

**SCHOOL-BASED OCCUPATIONAL THERAPY SERVICE (OT)
FOR CHILDREN WITH AUTISM (CWA) IN DHAKA:
MOTHERS' PERSPECTIVE**

By

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Statement of Authorship

Except where reference 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 diploma or seminar.

No others 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 or diploma 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, it will be duly acknowledged as undergraduate thesis.

Signature: _____ Date: _____

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Dedication

My Beloved Parents and My Spouse Who Always Inspired Me

Acknowledgement

At first I would like to show my appreciation to almighty Allah who has given me the ability to complete this study. I would like to express my special thanks to my parents and my spouse who always inspired me to complete my studies successfully, and also want to see me succeed at every step.

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Abstract

The research question is ‘What is the mothers’ perception regarding school-based Occupational Therapy service for Children with Autism in Dhaka?’ The aim of the study is to explore mothers’ experience regarding school-based OT service for Children with Autism (CWA) in Dhaka. The objectives are to find out the nature or types of OT services in school for CWA, to identify mothers’ opinion about the importance of existing OT services for their child, to know the changes (improvement or no improvement) of the child after receiving school-based OT service, and to find out the possible ways of emphasizing OT services at specialized schools. This is a qualitative research and the study design is Qualitative Content Analysis (QCA). In this study 9 participants were selected by purposive sampling and using semi-structure face to face interview for data collection. The participants of this study were selected from the Autistic Children’s Welfare Foundation, Bangladesh (ACWFB), Autism Welfare Foundation (AWF), and Society for the Welfare of Autistic Children (SWAC). From this study we knew that the mothers of CWA have good idea about OT services. They think school based OT is important because day by day their children are improving after receiving this service. Participants also think that OT plays a significant role to guide their child’s behavior and the functional activities in school settings. The recommendation of mother will be helpful for improving the quality of OT service delivery in special school. So beside clinical side in special school environment the Occupational Therapist plays an important role with Multidisciplinary Team (MDT) and is improving the function of CWA.

Keywords: Children with Autism, School-based Occupational Therapy.

List of Abbreviations

CWA- Children with Autism

ASD- Autism Spectrum Disorder

OT- Occupational Therapy

SLT- Speech and Language Therapy

ACWFB- Autistic Children's Welfare Foundation, Bangladesh

AWF- Autism Welfare Foundation

SWAC- Society for the Welfare of Autistic Children

QCA- Qualitative Content Analysis

CAOT- Canadian Association of Occupational Therapists

DSM- The Diagnostic and Statistical Manual of Mental Disorders the International

ICD- The International classification of Diseases

PDD-NOS- Pervasive Developmental Disorder- not otherwise specified

ADL- Activities of Daily Living

SI- Sensory Integration

IP- Individual Program

MDT- Multi Disciplinary Team

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1.1. Introduction

Bangladesh is a developing country with a large population. In 2010, the Bangladesh Bureau ran a 'Household Income Expenditure Survey' to identify the total number of persons with a disability. According to this report the number of persons with a disability in Bangladesh is 9.07% of the total population (Male: Female ratio – 8.13%: 10.00%). In rural areas, the number of persons with disability is 9.63% and in urban areas the number of person with disability is 7.49% (Jatio Protibondhi Unnoyon Foundation). According to the government, there are 1.5 lac victims of Autism in Bangladesh (Kobir 2013). And according to Statistics by Country for Autism 2010, in Bangladesh approximately 280,000 people have autism and its prevalence rate is 1 in 500 (This prevalence extrapolations for Autism is only estimates, based on applying the prevalence rates from the US (or a similar country) to the population of other countries).

Every person is unique. Their capability, perception and intellectual ability are different from each other. A family becomes happy when they raise children. Day by day the child grows up with supervision of family members. Family wants their child to lead a normal and healthy life. They also want their child to be a doctor, an engineer, teacher, an artist or service holder. But in most cases when the child reaches 12-36 months of age, some parents notice a change in their child's behavior. Some children evidence problem from birth. The child never used communicative gesture, eye contact becomes rare and they no longer turned in response to their mother called (Shangraw 2012, P.24). Because of this day by day the child has decreased responsiveness. The child is unable to express his/her needs and wants. So it is very difficult to engage the child in activities of daily living. The child may not easily tolerate the sensation of clothes against his/her skin. Parents become worried about their child. During this time after consulting with a doctor or specialist, parents are informed that their child has symptoms of Autism Specterm Disorders and day by day it is increased.

Autistic disorder is diagnosed when severe challenges occur in each area of social, language and behavioral characteristics. Though the exact cause of the disorder is unknown, autism is of neurobiologic origin. ‘Undetermined abnormalities in the structure and function of a child’s brain cause the atypical behaviors seen in autism’ (Shangraw 2012, P.24-30).

The term autism was not so familiar among the people of Bangladesh few years ago. People had no idea about the therapeutic intervention of autism. Recently in Bangladesh people have come to know about autism. Moreover the government of Bangladesh is giving additional focus on CWA and their proper intervention. Nowadays there are some special schools for CWA. But most of the schools run their program in Dhaka. Special education can help children to grow up and learn new skills. The goal of this intensive education is to improve the child's skills that help him or her to talk, interacts, play, learn, and care for themselves (Nazmul 2012, pers.comm. 15th May). Therapeutic intervention is most effective for CWA. ‘Occupational therapy practitioners are among the professionals who design and provide intervention services to people with ASD and their families’ (Case-Smith and Arbesman 2008, P.416). So this special education, early and appropriate intervention and care help the child to lead normal life as much as possible. Therefore the school authority takes attempt to run all the needed services for CWA. Special schools provide the following services:

- Occupational therapists
- Speech therapists
- School psychologists
- Social workers
- School nurses (Farhana 2012, pers.comm. 10th May).

Occupational Therapy practitioners use family-centered approaches. Family members also play a part in the intervention. Parents need information about their child and the diagnosis. They ask for strategies to improve their child’s performance or manage difficult behaviors (Case-Smith and Arbesman 2008, P.423).

1.2. Background of the study

Autism is a challenging childhood developmental disability. The CWA has antisocial behavior, communication challenges, and inability to express emotion. “Autism Spectrum Disorder (ASD) is a class of developmental disabilities which cause severe impairments to a child’s communication, their social interactions, and in their play and behavior. This disorder presents itself differently in each child with respect to severity and symptoms. ASD encompasses the following disorders: autism, Asperger’s Disorder, and Pervasive Developmental Disorder – Not Otherwise Specified. Other related disorders include: Rett’s Syndrome and Childhood Disintegrative Disorder” (Law 2006).

Like the other countries of the world the number of children diagnosed with Autism is increasing day by day in Bangladesh. So if we do not attempt to manage this disorder as early as possible it will be harm for our country. In Bangladesh there are approximately 20 special schools for children with disabilities. Most of the special schools are Dhaka based. Only 8-10 Occupational Therapist are providing services in special school. The children attending these schools receive services from OT and Speech and Language Therapy (SLT) mainly for intervention purpose with the school activities (Shakawat 2012, pers.comm. 25th May). So it will be very significant to know how the service is provided by these therapists. Since most of the activities of school for CWA are modeled up by OT evaluating this service can give an overall concept of services for CWA in these schools.

Parents play an important part during children’s Occupational Therapy. Large population studies show that in 94–98% of cases, mothers are the primary caregivers and persons most knowledgeable about the health and needs of a child with a disability (Taylor et al.2010). According to Kolenmainen et al. (2010, P.192-199) states “Evidence about parents’ views and expectations is important for improving the quality of service delivery from parents’ point of view. International studies suggest that parents’ satisfaction with services is associated with respectful and supportive care, professional’s competence, availability of the service, sharing of general information and family-centered service provision”.

CWA have occupational performance difficulties. It interferes with their full participation in school, home, and community activities. Occupational Therapists design and provide intervention services to people with ASD and their families. Parent education is an important component of Occupational Therapy intervention. Most parent education programs are designed (1) to improve their child's performance or (2) to manage their child's behavior and decrease maladaptive behaviors (Case-Smith and Arbesman 2008, P.416-429).

1.3. Significant of the study

This study aims to explore mothers' experience regarding School-based OT services for CWA in Dhaka. According to Kolenmainen et al. (2010, 192-199) states Parents' views and expectations are important for improving the quality of service delivery. For providing any information about children, Occupational Therapists consult with mothers. In most of the cases mothers of CWA are the primary care takers of their child (Nazmul 2012, pers.comm. 15th May). After completing the study the experience of mothers will be helpful for improving the quality of OT service delivery in special school and the school authorities will be more interested to have additional focus on this service for children's wellbeing.

If the other autism schools (that have no OT post) know the study result, they will be motivated to create OT post for the wellbeing of CWA in their school. Since the OT profession is new for our country, creating more posts of OT will be very significant for this profession. And if the school authority starts OT services in their school, CWA will be getting the opportunity to get OT service at their school setting which will be effective for them.

1.4. Aim of the study

To explore mothers' perception regarding school-based OT services for CWA in Dhaka.

1.5. Objectives

- ◆ To find out the nature or types of OT services in schools for CWA.
- ◆ To know the changes (improvement or no improvement) of the child after receiving school-based OT service according to mothers.
- ◆ To identify mothers' opinion about the importance of existing OT services for their child.
- ◆ To find out the possible ways of emphasizing OT service at specialized school from mothers' perspective.

“Autism is one of a group of neurodevelopmental disorders known as pervasive developmental disorders (PDD). These disorders are characterized by three core deficits: impaired communication, impaired reciprocal social interaction and restricted, repetitive and stereotyped patterns of behaviors or interest” (Faras et al.2010). It is a neurological disorder which causes developmental disability. Autism affects the way the brain functions. For that CWA face difficulties with communication and social interaction, and unusual patterns of behavior, activities and interests (CAOT Position Statement: Autism spectrum disorders and occupational therapy).

“In 1943, the American psychiatrist Leo Kanner used the term “early infantile autism” to describe children who lacked interest in other people. In 1944, an Austrian pediatrician, Hans Asperger, independently described another group of children with similar behaviors, but with milder severity and higher intellectual abilities. Since then, his name has become attached to a higher functioning form of autism, Asperger syndrome” (Faras et al.2010).

The Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-iv) and the International classification of Diseases, 10th edition (ICD-x), include Autistic Disorder, Asperger’s Syndrome, Pervasive Developmental Disorder- Not Otherwise Specified (PDD-NOS), Rett’s Syndrome and Childhood Disintegrative Disorder as Pervasive Developmental Disorders (Levy et al. 2009).

“Autism is both familial and heritable. The recurrence rate in siblings of an autistic child is 2% to 8%, which is higher than that of the general population. Twin studies showed that monozygotic twins have a higher concordance rate than dizygotic twins—90% and 10%, respectively. Various environmental factors have been explored as possible causative agents in autism. Epidemiological studies indicate that some environmental factors, including prenatal infections with rubella and cytomegalovirus, account for few cases of autism” (Faras et al.2010).

Autism Spectrum Disorders affect domains of socialization, communication and behavior. At the age of 3 years the clinical signs are usually present, but typical development might delay recognition of symptoms (Levy et al. 2009). Children with autism present with different symptom profiles. Some parents report that their children seemed “different” from birth. Other parents (perhaps as many as 50%) report many months of typical development followed by a worsening, usually between the child’s first and second birthday. “Children with autism nearly always, if not always, present with sensory problems such as high pain tolerance, auditory hypersensitivity, and tactile defensiveness (e.g., tags on shirts, sand, and even snuggles), and they may exhibit “sensory seeking behaviors” such as crashing, squeezing, spinning, and flapping” (Solomon and Chung 2012). Greenspan and Wieder (1997) estimated that 39% of children with ASD are underreactive to sensation, 20% are hypersensitive, and 36% show a mixed pattern of hypersensitivity and hyposensitivity (Case-Smith and Arbesman 2008,P.417).

According to Law 2006, ASD is characterized by four main categories: impairment in social interaction, impairment in verbal and nonverbal communication, restricted repetitive and stereotyped behaviors, interests and activities, and delays in development. Before the age of 3 years the delays or abnormal functioning must have been present. Difficulties in sensory processing, emotional regulation and motor development may also be demonstrated (DSM-IV). Children with ASD may show a variety of behaviors which affect their ability to participate in their activity of daily living. These behaviors may show themselves by the tendency to impose rigidity on daily activities, habits and patterns of play; preoccupations with interests; and motor and sensory problems such as rocking, spinning, sensitivity to food or clothing, or a strong attachment to an object .The characteristics of autism may change as a child grows older, however the difficulties in socialization, communication, and interests continue in adulthood (ICD-10).

The autism society of America identified characteristics of autism. If the person has more than 50% of these characteristics, the diagnosis of autism is likely to apply.

These characteristics are-

- Difficulty in mixing with other children
- Appears to be deaf

- Resists learning
- No fear of real life dangers
- Resists change in routine
- Indicated needs by gesture (leading adults by the hand, rather than pointing)
- Inappropriate laughing or giggling
- Marked physical over activity
- Avoids eye contact
- Inappropriate attachment to objects
- Spins objects
- Sustained odd play
- Unfriendly manner (Scott 2000,P.27-28)

Freeman published a list of four behavioral symptoms that characterize autism.

- Disturbance in the rate of appearance of physical and social skills.
- Abnormal responses to sensations. Any one of a combination of senses or responses is affected such as sight, hearing, touch, balance, reaction to pain, proprioceptive or kinesthetic.
- Delay or disturbance in speech, language and nonverbal communication.
- Abnormal ways of relating to people, objects and events in the environment.

(Scott 2000, P.27-28)

A diagnosis of autistic disorder is made when there are impairments in communication and reciprocal social interaction with the presence of restricted repetitive and stereotyped patterns of behaviors or interests, prior to the age of 3 years (Faras et al.2010).

Autistic disorder is about four times more prevalent in boys and does not seem influenced by racial or ethnic status and occurs across the socioeconomic spectrum with similar frequencies (Angly et al. 2007, P.742) .Sex differences- More males than females are diagnosed with autism, at a 3:1 ratio. Girls with autism also are more likely to have lower IQs than boys (Scott 2000, 26). “The number of children diagnosed with autism spectrum disorder (ASD) has increased in the past 10 years, and prevalence is currently estimated to be 1 in 150” (Centers for Disease Control and Prevention [CDC], 2007) (Case-Smith and Arbesman 2008,P.416).

According to **Michaud 2011**, in the title Occupational Therapy “Occupational” speaks to a focus on occupation. What occupy us every day are the activities we do and the roles will fill in our lives. This is a broad range that spans from our personal hygiene activities, to our work activities in our homes and at our jobs, to our play and social activities. When we complete these activities, depending on the setting, we fulfill roles in our lives-perhaps as member of a family, as a friend, as a student... Throughout our life span, we may face events that interrupt our ability to complete these activities and fulfill these roles.

“Occupational Therapy practitioners work with individuals with autism as well as parents, caregivers, educators, and other team members in a variety of settings, including the home, school, clinic, and community to assist the individual with ASD to engage in meaningful occupations” (Watling et al.2005, page-680).

The process of Occupational Therapy service delivery for individuals with ASD includes evaluation, intervention, and assessment of outcomes (Watling et al.2005, page-681).Occupational Therapy services are client-center and focus on the individual’s and family’s needs goals, values and priorities. When working with children with ASD, Occupational Therapists look at the interaction of the child/youth within their environment which includes the family, school system, community programs, and other health professionals. (CAOT Position Statement: Autism spectrum disorders and occupational therapy).Occupational therapy is a health profession that is directed toward enabling people to participate in daily occupations, including taking care of oneself (e.g., dressing, bathing), contributing to society (e.g., paid and unpaid work, school) and enjoying life (e.g., hobbies, sports) (Law 2006).Occupational therapists must select interventions that: (i) focus on occupational performance and participation, (ii) are theoretically and scientifically sound, and (iii) are wherever possible evidence-informed (Rodger et al.2010).

According to Rodger (2010), Occupational Therapists know about children’s occupations and their development especially in the areas of play, self-care, productivity and the importance of transitions between these occupations in light of families’ daily routines. They are experts in understanding the impact of the

environment on children's occupational performance as well as how to modify, adapt, alter and adjust the environment to support the child's functioning to optimize participation in meaningful life roles and naturalistic contexts.

The goal of Occupational Therapy interventions is to enable individuals to participate in everyday occupations. This may be achieved through a range of therapy approaches such as modification of tasks and/or the environment to match individuals' abilities, developing skills such as posture and coordination, or development of daily routines to facilitate adaptive behaviors. Occupational Therapists work with children in their natural settings; in the home with their families, in the school and in the community. Research suggests that the behaviors of children/youth with ASD have a significant impact on family roles and activities. Interventions are important resources for parents, however parents face challenges gaining access to appropriate services, including finding professionals in the community which can provide the services, and knowing what kind of intervention is best for their child and family. Health professionals must develop supports for families to enable them to participate in satisfying shared occupations, to ensure the well-being of family. There is a need for more research and evidence to support best approaches to enhancing the participation of children with autism in the occupations of daily life (Law 2006).

“Autism cannot be cured. For those with autism, intervention that targets behavioral, language cognitive, social adaptive and sensory concerns is available. Though these individuals often improve their skills as a result of intervention, they usually struggle with the challenges of their disorder throughout their lives” (Shangraw 2012, P.24).

“Occupational Therapists are expected to support the child, family and school where appropriate during this time. Occupational Therapists work with children across all stages of school life. Collaboration among professionals, and between professionals and families, is an important feature of school based therapy practice. Collaboration between families and professionals enables children and families to make the best possible use of resources to meet their needs” (Prigg 2002, 100-111).

Going to school is one of life's major events- Usually the first formal, extended separation from home life for young children. Going to school and being at school

require children to adopt multiple roles that enable them to survive ‘fit in’ and enjoy a significant part of their lives that lasts for more than a decade.

As learners children engage in formal and informal learning at school. Referrals to Occupational Therapy may occur when parents and teachers recognize that children are having difficulty with their ability to engage role of learner. In this case Occupational Therapy evaluation and intervention investigate by interfering with the child’s ability to successfully engage in the role of learner. Occupational Therapists who work with children who go to school should be familiar with the expectation of learners at each level of the curriculum and plan their therapy activities according to the role behavior expected. Central to Occupational therapy assessment and intervention is a focus on self care areas of school performance. Teacher, therapist and parents are committed to developing children proficiency in self care skills such as dressing, eating, toileting and personal hygiene. Children have described specific types of self care activities that they perceive to be important for school life including healthy food, drinking, going to the toilet, washing hands, tying shoe laces, taking care of belongings and tidying desks (Chapparo 2012,P.84-88)

In the school setting, a student’s occupational performance may be impaired by sensory, developmental, attention and/or learning challenges. Occupational Therapists may adapt classroom tasks and the school environment to promote a child’s participation. Occupational therapists can also assist teaching assistants and teachers with understanding the impact of sensory processing difficulties on daily functioning and how they can modify activities to maximize the child's participation and reduce behavioral difficulties. Environmental supports and structures can improve quality of life as some children with autism find changes to routines or unstructured time difficult (CAOT Position Statement: Autism spectrum disorders and occupational therapy).

“The Individuals with Disabilities Education Act (IDEA) also includes autism as a disability category under which children might be eligible for special education and related services. Under IDEA, occupational therapy is a related service, and must be provided to students with autism if those services will help the student to benefit from special education” (Watling et al.2005, page-680).

In Bangladesh there are only a few Occupational Therapists providing services in special schools. Occupational Therapists assess the child's problems; address the needs of the students with the help of family, school teacher and other school staff. They run various types of intervention and training programs such as- individual therapy sessions, group therapy sessions, providing sensory integration therapy, social skills training, daily living skills training, classroom modification, parent education etc. In Bangladesh, Autistic Welfare Foundation (AWF), Beautiful Mind, Autistic Children's Welfare Foundation, Bangladesh (ACWFB), Caring Glory, Kalyani, School for Gifted Children and Society for Welfare of Autistic Children (SWAC) etc. are work for CWA.

'Autism welfare foundation was established on April 4, 2004. It is non-profitable, non-government, voluntary welfare organization aiming to train and educate the autistic children to perform their maximum strengths and interests and making them able to support themselves. AWF is dedicated to increase public awareness about autism. The training and education centre of AWF provides intensive training and education for autistic children and adults. This training and education centre emphasizes a highly structured program where the teacher and student ratio is 1:1. This program also gives emphasis on social, communication, behavioral and functional skills. The foundation also runs a vocational training center for students above 10 years of age. Other activities like secretarial job, work in cafeteria, gardening etc are also performed by them. In this school Teachers, Psychologist and Occupational Therapists are providing service for CWA' (Autism Welfare Foundation 2012).

'The Society for the Welfare of Autistic Children (SWAC) was formed on February 3, 2000 by a group of very enthusiastic and devoted parents of children with autism. The aim of SWAC is educating and training children with autism to develop to their fullest potential. SWAC is a non-profit, non-government, non-political and voluntary organization. It is registered with the Social Welfare Department under Societies Act of the Government of the Peoples Republic of Bangladesh. Registration number is Dha-06127 dated 30.04. 2001' (Society for the Welfare of Autistic children).

‘The ACWFB Founded in 2007 is a nonprofit and non political voluntary organization run by parents of autistic children and dedicated and experienced professionals. The Foundation’s monogram symbolizes an autistic child being supported by humanity whose three main disabilities with communication, socialization and behavioral aspect expressed by a triangle obstructing the normal life indicated by the sun light placed at the background. In this school multi-disciplinary team professionals are providing their service for autism child’ (Autistic children Welfare foundation 2011).

This part outlines the method of the study design chosen by the researcher to meet the study aim and objectives. The aim is to explore mothers' perception regarding school-based OT service for CWA in Dhaka. This method was approved from Bangladesh Health Professions Institute.

3.1. Study design: Qualitative study (Qualitative content analysis).

This study explored mothers' perceptions regarding school-based OT services for CWA. Data was collected on types or natures of OT services, importance of existing OT service, child's improvement, and recommendation from mothers' point of view. According to Hammell, Carpenter & Dyck (2000) - "Qualitative research aims to describe the experiences of people in particular setting and to understand their perspectives".

3.2. Study site: Autism school (Dhaka based).

The names of the schools are –

- Autistic Children Welfare Foundation (ACWFB)
- Society for the Welfare of Autistic Children (SWAC)
- Autism Welfare Foundation (AWF)

3.3. Participation selection

Three Autism schools were selected for this study conveniently. Then participants' were selected purposively. Purposive sampling is based on pre-defined criteria. According to Devers & Frankel (2000) – "Qualitative research most often uses purposive sampling rather than random sampling strategies. Purposive sampling strategies are designed to enhance understandings of selected individuals or groups' experience(s) or for developing theories and concepts". So selected participants met the inclusion criteria outlined below.

3.4. Number of participants

9 participants were used as sample for this study.

In qualitative methodology small numbers of prospective participants are suitable. This small number of participants provides a representative image of nonparticipants' population of Dhaka based Autism school (Depoy and Gitlin ,1998 P.182-183).

3.5. Inclusion criteria

Participants of this study were selected according to following criteria:

- Mothers' of CWA, who has understanding about school-based OT service.
- Mothers' who maintain regular contact with Occupational Therapist as schedule.
- Mothers' of children whose age range is (5-12)
- Mothers', who received OT service for their child at least 10 months.

3.6. Data collection tools and materials

- Semi-structure questionnaire
- Paper
- Pen
- Consent form
- Recorder (MP-3)

A semi structured questionnaire was developed before collecting data. A literature review was also conducted before data collection. Questions were developed according to study aim and objectives. Interviews were conducted in Bengali. Semi-structured questionnaire were used for interviews to collect in-depth information from the participants. Bengali consent form and information sheet were used. As a result the participants can express their feelings comfortably and accurately. Observation techniques were used to notice the facial expression of the participants. An audio-recorder was used during each interview from which a written transcription was made.

3.7. Data collection procedure

Before collecting data, permission was granted from the principals of AWF, ACWF and SWAC. The participants were selected according to inclusion criteria and were then given a date and time for the interview. Before collecting data an introductory period was kept with the participants to build up rapport. The interview sessions were conducted at a quiet and calm environment. For that the participants were felt comfortable during the interview. Bengali information sheets and consent forms were provided to the participants and they signed them from the participants [see appendix-2-3]. Data collected through face-to-face interviews by using semi-structured questionnaires [see appendix-1]. A semi-structured format was chosen to encourage parents to reflect freely on their experiences while providing specific prompts regarding the topic. Approximately 4 weeks were needed for collecting data from 12 participants including field tests. A face-to-face interview gave a better opportunity to build good rapport with the participants and easily collect in-depth information from the participants. During the interview, the researcher asked different types of questions related to the participant's point of view (Bailey 1997, P.96). After collecting descriptive data from the participant's view, it was analyzed systematically.

3.8. Ethical Consideration

Ethical considerations of this study include:

- Permission was obtained from Bangladesh Health Professions Institute (an academic institute of CRP) to conduct this study [see appendix-8].
- Permission was obtained from ACWF, AWF and SWAC authority for study participants [see appendix 9-14].
- All participants were informed about the aim and objective of the study.
- Consent from every participant with signature on a written consent form and informed that all information provided will be kept confidential and information will be published, but without exposing their identity.
- Participants have full right to withdraw themselves from the study at any time without hesitation.

- Interviews were conducted from participants' on their free time. By this it was ensured that the school and participants are not hampering by this study.
- Confidentiality of school services were highly maintained throughout the study.

3.9. Field test

A field test was completed with three participants before starting final data collection. This field test helped to find out the difficulties in the questionnaires, which were than modified so the participants could understand the questions properly and appropriate data was collected. During the interview, participants were informed about the aim and objectives of the study. Interviews took 10-15 minutes on average.

3.10. Data analysis process and reporting

Qualitative Content Analysis was used to analyze the data of the “mothers’ perception regarding school-based Occupational Therapy service for Children with Autism in Dhaka” that was obtain during interview. The data analysis of this study started with the transcription of interviews. In the first steps transcription was formulated; it was given to 2 individuals who are competent in English to translate the data from Bangle to English. After that the data was verified and also read it several times to recognize what the participant wanted to say in the interview. At this time MP3 recorder was listened to ensure the validity of data. After familiar with the data, then the data analysis was proceeded.

After finishing the data transcription and translation, the accuracy of data was confirmed. Data analysis starts with reading all data repeatedly and data was read word by word to derive the code. Then each participant’s answer was analyzed to find out some major categories. Under those major categories some coding has established. Each coding was separated from other coding. The themes then came from categories and coding. The analysis of data is according to three steps: Coding, categorizing and generating themes.

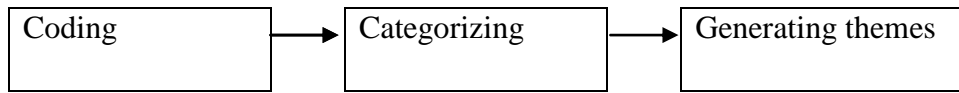


Fig: Steps of data analysis

3.11. Rigor of the Study

To reduce the sources of error and biasness of the study, this study was conducted in a systemic way by following the steps of research under the supervision of an experienced supervisor. During the interview and analyzing the data the researcher never tried to influence the process by her own value, perspectives and biases. The answers of the questions were accepted whether they give a positive or negative impression. The transcripts were translated by other people to avoid biasness and checked it several time to reduce any mistake and compared it with the Bangle transcript. All the participant's information and documents were kept confidential.

4.1. Summary of data analysis and result:

Objectives	Question no.	Category	Theme
1. To find out the nature or types of OT services in schools for CWA.	1,2	1. Understanding about Occupational Therapy services or training.	1. Over all the mothers' have a good understanding about occupational therapy service or training.
2. To know the changes (improvement or no improvement) of the child after receiving school-based OT service according to mothers.	3,4,5	2. a)Problems of children with autism. b)Changes (improvement) after receiving OT services. c)Non improvement area.	Most of the mothers' feel their CWA has changing day by day after receiving school based OT service or intervention.
3. To identify mothers' opinion about the importance of existing OT services for their child.	6	3. Importance of OT.	Mothers' feel that school based OT is important for their child's improvement.
4. To find out the possible ways of emphasizing OT service at specialized school from mothers' perspective.	7	4.Recommendation from mothers	4. Most of the Mothers' recommended for maintaining the ratio of CWA and therapist and increase the space to set up more OT activities.

Table: Summary of data analysis and result

The mothers of CWA are the participants of this research. Selected mothers' child was about 5-10 years old. There are 9 participants selected, they are three from ACWF, three from AWF, three from SWAC. Most participants completed their graduation, seven of them are housewife, one is a Professor and one is a student. Their children have been taking OT services from these schools for 1-3 years [see appendix-4]. Occupational Therapists have maintained regular contact with the mothers and provide an IP plan for 4-6 months for each individual child. They took mother's decision during IP plan [see appendix-6]. Most of the mothers' knew about OT service after admission of their child. All participants said their child receives OT services regularly either individual or group, depending on the child's need [see appendix-7].

4.2. Themes of the study

Theme -1: Overall the mothers' have a good understanding about occupational therapy service or training.

Theme -2: Most of the mothers' feel their CWA has changing day by day after receiving school based OT service or intervention.

Theme -3: Most of the mothers thought still now their child has problem in speech.

Theme-4: Mothers' feel that school based OT is important for their child's improvement.

Theme -5: Most of the Mothers' recommended for maintaining the ratio of CWA and therapist and increase the space to set up more OT activities.

4.3. Discussion

The findings and discussion have been presented together with necessary literature support. Because Stephenson and Wilies (2000, P.61) states this is common practice in reporting on qualitative studies. All interviews and transcripts were read several times to ensure accurate and precise thematic analysis. In the result and discussion part it was possible to recognize the mothers' opinion by content analysis with some categories. Under the different categories the codes are indicate different opinions of the mothers'. Here 'P' was used for participant. The tick was given only for those columns where the mothers spoke about those issues.

4.3.1 Understanding about Occupational Therapy services or training

Codes	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉
Group therapy	✓			✓	✓	✓	✓		✓
Individual therapy	✓			✓	✓	✓	✓		
Mouth massage for speech or speech therapy	✓					✓			
Sensory therapy	✓		✓	✓	✓	✓	✓		✓
Ball therapy		✓							
Massage therapy		✓	✓		✓			✓	✓
Fine motor activity			✓					✓	✓
Pressure on joint or deep pressure			✓		✓				
Social skills				✓					
Self care or functional work	✓	✓	✓	✓	✓	✓		✓	✓
Trampoline					✓				
Vestibular or balancing work					✓			✓	
Gross motor activity								✓	
Velcro board activity								✓	

Table-1: Understanding about Occupational Therapy services or training

Every participant shared their experience about the OT service their child receives from these schools. To explain about the OT services most of the participants informed about group therapy, individual therapy, sensory therapy, massage therapy and self care activities. CWA has various problems which decrease their performance at school and home Occupational Therapists were provided OT service according to child's problem. They need special training to be independent in functional work as well as ADLs. So this school based OT services or training help to improve their ability to perform tasks with greater independence. Mothers' also share about the responsible OT services which are bringing change in child. Maximum participant said their child receives OT services in groups and individual. One participant said-

“Since last 3 years my child is receiving group therapy, individual therapy, mouth massage for speech, and sensory therapy”.

“Although provision of some calming (e.g. deep touch or pressure) or alerting sensory input (e.g. jumping on a trampoline or scooter boarding into pillows) may have a short-term impact on behavior or task engagement, to date there is little evidence to support interventions that claim to have a long-term impact on the way that the nervous system processes sensory stimuli” (Rodger et al.2010).

Most of the mothers said their child gets sensory therapy, massage therapy. Some of them mentioned oral massage, ball therapy, and fine motor activity; massage on hand, pressure on joint or deep pressure, trampoline, vestibular or balancing work, gross motor activity, velcroboard activities. Another participant said-

“Exactly I do not know what the terms are. But I understand by work. These are balancing work, fine motor activity, gross motor activity, Velcro board activity. My child has problem in toilet sitting. So they work regarding this problem”.

Most of the mothers said about functional activities like dressing, toileting, brushing, and writing. Few of participants told about combing, using dustbin, wearing shoes and eating. One participant mentioned-

“Yes, dressing, undressing, buttoning practice, Zippering, Unzippering, brushing teeth etc are all done with him”.

“When providing services to the Client with ASD, occupational therapy practitioners routinely include intervention in the areas of attention, behavior, social skills, sensory processing, motor function, play, and self-care skills” (Watling et al.2005, page-681).

Only one mother told about social skills training. One participant stated-

“Umm... my child has been staying here for 3 and ½ years. He has gotten individual therapy, group therapy, social skills, toilet training, dressing and therapies for sensory problem”.

“Our finding that caregivers listed Behavioral Therapy, Social Skills Training, Autism Specialty Clinics, Diagnostic Services, and Sensory or Auditory Integration as both

high in need and low in availability, suggest that they are likely to seek such services” (Rhoades 2007).

Most of the participant knows about the OT services and therapeutic activities. But they should have more clear knowledge about the purposes of these activities. Guardians should be informed about the involvement of child into the functional work through activity analysis by Occupational therapists.

General theme: Overall the mothers’ have a good understanding about occupational therapy service or training.

4.3.2 Problems of children with autism

Codes	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉
Could not talk properly	✓		✓	✓			✓		
Restless and aggression	✓	✓			✓	✓	✓		✓
Do not want to listen anyone and no interest to do anything		✓							
Problem in attention			✓					✓	✓
Problem in sensory integration			✓	✓				✓	✓
Problem in fine motor and gross motor			✓	✓					✓
Eat all time				✓					✓
Social skill Problem								✓	✓

Table-2: Problems of children with autism

They also have told the problems which are experienced their Childs. Four of the participants have told their child faces difficulties during talking, they are restless, aggressive and also have sensory integration problem. One participant said-

“My child was so restless. Once a time he was aggressive and as a result of restlessness he raised chaos”.

According to Case-Smith and Arbesman 2008, “Children with ASD have a range of occupational and performance problems that interfere with their full participation in school, home, and community activities. Predominant characteristics of autism that are often the focus of intervention include limited social interaction delayed or deficit language behavioral problems and sensory-processing difficulties”

One of the participants said her child would not like to listen and perform anything. 3 of mothers said their children have attention problem. Some of the children have problems in fine motor, gross motor and social skills.

4.3.3. a. Changes (improvement) after receiving OT services

Codes	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉
Speech has coming	✓								✓
Respond regarding call			✓			✓			
Follow instruction			✓						
Self care				✓	✓	✓		✓	✓
Increase attention					✓				
Increase communication					✓				
Change of behavior			✓		✓	✓	✓	✓	
Improve in Fine motor and gross motor			✓	✓				✓	✓
Able in upstairs fearlessly									✓

Table -3: Changes (improvement) after receiving OT services

Participants said about the changes of their child after taking OT services. Two participants said their children have changed in speech. Two participants said, their child can use pencil, , decrease restless and also improve fine motor and gross motor. One participant said-

“Ofcourse it is important. At before he did not want to hold pencil, write, read. Since to provide the OT service he wants to do everything like writing 1, 2..., coloring, and reading continuously”.

Two of the participant said, their children have changed in ADL's like dressing, toileting, brushing and eating. One of the participant said now child would like to stay at school, decrease crying, increase communication, can climb up stairs. One participant mentioned-

“Yes, such as he cannot write, he cannot grip the pen. Now he can grip the pen properly. He could not bite or chew. Now he eats nicely by biting and chewing. He try to use hand during eat”.

“The efficacy of parent training is that parents are with their children for a large portion of the day and can create a consistent home environment for learning. In addition, parents often desire to be extensively involved in their children’s interventions. When negative behaviors are present, parents often request help in managing problem behaviors with the goal of improving family functioning” (Case-smith et al.2008)

One participant mentioned- *“various vestibular ball, treadmill, trampoline and lots of thing that is helping my child to be quite”.*

The mothers can notice their child’s changed. Among nine of the participant almost eight participants said, their child has changed.

General theme: Most of the mothers’ feel their child is changing day by day after receiving school based OT service or intervention.

4.3.3. b. Non improvement area

Codes	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉
Speech and communication problem	✓		✓	✓	✓			✓	
Improve slowly						✓			
Stay alone							✓		
Not improve		✓							

Table-4: Non improvement area

Participants also told the areas where no changes are occurring. Among the 9 participants, five has told child has problem in speech. One participant mentioned-

“In case of all activity there is some change. But in case of speech there is no change”.

General theme: Most of the mother thought still now their child has problem in speech.

4.3.4 Importance of OT

Codes	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉
Oral therapy and Increase speaking	✓					✓			
Child become quite by doing therapeutic activity	✓	✓	✓	✓					
Literature shows the importance		✓	✓						
Treatment of Sensory Integration		✓							
Able in read, write and daily work			✓		✓				
Understand about child’s problem				✓					
Increase attention and control attitude				✓	✓	✓	✓		

Table-5: Importance of OT

Mother told about the importance of OT services for their Childs. Three of them told it controls child’s behaviour. Two of them think it helps child’s speech, increase their attention and they can perform activity. One participant said-

“Of course it is very important. It is help to increase attention. Those children has inattentive attitude, OT is very important for them”.

One participant stated- *“it is mainly, with the help of the therapy autistic children are taught to achieve daily work skills step by step easily. Now by practicing daily, regularly, again and again, the works are getting easy”.*

By introducing training of ADL's and by practicing these things, engagement in daily living behavior is increased and inappropriate behavior is decreased. Consequently they can achieve some skills to perform in daily living activities (Pierce et al.1994)

Mothers' think OT is for SI treatment and irritable treatment. It helps their child's reading and writing and also helpful for identifying child's problem. Two of them said they have seen literature. So they think it is important.

One participant mentioned-*"because analysis shows that every sector there is need of OT. As they have sensory problem and they are irritable. So they cannot ok without OT"*.

According to Case-Smith and Arbesman 2008, "Occupational therapists frequently focus on sensory-processing problems in children with ASD. Although occupational therapists clearly have expertise in sensory integration and sensory-based interventions occupational therapy studies of the effects of sensory integration approaches with children with autism are few".

Mothers think OT is important because they notice their child's improvement. Three of the participant thinks not only OT but also the programs of the schools are important for their child's changes. In school environment by receiving OT, their child improved day by day.

General theme: Mothers' feel that school based OT is important for their child's improvement.

4.3.5 Recommendation from mothers

Codes	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉
More techniques and equipment	✓			✓		✓			
More parents training	✓								
Continue all therapy		✓			✓				
enlarge place				✓		✓	✓		
Start with large area				✓					
Arrange facility as developed country					✓				
Increase time						✓			
More Occupational Therapist							✓	✓	✓
Extra setup								✓	

Table-6: Recommendation from mothers

There are some recommendations of mothers for more standard OT services in schools. 3 of them told about more equipment, increase spaces, increase numbers of Occupational Therapist. One participant said-

“I must want that it should start with a large area. Here it is very small place. So that they feel difficulties to move during exercise”.

“There need to increase some instrument”. In the same time other participants added following- more techniques, more parents training, extra setup, increase time, arrange facility as foreign, start with large area and as well as continue all therapy. One participant mentioned-

“My suggestion is that, I realize a child needs more group OT and time from Occupational Therapist. There is need manpower”.

“The 1-hour weekly visit is still a primary delivery system for allied health professionals like speech and language pathologists, occupational therapists, and psychologists. The study indicates that a brief and economical 1-hour a week intervention for only 12 weeks can lead to lasting change, if it targets parent skills that can easily be incorporated into children’s natural environments. The finding adds to other findings that short-term 1-hour 1:1 interventions can result in significant change in children with autism if the treatment incorporates significant parent training and

parent implementation of the techniques in natural settings” (Vismara et al.2009) .

One participant mentioned-“*Room should be increased, it is being small. More Occupational therapist is needed with him*”.

General theme: Most of the Mothers’ recommended for maintaining the ratio of CWA and therapist, and increase the space to set up more OT activities.

4.4. Limitations

It is the first time for the researcher to conduct this study as a part of course curriculum. So there is limitation on researcher’s skill to conduct the interviews. Her skill in conducting interview may influence her ability to obtain information. If the researcher is a skilled person in conducting interview then she may be obtain more in-depth information. But the researcher tried to collect information from the participants without bias. For that reason researcher makes a field test before final data collection.

There is very few relating study was found in this topic in Bangladesh. Some literatures were used from different countries. Web search was undertaken to identify research reports for the literature review. Databases and sites searched included Pub-Med, Hinary, Google Scholer, and Wiley Online Library. Search terms were developed by the researcher.

The study result would be more generalizable if the participant group had been larger. But it is not possible to involve more participants due to short period of time.

4.5. Recommendations

Recommendations from the findings of this study are-

- The same study to be conducted with a larger number of participants using a different methodology.
- Every Occupational Therapist should explain to the mother about OT very clearly and make sure with every mother that may help them to discriminate it from other professions.
- To arrange more parents training for providing information about the purpose of OT in school setting.
- In future, there is scope for further studies to be done in relation to this study such as-
teachers' perception about the significance of OT for CWA in special school setting in Bangladesh, the effectiveness between clinical OT and school-based OT for CWA, the effectiveness of SI intervention and environmental modification for CWA provided by Occupational Therapist.

The problem of CWA is managing by therapeutic activities or functional activities. There is need time to get changes or improvement of CWA by therapy. So guardian should continue OT services for their child's improvement. In this case mothers play an important role. At home most of the time mothers handle their children. For that mothers should aware about the therapeutic practices and changes of their children. The mothers' thoughts about OT services, importance of OT for their child, changes regarding receiving OT services and the way of improving the quality of services are explored in this study's findings. School based OT is helpful for both mother and CWA because it is playing an important role in case of child's improvement. Mothers' give more value to school based OT. At the end of the study the results show that the mothers' are knowledgeable about school based OT service. They are able to express their opinion about improvement of child and importance of OT. The mothers also provide some recommendations about school based OT to improve the quality of school based OT services in the future and also helpful for therapists and CWA. According to the recommendations of participants, the special school authority will be interested to run OT services in school settings and create more OT posts. Occupational Therapists are giving more concern on their practice. Participants think that Occupational Therapy plays a significant role to guide the functional activities in school settings. Therefore not only clinical side but also in school environment Occupational Therapist plays an important role with MDT and it is bringing more changes of CWA.

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APPENDIXES

Appendix-1

প্রশ্নাবলী

অংশগ্রহনকারীগণকে নির্বাচনের জন্য প্রশ্নসমূহ:

১. আপনার বাচ্চা এই স্কুলে অকুপেশনাল থেরাপী সেবা পায়, তা কি আপনি জানেন?
২. কতদিন যাবৎ আপনার বাচ্চা এই স্কুলে অকুপেশনাল থেরাপী সেবা পাচ্ছে?
৩. আপনি কি আপনার বাচ্চার জন্য স্কুলের নির্ধারিত সময় অনুযায়ী অকুপেশনাল থেরাপিস্টের সাথে যোগাযোগ করেন?

নির্বাচিত অংশগ্রহনকারীর জন্য প্রশ্নসমূহ:

অংশগ্রহনকারীর নাম:

বয়স:

শিক্ষাগত যোগ্যতা:

পেশা:

বাচ্চার নাম:

বয়স: লিঙ্গ: স্কুলে ভর্তির তারিখ:

১. আপনার বাচ্চা কি নিয়মিত অকুপেশনাল থেরাপী চিকিৎসা পায়?
২. দয়া করে বলবেন কি এই স্কুলে আপনার বাচ্চা কোন ধরনের অকুপেশনাল থেরাপী চিকিৎসা বা ট্রেনিং পাচ্ছে?
৩. আপনার বাচ্চার সমস্যাগুলোর ধরণ বলবেন কি?
৪. স্কুলে অকুপেশনাল থেরাপী সেবা নেওয়ার পর আপনার বাচ্চার কি কোন পরিবর্তন এসেছে? হ্যাঁ/ না...দয়া করে একটু ব্যাখ্যা করে বলুন?
৫. আপনি যদি মনে করেন আপনার বাচ্চার কোন পরিবর্তন হয় নি, তাহলে এর জন্য কোন কারণগুলো থাকতে পারে বলে আপনি মনে করেন?
৬. আপনি কি মনে করেন অকুপেশনাল থেরাপী সেবা আপনার বাচ্চার জন্য গুরুত্বপূর্ণ? হ্যাঁ/ না...দয়া করে একটু ব্যাখ্যা করে বলুন?
৭. স্পেশাল স্কুলে অকুপেশনাল থেরাপী সেবার মানকে উন্নত করার জন্য আপনার ব্যক্তিগত পরামর্শ বা অভিমত থাকলে বলুন?

Questions (Translated)

Question for participant selection

- a. Do you know about OT service, giving for your child in this school?
- b. How long time your child received OT service from this school?
- c. For your child, do you maintain regular contact with Occupational therapist according to school schedule?

Question for participant interview

Name of participant:

Age:

Educational background:

Occupation:

Name of child:

Age:

Sex:

Date of admission:

1. Does your child get this OT service regularly?
2. In this school, which categories of OT intervention or training are having your child? Please explain it.
3. What are the problems of your child?
4. Is there any changes of the child occurred after receiving school based OT service? Yes/NO...please explain it?
5. If you think, there is no significant change occur in your child, so for this what reasons are responsible in your perception?
6. Do you think that OT service is important for your child? Yes/No...please explain it.
7. Is there any recommendation from your side on how to improving or more structuring OT service at specialized school?

Appendix -2

অংশগ্রহনকারীর জন্য গবেষণা বিষয়ক তথ্যসমূহ

আমি খাদিজা আকতার লিলি, বাংলাদেশ হেলথ প্রফেশন্স ইনিস্টিটিউট (বিএইচপিআই) এর অধীনে পরিচালিত বি. এস. সি. ইন অকুপেশনাল থেরাপী কোর্সের ৪র্থ বর্ষে অধ্যয়নরত একজন ছাত্রী। কোর্সের কার্যক্রমের অংশ হিসেবে, ৪র্থ বর্ষে একটি গবেষণা করতে হয়। আমি খাদিজা আকতার লিলি, আপনাকে এই গবেষণায় অংশগ্রহন করার জন্য আমন্ত্রন জানাচ্ছি এবং আমার গবেষণার বিষয়টি হচ্ছে-

“স্কুলে অটিজম বাচ্চারা যে অকুপেশনাল থেরাপী সেবা পায় তা সম্পর্কে মায়ের অভিমত”

এই গবেষণার লক্ষ্য হচ্ছে, ঢাকার স্পেশাল স্কুলগুলোতে অটিজম বাচ্চাদের জন্য যে অকুপেশনাল থেরাপী সেবা দেওয়া হচ্ছে তা বাচ্চর মায়েরা কিভাবে মূল্যায়ন করছেন।

আপনি নিজ ইচ্ছায় এই গবেষণায় অংশগ্রহন করছেন। এই গবেষণা থেকে যে কোন সময় অব্যাহতি পাওয়ার অধিকার আপনি রাখেন। আপনাকে যে প্রশ্ন করা হবে তার প্রেক্ষিতে যা উত্তর দিবেন তা টেপ রেকডারে রেকর্ড করা হবে। এই প্রশ্ন- উত্তর পর্বটি উর্দে ৪৫-৫০ মিনিট চলবে। এই গবেষণায় অংশগ্রহন করার জন্য আপনাকে কোন টাকা বা অন্য কোন উপহার দেওয়া হবে না।

এই গবেষণায় আপনার সমস্ত তথ্যের গোপনীয়তা রক্ষা করা হবে। এই গবেষণা আপনার বা আপনার বাচ্চর জন্য কোন ক্ষতির কারণ হবে না। আপনার দেওয়া তথ্যগুলো কখনই আপনার অনুমতি ছাড়া এমনভাবে প্রকাশ হবে না যার প্রেক্ষিতে আপনাকে বা আপনার বাচ্চকে কোন প্রশ্নের সম্মুখীন হতে হয়।

যদি এখন আপনার কোন জিজ্ঞাসা থাকে অথবা পরবর্তীতে এই গবেষণা থেকে আপনি কিছু তথ্য জানতে চান তবে নিম্নোক্ত ঠিকানায় যোগাযোগ করবেন –

খাদিজা আকতার লিলি
৪র্থ বর্ষ, বি. এস. সি. ইন অকুপেশনাল থেরাপী
অকুপেশনাল থেরাপী বিভাগ
বাংলাদেশ হেলথ প্রফেশন্স ইনিস্টিটিউট (বিএইচপিআই)
পঞ্চাষাতগ্রন্থদের পূর্ণবাসন কেন্দ্র (সিআরপি), সাভার, ঢাকা

Information Sheet ((Translated)

I am Khadija Akter Lily, attached to the B.SC in Occupational Therapy Department (4th year), Bangladesh Health Professions Institute (BHPI), Center for the Rehabilitation of the Paralysed (CRP), Savar, Dhaka. In regards to partial fulfillment of requirements for this course, it is obligatory to conduct a research in 4th year of study. I would like to invite you to take part in this research study, titled “School-based Occupational Therapy (OT) service for Children with Autism (CWA) in Dhaka: Mothers’ perspective”; that will be conducted by Khadija Akter Lily at Autism school. The aims of the study to explore mothers’ perception regarding School-based OT service for CWA in Dhaka.

Your participation in this study is voluntary. You are free to not participate at all or withdraw from the study anytime you want. If you do not want to participate or withdraw from the study, you may do so at any time.

Your answer will be recorded in this questionnaire and there will be an interview that will be tape recorded. It will take maximum 45-50 minutes. You will not be paid for your participation. Confidentiality of all records will be highly maintained. Gathered data will never be used in such a way that you or your child could be identified in any presentation or publication without your permission.

If you have any question now or later regarding the study, please feel free to ask the person stated below-

Khadija Akter Lily
4th year, B.SC in Occupational Therapy
Occupational Therapy Department
Bangladesh Health Professions Institute
Center for the Rehabilitation of the Paralysed (CRP), Savar, Dhaka.

Appendix-3

সম্মতি পত্র

অংশগ্রহনকারী কর্তৃক পূরণীয়:(হ্যাঁ/না তে টিক চিহ্ন দিন)

১. আপনি কি গবেষণা বিষয়ক তথ্য পত্রটি পড়েছেন? হ্যাঁ/না
২. এই গবেষণা নিয়ে কোন আলোচনা বা প্রশ্ন করার সুযোগ কি আপনি পেয়েছেন? হ্যাঁ/না
৩. আপনি আপনার সকল প্রশ্নের কি সন্তোষজনক উত্তর পেয়েছেন? হ্যাঁ/না
৪. এই গবেষণা সম্পর্কে আপনি কি পর্যাপ্ত তথ্য পেয়েছেন? হ্যাঁ/না
৫. আপনি কি বুঝতে পেরেছেন কোন কারণ না দেখিয়েও এই গবেষণা থেকে যে কোন সময় অব্যাহতি পাওয়ার অধিকার আপনি রাখেন? হ্যাঁ/না
৬. আপনার কাছ থেকে গবেষক যেসব তথ্য পাবেন তা অন্য গবেষক সহায়তাকারীর সাহায্যে বিশ্লেষণ করা হবে। এক্ষেত্রে আপনার ব্যক্তিগত সমস্ত তথ্যের গোপনীয়তা রক্ষা করা হবে। আপনি কি তা জেনে অনুমতি দিয়েছেন? হ্যাঁ/না
৭. আপনি কি আপনার সিদ্ধান্ত নেওয়ার জন্য পর্যাপ্ত সময় পেয়েছেন? হ্যাঁ/না
৮. আপনি কি এই গবেষণায় অংশগ্রহন করতে রাজি আছেন? হ্যাঁ/না

অংশগ্রহনকারীর নাম:

অংশগ্রহনকারীর স্বাক্ষর (তারিখসহ):

গবেষক কর্তৃক পূরণীয়:

আমি উপরিউক্ত অংশগ্রহনকারীর সাথে আমার গবেষণা বিষয় নিয়ে ব্যাখ্যা করেছি এবং তিনি নিজ ইচ্ছায় এই গবেষণায় অংশগ্রহন করছেন।

গবেষকের নাম:

গবেষকের স্বাক্ষর (তারিখসহ):

Consent Form ((Translated))

To be completed by the:

a. Participant

1. Have you read the information sheet? Yes/No
2. Have you had an opportunity to discuss this study and ask any question? Yes/No
3. Have you had satisfactory answers to all your questions? Yes/No
4. Have you received enough information about the study? Yes/No
5. Do you understand that you are free to withdraw from the study at any time, without having to give a reason and without affecting you and your children?
Yes/No
6. Information from interview and questionnaire, those will be collected by the investigator might be examined by other research assistants. However, all personal details will be treated as highly confidential. Do you give your permission for these individuals to have access to your records?
Yes/No
7. Have you had sufficient time to come to your decision? Yes/No
8. Do you agree to take part in this study? Yes/No

Participant's signature _____ Date _____

Name (BLOCK LETTERS) _____

b. Investigator

I have explained the study to the above participant precisely and he/she has indicated her willingness to take part in the study.

Investigator's signature _____ Date _____

Name (BLOCK LETTERS) _____

Appendix-4

Overview of the participants:

Number of participants	Pseudo name of participants	Education and occupation of participants	Name of the schools	Child's age range	Male/Female	Duration of service taking in AWF/ACW FB/SWAC
1	P ₁	M.S.C Hosewife	ACWF	5yr 11M	M	3yr
2	P ₂	M.A Housewife	ACWF	7yr	M	3yr
3	P ₃	M.S.S. Housewife	ACWF	7yr	M	2yr
4	P ₄	B.A	AWF	8yr	F	1 yr
5	P ₅	H.S.C Housewife	AWF	10yr	M	3 yr
6	P ₆	B.Sc Student	AWF	8yr	F	10 M
7	P ₇	M.B.A (admit in PHD) Professor	SWAC	5yr 10 M	M	3yr
8	P ₈	M.S.S. Housewife	SWAC	6yr 6M	M	3yr 5 M
9	P ₉	M.S.S. Housewife	SWAC	8yr	F	3yr

Appendix-5

Name and address of selected autism school:

Name of the Special needs school for CWA	Address
Autistic Welfare Foundation (AWF)	House-38/40/ Piciculture , Housing Society, Road-4' Ring road. Mohammad Pur, Dhaka- 1207, Bangladesh.
Social Welfare For Autistic Children (SWAC)	70/Ka, PC Culture, Shyamoli, Dhaka-1207, Bangladesh.
Autistic Children Welfare Foundation (ACWF)	House no 74, Lane -3, Block - E, Mirpur-12, Dhaka -1216,

Appendix-6

Communication way with parents, involvement in planning and recommendation from therapist:

Codes	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉
Diary	✓	✓	✓			✓	✓	✓	✓
Meeting	✓								
phone						✓			
Involve in during making IP		✓			✓	✓			✓
Give recommendation on IP or other way	✓	✓	✓	✓	✓	✓	✓	✓	✓

Appendix-7

OT schedule and knowing about OT:

Codes	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉
Getting OT- Individual one in a month									✓
Getting OT-		✓					✓		

Individual one day in a week									
Getting OT regular-group or individual depends on child need/ 1or 2 day in group	✓		✓	✓	✓	✓		✓	✓
Knowing about OT service- after Childs admission	✓		✓	✓	✓		✓	✓	
Knowing about OT service-during admission						✓			
Knowing about OT service- when the child diagnosed as CWA		✓							

Appendix-8

Tables of result and discussion:

Table	Topic
Table-1	Understanding about Occupational Therapy services or training.
Table-2	Problems of children with autism
Table-3	Changes (improvement) after receiving OT services.
Table-4	Non improvement area.
Table-5	Importance of OT.
Table-6	Recommendation from mothers

Appendix-9

Date: 14th August 2012

To

The Course Coordinator

Department of Occupational Therapy

Bangladesh Health Professions Institute, CRP, Savar, Dhaka

Subject: Application for permission to conduct the research study


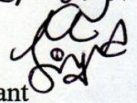
Sir,

I beg most respectfully to state that I am a regular student of 4th year, Occupational Therapy department of Bangladesh Health Professions Institute. I have submitted a research proposal according to 4th year course-module. My research title is "School-based Occupational Therapy (OT) service for Children with Autism (CWA) in Dhaka: Mothers' perspective." It is a Qualitative study and the aim of the study is to explore mothers' experience regarding School-based OT service for CWA in Dhaka. The participants of this study will be selected from Autism Welfare Foundation, Autistic Children Welfare Foundation Bangladesh, and Society for the Welfare of Autistic Children. I would like to assure that anything of my research project will not harmful for the study settings and participants. Now, I am seeking your consideration to approve for starting the research project.

So I therefore pray and hope that you would be kind enough to grant me the permission for conducting the research and will help me to conduct a successful study as a part of my course.

Your most obedient student

Khadija Akter Lily 14/8/2012
 Khadija Akter Lily
 Roll no. 08, Session: 2008-2009
 4th year, B. Sc in Occupational therapy

Signature and comments of Supervisor	Signature and comments of Course Coordinator
<p>Recommended to continue study following proposal.</p>  <p>Umme Aeyman Lecturer in Occupational Therapy Department of Occupational Therapy BHPI, CRP, Savar, Dhaka</p>	<p>This project can be approved. Respective authorities are requested to assist her as per organizational policy.</p>  <p>Mohammad Mosayed Ullah Course Coordinator and Assistant Professor Department of Occupational Therapy BHPI, CRP, Savar, Dhaka</p>

Mohammad Mosayed Ullah
 Course Coordinator & Lecturer
 Dept of Occupational Therapy
 BHPI, CRP Savar, Dhaka-1343

Appendix-10

Date: 5th September 2012

To

The Principal

Society for the welfare of Autistic children (SWAC)

Dhaka, Bangladesh

Subject: Prayer for conducting a research study at Society for the welfare of Autistic children (SWAC)

Sir/Madam

I beg most respectfully to state that I am a regular student of 4th year, Occupational Therapy department of Bangladesh Health Professions Institute. I have to submit a research project to the Dhaka University during final examination as a part of our academic curriculum. My research title is "School-based Occupational Therapy (OT) service for Children with Autism (CWA) in Dhaka: Mothers' perspective." It is a Qualitative study and the aim of the study is to explore mothers' perception regarding School-based OT service for CWA in Dhaka. The mothers of the autism child are the participants of this study. My research supervisor is Umme Ayeman, Lecturer in Occupational therapy Dept., BHPI. I would like to assure that anything of my research project will not harmful for your school and participants and consent form will be used during interview session for maintaining ethical consideration.

So I therefore pray and hope that you would be kind enough to grant me to conduct my research in your school setting with your kind permission and help me to obtain my degree successfully.

Your sincerely

Khadija Akter Lily
Khadija Akter Lily 5/9/12

Roll no. 08

Session: 2008-2009

4th year, B. Sc in Occupational therapy

Bangladesh Health Professions Institute

CRP, Savar, Dhaka

Approved
Salim Lamin
10. 9. 12

Appendix-11

Date: 10th September 2012

To

The Principal

Autism Welfare Foundation

Dhaka, Bangladesh

Subject: Prayer for conducting a research study at Autism Welfare Foundation

Sir/Madam

I beg most respectfully to state that I am a regular student of 4th year, Occupational Therapy department of Bangladesh Health Professions Institute. I have to submit a research project to the Dhaka University during final examination as a part of our academic curriculum. My research title is "School-based Occupational Therapy (OT) service for Children with Autism (CWA) in Dhaka: Mothers' perspective." It is a Qualitative study and the aim of the study is to explore mothers' perception regarding School-based OT service for CWA in Dhaka. The mothers of the autism child are the participants of this study. My research supervisor is Umme Ayeman, Lecturer in Occupational therapy Dept., BHPI. I would like to assure that anything of my research project will not be harmful for your school and participants and consent form will be used during interview session for maintaining ethical consideration.

So I therefore pray and hope that you would be kind enough to grant me to conduct my research in your school setting with your kind permission and help me to obtain my degree successfully.

Your sincerely

Khadija Akter Lily
10/9/12

Khadija Akter Lily

Roll no. 08

Session: 2008-2009

4th year, B. Sc in Occupational Therapy

Bangladesh Health Professions Institute

CRP, Savar, Dhaka

Approved for
Study at AWF
Ruhulhis
10/9/12

Appendix-12

Date: 5th September 2012

To

The Principal

Autistic children's Welfare Foundation, Bangladesh

Dhaka, Bangladesh

Subject: Prayer for conducting a research study at Autistic children's Welfare Foundation, Bangladesh

Sir/Madam

I beg most respectfully to state that I am a regular student of 4th year, Occupational Therapy department of Bangladesh Health Professions Institute. I have to submit a research project to the Dhaka University during final examination as a part of our academic curriculum. My research title is "School-based Occupational Therapy (OT) service for Children with Autism (CWA) in Dhaka: Mothers' perspective." It is a Qualitative study and the aim of the study is to explore mothers' perception regarding School-based OT service for CWA in Dhaka. The mothers of the autism child are the participants of this study. My research supervisor is Umme Ayeman, Lecturer in Occupational therapy Dept., BHPI. I would like to assure that anything of my research project will not be harmful for your school and participants and consent form will be used during interview session for maintaining ethical consideration.

So I therefore pray and hope that you would be kind enough to grant me to conduct my research in your school setting with your kind permission and help me to obtain my degree successfully.

Your sincerely

Khadija Akter Lily
Roll no. 08
Session: 2008-2009
4th year, B. Sc in Occupational therapy
Bangladesh Health Professions Institute
CRP, Savar, Dhaka

Accepted

Salma Begum
Salma Begum 12.9.12
Acting Principal
ACWFB, Dhaka.



Appendix-13



বাংলাদেশ হেল্থ প্রফেশনস ইনস্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)
(The Academic Institute of CRP)

CRP-Chapain, Savar, Dhaka, Tel: 7745464-5, 7741404, Fax: 7745069
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তারিখঃ ০৪.০৯.২০১২

প্রতি
অধ্যক্ষ
অটিষ্টিক চিলড্রেনস ওয়েলফেয়ার ফাউন্ডেশন বাংলাদেশ।
ঢাকা।

বিষয় : রিসার্চ প্রজেক্ট (dissertation) এর জন্য আপনার প্রতিষ্ঠান সফর প্রসঙ্গে।

জনাব,

আপনার সদয় অবগতির জন্য জানাচ্ছি যে, পক্ষাঘাতগ্রস্তদের পুনর্বাসন কেন্দ্রে-সিআরপি'র শিক্ষা প্রতিষ্ঠান বাংলাদেশ হেল্থ প্রফেশনস ইনস্টিটিউট (বিএইচপিআই) ঢাকা বিশ্ববিদ্যালয় অনুমোদিত বিএসসি ইন অকুপেশনাল থেরাপী কোর্স পরিচালনা করে আসছে।

উক্ত কোর্সের ছাত্রছাত্রীদের কোর্স কারিকুলামের অংশ হিসাবে বিভিন্ন বিষয়ের উপর রিসার্চ ও কোর্সওয়ার্ক করা বাধ্যতামূলক।

বিএইচপিআই'র ৪র্থ বর্ষ বিএসসি ইন অকুপেশনাল কোর্সের ছাত্রী খাদিজা আক্তার লিলি তার রিসার্চ সংক্রান্ত কাজের জন্য আপনার সুবিধামত সময়ে আপনার প্রতিষ্ঠানে সফর করতে আশ্রয়ী।

তাই তাকে আপনার প্রতিষ্ঠান সফরে সার্বিক সহযোগীতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদান্তে

মোহাম্মদ মোসায়েদ উল্লাহ
সহকারী অধ্যাপক ও কোর্স-কো অর্ডিনেটর
অকুপেশনাল থেরাপী বিভাগ
বিএইচপিআই।

Appendix-14



বাংলাদেশ হেল্থ প্রফেশন্স ইনষ্টিটিউট (বিএইচপিআই)
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তারিখঃ ০৪.০৯.২০১২

প্রতি
অধ্যক্ষ
সোসাইটি ফর দ্য ওয়েলফেয়ার অব অটিষ্টিক চিলড্রেন
ঢাকা।

বিষয় : রিসার্চ প্রজেক্ট (dissertation) এর জন্য আপনার প্রতিষ্ঠান সফর প্রসঙ্গে।

জনাব,

আপনার সদয় অবগতির জন্য জানাচ্ছি যে, পক্ষাঘাতগ্রস্তদের পুনর্বাসন কেন্দ্রে-সিআরপি'র শিক্ষা প্রতিষ্ঠান বাংলাদেশ হেল্থ প্রফেশনস ইনষ্টিটিউট (বিএইচপিআই) ঢাকা বিশ্ববিদ্যালয় অনুমোদিত বিএসসি ইন অকুপেশনাল থেরাপী কোর্স পরিচালনা করে আসছে।

উক্ত কোর্সের ছাত্রছাত্রীদের কোর্স কারিকুলামের অংশ হিসাবে বিভিন্ন বিষয়ের উপর রিসার্চ ও কোর্সওয়ার্ক করা বাধ্যতামূলক।

বিএইচপিআই'র ৪র্থ বর্ষ বিএসসি ইন অকুপেশনাল কোর্সের ছাত্রী খাদিজা আক্তার লিলি তার রিসার্চ সংক্রান্ত কাজের জন্য আপনার সুবিধামত সময়ে আপনার প্রতিষ্ঠানে সফর করতে আগ্রহী।

তাই তাকে আপনার প্রতিষ্ঠান সফরে সার্বিক সহযোগীতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদান্তে

মোহাম্মদ মোসাম্মেদ উল্লাহ
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অকুপেশনাল থেরাপী বিভাগ
বিএইচপিআই।

Appendix-15



বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
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তারিখঃ ০৪.০৯.২০১২

প্রতি
অধ্যক্ষ
অটিজম ওয়েলফেয়ার ফাউন্ডেশন
ঢাকা

বিষয় : রিসার্চ প্রজেক্ট (dissertation) এর জন্য আপনার প্রতিষ্ঠান সফর প্রসঙ্গে।

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উক্ত কোর্সের ছাত্রছাত্রীদের কোর্স কারিকুলামের অংশ হিসাবে বিভিন্ন বিষয়ের উপর রিসার্চ ও কোর্সওয়ার্ক করা বাধ্যতামূলক।

বিএইচপিআই'র ৪র্থ বর্ষ বিএসসি ইন অকুপেশনাল কোর্সের ছাত্রী খাদিজা আক্তার লিলি তার রিসার্চ সংক্রান্ত কাজের জন্য আপনার সুবিধামত সময়ে আপনার প্রতিষ্ঠানে সফর করতে আগ্রহী।

তাই তাকে আপনার প্রতিষ্ঠান সফরে সার্বিক সহযোগীতা প্রদানের জন্য অনুরোধ করছি।

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