

# **Experience of Parents of Children with Autism Spectrum Disorder Regarding the Tele-Rehabilitation Service in the Selected Schools of Children with Autism During COVID-19**



By  
**Arefa Aktar**

**February 2021 held in March 2022**

*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*

Bachelor of Science in Occupational Therapy  
**Bangladesh Health Professions Institute (BHPI)**  
**Faculty of Medicine**  
**University of Dhaka**

**Thesis completed by:****Arefa Aktar**

4<sup>th</sup> year, B.Sc. in Occupational Therapy  
Bangladesh Health Professions Institute (BHPI)  
Centre for the Rehabilitation of the Paralysed (CRP)  
Chapain, Savar, Dhaka: 1343

.....  
Signature

**Supervisor's name, designation, and signature:****Sk. Moniruzzaman**

Associate Professor & Head  
Department of Occupational Therapy  
Bangladesh Health Professions Institute (BHPI)  
Centre for the Rehabilitation of the Paralysed (CRP)  
Chapain, Savar, Dhaka: 1343

.....  
Signature

**Head of the department's name, designation, and signature:****Sk. Moniruzzaman**

Associate Professor & Head  
Department of Occupational Therapy  
Bangladesh Health Professions Institute (BHPI)  
Centre for the Rehabilitation of the Paralysed (CRP)  
Chapain, Savar, Dhaka: 1343

.....  
Signature



## Statement of authorship

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 acknowledgement 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.

**Arefa Aktar**

4<sup>th</sup> year, B.Sc. in Occupational Therapy  
Bangladesh Health Professions Institute (BHPI)  
Centre for the Rehabilitation of the Peralysed (CRP)  
Chapain, Savar, Dhaka: 1343

.....  
Signature

## Acknowledgement

First of all, I would like to pay my gratitude to the almighty Allah for giving me the capability to go with the research project successfully in time. Then I am much grateful to my parents and family members for their constant support & inspiration to continue this study. I want to show my gratitude to my honorable supervisor SK. Moniruzzaman; Assistant Professor & Head, Department of Occupational Therapy for helping me by providing instruction and guidance in every step of the study. I am thankful to Head of the Department Sk. Moniruzzaman Sir for his kind permission to conduct this study. And special thanks goes to Arifa Jahan Ema ma'am. Who helps me to select the title. And also Special thanks to Shamima Akter ma'am for your inspiration and encouragement. My deepest thanks go to Andrew Rochford for checking my research methodology. I would like to thank Pediatric Department of CRP for helping me to access participant of Parents of autism children. I would like to thank Shaila Naznin, Israt Jahan and nurunaher bobby for helping me during data analysis. I also want to thank Ijma zafrin for your support. Special thanks to Jannat jhumu for helping me in crucial moment. I'm also grateful to the all participants of this study for their cooperation and giving information. Lastly, I give special thanks to Mrs. Mohosina librarian of BHPI and her associate Md. Anis for their cordial help during my work in library. I want to convey thanks my beloved juniors and to those who helped me in critical situation. Thanks to all of my friends for giving their direct and indirect inspiration. At last, my apology goes with the persons if I missed out any one unintentionally.

## **Dedication**

**Dedicated to my beloved parents and respected teachers of  
Bangladesh Health Professions Institute (BHPI).**

## Table of Contents

| <b>CHAPTER I: Introduction</b>            | <b>Page No.</b> |
|---|-----------------|
| 1.1 Background                            | 1-6             |
| 1.2 Justification of the study            | 7-8             |
| 1.3 Operational Definition                | 9               |
| <b>CHAPTER II: Literature review</b>      | 10-17           |
| <b>CHAPTER III: Methodology</b>           | 18-25           |
| 3.1 Study Question, Aim, Objectives       | 18              |
| 3.2 Study design                          | 19              |
| 3.3 Study Setting                         | 20              |
| 3.4 Study participants                    | 20              |
| 3.5 Ethical consideration                 | 20              |
| 3.6 Data collection                       | 21              |
| 3.7 Data management and analysis          | 22-24           |
| 3.8 Trustworthiness                       | 24-25           |
| <b>CHAPTER IV: Results and Discussion</b> | 26-40           |
| <b>CHAPTER V: Conclusion</b>              |                 |
| 6.1 Strength and Limitation               | 41-43           |
| 6.2 Conclusion                            | 44              |
| <b>CHAPTER VI: Recommendation</b>         | 45              |
| <b>References</b>                         | 46-51           |
| <b>Appendices</b>                         | 52-61           |

## List of Tables

| Serial Number | Table     | Topics  | Page No |
|---------------|-----------|---|---------|
| 1             | Table- 1  | <b>Theme 1:</b> <i>Practical therapy sessions more benefited rather than tele rehabilitation services.</i>  | 29      |
| 2             | Table- 2  | <b>Theme 2:</b> <i>occupational therapy tele rehabilitation plays an important role for autistic children during covid-19.</i>  | 32      |
| 3             | Table – 3 | <b>Theme 3:</b> <i>Faces lots of barriers to following tele rehabilitation service guidelines at home.</i>  | 35      |
| 4             | Table -4  | <b>Theme 4:</b> <i>Need more descriptive practical sessions to improve tele rehabilitation service for the future.</i><br><b>Theme 5:</b> <i>Rural area people are more benefited from tele-rehab rather than urban area.</i> | 39      |



## List of Abbreviations

|              |  |
|--------------|--|
| <b>AOTA:</b> | American occupational therapy association      |
| <b>ASD:</b>  | Autism spectrum disorder                       |
| <b>BHPI:</b> | Bangladesh Health Professions Institute        |
| <b>CRP:</b>  | Centre for the Rehabilitation of the Paralysed |
| <b>IRB:</b>  | Institutional Review Board                     |
| <b>OT:</b>   | occupational therapy                           |

## Abstract

**Background:** Tele rehabilitation is a growing concern in Bangladesh nowadays. About 80% of Bangladeshi resides in countryside with unequal distribution of physicians and healthcare facilities and most of them are from poor household. Thus the health outcomes for people living in rural locations are generally worse than urban areas. In these circumstances telemedicine could be the best way as it can provide better health care by using maximum utilization of limited resources. The study attempts to know the experience of parents of children with autism spectrum disorder regarding the tele rehabilitation services in schools of children with autism during COVID- 19.

**Aim:** To identify experience of parents of children with Autism Spectrum Disorder regarding the tele- rehabilitation service in the schools of children with autism during COVID-19.

**Methods:** A qualitative study design was used. The data have been collected by semi-structured open ended questionnaire through in-depth interview. About six participants were selected by using snowball sampling from the parents of autism children list who received tele rehabilitation service in COVID- 19. Data has been analyzed by Qualitative thematic analysis.

**Results:** From the findings of the research it is seen that, Practical therapy session was more benefited rather than tele rehabilitation services. Satisfaction of parents are influenced by Tele rehabilitation service are less benefited for autism children. Engaging in home base therapeutic activity to follow tele rehab services guideline this time participants are ensure faces some barrier.

**Conclusions:** Results of this study indicate that, majority telehealth receivers are interested to take practical session but need assurance of service betterment in future. This study will be effective for rural area people rather than urban areas to improve their knowledge.

**Keywords:** Tele -rehabilitation, Autism spectrum disorder, Communication, Technology, Internet, Tele medicine, School based activity, Parents experience.

## CHAPTER I: Introduction

### 1.1 Background

Telehealth refers to the use of information technology in health care. Telehealth consists of multiple types of electronically-based software, hardware, health service providers as well as health care services and characterized by the transmission of health-related information through communication technologies such as telephone or mobile phone, internet related services such as video conference, Skype interview, high frequency broadband connection, health software (Brodie, n.d). Furthermore, nowadays health promotion all over the world through cell phone applications has increased dramatically (Bert, Giacometti & Silly 2014). However, in case of preventive and curative aspects of health services it has numerous impacts as well. Telehealth program designed to improve the services of and communication not only between healthcare providers but also enhanced communication between healthcare providers and patients living in the rural and remote areas of a country who cannot afford to come to the city for treatment for various reasons including poverty, communication problem, cultural barrier, lack of transportation and so on by prescribing, distance education and electronic medical records. It is an umbrella term for several applications of medical care, treatment and medical education carried out from a distance, poses a possible solution to these challenges (Mengual, 2012). Telemedicine has a variety of applications including critical care monitoring, telemedicine procedures/surgery, robotics, disease surveillance and program tracking, disaster management and continuing medical education and public awareness (Acharya & Rai,

2017). Telemedicine has perceived usefulness in terms of follow up examinations where it could be conducted without

The need for the patient to travel, thereby increasing patient comfort and lowering expenditures (Natalie, 2015). Besides 2 of inconvenient and disruptive, travelling to access healthcare involves costs for time off work, transport and accommodation and most importantly, the need to travel for healthcare may result in delays for diagnosis and treatment, which can negatively affect health outcomes (Natalie, 2015; Perez, 2012). Telemedicine technologies have been proven to work, and are considered to be a viable option in future healthcare delivery, allowing healthcare organizations to provide care in a more economic and comprehensive way (Zamboni & Wootton, 2012). Bangladesh is a country with thousands of villages and towns. About 80% of Bangladeshi population lives in rural areas where the unequal distribution of physicians and healthcare providers is a common picture. In addition, the number of formally qualified registered Health Care Providers is 7.7 per 10,000 populations (Rahman & Hossain, 2016). Unsurprisingly, health outcomes for people living in rural locations of Bangladesh are generally worse than urban areas. According to Bangladesh bureau of statistic (2015), the crude death rate in rural area of Bangladesh is 5.6 whereas in urban area the rate is only 4.1. This is largely because people living in such locations do not have the same level of access to healthcare. Moreover, most of the doctors are city based. Technology can improve the accessibility, quality and breadth of patient data and more information about patients in an effectively tailored and comprehensive way (Snyder et al, 2011). Telemedicine can also improve the sustainability of health systems by reducing strain on primary care services. Remote monitoring of patients can help prevent unnecessary use of time and resource as well as

encourage preventative health activities (Lemon, 2016). There are several organizations that provide services for people with disabilities in Bangladesh but yet it is insufficient. A multidisciplinary team consists of Neurosurgeon, General Physician, Physiotherapist, Occupational Therapist, Speech & Language Therapist, Counselor and Nurse attempts to provide treatment to the people with disabilities through telehealth services and every month about 20-30 patients with different disabilities get benefited. The treatment session is done by video conference; Skype software and service is provided twice a week (Monday & Wednesday). Initially patients' were treated free of cost but now service charge has set as taka 150 (Mohsina, Personal communication, 5<sup>th</sup> March, 2018). Though the telemedicine service was mainly established to serve the patients with spinal cord injury of distinct part of countryside and for follow up purpose only but later on CRP began to serve all kind of disability including musculoskeletal, neurological, Speech difficulties etc (Mohsina, Personal communication, 5<sup>th</sup> March, 2018). As patients may influence the way telehealth services are delivered, it is imperative to understand patient awareness and perceptions of telehealth in order to develop the existence services as well as to know about the acceptability and adoptability of telehealth services to the community. On top of that, providers' perceptions play an important role in successful provision and implementation of the service as well.

Tele rehab is an evaluation, preventative, consultative, and therapeutic services delivered through tele -communication and information technologies (Nessa et al., 2020). Teleconference used to interact with patients for provided therapy included: physical therapy, occupational therapy, speech and language therapy etc. Therapy session can be run individually or group session. The guideline was to delivery some types of therapy

that could include sensory integrate ,fine motor skills, gross motor skills, social communication, video gaming, group exercise, play activity, school based activity, home base therapy guideline etc. (Sara et al., 2017).Sara Benham Et AL. (2017) completed a study about exploration of the effect of tele rehabilitation of the school based settings at risk youth. The aim of the study the researcher introduce the timecco program to the school one year prior to the initiation of the study. The researcher reported positive result to use tele rehab with timecco program. Crane Et al. (2021) completed a study about views of the parents of autistic children autism and schools for autistic children in Bangladesh. The researcher reported result 1% of people is affected by autism disorder a since 2000, but now a days around 3,000 children are suffering from autism. Rehana Parvin (2018) described a study about perception of patients and providers about telehealth services in Centre for the Rehabilitation of the Paralysed (CRP).A total of 72 patients and 20 providers took part in the study. The researcher reported the result in Bangladesh majority of the population reside in village are from poor households so telehealth service is a unique and relatively new fact for Bangladeshi population. But 20- 30 patient was benefited to get tele rehab services with different disabilities. Bangladesh telemedicine services officially emerged in the year 1999 but its journey was quite smooth as expected till now (Nessa et al.2014). Tele- rehab service provider and receiver using a widely available personal device with internet and video capability, such as a laptop or smartphone, the therapist and client are able to engage in the virtual equivalent of face to face therapy. Most of the people introduced with tele- rehab in pandemic situation and this time tele- rehab service play their major role for any activity purpose. They are described tele- technology has the potential to address some of the limitations of in person arrangements, specifically the immediacy

of feedback in clinical supervision and the adherence to family centered models of care in early intervention (Washington et al.,2020). In Chicago, Murphy and others (2019) conducted the research and they were reported forty-four percent of parents reported low satisfaction with their children's therapy services during the pandemic. Access to telehealth positively predicted overall satisfaction and satisfaction with the family-provider partnership, whereas receiving school-based therapies negatively predicted overall satisfaction and satisfaction with the family-provider partnership. Chantal and others (2020) described about Telehealth is being rapidly adopted by physical and occupational therapists in pediatrics as a strategy to maintain services during the COVID-19 crisis. This perspective presents a mix of theoretical and practice perspectives to support the implementation of telehealth. Although research evidence is just emerging, there is sufficient indication to believe telehealth is effective. However, which telehealth strategies are best for which children and families, and which intervention goals, are not yet clear. In the literature, there are common themes regarding the experiences and perceptions of individuals who participated in a telehealth program. Individuals from various age groups and populations found that it was a positive and effective service that helped to address barriers to care (Gardner et al., 2016). Benefits identified by participants included the following themes: it was straightforward, it increased access to healthcare, it improved self-management, it reduced costs, it allowed for flexibility of scheduling, and it reduced travel time (Ashburner, Bickerstaff, Beetge, & Copley, 2016). Occupational therapists can use telehealth in many settings, including: pediatrics, health and wellness, mental health, rehabilitation, ergonomics, disability, and geriatrics (Cason et al., 2013). In these settings, evidence has highlighted the effectiveness of the service in terms of outcomes; it is equal

to, if not more effective than, traditional in-person therapy (Cason, 2014). In addition to benefits of telehealth, this emerging practice can also alleviate provider shortages, decrease cost, and allow for care to take place in the natural environment of the family (Zylstra, 2013). There is also clear support for telehealth as a service delivery in pediatric intervention (Little, Wallisch, Pope & Dunn, 2018; Zylstra, 2013). The student researcher has reviewed some literature and identify maximum researcher completed their study about perception of *parent's tele rehab* program benefits and *parent's* perception about school based activity etc. But no research on experience of parents of children with autism spectrum disorder (ASD) about tele- rehabilitation service.so the student researcher was focus on the topic of experience of parents of children with autism spectrum disorder (ASD) regarding the tele- rehabilitation service in the schools of children with autism during COVID-19.

## **1.2 Justification of the Study**

In Bangladesh, majority of the populations reside in village areas and are from poor households. Telemedicine is a unique and relatively new facet in Bangladesh to reach these deprived and unprivileged citizens. In Bangladesh telemedicine service officially emerged in the year 1999 but its journey was not quite smooth as expected till now. From the beginning, telehealth services provided by CRP has an important role in rural and remote areas with limited access to and availability of healthcare and community-based services and has been persistently trying to provide the patients with more accessible advanced facilities. This study may help to evaluate the current service pattern as well as the future needs. Besides, patient and providers perception are considered as an important step in the evaluation of telemedicine services, as their acceptability and satisfaction are



relevant to any potential roll out of these services and commonly used indicators for measuring quality in health care. In addition, success of any system depends on user acceptance. Thus the finding of study could help to determine the acceptance level of telemedicine services. Moreover, worldwide several studies have conducted focused mainly on the perspectives of health care providers and policymakers as well as perceptions of health care consumers but in Bangladesh comparatively fewer studies were conducted regarding this concern more specifically on patients with multidisciplinary needs. Though telehealth shows significant promise as an intervention to improve healthcare and health care outcomes but as a fairly new concept of healthcare, more research is needed on the efficacy of telehealth, providers and patient's perceptions. All the patients and providers of this study are socially discriminated and physically impaired. Therefore, every task is challenging for them. Telemedicine can benefit both the practitioner as well as the patient, but less is known in relation to financial benefit for both the provider and the patient. This study will explore the limitations and barriers of the existence telehealth service perceived by the consumers which will ultimately help to develop this service and implement successfully by overcoming the issues all over the country. The feedback from this survey would be helpful to improve existing telemedicine care and bridge the gap wherever required. The ideas presented can be used as reference data for carrying new research. Moreover, the researcher can verify the accuracy of the information mentioned in the study and will provide ideas for a related study.

### 1.3 Operational Definition/ Definition of Key Words

**Perception:** The way in which something is regarded, understood, or interpreted. It is a belief or opinion held by individual and based on how things seem.

**Participant:** A person under health care. The person may be waiting for this care or may be receiving it or may have already received it.

**Provider:** Any individual, institution, or agency that provides health services to health care consumers.

**Telehealth/ Telemedicine:** Use of electronic information and telecommunications technologies to support and promote long-distance clinical health care, patient and professional health-related education, public health and health administration. Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications.

**Acceptance:** Positive welcome and belonging; favor and endorsement of something.

**Communication:** The imparting or exchanging of information by speaking, writing, or using some other medium.

**Collaboration:** The act of working together with other people or organizations to create or achieve something.

**Multidisciplinary team :** Professionals from a range of disciplines with different but complementary skills, knowledge and experience work together to deliver comprehensive healthcare aimed at providing the best possible outcome for the physical and psychosocial needs of a patient.

**Autism spectrum disorder (ASD):** Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by deficits in social communication and

the presence of restricted interests and repetitive behaviors (Morris & Cox, 2017).

#### **1.4 Research Question**

How the experience of parents of children with Autism Spectrum Disorder regarding the tele- rehabilitation service in the selected schools of children with autism during COVID-19?

#### **1.5 Research Aim**

To identify experience of parents of children with Autism Spectrum Disorder (ASD) regarding the tele- rehabilitation service in the schools of children with autism during COVID-19.

#### **1.6 Research Objectives**

- To find out the experience of parent's about benefits of tele- rehab service.
- To find out the parent's experience about importance of tele- rehab occupational therapy service.
- To find out the parent's experience about challenges or barriers of tele – rehab service.
- To find out the parent's recommendation about regarding the tele- rehab service improvement.

## CHAPTER II: Literature Review

The researcher has reviewed some literature related to her research work on Google, PubMed, Google scholar etc. In this section, the researcher provides some information of related research with short overview of these literature. The researcher do the study to identify experience of parents of children with autism spectrum disorder (ASD) regarding the tele rehabilitation in schools of children with autism during COVID-19. Because no study has been done on this topics in Bangladesh. The researcher reviewed some literature to identify the result of this study about how to effectively used tele rehabilitation in pandemic situation and how much importance of tele rehabilitation for autism spectrum children ASD).

Several studies were conducted worldwide to find out the patients and providers perception regarding telehealth or telemedicine. Most of studies revealed that patients' perception showed a high level of acceptability of telemedicine services though literature with mixed finding are also remarkable (Polanski et al, 2015; Becevic et al, 2015). According to a study by Claudia et al (2016) patient perception is an important step in the evaluation of telemedicine services, as patient acceptability and satisfaction are relevant to any potential roll out of these services and commonly used indicators for measuring quality in health care. A recent study by Acharya & Rai (2017) showed that telemedicine in healthcare could prove to be useful to patients in distant regions and to rural doctors in India. In addition it states that, a significant proportion of patients in these remote locations could be productively managed with some advice and guidance from specialists and super specialists in the cities and towns with the help of telemedicine. Another review of patients

and providers satisfaction with telemedicine done by Robert Gracia and Olayela Adedokun (2017) states that, stakeholders satisfaction is the main factor regarding telemedicine acceptance and adaptation. However satisfaction does tend to remain high for both patients and providers but there are slight differences in the average satisfaction rates. On the other hand, patients satisfaction is associated with telemedicine modality, for instance video conferencing is more acceptable to the patients rather than other type of telehealth modality (Kruse et al, 2017).

Novae's, (2020) defined 'Tele rehab is an evaluation, preventative, consultative, and therapeutic services delivered through tele- communication and information technologies'. In other studies Pramuka, (2009) said that 'Tele-communication used to interact with patients for provided therapy included: physical therapy, occupational therapy, speech and language therapy etc.'

So both researcher provided similar information about tele- rehabilitation service. And its information more relevant to my research.

### **Uses of tele-Rehab service**

In Washington, Betting and others (2020) conducted the research about uses of tele technology and how much factor related with tele- rehabilitation services. They are find out some factor used for conduct the program such as: Zoom, goggle meet, videoconferencing, Facebook live etc. Most of the technology and related factor to use for tele- rehabilitation service in urban area. They are find out most of the factor not available in rural area for low speed network connection. So tele rehabilitation service mainly less effective for rural area people. Tele- rehab service provider and receiver using a widely available personal device with internet and video capability, such as a laptop or

smartphone, the therapist and client are able to engage in the virtual equivalent of face to face therapy. Most of the people introduced with tele- rehab in pandemic situation and this time tele- rehab service play their major role for any activity purpose. They are described tele- technology has the potential to address some of the limitations of in person arrangements, specifically the immediacy of feedback in clinical supervision and the adherence to family centered models of care in early intervention .

In Chicago, Murphy and others (2019) described the research about impact of covid-19 on tele- rehab therapy service and related factor of tele – rehabilitation service. This study design there were 207 parents of children with disabilities who completed a web-based survey about their children’s access to tele rehabilitation service during covid-19. There were use technology of high speed network related device such as: laptop, smartphone and used factors of zoom, goggle meet, videoconferencing etc. they are identified forty – four percent participant are less satisfaction to use this service . Because all of the parent’s reported this service was more costly, waste time, poor network connection, loss for therapy service etc. And this service was new things for all of the parents so they are not know how to properly use this technology .so they are reported tele rehab service less effective rather than practical school based service for their children with autism in pandemic situation.

In Bangladesh, Parvin, (2018) described a study about perception of patients and providers about telehealth services in Centre for the Rehabilitation of the Paralyzed (CRP).A total of 72 patients and 20 providers took part in the study. The researcher reported the result in Bangladesh majority of the population reside in village are from poor households so telehealth service is a unique and relatively new fact for Bangladeshi population. But 20-

30 patient was benefited to get tele rehab services with different disabilities. Bangladesh telemedicine services officially emerged in the year 1999 but its journey was quite smooth as expected till now (Nessa, 2014).

In Bangladesh, Kumar (2016) described the study of how much people know about telehealth services. Result of this study: Bangladesh is a small development country with huge number of population .About 75% people live in rural areas so the survey result shows that 94.80% expert doctors, 74% local doctors, 91.42% patients and 80.32% pharmacy owners completely introduce telehealth services. This percent people just well know about tele-rehab service in Bangladesh.

Betting and Murphy identified the used procedure of tele-technology and find out parent's perception about tele- rehab services. So both are reported maximum parents share their perception negatively impact the tele-rehab service for their children in pandemic situation. Parvin and Kumar reported the result in Bangladesh majority of the population reside village so tele-health service is a unique and relatively new fact for Bangladesh population. Maximum percent of people well know about tele-rehabilitation service in Bangladesh. And all of the participant reported positive result to use tele-rehab service in pandemic situation.

So all of the information more relevant with my study purpose.

**Importance of regarding tele- rehabilitation**

In US, Benham and others (2017) completed a study about exploration of the effect of tele rehabilitation of the school based settings at risk youth. The aim of the study the researcher introduce the timecco program to the school one year prior to the initiation of the study. The researcher reported positive result to use tele rehab with timecco program. The researcher reported positive improvement for both children to use tele-rehab play game service .Both children are felt enjoy for doing the activity and follow the instruction of therapist to use tele-rehab service. The researcher also reported tele-rehab service with game activity mostly improve the child's behavioral skills.

In Australia, Taylor and others (2014) conducted a study about effectiveness of tele-rehab service for Autism spectrum children (ASD). The Research is also required to determine in telehealth assessment, in order to design strategies to improve the uptake of telehealth services. The researcher founded positive result to use tele-rehab service and participant were reported tele-rehab service improved their communication skills and improve their knowledge .And the researcher found tele rehab service play their important role in health care settings and it was more available to access this service .Because tele- rehab of the importance of early intervention, more research is needed into the suitability of telehealth for preschool-aged children.

Both researcher identified the regarding tele- rehab service play their important role in health care settings. Because tele – rehab service usually benefited for the participant and improve their knowledge about tele-rehab service.

**Satisfaction level of parents**

In Chicago, Murphy and others (2019) conducted the research and they were reported



forty-four percent of parents reported low satisfaction with their children's therapy services during the pandemic. Access to telehealth positively predicted overall satisfaction and satisfaction with the family-provider partnership, whereas receiving school-based therapies negatively predicted overall satisfaction and satisfaction with the family-provider partnership.

In Iran, the researcher reported this study. The results showed that satisfaction level of parent's are pretty satisfied with using tele-rehab and building relationships with child/family, compared to face-to-face practice, and did not reveal significant differences ( $P=0.146$  and  $P=0.882$ , respectively). Also, the competence of satisfaction level of parents was good with tele- rehab service; however, higher competence was noted with face-to-face practice, and the difference was statistically significant ( $r=0.165$ ,  $P=0.018$ ). Participant were reported they are satisfied to use tele- rehab service for their children because tele – rehab service provided home base therapeutic guideline and school based activity that's was very important to manage Autism children at home in pandemic situation. So tele- rehab service provided effective guideline for improvement the participant knowledge about how to manage their children's aggressive behavior at home (Akram, et.al .2021).

1<sup>st</sup> researcher reported their study population of forty-four percent participant were low satisfied to use tele- rehab service because they are faced lots of challenges and barriers .some participant reported tele- rehab service break the children concentration rather than face to face service.

2<sup>nd</sup> researcher reported the result of this study showed that satisfaction level of parent's are pretty satisfied with using tele- rehab .Because participant reported this service very helpful

to buildup rapport with child\ family and therapist. So this service were very helpful to improve the children's social interaction and communication skills.

### **Inconvenience of tele- rehabilitation**

In Agustina Johnston and others (2019) reported a limitation of the study is that there may be technological issues such as: internet connectivity, computer literacy, or problems with the online communication platform itself. Participant were reported tele rehab service decrease their individual work schedule so they are not maintain proper time to take this service that's why maximum time they were missed the service and faced difficulty to follow the therapist guideline for practicing at home .Because the children was more cooperative with therapist for doing school based activity but some children not interested to attend the session and parents were facing difficulty to manage the children for long time rather than practical session. And they are also noticed tele- rehab service given some guideline but not showing practically so parents were facing problem when follow the instruction after finish the session at home.

In Spanish, Yang (2021) conducted the study, this study participant also reported potential disadvantage of tele – rehab service. Participant noticed children's Needs Physical Guidance and in-Person Socialization with Therapists Participants reported that telehealth may not meet the needs of children who need physical (i.e., Journal of Developmental and Physical Disabilities hands-on) guidance, and would not enable the child to develop social skills and foster rapport with the therapist. Participant reported their children get distracted and lack of attention in this session. Parent's felt lack of confidence to implement this strategy. Because they are not trained about this service. This service were newly strategy for all of the participant. Parent's Perceptions of Needed Logistical Items for Telehealth

service. And they are not access to the High-Speed Internet and Unlimited Data Plan and electronic device with related materials.

So both research identified logically information of disadvantage of use tele-rehab service and reported participant perception about effect of tele-rehab service for their ASD children's in pandemic situation.

Here, after reviewing these literatures the researcher it's seen that maximum study completed about parent's perception of telehealth, school based tele-health, parent mediated training etc. The researcher will be compared to the reviewing literatures with her study topic. After that the researcher identify their has no research about experience of parents of children with autism spectrum disorder (ASD) regarding the tele rehab service in schools of children with autism during COVID-19.

## CHAPTER III: Methodology

### 3.1 Research aim, objectives, and questions

#### 3.1.1 Research questions

How the experience of parents of children with Autism Spectrum Disorder (ASD) regarding the tele- rehabilitation service in the schools of children with autism during COVID-19?

#### 3.1.2 Aim and objectives

##### **Aim:**

To identify experience of parents of children with Autism Spectrum Disorder (ASD) regarding the tele- rehabilitation service in the selected schools of children with autism during COVID-19.

##### **Objective**

- To find out the experience of parent's about benefits of tele- rehab service.
- To find out the parent's experience about importance of tele- rehab occupational therapy service.
- To find out the parent's experience about challenges or barriers of tele – rehab service.
- To find out the parent's recommendation about regarding the tele- rehab service improvement.

### **3.2 Research design**

Phenomenological approach of Qualitative research design was used for this study, because is helpful to find out the experience of people in particular settings and to understand this perspective. The researcher used this method to fulfil the aim and objective of the study. Phenomenological study design is best suited method to complete the study in the given period. In the qualitative study, phenomenological study design is incorporated with a focus on understanding the experience of phenomenon of the situation of participant's experience about regarding the tele rehabilitation. This research design is used to know about the lived experience of the participants (Waters, 2017). The aim of the research to identify the experience of parents of children with autism spectrum disorder (ASD) regarding the tele- rehabilitation service in schools of children with autism during COVID-19. So, phenomenological study design will help the researcher to collect information from participant's own experience about tele- rehabilitation services and to collect data accurately.

### **3.3 Ethical considerations**

The researcher maintained ethical consideration in all aspect of the study. Before starting the study a formal project proposal was submitted to the department of occupational therapy and after verifying the proposal, permission was taken from Institutional Review Board (IRB) of BHPI to continue the study. The study was done through data from the respondents through interview. There was no physical or mental assault to the respondents. However, prior to interviewing the respondents, they were clearly explained about the aim of the data collection which is absolutely confidential. They had complete

freedom to be involved in the study because they were asked to give their opinions to or not to respond to the interviewers inquiry. So, there was seemingly an ethical implication. However ethical clearance was taken from the ethical board of CRP by submitting the protocol of the present study. Informed consent was used to take permission from all participants. Participants' rights and privileges were ensured. All the participants were aware about the aim and objectives of the study. Findings of the study were disseminated with the approval of the regarding authority.

### **3.4 Study setting**

The researcher was collect data from special needs school of Uttara SAND, Proyash and CRP outdoor they are provide tele-rehab service during COVID-19.

### **3.5 Study Period**

The study was conducted from April 2021 to April, 2022.

### **3.6 Sampling and recruitment**

The researcher was use the snowball sampling for collect data to conduct the research. The researcher was use Exponential Non-Discriminative Snowball Sampling: In this type, the first subject is recruited in the special schools of children with autism at Uttara SAND and then he/she provides multiple referrals. Each new referral then provides with more data for referral and so on, until there is enough number of subjects for the samples. After that the student researcher was call the participants to set a time for the interview and collect the data.

### **3.6.1 Inclusion and exclusion criteria**

#### **Inclusion Criteria:**

- Parent's (Mother or Father) who received the tele- rehab service from different special need schools during the pandemic in Bangladesh.
- Parents who have received the service for at least one months.

### **3.6.2 Participant recruitment**

The researcher selected 6 participants for collect data to conduct the research.

## **3.7 Data collection**

### **3.7.1 Data collection method**

The research uses face to face interview with a semi structured for collect the data. With semi structured question, participants got more freedom to explain their opinions and that researcher could go out from the boundary of fixed question to understand their experience by asking related question. The researcher had conducted face to face interview by building up rapport with the participant first. Face to face interview helps the researcher to determine participants understanding of the questions by observing their facial expression. Before conducting the interview the researcher ensured the participant about the aim and objective of the study and also made him aware about the consent from of the research and took the permission.

#### **Field test:**

Before starting the data collection, the researcher conducted field test with two participants. The test had been performed to determine the difficulties existing in the question as well as the procedure of data collection. By this test, the researcher remodeled the question such as three of the questions were modified which was similar and two

additional questions had been added to the main analysis of question so that they could understand easily and provide the information clearly related to the study. During the interview, the researcher informed the participant about the aim and objective of the study also took written permission by consent form and the researcher maintained confidentiality.

### **3.7.2 Interview guide**

**A. Self-developed question:** A self-developed question was used in this study. This questions aimed to find out in depth information from the participants about the experience of parents of children with autism spectrum disorder (ASD) regarding the tele rehabilitation services in school of autism children during COVID-19. A semi structured question in “Bangla” was used to collect information on experience of tele rehab service related variables such as time duration, number of session, educational status, therapeutic guideline, importance of tele rehab service, factors of tele rehab, and the limitation and barrier of telehealth service utilizations as well as the possible solution according to the users perspectives..

B. A phone recorder was used to record the interview of the participants.

C. Pen, paper and clip board was used to write down observation notes.

### **3.8 Data analysis**

Researcher has used Qualitative thematic analysis to analyze the data of understanding about experience of parents of children with autism spectrum disorder (ASD) regarding the tele- rehabilitation service in schools of autism children during Covid-19. In this type of analysis, coding and pattern of themes are derived from text data (Braun & Clarke, 2006). At the first stage of data analysis the researcher transcribe the interview Bangla to English from Mp3 recorder. The researcher listened to recordings several times to



recognize what the participant wants to say in the interview. After the transcription of each data researcher again listened the recording to ensure the validity of data. Then the researcher organized the data according to each interview question related to objective.

### **3.9 Trustworthiness**

The rigorous manner was maintained to demeanor the study. This study was conducted in a systemic way by next the steps of research under supervision of an experienced supervisor. During the interview session and analyzing data, never tried to influence the process by own value, perception and biases. Be accepted the answer of the questions whether they were of positive or negative impression. The participants' information was coded accurately and checked by the supervisor to eliminate any possible errors. Try to keep all the participants' related information and documents confidential. The semi-structured question that is prepared by the researcher to conduct the interview, were piloted Question was translated into Bengali for better communication with the participants. After the each interview question were checked for possible error. 2 field surveys had been conducted by the researcher before going to the final data collection of the study.

## CHAPTER IV: Results and Discussion

Result and discussion are described in the same chapter because this is common practice in reporting on qualitative studies (Stephenson & Wiles 2000). The result has been analyzed by the data which is collected from the participant's understanding and practical experiences. Whereas discussion is presented to make the store clear (Hissing et al., 2014). These understandings and experiences are regarding their understanding of well-being. The objective of the studies was to experience parents about the benefits of tele rehabilitation service during covid-19, to explore the importance of occupational therapy in tele rehabilitation service and the challenges of tele rehabilitation service. Collating the codes the researcher has generated four potential themes to express the overall story of the data. The study has resulted from five major themes. These areas are following:

Theme 1: Practical therapy sessions more benefited rather than tele rehabilitation services.

Theme 2: occupational therapy tele rehabilitation plays an important role for autistic children during COVID-19.

Theme 3: Faces lots of barriers to following tele rehabilitation service guidelines at home.

Theme 4: Need more descriptive practical sessions to improve tele rehabilitation

service for the future.

Theme 5: Participants recommended rural area people are more benefited to take tele rehab services than urban area people.

Now, these themes are discussed below-

Theme 1: **Practical therapy sessions more benefited rather than tele rehabilitation services.** The research analysis has resulted in a general description of 06 participants with parents of autistic children and provided a background of understanding their experience about tele- rehab service they described what they think about what is tele-rehabilitation service tele rehabilitation perspective. This theme means that practical therapy sessions more benefited rather than tele- rehabilitation services.

One study conducted the research and they were reported forty-four percent of parents reported low satisfaction with their children's tele- rehabilitation therapy services during the pandemic ( Murphy, 2019). Participants are reported tele- rehabilitation services are less important rather than practical therapy sessions.

One participant said that, online services couldn't provide same benefits rather than a practical session. Because it was difficult during lockdown to control the child in the home. So according to participants said that online service was not helpful for autistic children because always engaging the child with practical sessions is the best way for improving the child's condition. (Table 1).

Other participants added that, 'online service does not show practically so that participants face problem to following the therapist guideline that's why the practical

session is the best way for all of the time to maintain the child issues (Table 1). This means those participants want to include their experience about the importance of practical sessions rather than less effective tele rehabilitation services. They think practical therapy session is meaningful and promote well-being service. A study reported that the participants show their opinion about tele- rehab services. Participants are reported to ace to face practical therapy sessions was more benefitted rather than tele-rehabilitation services (Sidra. 2021).”

Another participant said, “my opinion tele- rehab service was not perfect for autism children because all of the children need practical sessions to improve their physical condition”. This means performing all the activities has to be less satisfied by using tele-rehab service. So, one individual should have a less satisfactory performance to their tele-rehab services while engaging in it. A study claims that, the researcher noticed their study participant were was not satisfied to take the rehab services. Because participants are highly recommended tele- rehab services guidelines are less effective rather than practical therapy sessions for autistic children (Nazia,2021).”

Some participants mentioned that, being connected to an activity which is most important and meaningful to take practical therapy session”. From their perspective, which therapy sessions are necessary and meaningful for their children to improve their health condition and engaged the children in schooling activity with face to face intervention.

**Table 1:** Code and themes for objective 1:

| Objective 1  | Coding   | Theme                           |
|--|--|---------------------------------|
| To find out the experience of parent's about benefits of tele- rehab service<br>Question no.<br>1, 4, 6, 8 | Tele- rehab services new process for participants. | Theme 1.                        |
|  | Problems in understanding                          | Practical therapy sessions more |
|  | Poor knowledge about tele-rehab services.          | benefited rather than tele-     |
|  | Can't follow instructions.                         | rehabilitation services.        |
|  | Feel frustrated                                    |                                 |
|  | Take a long time to provide tele- rehab service.   |                                 |
|  | Can't manage the child at home                     |                                 |
|  | Less benefited for the child                       |                                 |
|  | Only use for provided guideline                    |                                 |
|  | Provide home base activity                         |                                 |

Many of them also included their experience about compares of tele- rehab service benefits with practical therapy services. So, overall according to their understanding, practical therapy session was more benefits rather than tele- rehab services to improve autistic child's condition.

**Theme 2: occupational therapy tele- rehabilitation services to play an important role for autism children during covid-19.** It is seen that many of the participants are describing their engagement of tele- rehab occupational therapy service guideline-based activity in their surrounding environment at home for their autism children (Table 2). One participant mentioned that, as far as he knows

occupational therapy plays an important role for children. Because autism children have behavioral, sensory, attention issues. So occupational therapists directly work with these issues. In this pandemic situation time, the participants engaged their child with home base therapeutic activity to follow tele – rehab occupational therapy service guidelines. Participants reported when they are follow this guideline properly after they reduced their child’s hyperactivity slightly. A study described the participants of this study they have been receiving therapy services from four months to over one year. Both participants reported that the percentage of their child’s therapy services was 76-100% benefited to receiving tele- rehab occupational therapy services. The participants reported, when receiving tele- rehab occupational therapy services this time their children followed the therapist’s instruction and improve the child’s eye contact slightly (Rebecca. 2019).

Another participant said that own opinion tele- rehab occupational therapy service was perfect service for autism children because all of the children need occupational therapy

Sessions to improve their physical condition“. This means performing all the activities has to be more satisfied by using tele- rehab occupational therapy service. So, occupational therapy tele rehab services provided routine base guidelines to manage the child’s at home in a pandemic situation. One study identified, the participant’s perception was good to take occupational therapy tele- rehab services. Because Participants are reported occupational therapy guideline very helpful situation to manage their child’s at home environment. And participants are satisfied about this service because as well as this service improve the child’s attention and parents was

easily manage their children during lock down to follow the regarding tele- rehab guideline ( Hisu., 2020).

So that, Maximum participants reported said their opinion with positive review about importance of tele- rehab occupational therapy service for autism children. They are satisfied to take occupational therapy services.

**Table: 2:** Code and themes for objective 2

| Objectives  | Coding                                     | Themes  |
|---|--|---|
| To find out the parent's experience about importance of tele- rehab occupational therapy service.<br>Question No. 2, 3, 7 | Reduce slightly hyperactivity              | Theme 2: occupational therapy tele- rehabilitation service to play important role for autism child. |
|   | Child's are felt enjoy                     |   |
|   | Follow instruction                         |   |
|   | Participants easily contact with therapist |   |
|   | Slightly reduce behavioral problem         |   |
|   | Provide school base activity               |   |
|   | Provide leisure activity                   |   |

**Theme 3: Faces lots of barriers to following tele rehabilitation service guidelines at home.** It is seen that many of the participants are described their barriers to tele- rehab services based activity on their surrounding environment (Table 3). If the environment is suitable for them then he is well but if the environment is not accessible to him then he

can't be engaged in any home base therapeutic activity thus bringing dissatisfaction in life. The physical environment constitutes both a barrier and an enabler when an individual performs daily tele rehab service guidelines at home (CAOT, 2002). One participant mentioned, „He cannot do all of their household work due to maintenance regarding the tele rehab service guideline for their autism children“. However, increased levels of complexity of daily occupations decrease self-rate health and provide a bad effect on our personal life for tele- rehab service to maintain daily therapist guidelines at home during the lockdown. In one study, the research and they were reported forty-four percent of parents reported low satisfaction with their children's therapy services during the pandemic situation. Because the tele rehab services humper their family life and break their child's daily routine life. So, children show hyperactivity behavior when tele rehab service provides their service for a long period (Murphy, 2019).This theme means participating in daily activities, there are faces some Barriers to maintaining the tele rehab service guideline with their children. Many of the participants have explained as followings (Table 3):

One participant explained that, “when they are taking this service this time faces network problem so that they are not understood therapist guideline and their children did not follow the therapist instruction that's why sometimes they are feeling pain and worried to take the tele rehab service for their children. . One participant added that their family member and society did not support to take this service for their children at home during a pandemic situation. . They are feeling sad and remain deprived of everything. Similarly, one study explained their participants' perception, in this study most of the participants reported, social connections problems and financial problems from others issues by



participants can be demotivated to take these services. (Sara & Mancini 2020).”

Other participants explained, “During pandemic situations off their all income source so tele- rehab service is very costly for their child that’s why they are not continuing the service for a long time”. In this study, the researcher identified their study participants reported tele- rehab services as very costly and less effective for improving their children’s condition, and they are faced lots of barriers most commonly facing network and environmental barriers (Olivia, 2019).

**Table 3:** Code and themes for objective 3

| Objective 3   | Coding   | Themes   |
|---|--|--|
| To find out the parent’s experience about challenges or barrier of tele- rehab service. | People say many kinds of experiences during play tele- rehab services. | Theme 3. Faces lots of barriers to following the tele rehabilitation service guidelines at home. |
| Question no. 6, 8   | New service that’s why faces problem to understand                     |  |
|   | Internet problem.  |  |
|   | Time-consuming.  |  |
|   | Lack of accessibility.   |  |
|   | Financial problem. Effect on personal and psychological life.          |  |
|   | Child’s did not maintain eye contact.                                  |  |
|   | Difficult to seat for a long time.                                     |  |
|   | Hard to communicate and meet with a therapist.                         |  |

---

Children show hyperactivity and disturbed behavior in these sessions.

Lack of proper accessibility

---

**Theme 4: Need more descriptive practical sessions to improve tele rehabilitation service for the future.** Two participants explained that Therapists need to described more about this service and they should demonstrate more practically for future improvement. Because all the processes when used more practically so that participants can understand all the activities and processes with easily. Another participant explained,

“A practical therapy session is the best way for autistic children but if when want to improve tele rehab service for the future after they are obviously maintained be maintain to complete the session in between 30 to 35 minutes. Because it was difficult for the child to hold their attention for a long time like 1 hour. So that, reduce the time period for improving this service in future”

In this study, the researcher described some participants who reported their recommendations about improving tele rehab service in the future. Participants reported tele- rehab service also needs a more practical and experienced therapist to demonstrate more clearly for participants to understand clearly (Chantal, 2020).”

**Theme 5: Rural area people are more benefited from tele-rehab than urban area people.**

Three participants explained the same opinion, tele rehab service may be a good service for village people rather than urban people. Because rural people had a phone but they are

not aware of this service and they can't take this service in practical sessions for long-distance and transport problems, lack of accessibility, environmental barrier, etc. So, the therapist needs to improve their service process and create more social groups and generate awareness programs to improve rural area people's knowledge about their child's condition and how to treat the children for better improvement.

A study has conducted, the researcher reported, maximum people of Bangladesh live in a rural area but they are not taking this service for lack of accessibility, transport problem, lack of social awareness, poor knowledge about this service, etc. But during lockdown when started tele- rehab services this time maximum rural area people are benefited to improve their knowledge and take this service to use social media. Because all of the people had a mobile phone but they are not able to take this service only for long-distance and financial problems, lack of family support, social stigma. So that in this study the researcher reported these are the maximum number of research participants identified rural area people more benefited to take tele rehab services rather than urban area people (Rehana Parvin, 20200)

**Table 4:** Code and themes for objective 4

| Objective 4  | Coding   | Themes   |
|--|--|--|
| To find out the parent's recommendation about regarding the tele- rehab service improvement. | People say their opinion to improve this service for future. | Theme 4: Need more descriptive practical sessions to improve tele-rehabilitation service for the future. |
|  | Not show any guideline with practically.                     |  |
|  | Reduce Internet problems.                                    |  |
|  | Reduce therapy time.   |  |
| Question no. 1, 8,9  | Use of good accessibility.                                   | Theme 5: Rural area people are more benefited from tele-rehab than urban area people.                    |
|  | Need experienced therapist.                                  |  |
|  | Provided   |  |
|  | Provided awareness program                                   |  |
|  | Improve communication skills.                                |  |
|  | Lack of knowledge in rural area people.                      |  |
| Rural area people do not take this service with practically.                                 |  |  |
| Poor knowledge about this disease and its treatment procedure.                               |  |  |

The result from the participants indicates that, they are low satisfied by the tele rehab service as consumers reported lack of accessibility, economic problem as a time consuming, as tele rehab services more benefited for rural area people rather than urban area . Besides, some patients added shorter waiting time and improvement of the child's condition that they experienced from the service. In accordance to Hill; 1992, high patient low satisfaction may include: difficult access to specialists within treatment period, longer

waiting times for appointments, No effectiveness, economic destroy, and decrease interaction with a specialist, accurate diagnoses, and personalized care (As cited in Acharya & Rai, 2014). In this study though 40.3% of the consumers 50 stated that they were not benefited by no means with this service but 51.4% consumers were low satisfied by the doctor's advice and 69.4% agreed that the service of telehealth is not good which consequently specify low level of satisfaction among the patients received the services. During consultation period majority maximum of the participants complained about network disturbance. Driessen et al. (2016), in her study considered sufficient network capacity to support telemedicine technology that requires high-quality audio and video as a non-trivial issue more specifically when the receiving center is located at remote and rural areas. Study finding by Acharya & Rai (2014), in India also showed that most of the respondents face network speed and clarity problems throughout the session. In this study, in addition to network disturbance, computer disturbance and 51 language barriers were identified by the respondents in execution and continuance of telehealth services. About maximum participants in this study tended to be more comfortable with face to face or direct consultation rather than telehealth. In contrary, in most of the studies, respondents showed equivalent positive satisfaction scores between telehealth and traditional care (Hushe et al, 2012; Mc Cary et al, 2015; Morgan et al, 2008; Whitten & Love, 2005).The reasons behind this dissimilarity may include; older version of equipment's, electricity and network disturbance, unfamiliarity with technology and lack of awareness among the rural citizens of Bangladesh. The result from this study, Maximum participants reported said their experienced with positive review about importance of tele- rehab occupational therapy service for autism children. They are satisfied to take occupational therapy services

rather than other services. Both participants reported that the percentage of their child's therapy services was 76-100% benefited to receiving tele-rehab occupational therapy services. The participants reported, when receiving tele-rehab occupational therapy services this time their children followed the therapist's instruction and improve the child's eye contact slightly (Rebecca. 2019). Although participants perceived certain benefits of telehealth but still they had some extent of difficulties to receive the service as well. About 80% of participant faced transformational and financial problems while coming as they had to travel a long distance to reach the center. Based on that problem, some patients suggest for increasing the tele-rehab service related awareness program in nearby villages. Participants' opinion highlighted on the provision of practical therapy was more benefited in this country and tele rehab services play important role for rural area people to improve their knowledge rather than urban area people. Participants are recommended need experienced therapist and show more practically for improve this service in future. A study has conducted, the researcher reported, maximum people of Bangladesh live in a rural area but they are not taking this service for lack of accessibility, transport problem, lack of social awareness, poor knowledge about this service, etc. But during lockdown when started tele-rehab services this time maximum rural area people are benefited to improve their knowledge and take this service to use social media. Because all of the people had a mobile phone but they are not able to take this service only for long-distance and financial problems, lack of family support, social stigma. So that in this study the researcher reported these are the maximum number of research participants identified rural area people more benefited to take tele rehab services rather than urban area people and needed experienced providers to improve this service in future (Rehana Parvin, 2020).

## CHAPTER V: Conclusion

### 5.1. Conclusions

Results of this study indicate that, majority telehealth receivers are interested to take practical session but need assurance of service betterment in future. The views of the participants provide new insights into the factors underlying their low satisfaction and offered a range of solutions. Besides, the provider's requirements need to be addressed to flourish the service encounter. Expansion of technology related issues such as network and equipment's were noted as common foundation for astute telehealth practice accordance to both the participants and provider's view. Publicity enhancement, budget improvement, awareness spreading out, equipment's replacement were also some frequent features that needs to be met to attain the most desirable destination of this telemedicine service. To sum up it can be said that, telehealth service could bring a significant access to quality healthcare for underserved communities but would take time to reach its expected position. This perception is due to lack of awareness regarding telehealth and lack of information on its effectiveness compared to in-person care. Major result has founded the participant reported tele rehab service more benefited for rural area people rather than urban area and practical therapy session always best way to improve the autism children condition rather than tele rehab services. The second group of participants were caregivers who have used tele rehabilitation service for their autism children. Maximum responses were negative regarding benefits telehealth provided them and their child. Regarding the general acceptance of this service model, the participants reflected that it might not be appropriate for all families. Future research and advocacy will be important to promote the acceptance of telehealth for healthcare facilities, providers, and clients. Education on how to deliver telehealth services,

required skills and resources, benefits and effectiveness of telehealth compared to traditional methods of intervention, and general awareness of telehealth being an additional option to care will be important to promote acceptance of this service model.

## **5.2. Study limitation**

- ✓ Limitation is a matter that occurs during conducting the study. Every study has some limitations and those limitations are not in researcher control.
- ✓ During the time of conducting this study, there were some limitations present. By considering these limitations the researcher conducted this study. The limitations are given:
  - ✓ The major limitation of this study was time because it was limited for this pandemic situation.
  - ✓ Short Duration of study period.
  - ✓ Tele rehab service new things for all the participants
  - ✓ Very few participants
  - ✓ Less number of samples for a cross sectional study.
  - ✓ Self-developed questionnaire.
  - ✓ Snow ball sampling.
  - ✓ Due to the prevailing COVID-19 pandemic and transport issues, data collection has faced some difficulties. Also, is a comparatively new field in Bangladesh, and most participants in this study were lack of experience about tele rehab services.
- ✓ The study will examine the overall experiences of participants and open-ended questions will be necessary in the interview to understand individual narratives. Therefore, information gathered will be limited to qualitative data from the



interviews.

- ✓ The researcher faced difficulty to collect the related research articles because it was not possible for her to get access to those articles.

## **5.2. Study Strength**

- This study generate new idea about importance of tele rehab services.
- This study to use promote health profession.
- The study participants more cooperative with researcher.
- Findings participant real experience about this services.
- Participants was feel interesting to join this study.
- Inclusion and exclusion criteria were clearly stated.
- Participants requirement are maintained the qualitative research criteria.
- This study stated practical session is always best way rather than tele rehab services and its true information about this study.
- Information was recorded and transcribe verbtion.
- The researcher properly achieved their goal in this study.
- Maintaining proper ethical consideration and confidentiality.
- Thematic analysis use to analyze the findings. This is appropriate considering the research method used for this study.
- As this study focused on experience of parents of children with autism spectrum disorder (ASD) regarding the tele rehabilitation, the use of qualitative methodology is study.
- This study design and theme also related to this study and follow the rules of this study. Result are more validity and reliable with participants perception.

## **CHAPTER VI: Recommendation**

### **RECOMMENDATIONS**

- Adaptations of new technologies and replacements of equipment's.
- Ensure high quality network setting.
- Enhance publicity as well as awareness programs.
- Necessary steps to be taken to address the special school providers' requirements.
- Increase and intensify telehealth related training for both providers.
- This was a quantitative study and cover only few tele rehab services department, thus further large scale study is recommended.

## List of Reference

- Rahman, T. & Hossain, A. (2016). Peoples' Perception towards Telemedicine: A Case Study on Rural Area of Bangladesh. *Information and Knowledge Management*. ISSN 2224- 5758 (Paper) ISSN 2224-896X (Online), Vol.6, No.4
- Pradhan, U.K., Rahman, M.Z., Jahan, I. (November 2017). A Systematic analysis on the Telemedicine Services in Bangladesh. Research Gate conference paper. Retrieved from <https://www.researchgate.net/publication/320863515>.
- Natalie K. Bradford, Liam J. Caffey and Anthony C. Smith. (2015). Awareness, experiences and perceptions of telehealth in a rural Queensland community. *BMC Health Services Research* (2015) 15:427, DOI 10.1186/s12913-015-1094-7
- Nessa, M. A, Sanallah, A., Kwak, K.S., (November 2009). Applicability of Telemedicine in Bangladesh: Current Status and Future Prospects. *International Arab Journal of Information Technology* · DOI 10.1109/ICCIT.2008.236
- McCarty, C., Stope, A., Violette, H., Myers, Kathleen. (2015). Interventions Developed for Psychiatric and Behavioral Treatment in the Children's ADHD Tele mental Health Treatment Study. *Journal of Child and Family Studies*, 24(6), 1735-1743.
- McIntosh, S., Cirillo, D., Wood, N., Dozier, A., Alary, C., McConachie, K. (2014). Patient evaluation of an acute care pediatric telemedicine service in urban neighborhoods. *Telemedicine and e-Health*, 20(12), 1121-1126.
- McConachie, K., Wood, N., Hereunder, N., Hooper, C., Ragman, K. (2010). Telemedicine in Urban and Suburban Childcare and Elementary Schools Lightens Family Burdens. *Telemedicine and e-Health*, 16(5), 533-542
- Lerouge, C. M., Garfield, M. J. Hiver, A. R, (December 24, 2014). Patient perspectives of

telemedicine quality. *Patient Preference and Adherence* 2015:9.

LaMotte's, L., Jean-Paul Fortin, J.P., Labbé, F., Gagnon, M.P. and Messiah, D. (June 23, 2006). Impacts of Tele homecare on Patients, Providers, and Organizations. *Telemedicine and e-Health*. Volume: 12 Issue 3:12(3): 363-369. <https://doi.org/10.1089/tmj.2006.12.363>

Lee, J., and Rho, M. J. (September 2013). Perception of Influencing Factors on Acceptance of Mobile Health Monitoring Service: A Comparison between Users and Non-users. *Healthcare Inform Research*. 2013; 19(3):167-176. PISSN 2093-3681, eISSN 2093- 369X

Imam, A., Hassan, M. (2018). Telemedicine: a promising rehabilitation strategy for Bangladesh. *OT World . Poster Wissenschaft /Handworks [6752] Abstract [2243]*.

Kruse CS, Krensky N, Rodriguez B, Tran, L., Vela, J., Brooks, M., (2017). Telehealth and patient satisfaction: a systematic review and narrative analysis. *BMJ Open*2017; 7:e016242. Doi: 10.1136/ bmjopen-2017-016242

Polanski, J.M., Barker, T., Gagliano, N., Sussman, A., Brennan, T.A., Shrank, W.H. (2015). Patients' Satisfaction with and Preference for Telehealth Visits. *Journal of General Internal Medicine*, 31(3), 269-275.

Grant, L., Rockwood, T., Stennes, L. (2015). Client Satisfaction with Telehealth in Assisted Living and Homecare. *Telemedicine and e-Health*, 21(12), 987-991.

Ghia CJ, Patil AS, Ved JK, Jha RK. (2013). Benefits of telemedicine and barriers to its effective implementation in rural India: A metacentric E-survey. *Indian Medical Gazette*. 2013 145:1–7. Retrieved from: [http:// www.medind .nic.in/ice/ t13/i1/icet 13i1p1.pdf](http://www.medind.nic.in/ice/t13/i1/icet13i1p1.pdf).

Ferrous, A. M. (May, 2017). Scopes and challenges of implementing Telemedicine in a developing country like Bangladesh. Master's Thesis in Telemedicine and E-health (TLM-3902). Department of Clinical Medicine the Faculty of Health Sciences. The ARCTIC university of Norway.

Fairchild, R., Kuo, S.F.F., Laws, S., O'Brien, A. and Rahmouni, H. (July 7, 2017). Perceptions of Rural Emergency Department Providers regarding Telehealth- th-Based Care: Perceived Competency, Satisfaction with Care and Tele-ED Patient Disposition. *Open Journal of Nursing*, 7, 721-733.

Fairchild, R., Faring Kuo, S.F., Laws, S., Amanda O'Brien, A., Rahmouni, H. (2017). Perceptions of Rural Emergency Department Providers regarding Telehealth- th-Based Care: Perceived Competency, Satisfaction with Care and Tele-ED Patient Disposition. *Open Journal of Nursing*, 7, 721-733. <https://doi.org/10.4236/ojn.2017.77054>

Acharya, R. V., & Rai. J.J. (2016). Evaluation of patient and doctor perception toward the use of telemedicine in Apollo Tele Health Services, India. *Journal of Family Medicine and Primary Care*. Volume 5: Issue 4.

Ashburner, J., Bickerstaff, S., Beetge, J., & Copley, J. (2016). Remote versus face-to-face delivery of early intervention programs for children with autism spectrum disorders: Perceptions of rural families and service providers. *Research in Autism Spectrum Disorders*, 1. <https://doi.org/10.1016/j.rasd.2015.11.011>

Schaper, L. K., & Previn, G. P. (2007). ICT and OTs: A model of information and communication technology acceptance and utilization by occupational therapists. *International Journal of Medical Informatics*, 76(1), 212–221. <https://doi.org/10.1016/j.ijmedinf.2006.05.028>

Smith, T. (2019). Qualitative and quantitative research. Salem Press Encyclopedia.

Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ers&AN=89164394&site=eds-live> World Federation of Occupational Therapy, (2014).  
World federation of occupational therapists' position statement on telehealth.  
International Journal of Tele rehabilitation, 6(1), 37-40. doi:10.5195/ijt.2014.6153

Zylstra, S. E. (2013). Evidence for the use of telehealth in pediatric occupational therapy. *Journal of Occupational Therapy, Schools, and Early Intervention*, 6, 326–355. <https://doi.org/10.1080/19411243.2013.860765>

Kessler, D., & Graham, F. (2015). The use of coaching in occupational therapy: An integrative review. *Australian Occupational Therapy Journal*, 3, 160-176. Retrieved from <https://doi-org.prx-usa.lirn.net/10.1111/1440-1630.12175>

Little, L. M., Wallisch, A., Pope, E., & Dunn, W. (2018). Acceptability and cost comparison of a telehealth intervention for families of children with autism. *Infants & Young Children*, 31, 275-286. Retrieved from.

Graham, F., Rodger, S., & Ziviani, J. (2013). Effectiveness of occupational performance coaching in improving children's and mothers' performance and mothers' self-competence. *American Journal of Occupational therapy*, 67, 10–18. <https://doi.org/10.5014/ajot.2013.004648>

Ahmed, S. (August 2014). *The Perceived Benefits of a Mobile Health Service in the Developing Country: Bangladesh. A Thesis Submitted to the School of Graduate Studies in Partial Fulfilment of the Requirements for the Degree Master of Science (Global Health), McMaster University.*

Baharav, E. & Reiser, C. (2010). Using tele practice in parent training in early autism. *Telemedicinehealth*16727731. Retrieved from <http://prxusa.lirn.net/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=edsgcl.23479>.

Cason, J. (2014). Telehealth: A rapidly developing service delivery model for occupational

therapy. *International Journal of Tele rehabilitation*, 6(1), 29-36.  
doi:10.5195/ijt.2014.6148

Cason, J., Behl, D., & Ringwald, S. (2012). Overview of states' use of telehealth for the delivery of early intervention (IDEA part C) services. *International Journal of Tele rehabilitation*, 4(2), 39-46. doi:10.5195/ijt.2012.6105

Cason, J., Hartmann, K., Jacobs, K., & Richmond, T. (2013). Telehealth. *American Journal of Occupational Therapy*, 67, 69-90. doi:10.5014/ajot.2013.67S69

Ashburner, J., Bickerstaff, S., Beetge, J., & Copley, J. (2016). Remote versus face-to-face delivery of early intervention programs for children with autism spectrum disorders: Perceptions of rural families and service providers. *Research in Autism Spectrum Disorders*, 23, 1-14.

Benham, S., & Gibbs, V. (2017). Exploration of the effects of Tele rehabilitation in a school-based setting for at-risk youth. *International Journal of Tele rehabilitation*, 39-46. <https://doi.org/10.5195/ijt.2017.6215>.

Rortvedt, D., & Jacobs, K. (2019). Perspectives on the use of a Telehealth service-delivery model as a component of school-based occupational therapy practice: Designing a user-experience. *Work*, 62(1), 125-131. <https://doi.org/10.3233/wor-182847>

Ingersoll, B., & Berger, N. (2015). Correction: Parent engagement with a Telehealth-based parent-mediated intervention program for children with autism spectrum disorders: Predictors of program use and parent outcomes. *Journal of Medical Internet Research*, 17(11), e257. <https://doi.org/10.2196/jmir.5329>


, L., Luis, L. M., Davies, J., & Pelican, E. (2021). Short report: Autistic parents' views and experiences of talking about autism with their autistic children. *Autism*, 136236132098131. <https://doi.org/10.1177/1362361320981317>

Whitten P & Love B. (December 2005). Patient and provider satisfaction with the use of Telemedicine; overview and rationale for cautious enthusiasm. *J postgrad Med*, Volume 51, Issue



## APPENDICES

### Appendix A: Ethical Approval clearance



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

Ref: CRP/BHPI/IRB/11/2021/521 Date: 14/11/2021

Arefa Aktar  
 4<sup>th</sup> Year B.Sc. in Occupational Therapy  
 Session: 2016-2017  
 BHPI, CRP, Savar, Dhaka- 1343, Bangladesh

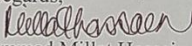
**Subject:** Approval of the research project proposal “Experience of parents of children with Autism Spectrum Disorder regarding the tele-rehabilitation service in the selected schools of children with autism during COVID – 19” by ethics committee.

Dear Arefa Aktar,  
 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.Moniruzzaman as thesis supervisor. The Following documents have been reviewed and approved:

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

The purpose of the study is to determine the experience of parents of children with autism spectrum disorder regarding the tele-rehabilitation service in the selected schools of children with autism during COVID-19. Should there any interpretation, typo, spelling and grammatical mistakes in the title, it is the responsibilities of the investigator. Since the study involves questionnaire that takes maximum 40 to 60minutes and have no likelihood of any harm to the participants, the members of the Ethics Committee approved the study to be conducted in the presented form at the meeting held at 9.15 AM on 15<sup>th</sup> September 2021, at BHPI 29<sup>th</sup> 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,  
  
 Muhammad Millat Hossain  
 Associate Professor, Dept. of Rehabilitation Science  
 Member Secretary, Institutional Review Board (IRB)  
 BHPI, CRP, Savar, Dhaka-1343, Bangladesh

CRP-Chapain, Savar, Dhaka-1343, Tel : 7745464-5, 7741404  
 E-mail : principal-bhpi@crp-bangladesh.org, Web: bhpi.edu.bd, www.crp-bangladesh.org

**Appendix: B****Self-developed questions: Bangla and English****Demographic Information**

Date of data collection: .....

Participant's name:

.....

**Questions**

1. How do you feel after receiving tele-rehabilitation service? If yes please explain:
2. What are the important aspects of tele-rehabilitation service?
3. What are the benefits of tele-rehabilitation service than the previous service process?
4. What type of services you received from tele- rehabilitation service?
5. How many session tele- rehabilitation service session you took for your child?
6. What is the role of occupational therapy in this tele-rehabilitation service process?
7. Have you had any problem following the instructions of tele-rehabilitation service at home?
8. What step can be taken to improve the use of tele-rehabilitation service in the future?

### প্রশ্নাবলী:

- ১। টেলি রিহ্যাব সেবা সম্পর্কে আপনার ধারণা কেমন? দয়া করে বিস্তারিত বলুন।
- ২। টেলি-রিহ্যাব সার্ভিসের মাধ্যমে আপনি কি কি ধরনের সেবা গ্রহণ করেছেন ?  
যেমন : ১. অকুপেশনাল থেরাপি, ২. ফিজিওথেরাপী ৩. স্পীচ এন্ড ল্যাংগুয়েজ থেরাপি
- ৩। আপনার বাচ্চার জন্য টেলি রিহ্যাব সেবার গুরুত্বপূর্ণ দিকগুলো কী কী?
- ৪। আপনার বাচ্চার জন্য টেলি রিহ্যাব সেবা নেওয়ার পর আপনি কেমন বোধ করছেন? দয়া করে বিস্তারিত বলুন
- ৫। পূর্ববর্তী অন্যান্য পরিষেবা প্রক্রিয়ার তুলনায় টেলি রিহ্যাব পরিষেবার সুবিধাগুলি কী কী?
- ৬। টেলি রিহ্যাব সেবা প্রক্রিয়া আপনার বাচ্চার জন্য কতটুকু উপকারী বলে আপনার মনে হয়?
- ৭। অকুপেশনাল থেরাপির এই টেলি রিহ্যাব সেবা কিভাবে আপনার সন্তানকে উপকৃত করেছে?
- ৮। বাড়িতে টেলি রিহ্যাব সেবার নির্দেশনাগুলো অনুসরণ করতে গিয়ে আপনার বাচ্চার এবং আপনার কি কোনো সমস্যা হয়েছে?
- ৯। ভবিষ্যতে টেলি রিহ্যাব সেবা প্রদানের ব্যবহার প্রক্রিয়া আরও উন্নত করার জন্য কী পদক্ষেপ নেওয়া যেতে পারে?
- ১০। ভবিষ্যতে টেলি রিহ্যাব সেবার উন্নতির জন্য কোন ধরনের খাতকে উন্নত করতে হবে বলে আপনি মনে করেন?

## **Appendix C: Information sheet and Consent Form (English)**

### **Information sheet introduction:**

I am Arefa Aktar, B.Sc. in Occupational Therapy student at Bangladesh Health Professionals Institute (BHPI), Studying in the 4th year undergraduate curriculum, 2016-2017 session.

Have to conduct a thesis as a part of this bachelor course, under thesis supervisor of Sk. Moniruzzaman, Associate Professor & Head Occupational Therapy Department. The purpose of this study is to explore the experience of parents of children with autism spectrum disorder (ASD) regarding the tele rehabilitation services schools of autism children during COVID – 19. I invite you to participate in this research, your valuable participants will strengthen this research project. All the details of the research are given in this letter, if you have any problem discussing the content after reading the newsletter or if you need to know more about something, feel free to ask questions.

### **Background and purpose of the study:**

The study will be conducted in the special school settings. The general purpose of this study is to explore the experience of parents of children with autism spectrum disorder (ASD) regarding the tele rehabilitation services schools of autism children during COVID – 19. I am more interested to know about the subject. Your voluntary participation and the information you provide will help you to express your values.

### **Research related information:**

Before you sign the permit, all the information leading to the research project will be presented to you in detail through this participating brochure. If you wish to participate in this study you will need to sign a consent form, and if you confirm your participation you will be provided with a copy of the consent form for your preservation. A representative of a team of data collectors formed by the researcher will then go to you. Information will be collected through a question paper at any given time from any one you ask. Your participation in this research project is optional. You do not have to participate if you do not agree. You may withdraw your participation at any time without giving any explanation to the researcher, despite your consent.

### **Risk and Benefits:**

There are no external pressures and fees for participating in this study. You will have no risk No and you face no physical or mental harm while answering the question.

**Confidentiality:**

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

**Where to contact to know about this research?**

If you want to contact about the research project or if you have any questions about the research project, it can be asked at any time now or later, in that case you can contact the researcher on 01745375232 (Arefa Aktar). This research project has been reviewed and approved by Bangladesh Health Professionals Institute, Savar Institutional Ethics Council (CRP- BHPI/IRB).

**Information about withdrawal from participation:**

Despite your consent, you may withdraw your participation prior to data analysis. However, we encourage you to give reasons. But if you do not want to be informed, mention it in the withdrawal letter.

**Withdrawal from**

Patients Name.....

ID Number.....

Reason of withdraw:

.....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....

Participants  
 Name:

Participants  
 Signature:

Date

**Statement by Participants**

I have been invited to participate in research titled “the experience of parents of children with autism spectrum disorder (ASD) regarding the tele rehabilitation services schools of autism children during covid – 19”

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

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

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

**Statement by the researcher taking consent**

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability.

I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this form has been provided to the participant.

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

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

Date.....

বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউট (বিএইচপিআই)

অকুপেশনাল থেরাপি বিভাগ

সি আর পি- চাপাইন, সাভার, ঢাকা-১৩৪৩. টেলি: ০২-৭৭৪৫৪৬৪-৫, ৭৭৪১৪০৪, ফ্যাক্স: ০২-৭৭৪৫০৬

অংশগ্রহণকারীদের তথ্য ও সম্মতিপত্র

**গবেষনার বিষয়ঃ** “ টেলি – রিহাব পরিসেবা সম্পর্কে অটিজম শিশুর পিতামাতার অভিজ্ঞতা জানা।”

**গবেষকঃ** আরিফা আকতার, বি এস সি ইন অকুপেশনাল থেরাপি, চতুর্থ বর্ষ, সেশনঃ ২০১৬-১৭, বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউট (বিএইচপিআই), সাভার, ঢাকা-১৩৪৩

**তত্ত্বাবধায়কঃ** এস কে মনিরজ্জামান, এসোসিয়েট প্রফেসর, অকুপেশনাল থেরাপি বিভাগ, বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউট।

**গবেষনার স্থানঃ** বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউট, পক্ষাঘাতগ্রস্তদের পুনর্বাসন কেন্দ্র (সিআরপি), সাভার এবং মিরপুর, ঢাকা, বাংলাদেশ।

**তথ্যপত্র:**

**ভূমিকা:**

আমি আরিফা আক্তার, বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউটে, বি.এস.সি.ইন অকুপেশনাল থেরাপি বিভাগে

৪র্থ বর্ষের ছাত্রী হিসেবে স্নাতক শিক্ষাকার্যক্রম (২০১৬-২০১৭) সেশনে অধ্যয়নরত আছি। বিএইচপিআই থেকে অকুপেশনাল থেরাপি বি.এস.সি শিক্ষাকার্যক্রমটি সম্পন্ন করার জন্য একটি গবেষণা প্রকল্প পরিচালনা করা বাধ্যতামূলক। এই গবেষণা প্রকল্পটি অকুপেশনাল থেরাপি বিভাগের এস। কে মনিরজ্জামান, এসোসিয়েট প্রফেসর এর তত্ত্বাবধায়নে সম্পন্ন করা হবে। এই গবেষণাটির উদ্দেশ্য হলো টেলি – রিহাব পরিসেবা সম্পর্কে অটিজম শিশুর পিতামাতার অভিজ্ঞতা জানা। আমি আপনাকে এই গবেষণায় অংশগ্রহণের জন্য আমন্ত্রণ জানাচ্ছি, আপনার মূল্যবান অংশগ্রহণ এই গবেষণা প্রকল্পকে জোরদার করবে। গবেষণার সমস্ত বিস্তারিত এই তথ্যপত্রে দেওয়া আছে, আপনার যদি তথ্যপত্রটি পড়ে কোন বিষয়বস্তু বুঝতে সমস্যা হয় অথবা যদি কোন কিছু সম্পর্কে আরো বেশি জানার প্রয়োজন হয়, তবে নির্দিধায় প্রশ্ন করতে পারেন।

**গবেষনার প্রেক্ষাপট ও উদ্দেশ্য:**

এই গবেষণাটি অটিজম পিতামাতাদের নিয়ে করা হবে। এই গবেষণাটির উদ্দেশ্য হলো টেলি – রিহাব পরিসেবা সম্পর্কে অটিজম শিশুর পিতামাতার অভিজ্ঞতা জানা। আমি বিষয় সম্পর্কে জানতে বেশি আগ্রহী, কারণ বাংলাদেশে এই বিষয় নিয়ে কোন গবেষণা হয়নি। আপনার স্বেচ্ছায় অংশগ্রহণের এবং আপনার দেওয়া তথ্যের মাধ্যমে আপনার জীবনযাত্রার মান প্রকাশ করতে সুবিধা হবে।

### এই গবেষণা কর্মটিতে অংশগ্রহণের সাথে সম্পৃক্ত বিষয়সমূহ কি সে সম্পর্কে জানা যাক:

আপনার থেকে অনুমতি পত্রে স্বাক্ষর নেবার আগে এই অংশগ্রহণকারী তথ্যপত্রের মাধ্যমে গবেষণা প্রকল্পটির পরিচালনা করার তথ্য সমূহ বিস্তারিত ভাবে আপনার কাছে উপস্থাপন করা হবে। আপনি যদি এই গবেষণায় অংশগ্রহণ করতে চান হলে সম্মতিপত্র আপনাকে স্বাক্ষর করতে হবে, আপনি অংশগ্রহণ নিশ্চিত করলে আপনার সংরক্ষণের জন্য সম্মতিপত্রটির একটি অনুলিপি দিয়ে দেওয়া হবে। পরবর্তীতে গবেষক কর্তৃক গঠিত তথ্য-উপাত্ত সংগ্রহের একটি দলের প্রতিনিধি আপনার কাছে যাবে। আপনার থেকে চেয়ে নেওয়া যে কোন একটি নির্দিষ্ট সময়ে একটি প্রশ্ন পত্রের মাধ্যমে তথ্য সংগ্রহ করা হবে। যদি আপনি সম্মতি প্রদান না করেন তবে আপনাকে অংশগ্রহণ করতে হবে না। আপনি সম্মতি প্রদান করা সত্ত্বেও যেকোনো সময় গবেষককে কোন ব্যাখ্যা প্রদান করা ছাড়াই নিজের অংশগ্রহণ প্রত্যাহার করতে পারবেন।

### অংশগ্রহণের সুবিধা ও ঝুঁকিসমূহ:

এই গবেষণায় অংশগ্রহণের জন্য কোন বাহ্যিক চাপ এবং পারিশ্রমিক নেই। আপনার কোন ঝুঁকি থাকবে না এবং প্রশ্নের উত্তর দেবার সময় আপনি কোন প্রকার শারীরিক বা মানসিক ক্ষতির সম্মুখীন হবেন না।

### তথ্যের গোপনীয়তা :

এই সম্মতিপত্রে স্বাক্ষর করার মধ্য দিয়ে, আপনি এই গবেষণা প্রকল্পে জড়িত গবেষণা কর্মীকে আপনার □□□□□□□□□□ তথ্য সংগ্রহ ও ব্যবহার করার অনুমতি দিয়েছেন। যেমন- নাম, বয়স, লিঙ্গ, বৈবাহিক আবস্থা, আয়, মোবাইল নাম্বার ইত্যাদি। এই গবেষণা প্রকল্পের জন্য সংগৃহীত যেকোনো তথ্য, যা আপনাকে শনাক্ত করতে পারবে তা গোপনীয় থাকবে। আপনার সম্পর্কে সংগৃহীত তথ্য সাংকেতিক ভাবে উল্লেখ করা হবে। শুধুমাত্র সংশ্লিষ্ট গবেষক এবং সুপারভাইজার সরাসরি এই তথ্যের ভিতরে ঢুকতে এবং চিহ্নিত করতে সক্ষম হবেন। সাংকেতিক উপায়ে চিহ্নিত ডেটা পরবর্তী ডেটা বিশ্লেষণের জন্য ব্যবহার করা হবে। তথ্য পত্র একটি তালাযুক্ত বন্ধ স্থানে রাখা হবে। তথ্যের ইলেকট্রনিক সংস্করণ বিএইচপিআই-এর অকুপেশনাল থেরাপি বিভাগ এবং গবেষকের ব্যক্তিগত ল্যাপটপে সংরক্ষণ করা হবে। যে কোনো প্রকাশনা এবং উপস্থাপনায়, তথ্য এমনভাবে প্রদান করা হবে যাতে আপনার তথ্য গোপন থাকবে।

### এই গবেষণা সম্পর্কে জানতে কোথায় যোগাযোগ করতে হবে?

গবেষণা প্রকল্প টি বিষয়ে যোগাযোগ করতে চাইলে অথবা গবেষণা প্রকল্প টি সম্পর্কে কোন প্রশ্ন থাকলে এখন অথবা পরবর্তীতে যেকোনো সময়ে তা জিজ্ঞাসা করা যাবে, সেক্ষেত্রে আপনি গবেষকের সাথে উল্লেখিত নাম্বারে ০১৬১৫২৮৫১৯৮ (আরিফা আক্তার) যোগাযোগ করতে পারেন। এই গবেষণা প্রকল্প টি বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট, সাভারের প্রাতিষ্ঠানিক নৈতিকতা পরিষদ থেকে (সিআরপি-বিএইচপিআই/আইআরবি) পর্যালোচিত ও অনুমোদিত হয়েছে।



অংশগ্রহণ থেকে প্রত্যাহার সম্পর্কে তথ্য:

আপনার সম্মতি সত্ত্বে, আপনি ডেটা বিশ্লেষণের আগে আপনার অংশগ্রহণ প্রত্যাহার করতে পারেন। তবে আমরা আপনাকে কারণ জানানোর জন্য উৎসাহিত করছি। কিন্তু যদি আপনি জানাতে না চান, প্রত্যাহার পত্রে এটি উল্লেখ করবেন।

|                       |        |
|-----------------------|--------|
| অংশগ্রহণকারীর নামঃ    | তারিখঃ |
| অংশগ্রহণকারীর সাক্ষরঃ | তারিখঃ |

## অংশগ্রহণকারীর প্রত্যাহারপত্র

(শুধুমাত্র স্বেচ্ছায় প্রত্যাহারের জন্য প্রযোজ্য)

অংশগ্রহণকারীর নাম.....

প্রত্যাহার করার কারণঃ

.....

.....

.....

.....

.....

.....

.....

.....

পূর্ববর্তী তথ্য ব্যবহারের অনুমতি থাকবে কিনা?

হ্যাঁ অথবা না

|                       |        |
|-----------------------|--------|
| অংশগ্রহণকারীর সাক্ষরঃ | তারিখঃ |
|-----------------------|--------|



