আমরা আপনাকে কিছু ব্যক্তিগত তথ্য শেয়ার করতে বলছি আপনি তথ্য দিতে অস্বস্তি বোধ করলে,আপনি যদি তা করতে না চান তাহলে আপনাকে আলোচনা সাক্ষাত্কার/জরিপে অংশ নেওয়ার দরকার নেই, এবং এটিও ঠিক আছে। অন্যদিকে, এই গবেষণায় অংশগ্রহণ করে আপনার সরাসরি কোনো লাভ নাও হতে পারে, কিন্তু

আপনার মূল্যবান অংশগ্রহণ আমাদেরকে অটিজম স্পেকট্রাম ডিসঅর্ডারে আক্রান্ত শিশুদের স্ব-আঘাতমূলক আচরণ এবং এর কারণ সম্পর্কে কিছু মূল্যবান তথ্য খুঁজে বের করতে সাহায্য করবে। এটি প্রত্যাশিত যে প্রাসঙ্গিক গবেষণায় অংশগ্রহণের জন্য কোন অতিরিক্ত ঝুঁকি, অসুবিধা বা অস্বস্তি নেই।

গোপনীয়তা

আপনার সম্পর্কে তথ্য গবেষণা দলের বাইরে কারো সাথে শেয়ার করা হবে না। এই গবেষণা প্রকল্প থেকে আমরা যে তথ্য সংগ্রহ করি তা গোপন রাখা হবে। শুধুমাত্র গবেষকরা আপনার তথ্য সম্পর্কে জানতে পারবেন এবং আমরা সেই তথ্যটি লুকিয়ে রাখবো। এটি অধ্যয়নের তত্ত্বাবধায়ক এসকে মনিরুজ্জামান এবং মনিকা সিংহ ছাড়া কারো সাথে শেয়ার করা বা দেওয়া হবে না।

ফলাফল শেয়ার করা

আপনি আজ আমাদের যা বলবেন তার কিছুই গবেষণা দলের বাইরের কারো সাথে শেয়ার করা হবে না এবং আপনার নামে কিছু দায়ী করা হবে না। এই গবেষণা থেকে আমরা যে জ্ঞান পেয়েছি তা ভাগ করে নেওয়া হবে এবং জনসাধারণের কাছে ব্যাপকভাবে উপলব্ধ হবে।

তথ্য প্রত্যাহার

আপনি একটি নির্দিষ্ট সময়ের মধ্যে এই গবেষণা প্রকল্পের জন্য সংগৃহীত যেকোনো তথ্য বাতিল করতে পারেন। গবেষণা প্রকাশ করার পরে, আপনি কোনো তথ্য প্রত্যাহার করতে পারবেন না। বাতিল করার পরে, আমরা তথ্য থেকে অনুমতি আশা করি এটি ব্যবহার করা যাবে কি না।

কার সাথে যোগাযোগ করবেন

যদি আপনার কোন প্রশ্ন থাকে, আপনি এখন বা পরে আমাকে জিজ্ঞাসা করতে পারেন. আপনি যদি পরে প্রশ্ন জিজ্ঞাসা করতে চান, তাহলে আপনি নিম্নলিখিত যেকোনও সাথে যোগাযোগ করতে পারেন: মানসুরা আক্তার , বিএসসি ইন অকুপেশনাল থেরাপি, অকুপেশনাল থেরাপি বিভাগ, সেল ফোন- ০১৯১১৭৩৬৯৩৭। এই গবেষণা প্রকল্পটি প্রাতিষ্ঠানিক পর্যালোচনা বোর্ড (সি আর পি-বি এইচ পি আই/ আই আর বি/১০/২৩/৭৪৫) দ্বারা পর্যালোচনা এবং অনুমোদিত হয়েছে। বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট (বিএইচপিআই), সিআরপি-সাভার, ঢাকা- ১৩৪৩, যেটি একটি কমিটি যার কাজ হল গবেষণায় অংশগ্রহণকারীরা যাতে ক্ষতির হাত থেকে সুরক্ষিত থাকে তা নিশ্চিত করা। আপনি যদি আই আর বি সম্পর্কে আরও জানতে চান, বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট (বিএইচপিআই), সিআরপি-সাভার, ঢাকা-১৩৪৩-এ যোগাযোগ করুন। আপনি যদি চান তবে গবেষণা অধ্যয়নের যেকোনো অংশ সম্পর্কে আমাকে আরও প্রশ্ন করতে পারেন। আপনি কি কিছু জানতে চান?

Part-II: Consent form(English Version)

Research Title: Factors of self-injurious behavior among children with autism spectrum disorder

Mansura Akter Mow (investigator) is a 4th-year student of BSc in Occupational Therapy Department, 2018-19 session at Bangladesh Health Professions Institute (BHPI), the academic institute of centre for the Rehabilitation of the paralyzed (CRP). This study is a part of the course curriculum of Occupational Therapy Department. The study supervisor by Sk.Moniruzzaman, Associate Professor & Head of Occupational Therapy Department & Co-supervisor-Monika Singha, Lecturer of Occupational Therapy Department, Bangladesh Health Professions Institute (BHPI). All participants are informed about the purpose and nature of the study. After knowing the flowing information, participants will decide to participate in the study-

▪ Investigator will receive permission from participants to take part in the study.

▪ The participant will not be harmed for participating in the study.

▪ Investigator will be available to answer the participants any questions related to this study.

▪ Participants are free to decline to answer any question during interview.

▪ Investigator will maintain the confidentiality of the participants

▪ Participants can withdraw from the study at any time.

I am _____a participant of this study is clearly informed about the aim of the study. I am participating willingly in this study. I have right to withdraw my name from this study at any time and I am not bound to answer anyone for that.

Signature:

Signature of the participant	Date
Signature of the investigator	Date

Part-II: Consent form(Bangla Version)

সম্মতি পত্র

গবেষণার শিরোনাম: অটিজম স্পেকট্রাম ডিসঅর্ডারে আক্রান্ত শিশুরা নিজেকে আঘাত করে এমন আচরণের কারণ

মানসুরা আক্তার মৌ (গবেষক) বিএসসি ইন অকুপেশনাল থেরাপি বিভাগে, ২০১৮-১৯ সেশনের ৪র্থ বর্ষের শিক্ষার্থী, বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট (বি এইচ পি আই), একাডেমিক ইনস্টিটিউট পক্ষাতগ্রস্তদের পুনর্বাসন কেন্দ্র (সি আর পি)।এই অধ্যয়নটি অকুপেশনাল থেরাপি বিভাগের পাঠ্যক্রমের একটি অংশ। স্টাডি তত্ত্বাবধায়ক এসকে মনিরুজ্জামান, সহযোগী অধ্যাপক ও অকুপেশনাল থেরাপি বিভাগের প্রধান এবং সহ-তত্ত্বাবধায়ক-মনিকা সিংহ, অকুপেশনাল থেরাপি বিভাগের প্রভাষক, বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউট (বিএইচপিআই)।সমস্ত অংশগ্রহণকারীদের অধ্যয়নের উদ্দেশ্য এবং প্রকৃতি সম্পর্কে অবহিত করা হয়। প্রবাহিত তথ্য জানার পর, অংশগ্রহণকারীরা গবেষণায় অংশগ্রহণ করার সিদ্ধান্ত নেবে-

- গবেষক অংশগ্রহণকারীদের কাছ থেকে গবেষণায় অংশ নেওয়ার অনুমতি পাবেন।
- অধ্যয়নে অংশগ্রহণের জন্য অংশগ্রহণকারীর কোনো ক্ষতি হবে না।
- গবেষক অংশগ্রহণকারীদের এই গবেষণার সাথে সম্পর্কিত যেকোন প্রশ্নের উত্তর দেওয়ার জন্য সহজলভ্য থাকবে।
- গবেষক অংশগ্রহণকারীরা সাক্ষাত্কারের সময় যেকোনো প্রশ্নের উত্তর দিতে অস্বীকার করতে পারেন।
- গবেষক অংশগ্রহণকারীদের গোপনীয়তা বজায় রাখবে।
- গবেষক অংশগ্রহণকারীরা যে কোনো সময় অধ্যয়ন থেকে প্রত্যাহার করতে পারে।

আমি এই অধ্যয়নের একজন অংশগ্রহণকারী _____ অধ্যয়নের লক্ষ্য সম্পর্কে স্পষ্টভাবে অবহিত। আমি এই গবেষণায় স্বেচ্ছায় অংশগ্রহণ করছি। আমার এই অধ্যয়ন থেকে যেকোনো সময় আমার নাম প্রত্যাহার করার অধিকার আছে এবং আমি এর জন্য কাউকে উত্তর দিতে বাধ্য নই।

স্বাক্ষর:

অংশগ্রহণকারী স্বাক্ষরঃ	তারিখঃ
গবেষকের স্বাক্ষর:	তারিখঃ

Part-III: Withdrawal form(English Version)

Research Title: Factors of self-injurious behavior among children with autism spectrum disorder

Name of Researcher: Mansura Akter Mow, 4th Year, Student of B.Sc. in Occupational Therapy

I……..(participants), wish to withdrawal my consent to the use of data arising from my participation.

Name of the participant:……

Signature of the participant: ……. Date:……..

Name of the researcher:……Date:……..

Part-III: Withdrawal form(Bangla Version)

প্রত্যাহার পত্র

গবেষণার শিরোনাম: অটিজম স্পেকট্রাম ডিসঅর্ডারে আক্রান্ত শিশুরা নিজেকে আঘাত করে এমন আচরণের কারণ

গবেষকের নাম: মানসুরা আক্তার মৌ, ৪র্থ বর্ষ, বিএসসি ইন অকুপেশনাল থেরাপির শিক্ষার্থী

আমি.....(অংশগ্রহণকারী),আমার অংশগ্রহণ থেকে পাওয়া তথ্য ব্যবহারের জন্য আমার সম্মতি প্রত্যাহার করতে চাই।

অংশগ্রহণকারীর নামঃ

অংশগ্রহণকারীর স্বাক্ষরঃ.....তারিখঃ.....

গবেষকের স্বাক্ষরঃ.....তারিখঃ.....

Appendix C: Questionnaire

Part-I: Demographic Factors(English Version)

Demographic Factors:

Date:	
Name:	**Age:**
Mobile no:	**Sex:**__Male__Female

PLEASE FILL OUT THE FOLLOWING INFORMATION ABOUT THE INDIVIDUAL WHO HAS AN AUTISM SPECTRUM DISORDER (ASD):

What kind of ASD does this individual have?

____ Autism
____ Pervasive Developmental Disorder – Not Otherwise Specified (PDD-NOS)
____ Asperger's
____ don't know

What kind of school setting does this person attend? (If no longer in school, please indicate what placement they were last in):

____ regular class in a regular school (may include some special provisions in class)
____ special class in a regular school (may include those in mainstreaming activities)
____ special school
____ other: ___

Does this person CURRENTLY take any medications? If so, please list them below:

_____
_____
_____
_____
_____

Part-I: Demographic Factors(Bangla Version)

ডেমগ্রাফিক ফ্যাক্টর

তারিখঃ
নামঃ বয়সঃ
ফোন নাম্বারঃ শিশুর লিঙ্গঃ __ছেলে __মেয়ে

অনুগ্রহ করে অটিজম স্পেকট্রাম ডিসঅর্ডার(এএসডি) আছে এমন ব্যক্তির সম্পর্কে নিম্নলিখিত তথ্যগুলি পূরণ করুনঃ

জন্মতারিখঃ___/___/_____ লিঙ্গঃ

___পুরুষ___মহিলা

এই ব্যক্তির কি ধরনের আছে এএসডি আছে?

_____অটিজম

_____পারভেসিব ডেভেলোপমেন্ট ডিসঅর্ডার____নির্দিষ্ট করা হয়নি(পিডিডি)

_____আসপারজান

_____জানেন না

এই ব্যক্তি কোন ধরনের স্কুলে যায়?(যদি কোন স্কুলে না যেয়ে থাকে তাহলে অনুগ্রহ করে নির্দেশ করুন তারা সর্বশেষ কোন প্লেসমেন্টে ছিল)

_____একটি নিয়মিত স্কুলে নিয়মিত ক্লাস(ক্লাসে বিশেষ বিধান অন্তর্ভুক্ত থাকতে পারে)

_____একটি নিয়মিত স্কুলে বিশেষ ক্লাস(মেইনস্ট্রিমে অন্তর্ভুক্ত থাকতে পারে)

_____বিশেষ স্কুল

_____অন্যান্য_____এই ব্যক্তি কি বর্তমানে কোনো ওষুধ খান?

যদি তাই হয়, অনুগ্রহ করে তাদের নীচে তালিকাভুক্ত করুনঃ

_____

_____

_____

Part-II: REPETITIVE BEHAVIOR SCALE – Revised (RBS-R)(English Version)

Instructions:

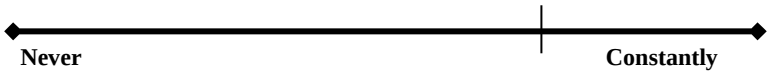
Please rate this person's behavior by reading each of the items listed and then choosing the score that best describes how much of a problem the item is for the person. Be sure to read and score all items listed. Make your ratings based on your observations and interactions with the person over the last month. Use the definitions

0 = behavior does not occur
1 = behavior occurs and is a mild problem
2 = behavior occurs and is a moderate problem
3 = behavior occurs and is a severe problem

in the box given below to score each item.

At the end of each section, there will be three questions asking you to rate that section's behaviors in terms of (a) how frequently they occur, (b) how upset the person becomes when repetitive behaviors are interrupted, and (c) how much the behaviors interfere with ongoing events. You will indicate the score by marking along each line, which represents a range of frequencies and severities.

For example, if this person does those behaviors many times a day you may put the mark quite close to the right side:



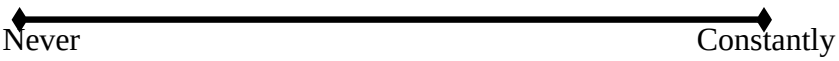
I.Stereotyped Behavior Subscale

(DEFINITION: apparently purposeless movements or actions that are repeated in a similar manner)

1	WHOLE BODY (Body rocking, Body swaying)	0	1	2	3
2	HEAD (Rolls head, Nods head, Turns head)	0	1	2	3
3	HAND/FINGER (Flaps hands, Wiggles or flicks fingers, Claps hands, Waves or shakes hand or arm)	0	1	2	3
4	LOCOMOTION (Turns in circles, Whirls, Jumps, Bounces)	0	1	2	3
5	OBJECT USAGE (Spins or twirls objects, Twiddles or slaps or throws objects, Lets objects fall out of hands)	0	1	2	3
6	SENSORY (Covers eyes, Looks closely or gazes at hands or objects, Covers ears, Smells or sniffs items, Rubs surfaces)	0	1	2	3

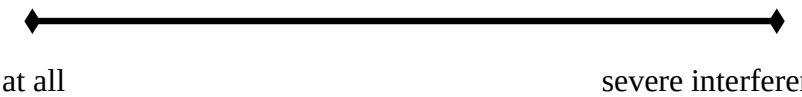
Please answer the following question about the behavior described above put a vertical mark(/) on the line to show your answer.

How often do they happen? (If Never, skip to Section II)



How upset does this person get when interrupted?

How much do these behaviors get in the way of ongoing events?



0 = behavior does not occur
1 = behavior occurs and is a mild problem
2 = behavior occurs and is a moderate problem
3 = behavior occurs and is a severe problem

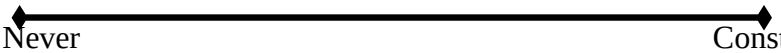
II.Self-injurious behavior

(DEFINITION: movement or actions that have the potential to cause redness, bruising, or other injury to the body, and that are repeated in a similar manner)

7	HITS SELF WITH BODY PART (Hits or slaps head, face, or other body area)	0	1	2	3
8	HITS SELF AGAINST SURFACE OR OBJECT (Hits or bangs head or other body part on table, floor or other surface)	0	1	2	3
9	HITS SELF WITH OBJECT (Hits or bangs head or other body area with objects)	0	1	2	3
10	BITES SELF (Bites hand, wrist, arm, lips or tongue)	0	1	2	3
11	PULLS (Pulls hair or skin)	0	1	2	3
12	RUBS OR SCRATCHES SELF (Rubs or scratches marks on arms, leg, face or torso)	0	1	2	3
13	INSERTS FINGER OR OBJECT (Eye-poking, Ear-poking)	0	1	2	3
14	SKIN PICKING (Picks at skin on face, hands, arms, legs or torso)	0	1	2	3

Please answer the following question about the behavior described above put a vertical mark(/) on the line to show your answer.

How often do they happen? (If Never, skip to Section II)



How upset does this person get when interrupted?

How much do these behaviors get in the way of ongoing events?

0 = behavior does not occur
1 = behavior occurs and is a mild problem
2 = behavior occurs and is a moderate problem
3 = behavior occurs and is a severe problem

III.Compulsive Behavior

DEFINITION: behavior that is repeated and is performed according to a rule, or involves things being done “just so”)

15	ARRANGING / ORDERING (Arranges certain objects in a particular pattern or place; Need for things to be even or symmetrical)	0	1	2	3
16	COMPLETENESS (Must have doors opened or closed; Takes all items out of a container or area)	0	1	2	3
17	WASHING / CLEANING (Excessively cleans certain body parts; Picks at lint or loose threads)	0	1	2	3

18	CHECKING (Repeatedly checks doors, windows, drawers, appliances, clocks, locks, etc.)	0	1	2	3
19	COUNTING (Counts items or objects; Counts to a certain number or in a certain way)	0	1	2	3
20	HOARDING/SAVING (Collects, hoards or hides specific items)	0	1	2	3
21	REPEATING (Need to repeat routine events; In / out door, up / down from chair, clothing on/off)	0	1	2	3
22	TOUCH / TAP (Need to touch, tap, or rub items, surfaces, or people)	0	1	2	3

Please answer the following question about the behavior described above put a vertical mark(/) on the line to show your answer.
How often do they happen? (If Never, skip to Section II)

How upset does this person get when interrupted?

How much do these behaviors get in the way of ongoing events?

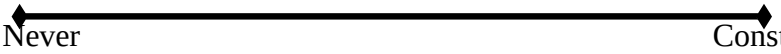
0 = behavior <u>does not occur</u>
1 = behavior occurs and is a <u>mild</u> problem
2 = behavior occurs and is a <u>moderate</u> problem
3 = behavior occurs and is a <u>severe</u> problem

IV. Ritualistic Behavior Subscale
(DEFINITION: performing activities of daily living in a similar manner)

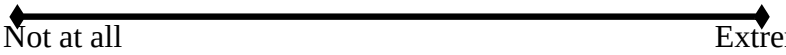
23	EATING / MEALTIME (Strongly prefers/insists on eating/drinking only certain things; Eats or drinks items in a set order; Insists that meal related items are arranged in a certain way)	0	1	2	3
24	SLEEPING / BEDTIME (Insists on certain pre-bedtime routines; Arranges items in room "just so" prior to bedtime; Insists that certain items be present with him/her during sleep; Insists that another person be present prior to or during sleep)	0	1	2	3
25	SELF-CARE – BATHROOM AND DRESSING (Insists on specific order of activities or tasks related to using the bathroom, to washing, showering, bathing or dressing; Arranges items in a certain way in the bathroom or insists that bathroom items not be moved; Insists on wearing certain clothing items)	0	1	2	3
26	TRAVEL / TRANSPORTATION (Insists on taking certain routes/paths; Must sit in specific	0	1	2	3

	location in vehicles; Insists that certain items be present during travel, e.g., toy or material; Insists on seeing or touching certain things or places during travel such as a sign or store)				
27	PLAY / LEISURE (Insists on certain play activities; Follows a rigid routine during play / leisure; Insists that certain items be present/available during play/leisure; Insists that other persons do certain things during play)	0	1	2	3
28	COMMUNICATION / SOCIAL INTERACTIONS (Repeats same topic(s) during social interactions; Repetitive questioning; Insists on certain topics of conversation; Insists that others say certain things or respond in certain ways during interactions)	0	1	2	3

Please answer the following question about the behavior described above put a vertical mark(/) on the line to show your answer.
How often do they happen? (If Never, skip to Section II)



How upset does this person get when interrupted?



How much do these behaviors get in the way of ongoing events?

0 = behavior does not occur
1 = behavior occurs and is a mild problem
2 = behavior occurs and is a moderate problem
3 = behavior occurs and is a severe problem

V. Sameness Behavior Subscale
(DEFINITION: (resistance to change, insisting that things stay the same)

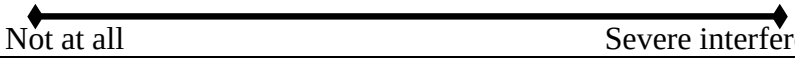
29	Insists that things remain in the same place(s) (e.g. toys, supplies, furniture, pictures, etc.)	0	1	2	3
30	Objects to visiting new places	0	1	2	3
31	Becomes upset if interrupted in what he/she is doing	0	1	2	3
32	Insists on walking in a particular pattern (e.g., straight line)	0	1	2	3
33	Insists on sitting at the same place	0	1	2	3
34	Dislikes changes in appearance or behavior of the people around him/her	0	1	2	3
35	Insists on using a particular door	0	1	2	3
36	Likes the same CD, tape, record or piece of music played continually; Likessame movie / video or part of movie / video	0	1	2	3
37	Resists changing activities; Difficulty with transitions	0	1	2	3

38	Insists on same routine, household, school or work schedule everyday	0	1	2	3
39	Insists that specific things take place at specific times	0	1	2	3

Please answer the following question about the behavior described above put a vertical mark(/) on the line to show your answer.
How often do they happen? (If Never, skip to Section II)

How upset does this person get when interrupted?

How much do these behaviors get in the way of ongoing events?

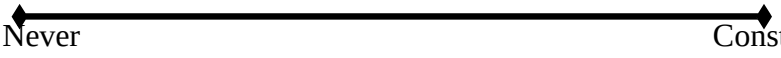


0 = behavior does not occur 1 = behavior occurs and is a mild problem 2 = behavior occurs and is a moderate problem 3 = behavior occurs and is a severe problem

VI. Restricted Behavior Subscale
(DEFINITION: Limited range of focus, interest or activity)

40	Fascination, preoccupation with one subject or activity (e.g., trains, computers, weather, dinosaurs)	0	1	2	3
41	Strongly attached to one specific object	0	1	2	3
42	Preoccupation with part(s) of object rather than the whole object (e.g., buttons on clothes, wheels on toy cars)	0	1	2	3
43	Fascination, preoccupation with movement / things that move (e.g., fans, clocks)	0	1	2	3

Please answer the following question about the behavior described above put a vertical mark(/) on the line to show your answer.
How often do they happen? (If Never, skip to Section II)



How upset does this person get when interrupted?

How much do these behaviors get in the way of ongoing events?

FINAL QUESTION: Overall, if you "lump together" all of the behaviors described in this questionnaire, how much of a problem are these repetitive behaviors (both for the person with autism, as well as how they affect the people around them)? Please rate on a scale from 1 to 100, where 1 = not a problem at all, and 100 = as bad as you can imagine:
Score1-100=_____

Part-II: REPETITIVE BEHAVIOR SCALE – Revised (RBS-R)(Bangla Version)

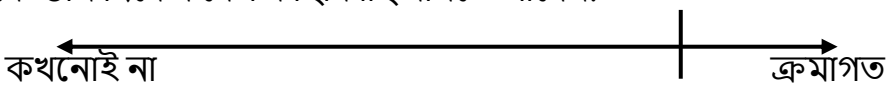
নির্দেশাবলী:

অনুগ্রহ করে তালিকাভুক্ত প্রতিটি আইটেম পড়ে এই ব্যক্তির আচরণের মূল্যায়ন করুন এবং তারপরে সেই স্কোরটি বেছে নিন যা সেই ব্যক্তির জন্য আইটেমটি কতটা সমস্যা তা বর্ণনা করে। তালিকাভুক্ত সমস্ত আইটেম পড়তে এবং স্কোর করতে ভুলবেন না। গত মাসে আপনার পর্যবেক্ষণ এবং ব্যক্তির সাথে মিথস্ক্রিয়া উপর ভিত্তি করে আপনার রেটিং করুন. প্রতিটি আইটেম স্কোর করতে নীচের বাক্সে সংজ্ঞা ব্যবহার করুন।

০=আচরণ ঘটবে না ১= আচরণ ঘটে এবং এটি একটি হালকা সমস্যা ২ = আচরণ ঘটে এবং এটি একটি মাঝারি সমস্যা ৩ = আচরণ ঘটে এবং একটি গুরুতর সমস্যা

প্রতিটি বিভাগের শেষে, তিনটি প্রশ্ন থাকবে যা আপনাকে সেই বিভাগের আচরণের পরিপ্রেক্ষিতে রেট দিতে বলবে (a) কতটা ঘন ঘন ঘটে, (b) পুনরাবৃত্তিমূলক আচরণ বাধাগ্রস্ত হলে শিশু কতটা বিচলিত হয় এবং (c)চলমান ইভেন্টগুলিতে আচরণগুলি কতটা হস্তক্ষেপ করে। আপনি প্রতিটি লাইন বরাবর মার্ক করে স্কোর নির্দেশ করবেন, যা ফ্রিকোয়েন্সি এবং তীব্রতার একটি পরিসীমা প্রতিনিধিত্ব করে।

উদাহরণস্বরূপ, যদি এই ব্যক্তিটি এই আচরণগুলি দিনে অনেকবার করে তবে আপনি চিহ্নটিকে ডান দিকের বেশ কাছাকাছি রাখতে পারেন:



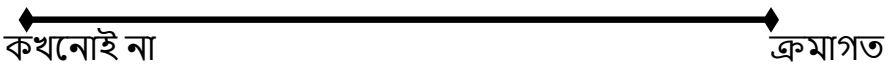
I.স্টেরিওটাইপ আচরণের সাবস্কেল

(সংজ্ঞা: দৃশ্যমান উদ্দেশ্যহীন গতি বা কর্ম যা একই পদ্ধতিতে পুনরাবৃত্তি হয়)

১	পুরো শরীর (শরীর দোল্‌ানো, শরীর দোলাচ্ছে)	০	১	২	৩
২	মাথা (মাথা দোলানো, মাথা নিচু করে দেয়, মাথা ঘুরায়)	০	১	২	৩
৩	হাত/আঙুল (হাত ঝাঁকানো, আঙুল ঝাঁকুনো, হাত তালি, হাত দোলানো বা নাড়্‌নো)	০	১	২	৩
৪	চলাচল (বৃত্তে ঘুরে, দ্রুত ঘূর্ণন, লাফ, বাউন্স)	০	১	২	৩
৫	বস্তু/জিনিসের ব্যবহার (বস্তুকে ঘোরানো, বস্তুকে খেয়ালখুশিমত মোচড়ানো বা থাপ্পর বা ছুঁড়ে দেওয়া, বস্তুকে হাত থেকে পড়ে যেতে দেয়)	০	১	২	৩
৬	সংবেদনশীল (চোখ ঢেকে রাখে, হাত বা বস্তুর দিকে ঘনিষ্ঠভাবে তাকায় বা তাকায়, কান ঢেকে রাখে, গন্ধ পায় বা নাক সিটকান, সারফেস ঘষে)	০	১	২	৩

অনুগ্রহ করে উপরে বর্ণিত আচরণ সম্পর্কে নিম্নলিখিত প্রশ্নের উত্তর দিন আপনার উত্তর দেখানোর জন্য লাইনে একটি উল্লম্ব চিহ্ন(/) রাখুন।

তার কত ঘন ঘন ঘটে? (যদি কখনও না হয়, বিভাগ ॥ এ যান)



বাধা দিলে এই ব্যক্তি কতটা বিচলিত হয়?

একদমই না অত্যধিক

চলমান ইভেন্টগুলির পথে এই আচরণগুলি কতটা বাধা দেয়?

একদমই না গুরুতর হস্তক্ষেপ

০=আচরণ ঘটবে না ১= আচরণ ঘটে এবং এটি একটি হালকা সমস্যা ২ = আচরণ ঘটে এবং এটি একটি মাঝারি সমস্যা ৩ = আচরণ ঘটে এবং একটি গুরুতর সমস্যা

II.আত্ম-আঘাতমূলক আচরণ সাবস্কেল

(সংজ্ঞা: নড়াচড়া বা ক্রিয়াকলাপ যা শরীরে লালভাব, ক্ষত বা অন্যান্য আঘাতের সম্ভাবনা রাখে এবং যেগুলি একইভাবে পুনরাবৃত্তি হয়)

৭	শরীরের অন্য অংশের দিয়ে নিজেকে আঘাত করে (মাথা, মুখ বা শরীরের অন্যান্য অংশে আঘাত বা থাপ্পড়)	০	১	২	৩
৮	পৃষ্ঠতল বা বস্তুর বিরুদ্ধে নিজেকে আঘাত করে (টেবিল, মেঝে বা অন্যান্য পৃষ্ঠে মাথা বা শরীরের অন্যান্য অংশে আঘাত বা আঘাত)	০	১	২	৩
৯	বস্তু বা জিনিস দিয়ে নিজেকে আঘাত করে (বস্তুর সাথে মাথা বা শরীরের অন্যান্য অংশে আঘাত করে)	০	১	২	৩
১০	নিজেকে কামড় দেয় (হাত, কব্জি, বাহু, ঠোঁট বা জিহ্বা কামড় দেয়)	০	১	২	৩
১১	টানে (চুল বা ত্বক টানে)	০	১	২	৩
১২	নিজেকে ঘষে বা স্ক্র্যাচ করে (হাত, পা, মুখ বা ধড়ের উপর ঘষে বা আঁচড়ের দাগ)	০	১	২	৩
১৩	আঙুল বা বস্তু ঢোকানো (চোখে খোচা দেয়া, কান খোচা দেয়া)	০	১	২	৩
১৪	ত্বকের চামড়া উঠিয়ে ফেলা -পিকিং (মুখ, হাত, বাহু, পা বা ধড়ের ত্বকের চামড়া উঠিয়ে ফেলা)	০	১	২	৩

অনুগ্রহ করে উপরে বর্ণিত আচরণ সম্পর্কে নিম্নলিখিত প্রশ্নের উত্তর দিন আপনার উত্তর দেখানোর জন্য লাইনে একটি উল্লম্ব চিহ্ন(/) রাখুন।

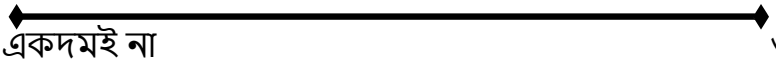
তার কত ঘন ঘন ঘটে? (যদি কখনও না হয়, বিভাগ ।। এ যান)

কখনোই না ক্রমাগত

বাধা দিলে এই ব্যক্তি কতটা বিচলিত হয়?

একদমই না অত্যধিক

চলমান ইভেন্টগুলির পথে এই আচরণগুলি কতটা বাধা দেয়?



একদমই না গুরুতর হস্তক্ষেপ

০=আচরণ ঘটবে না ১= আচরণ ঘটে এবং এটি একটি হালকা সমস্যা ২ = আচরণ ঘটে এবং এটি একটি মাঝারি সমস্যা

৩ = আচরণ ঘটে এবং একটি গুরুতর সমস্যা

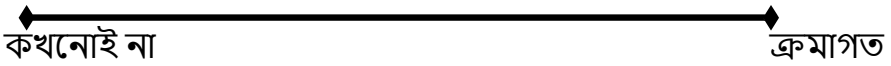
III. বাধ্যতামূলক আচরণ সাবস্কেল

সংজ্ঞা: এমন আচরণ যা পুনরাবৃত্তি হয় এবং একটি নিয়ম অনুসারে সঞ্চালিত হয়, বা এমন কিছু করা যা জিনিসগুলিকে জড়িত করে)

১৫	সাজানো / ক্রমবিন্যাস করা (একটি নির্দিষ্ট প্যাটার্ন বা জায়গায় নির্দিষ্ট বস্তু বা জিনিস্ সাজানো; জিনিসগুলি সমান বা প্রতিসম হওয়া প্রয়োজন)	০	১	২	৩
১৬	সম্পূর্ণ করা(দরজা খোলা বা বন্ধ থাকতে হবে; একটি পাত্র থেকে সমস্ত জিনিস নিয়ে যাওয়া)	০	১	২	৩
১৭	ধৌত করা/ পরিষ্কার করা (অতিরিক্তভাবে শরীরের নির্দিষ্ট কিছু অংশ পরিষ্কার করে; আলগা সুতা বাছাই করা)	০	১	২	৩
১৮	পর্যবেক্ষন করা (বারবার দরজা, জানালা, ড্রয়ার, যন্ত্রপাতি, ঘড়ি, তালা ইত্যাদি দেখা)	০	১	২	৩
১৯	গ্ণনা করা (জিনিস বা বস্তু গণনা করা; একটি নির্দিষ্ট সংখ্যা বা একটি নির্দিষ্ট উপায়ে গণনা করা)	০	১	২	৩
২০	মজুদ/সংরক্ষণ (নির্দিষ্ট জিনিস সংগ্রহ, মজুদ বা লুকিয়ে রাখা)	০	১	২	৩
২১	পুনরাবৃত্তি করা (রুটিন কাজগুলো পুনরাবৃত্তি করতে হবে;বাড়ির ভিতরে/বাহিরে, চেয়ার থেকে উপরে উঠা / নীচে নামা, পোশাক পড়া/খোলা)	০	১	২	৩
২২	স্পর্শ / চাপ (কোন জিনিস, পৃষ্ঠ, বা মানুষকে স্পর্শ, আলতো চাপ বা ঘষবে)	০	১	২	৩

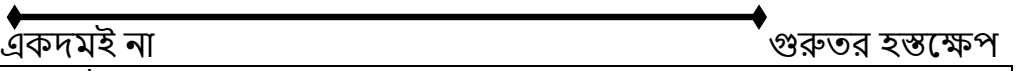
অনুগ্রহ করে উপরে বর্ণিত আচরণ সম্পর্কে নিম্নলিখিত প্রশ্নের উত্তর দিন আপনার উত্তর দেখানোর জন্য লাইনে একটি উল্লম্ব চিহ্ন(/) রাখুন।

তার কত ঘন ঘন ঘটে? (যদি কখনও না হয়, বিভাগ ॥ এ যান)



বাধা দিলে এই ব্যক্তি কতটা বিচলিত হয়?

চলমান ঘটনাগুলির পথে এই আচরণগুলি কতটা বাধা দেয়?



০=আচরণ ঘটবে না
১= আচরণ ঘটে এবং এটি একটি হালকা সমস্যা
২ = আচরণ ঘটে এবং এটি একটি মাঝারি সমস্যা
৩ = আচরণ ঘটে এবং একটি গুরুতর সমস্যা

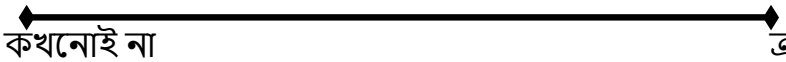
IV রিচ্যুয়ালিস্টিক আচরন সাবস্কেল

(সংজ্ঞা: একইভাবে দৈনন্দিন জীবনযাত্রার কার্যক্রম সম্পাদন করা)

২৩	খাওয়া/খাওয়ার সময় (শুধুমাত্র কিছু জিনিস খাওয়া/পান করাকে দৃঢ়ভাবে পছন্দ করে/জিদ করে; একটি নির্দিষ্ট নিয়মে খাবার বা পান করে; জোর দেয় যেন খাবার সম্পর্কিত আইটেমগুলি একটি নির্দিষ্ট উপায়ে সাজানো হয়)	০	১	২	৩
২৪	ঘুমানো / শোবার সময় (শোবারর আগে নির্দিষ্ট কিছু রুটিনের উপর জোর দেয়; ঘুমানোর আগে রুমে আইটেমগুলি একই নিয়মে সাজিয়ে রাখে; ঘুমের সময় নির্দিষ্ট আইটেমগুলি তার সাথে উপস্থিত থাকার জন্য জোর দেয়; ঘুমের আগে বা সময় অন্য ব্যক্তির উপস্থিত থাকার জন্য জোর দেয়)	০	১	২	৩
২৫	নিজের যত্ন - বাথরুম এবং ড্রেসিং (বাথরুম ব্যবহার, ধোয়া, ঝরনা, স্নান বা ড্রেসিং সম্পর্কিত ক্রিয়াকলাপ বা কাজের নির্দিষ্ট আদেশের উপর জোর দেয়; বাথরুমে একটি নির্দিষ্ট উপায়ে আইটেমগুলি সাজানো বা বাথরুমের জিনিসগুলি সরানো না হওয়ার জন্য জোর দেয়; নির্দিষ্ট পোশাকের পরার জন্য জোর দেয়	০	১	২	৩
২৬	ভ্রমণ/পরিবহন (নির্দিষ্ট রুট/পথ নেওয়ার জন্য জোর দেয়; যানবাহনে নির্দিষ্ট স্থানে বসতে হবে; ভ্রমণের সময় নির্দিষ্ট জিনিসপত্র উপস্থিত থাকার জন্য জোর দেয়, যেমন, খেলনা বা উপাদান; ভ্রমণের সময় কিছু জিনিস বা স্থান দেখতে বা স্পর্শ করার জন্য জোর দেয় যেমন একটি চিহ্ন বা দোকান)	০	১	২	৩
২৭	খেলা / বিশ্রামের সময় (কিছু খেলার কার্যকলাপের উপর জোর দেয়; খেলা / অবসরের সময় একটি কঠোর রুটিন অনুসরণ করে; খেলার/অবসরের সময় নির্দিষ্ট আইটেম উপস্থিত/উপলব্ধ হওয়ার জন্য জোর দেয়;জোর দেয় যে অন্য ব্যক্তিরা খেলার সময় একই জিনিস করে)	০	১	২	৩
২৮	যোগাযোগ / সামাজিক মিথস্ক্রিয়া (সামাজিক মিথস্ক্রিয়া চলাকালীন একই বিষয়(গুলি) পুনরাবৃত্তি করে; পুনরাবৃত্তিমূলক প্রশ্ন; নির্দিষ্ট বিষয়গুলিতে কথোপকথনের জন্য জোর দেয়; জোর দেয় মিথস্ক্রিয়া চলাকালীন অন্যরা যেন নির্দিষ্ট বিষয়ে কিছু বলে বা নির্দিষ্ট উপায়ে প্রতিক্রিয়া জানায়)	০	১	২	৩

অনুগ্রহ করে উপরে বর্ণিত আচরণ সম্পর্কে নিম্নলিখিত প্রশ্নের উত্তর দিন আপনার উত্তর দেখানোর জন্য লাইনে একটি উল্লম্ব চিহ্ন(/) রাখুন।

তার কত ঘন ঘন ঘটে? (যদি কখনও না হয়, বিভাগ ।। এ যান)



কখনোই না ক্রমাগত

বাধা দিলে এই ব্যক্তি কতটা বিচলিত হয়?

একদমই না অত্যধিক

চলমান ইভেন্টগুলির পথে এই আচরণগুলি কতটা বাধা দেয়?

একদমই না গুরুতর হস্তক্ষেপ

০=আচরণ ঘটবে না
১= আচরণ ঘটে এবং এটি একটি হালকা সমস্যা
২ = আচরণ ঘটে এবং এটি একটি মাঝারি সমস্যা
৩ = আচরণ ঘটে এবং একটি গুরুতর সমস্যা

V. অভিন্নতা আচরণের সাবস্কেল

(সংজ্ঞা: পরিবর্তন প্রতিরোধ করে, জিনিসগুলো একই থাকার জন্য জোর দেওয়া)

২৯	জিদ করে যে জিনিসগুলি যেন একই জায়গায় থাকে (যেমন খেলনা, সরবরাহ, আসবাবপত্র, ছবি ইত্যাদি)	০	১	২	৩
৩০	নতুন জায়গা পরিদর্শনে আপত্তি থাকে	০	১	২	৩
৩১	সে যা করছে তাতে বাধা দিলে মন খারাপ হয়ে যায়	০	১	২	৩
৩২	একটি নির্দিষ্ট প্যাটার্নে হাঁটার জন্য জোর দেয় (যেমন, সরলরেখা)	০	১	২	৩
৩৩	একই জায়গায় বসার জন্য জোর দেয়	০	১	২	৩
৩৪	তার চারপাশের মানুষের চেহারা বা আচরণের পরিবর্তন অপছন্দ করে	০	১	২	৩
৩৫	একটি নির্দিষ্ট দরজা ব্যবহার করার জন্য জোর দেয়	০	১	২	৩
৩৬	একই সিডি, টেপ, রেকর্ড বা ক্রমাগত বাজানো মিউজিক পছন্দ করে; একই মুভি/ভিডিও বা মুভি/ভিডিওর অংশ পছন্দ করে	০	১	২	৩
৩৭	পরিবর্তনশীল কার্যকলাপ প্রতিরোধ করে; স্থানান্তর সঙ্গে অসুবিধা	০	১	২	৩
৩৮	প্রতিদিন একই রুটিন, পরিবার, স্কুল বা কাজের সময়সূচীতে জোর দেয়	০	১	২	৩
৩৯	নির্দিষ্ট জিনিস নির্দিষ্ট সময়ে সঞ্চালিত হয়ার জন্য জোর দেয়	০	১	২	৩

অনুগ্রহ করে উপরে বর্ণিত আচরণ সম্পর্কে নিম্নলিখিত প্রশ্নের উত্তর দিন আপনার উত্তর দেখানোর জন্য লাইনে একটি উল্লম্ব চিহ্ন(/) রাখুন।

তার কত ঘন ঘন ঘটে? (যদি কখনও না হয়, বিভাগ ।। এ যান)

কখনোই না ক্রমাগত

বাধা দিলে এই ব্যক্তি কতটা বিচলিত হয়?

একদমই না অত্যধিক

চলমান ইভেন্টগুলির পথে এই আচরণগুলি কতটা বাধা দেয়?

একদমই না গুরুতর হস্তক্ষেপ

০=আচরণ ঘটবে না
১= আচরণ ঘটে এবং এটি একটি হালকা সমস্যা
২ = আচরণ ঘটে এবং এটি একটি মাঝারি সমস্যা
৩ = আচরণ ঘটে এবং একটি গুরুতর সমস্যা

VI. সীমাবদ্ধ আচরণ সাবস্কেল

(সংজ্ঞা: সীমিত পরিসরের জিনিসের উপর ফোকাস, আগ্রহ বা কার্যকলাপ দ্যাখা যায়)

৪০	একটি বিষয়ে আকর্ষণ, একটি বিষয় বা কার্যকলাপ নিয়ে ব্যস্ততা (যেমন, ট্রেন, কম্পিউটার, আবহাওয়া, ডাইনোসর)	০	১	২	৩
৪১	দৃঢ়ভাবে একটি নির্দিষ্ট বস্তুর সাথে সংযুক্ত	০	১	২	৩
৪২	পুরো বস্তুর পরিবর্তে বস্তুর অংশ(গুলি) নিয়ে ব্যস্ততা (যেমন, কাপড়ের বোতাম, খেলনা গাড়ির চাকা)	০	১	২	৩
৪৩	নড়াচড়া করে এমন জিনসের প্রতি আকর্ষন বা ব্যস্ততা (যেমন, পাখা, ঘড়ি)	০	১	২	৩

অনুগ্রহ করে উপরে বর্ণিত আচরণ সম্পর্কে নিম্নলিখিত প্রশ্নের উত্তর দিন আপনার উত্তর দেখানোর জন্য লাইনে একটি উল্লম্ব চিহ্ন(/) রাখুন।

তার কত ঘন ঘন ঘটে? (যদি কখনও না হয়, বিভাগ ॥ এ যান)

কখনোই না ক্রমাগত

বাধা দিলে এই ব্যক্তি কতটা বিচলিত হয়?

একদমই না অত্যধিক

চলমান ইভেন্টগুলির পথে এই আচরণগুলি কতটা বাধা দেয়?

একদমই না গুরুতর হস্তক্ষেপ

চূড়ান্ত প্রশ্ন: সামগ্রিকভাবে, যদি আপনি এই প্রশ্নাবলীতে বর্ণিত সমস্ত আচরণকে "একসাথে" করেন, তাহলে এই পুনরাবৃত্তিমূলক আচরণগুলি কতটা সমস্যাযুক্ত (অটিজম আক্রান্ত ব্যক্তির জন্য, সেইসাথে তারা তাদের আশেপাশের লোকদের কীভাবে প্রভাবিত করে)? অনুগ্রহ করে 1 থেকে 100 পর্যন্ত একটি স্কেলে রেট দিন, যেখানে 1 = মোটেও সমস্যা নয় এবং 100 = যতটা খারাপ আপনি কল্পনা করতে পারেন:

স্কোর ১-১০০=_____

Appendix-D: Supervision Record Sheet

Bangladesh Health Professions Institute
Department of Occupational Therapy
4th Year B. Sc in Occupational Therapy
OT 401 Research Project

Thesis Supervisor- Student Contact; face to face or electronic and guidance record

Title of thesis:
Factors of self-injurious behavior among children with Autism spectrum disorder (ASD): A cross-sectional study

Name of student:
Mansura Akter Mow

Name and designation of thesis supervisor:
Sk. Moniruzzaman, Associate professore and Head of Occupational Therapy Department
Co-Supervisor: Monika Singha, Lecturare in Occupational Therapy Department.

Appointment No	Date	Place	Topic of discussion	Duration (Minutes/ Hours)	Comments of student	Student's signature	Thesis supervisor signature
1	08.08.23	BHPI	Discussion about the reseaerch title	2hrs 30 min	Got a clear idea about research title	MAKOW	
2	14.08.23	BHPI	Discussion about title aim, objective, justification	1 hrs 45 min	Effective discussion	MAKOW	
3	16.08.23	BHPI	Discussion about introduction & literature review	1 hrs	Effective guideline	MAKOW	
4	27.08.23	BHPI	Discussion about methodology (sample size)	1 hrs 15min	Got a clear idea about sample size	MAKOW	

5	29.08.23	BHPI	Discussion about email writing procedure to author	1hr 15 min	Helpful discussion about e-mail writing	[signature]	Monika singha
6	05.09.23	Online	Discussion about research methodology	1 hr 30 min	Effective guideline	[signature]	Monika singha
7	08.09.23	BHPI + Online	Discussion about tools (scale to be used)	1hr 30 min	Clear idea about scale	[signature]	[signature] Monika singha
8	12.09.23	Online	Feedback on research proposal	45 min	Helpful feedback & need some correction	[signature]	Monika singha
9	15.09.23	Online	Feedback on research proposal presentation	45 min	Effective feedback	[signature]	Monika singha
10	21.09.23	BHPI	Discussion about scale & bangla translation of scale	1hr	Effective discussion	[signature]	[signature]
11	22.09.23	Online	Discussion on translated bangla questionnaire	30 min	Need some correction	[signature]	Monika singha
12	23.09.23	Online	Feedback about field test	45 min	Correct some mistakes	[signature]	Monika singha
13	25.09.23	BHPI	Discussion about field test	1hr 15min	Effective discussion	[signature]	Monika singha
14	10.10.23	BHPI	Discussion about ethical consideration	45min	Helpful discussion	[signature]	Monika singha
15	15.10.23	BHPI	Discussion about data collection procedure	1hr 30min	Got a effective guideline	[signature]	Monika singha

16	17.10.23	BHPI	Feedback on data collection permission letter	2 hr	Need some correction	[signature]	Su. [signature] Monika Singha
17	21.10.23	BHPI	Feedback on consent form, withdrawl form, information sheet	1 hr	Need some correction	[signature]	Monika Singha
18	25.10.23	BHPI	Check the correction of form	1 hr	Got a clear idea	[signature]	Monika Singha
19	16.12.23	BHPI	Discussion about data collection update	45 min	Helpful discussion	[signature]	Monika Singha
20	30.12.23	BHPI	Feedback on data collection update	45 min	Effective feedback	[signature]	Su. [signature] Monika Singha
21	01.01.24	BHPI	Discussion about data input & variable set	1 hr 15 min	Helpful guideline	[signature]	Monika Singha
22	03.01.24	BHPI	Discussion about data analysis	1 hr 30 min	Effective discussion	[signature]	Monika Singha
23	08.01.24	BHPI	Discussion about background & literature review	1 hr	Helpful guideline for write-up	[signature]	Monika Singha
24	13.01.24	BHPI	Review the all data input in spss	1 hr 30 min	Helpful feedback	[signature]	Monika Singha
25	17.01.24	BHPI	Discussion about methodology & result	1 hr	Helpful guideline	[signature]	Monika Singha
26	31.01.24	BHPI	Feedback on 1st draft	2 hr	Helpful feedback & need some correction	[signature]	Monika Singha

27	05.02.24	BHPI	Review the first draft correction	45 min	Helpful guideline	[redacted]	Monika Singh
28	06.02.24	BHPI	Check the correction of result	30 min	Effective feedback	[redacted]	Monika Singh
29	18.02.24	BHPI	Feedback about introduction, result & discussion	1hr	Helpful feedback & need some correction	[redacted]	Monika Singh
30	20.02.24	BHPI	Check the correction on result section	1hr	Effective guideline	[redacted]	Monika Singh
31	19.03.24	BHPI	Feedback on 2nd draft	1 hr 30 min	Need some correction	[redacted]	Monika Singh
32	20.03.24	BHPI	Check the correction on 2nd draft	1hr	Effective guideline	[redacted]	Monika Singh
33	03.04.24	BHPI	Discussion about research proposal presentation	30min	Effective discussion	[redacted]	Monika Singh
34							
35							

Note:

1. Appointment number will cover at least a total of 40 hours; applicable only for face to face contact with the supervisors.
2. Students will require submitting this completed record during submission your final thesis.