

# **Psychological Distress among Caregivers of Children with Disability: A Cross-sectional Study**



By

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

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## **Statement of Authorship**

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.

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**Dedication**

**Dedicated to My Mother**

**'Late Samiron Begum'**

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## List of Abbreviations

ASD: Autism Spectrum Disorder

ADHD: Attention Deficit Hyperactivity Disorder

CG: Caregiver

CRP: Centre for the Rehabilitation of the Paralyzed

CRPD: Convention on the Rights of Persons with Disabilities.

CWD: Children With Disability

DS: Down Syndrome

GOB: Government of Bangladesh

ID: Intellectual Disability

LMIC: Lower Middle-Income Country

MFS: Marfan Syndrome

NDD: Neurodevelopmental Disorder

PD: Psychological Distress

RDM: Research Data Management.

SD: Standard Deviation

SPSS: Statistical Package of Social Science

UN: United Nation

UNICEF: United Nations International Children's Emergency Defense Fund.

US: United States.

## Abstract

**Background:** Approximately 140 million children globally and 1.7 % of children in Bangladesh live with disabilities. The caregiver of the children with disability (CWD) faces many emotional challenges to lead their live such as emotional suffering, stress, anxiety & depression which is an indicator of psychological distress.

**Aim:** The study's aimed was to estimate the level of psychological distress among caregiver of children with disability.

**Methods:** Caregivers of CWD participated in this quantitative cross- sectional study. The number of participants were 257. Participants were selected through purposive sampling. Participants within 18-60 age who were the primary caregiver and continuing therapy for their CWD were included in this study. The study conducted in different special schools and organizations. Psychological distress (PD) was measured by Kessler psychological distress scale. This study also captured sociodemographic variables that are related to caregiver psychological distress. Descriptive statistics and fisher exact's test, chi- square test and independent t test were used to analyze the data.

**Results:** A total of 257 participants had in this study, where the response rate was 98.2%. Researcher used SPSS version 26 to analyses the information. Prevalence of psychological distress was 77% (198) among caregivers of children with disability & 23% (59) are psychologically well according to this study. Among the caregivers with psychological distress, 30% (77) has mild, 27.6% (71) has moderate and 19.5% (50) has severe level of psychological distress. In this study the researcher found only 3.9% (10) male and 96.1% (247) female caregivers of CWD. The researcher found association

between gender, occupation, relationship with the child, suffering from chronic illness, educational level, sleeping hours and monthly income.

**Conclusion:** Psychological distress of a caregiver had significant impact on children with disabilities such as it can affect the quality of life a CWD and also it has effect on the development of the child. This study found that 77% of caregiver had psychological distress. Establishing support and raising awareness among health professional can address these effects.

**Key word:** Children with Disability, psychological distress.

## CHAPTER I: INTRODUCTION

### 1.1 Background

According to UNICEF's estimates of disability prevalence, there were an estimated 28.9 million children, or 4.3% of all children aged 0–4 years, 207.4 million children, or 12.5% of all children aged 5–17 years, and 236.4 million children, or 10.1% of all children aged 0–17 years, worldwide who were estimated to have moderate-to-severe disabilities (Olusanya et al., 2022).

The "Persons with disabilities Rights and Protection Act 2013" of Bangladesh states that 2.80% of people in the country as a whole are disabled, with 2.32 percent of women and 3.28 percent of men. In children ages 0 to 4, it is 0.83 percent; in adults ages 18 to 49, it is 2.24 percent. Disability rates by type: 1.35 percent for physical disabilities, 0.46 percent for visual disabilities, 0.36 percent for hearing disabilities, 0.35 percent for multiple disabilities, 0.32 percent for speech disabilities, 0.29 percent for mental illnesses that result in disabilities, 0.22 percent for intellectual disabilities, and 0.08 percent for cerebral palsy. Other disabilities account for 0.05 percent, and autism for 0.05 percent (BBS, 2022). According to the Persons with Disabilities Rights and Protection Act, 1.7% of children have a disability of some kind. Types of disability include- Autism spectrum disorder, Physical disability, Mental illness leading to disability, Visual disability, Speech disability, ID, Deafblindness, Cerebral palsy, Down syndrome, Multiple Disabilities, Other Disability (Murshid & Haque, 2020). According to the World Health Organization (2004), 5% of children between 0 and 14 have moderate or severe impairments worldwide. The government of Bangladesh (GOB) has implemented various policies and

acts, such as the national policy for people with disabilities, to improve the lives of CWD. Caregiving a child with long-term functional disability may affect the psychological health of the caregiver. Psychological Issues such as depression may limit the role of caregiving in the management of the CWD. Emotional distress in a parent may exacerbate emotional and psychiatric distress in the CWD and may affect the whole family's ability to cope with the child's illness (Ou et al., 2010). CWDs and their parents confront several obstacles and problems despite the government's efforts of the government. These consist of unequal access to resources and services, poor income, worry and anxiety, being shut out of society, and being unable to pay for necessities (Hussain & Raihan, 2022). Both the well-being of the family and the children's quality of life are impacted by these disabilities (Tétreault et al., 2014). Epidemiological data regarding the prevalence of NDD in low- and middle-income countries (LMIC) is lacking, although it is predicted that 93 to 150 million children worldwide have some disability (Maridal et al., 2021). Taking care of a child with a disability entails significant responsibilities that might impact not just the child but also the parents, siblings, and other family members (Isa et al., 2016). In LMIC's some research studies have been conducted in Kenya, India, Qatar, and Kuwait, where it was found that about 47-50% of parents experience psychological distress. These rates are comparable to the prevalence rates of psychological distress reported among parents of children with disabilities in developed countries worldwide. (O'leimat et al., 2019).

Older mothers at birth were linked to an increase in children with intellectual disabilities, according to prior research. In contrast, older fathers at birth were linked to an increased likelihood of high-functioning autism spectrum disorder. Nevertheless,



parents typically play crucial responsibilities as the primary caregivers, regardless of the type of disability. Caregiving for a child with a disability can place many strains on the parents due to health issues, financial burdens, time demands, and barriers to social involvement, such as a working career, even though caring for a child with a disability is an unexpected "career" for parents. Mothers of children with epilepsy or developmental impairments have higher levels of depressive symptoms, and parents of children with widespread developmental mental illnesses reported experiencing higher psychological distress (Yamaoka et al., 2015). The physical and emotional strain of caring for children with autism spectrum disorder (ASD) can be pretty high, and it can also strain the family unit. To address the unique care needs of the affected children, a great deal of time, patience, and effort are needed. Parents are frequently psychologically distressed as a result of this (Solaiman et al., 2023).

The presence of psychiatric distress in the caregiver is linked to reports of lower levels of social support, dysfunction in the family, a more significant negative impact of the child's situation on the family, poorer child behavior, unfavorable parenting approaches, poorer child psychosocial functioning, and even a negative effect on siblings and marriage. Children with disabilities can achieve satisfying lives if their families have adequate resources, are supportive of one another, and function as a whole. It is crucial to learn more about the psychological suffering experienced by these parents in LMIC. According to certain studies, caregivers in low-income countries appear to be more likely to experience some psychological illness. Children with disabilities may experience significant effects on their lives, economies, and mental health of their caregivers (Maridal et al., 2021). The researcher investigated the caregiver's psychological distress

level and identified the associated factors. Then, it would be possible to design ways to prevent or reduce the impact of caregiving distress on caregivers by identifying these linked factors.

## **1.2 Justification**

This research would help to identify the extent of psychological distress and associated factors among caregivers of children with disability. Caregivers of CWD diagnosed earlier reported feelings of higher stress (Emerson et al., 2016). On the other hand, caregivers' mental health directly impacts their ability to provide care effectively. Poorer health status of caregivers are associated with negative impacts on children's outcome (Murphy et al., 2007). If caregivers are overwhelmed by psychological distress, it can hinder their ability to support their child's therapy and development. This research would help Occupational Therapists identify caregivers experiencing high levels of distress. This research allowed them to provide targeted interventions and support to address the caregiver's emotional wellbeing. Addressing psychological distress in caregivers is too much essential to provide holistic care and improve the quality of life for both the child with a disability and their family. Suppose level of psychological distress is identified early. In that case, it can lead to timely interventions, such as counseling or support groups, which can help caregivers to cope with the emotional challenges. Understanding the caregiver's emotional needs helps occupational Therapists create treatment plans for the child's needs and family dynamics, leading to more effective and sustainable outcomes. It enables healthcare professionals to deliver better care and make knowledgeable decisions about the distribution of resources and treatment. The findings of this study provided empirical evidence to inform policy decisions, which would help

policymakers develop evidence-based policies and interventions that address the specific needs of a caregiver. This research provided information that could be used to raise awareness and advocate for policy changes for advocacy groups. However, measuring psychological distress among caregivers of children with disability was integral to the role of occupational therapists as it enabled them to provide comprehensive care, support caregiver wellbeing, and ultimately improved the overall quality of life for the child and their family.

### **1.3 Operational definition**

**Children with disability:** Children with disabilities are defined by the CRPD as those who, up to the age of 18, have "long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others (UNICEF, 2022).

**Primary caregiver:** The primary caregivers are those persons who are responsible for day-to-day care and decision making for the CWD. The age range of 18-60 years of caregivers were considered (Gordon, 1992; Maridal et al., 2021).

**Caregiver:** A caregiver is someone who assists a person with a disability in carrying out their everyday activities. A caregiver can be somebody who is staying with the patient and responsible for their care, such as parents, siblings, or close family relative (Gordon, 1992).

**Psychological distress:** psychological distress was defined as emotional suffering which could include anxiety or depression and also manifests as worry, sorrow, irritability, self-consciousness, and emotional vulnerability, and physical illness, poorer life quality and

duration, and higher health service utilization (Wahab & Ramli, 2022; Winefield et al., 2012)

#### **1.4 Aim of the study**

To estimate the level of psychological distress among caregivers of children with disability.

## CHAPTER II: LITERATURE REVIEW

This chapter includes the information about the CWD and psychological distress of caregiver with CWD. Almost 240 million children worldwide suffer from some kind of disability these days which was larger than earlier estimates (BBS, 2022). There was a higher risk of ill health when caring for a child with a developmental disability (Masefield et al., 2020). In the term of psychological distress this chapter includes the information about mental health status (emotional health status, negative impact of children with physical disability, neurodevelopmental disability on caregiver's mental health).

### **2.1 Emotional Health Status of Caregiver of CWD**

Compared to caregivers who gave little to no care, those who handled the majority of the direct, everyday care for their disabled children reported poorer health (Murphy et al., 2007). Parents who are raising a child with a disability frequently struggle with their mental health. For example, mothers of children with developmental disabilities had higher-than-average levels of depressive symptoms. In addition, children may be more vulnerable to adverse health consequences if their parents have mental health issues. Numerous earlier research has shown a significant correlation between maternal sadness and behavioral and emotional problems in children ((Yamaoka et al., 2015)).

According to a cross-sectional study of Jordan, in addition to far worse physical and mental health than the general population, caregivers of children with disabilities are more likely to experience sadness and despair, emotional distress, and cognitive impairments. There was a greater likelihood of higher levels of perceived stress and depression (psychological distress) among parents of children with severe disabilities

(Al-Gamal & Long, 2013). A cross sectional study of Jordan revealed that 60% of caregiver faces nervousness and stressed due to caregiving a children with disability(Al-Gamal & Long, 2013).

### **2.1.1 Negative impact of children with physical disability on caregiver's mental health**

According to a quantitative study in Hong Kong, caregivers may experience ongoing anxiety for their children and their public acceptance, which is linked to the associated stigma that they experience. In addition, there have been strong correlations found between caregivers' distress levels and fear and affiliate stigma (Ma & Mak, 2016). Parental distress was revealed to be the most important predictor of total parental mental health in multivariate analysis. There was a chance that parents of children with physical disability would experience mental illness. The primary element influencing the mental health of parents is perceived distress (Ou et al., 2010).

### **2.1.2 Negative impact of children with NDD on caregiver's mental health**

Taking care of a child with a developmental disability has been linked to increased rates of illness (Masefield et al., 2020).

A current cross-sectional study in China examined the psychological distress and the gender disparity among parents of children with ASD. The findings showed a clear gender difference in the psychological suffering experienced by parents of children with ASD. There was no difference in the stress, anxiety, or depression levels indicated by fathers and mothers of children with mild-to-moderate autistic symptoms compared to those of children with severe autistic symptoms. However they used self-administered

psychological questionnaires, which might be subject to reporting bias (Li et al., 2022). A study in America conducted during COVID-19 showed that parents of ASD children experienced severe psychological distress in the first few months of the COVID-19 outbreak. Significant psychological discomfort was reported by over half (48%) of the sample, which is much higher than the US parent population as a whole (25%) (Kalb et al., 2021).

A cross-sectional study in Jordan revealed that parents who took part in the current study reported high levels of anxiety and sadness; nevertheless, they discovered that their levels of these conditions were borderline. Higher levels of anxiety and sadness are linked to a negative view of caregiving results, which could account for the psychological discomfort that comes with raising a child with ASD (Alnazly & Abojedi, 2019). A study conducted in Barcelona in which they included participants with aged 28–72. This research examined the relationship between a parent's psychological distress (parental stress and anxiety) and their partner's perceptions of their positive contributions to raising children with varying degrees of ASD severity. Compared to parents of children with mild-to-moderate ASD, parents of children with severe ASD reported a much lower perception of positive contributions. Families that have an autistic child often experience higher levels of stress and worry (García-López et al., 2021).

A cohort study conducted in Turkey found that Eight (7.34%) of the cohort of caregivers had moderate to severe anxiety, compared to six (5.5%) who had moderate to severe depression. Sixty percent of the relatives who had mild to severe anxiety also had mild to severe depression, and fifty-three percent of the relatives who had mild to severe anxiety also had mild to severe depression. In the cohort of caregivers, the prevalence of

moderate to severe anxiety was 25% greater than the incidence of moderate to severe depression (Barutcu et al., 2021). A cross-sectional study was conducted among Jordanian parents. This study showed that Over 60% of parents reported feeling anxious and stressed out frequently. A child's severe impairment was related to limited assistance from friends and substantial mental distress in the parent. Depression, social support, and parental stress were significantly correlated negatively. Parents who were in the most significant psychological suffering received the least amount of support (Al-Gamal & Long, 2013). About half of the parents indicated that there was an impact on their time and especially on their emotional well-being (Majnemer et al., 2012). Another cross-sectional study was conducted in Bangladesh. According to this study, mothers of children with cerebral palsy are significantly affected by a variety of demographic and maternal characteristics that impact maternal psychological stress. According to this study, 59.3% of respondents had higher maternal psychological stress. In this study, having a male child with cerebral palsy was found to be an additional predictor of psychological stress among mother (Shahar et al., 2021).

According to a study of Washington, compared to caregivers of children diagnosed with ADHD alone, caregivers of children diagnosed with comorbid disorders (ADHD and/or ODD) reported higher levels of depression, stress, and strain. This result implies that the child's ADHD-related impairment was responsible for a significant amount of the stress levels among caregivers (Rockhill et al., 2013). A descriptive, cross-sectional, and correlational study was conducted in Amman city that showed that parents of children with intellectual disabilities had a significantly lower mean score of



psychological distress than parents of children with ASD and parents of children with anxiety disorders (O'leimat et al., 2019).

However, A higher percentage of the CG sample reported emotional problems (such as being dissatisfied or lacking interest in life) as well as cognitive issues (such as memory or problem-solving difficulties). Providing care for a child with a disability is linked to the CG's having worse psychological health (Brehaut et al., 2004). A study in Japan showed that 29.1% of CGs visited hospitals regularly. However, 10.7% of those visits were because of mental health issues. Due to their health issues and the prevalence of psychological discomfort, 15.1% of the CGs had to limit their activity over the last month. Additionally, 44.4% of the CGs had a K6 score of 5+, and 8.9% had a score of 13+, which denotes mental severe illness. 7.1% of the 549 households that were included in the study had just one parent; the majority of the other households had two or three generations. The range of household spending each month was 16,000 to 1735,0, with a median of 115,000 (Yamaoka et al., 2015).

Another study in Australia showed that both full-time and part-time carer status was associated with psychological distress (George et al., 2020). Another study in Japan revealed that fathers of children aged 0–5 and 12–17 years were more likely to experience psychological distress than fathers of children aged 6–11 years. Although they included a small number of participants in their study, according to this research, single fathers experience psychological distress at a rate of 8.5 percent, compared to 5% for fathers who are in a partnership (Dhungel et al., 2023).

Another study conducted in China used paired samples of mothers and fathers; the current study examined the psychological distress and associated gender differences in

parents of children with ASD. The findings showed that there was a clear gender difference in the psychological distress experienced by parents of children with ASD. However, they used self-administered psychological questionnaires, which might be subject to reporting bias (Li et al., 2022). A study in Jordan investigated that the average psychological distress score for parents of people with psychiatric disorders was 12.85 (SD = 5.08), which was at the lower end of the "severe" scale (Kessler et al., 2003). To define the frequency and proportion of parents who experience psychological distress, additional analysis was carried out. It was discovered that roughly 16.2%, 29.4%, and 54.4% of the individuals, respectively, experienced mild, moderate, and severe psychological distress (O'leimat et al., 2019). The emotional health of the caregivers was impacted by providing care for the DS patients. Some women talked about having severe mental health issues, ranging from sadness to rejecting their children. Participants in the study discussed a variety of difficulties they encountered when providing daily care for a child with Down syndrome. Some described that they felt frustrated when their child acted aggressively against other child (AlShatti et al., 2021). A qualitative study found that most parents of children with Down syndrome share their attention with other children and with the child's other clinical obligations; this can cause tensions as parents feel a greater desire to be close to their affected child. This study also indicates that due to their lack of knowledge about the DS, parents experience feelings of insecurity and helplessness in their role as caregivers (Silva et al., 2016). The first quantitative study on the distress and day-to-day issues experienced by mothers and fathers who have MFS and who are also parenting a child with MFS has been conducted. Remarkably, compared to parents of healthy children, parents of children with MFS did not exhibit increased

symptoms of clinical distress (Warnink-Kavelaars et al., 2021). A case-control study in Bengaluru found that the quality of life is low among those who care for children who have developmental delays. Low individual indicates physical health, psychological health, social interactions, and environment. The current study demonstrated how difficult it may be to provide care, particularly to someone who has a disability (Gordon, 1992). A narrative review of the research on the physical and mental health of parents of children with developmental disabilities or ID showed that these parents had poor physical and mental health as well as poor sleep quality. According to some of these researches, families with an autistic children experience higher levels of stress and depression. Parental stress in peoples with a child with a developmental disability increased with time from early to middle childhood and eventually through adolescence (Marquis et al., 2019).

## CHAPTER III: METHODS

### 3.1 Study question, Aim, Objective

#### 3.1.1 Study question

What is the level of psychological distress among caregivers of children with disability?

#### 3.1.2 Aim

To estimate the level of psychological distress among caregivers of children with disability

#### 3.1.3 Objective

- To identify the extent of psychological distress among caregivers of children with disability.
- To identify sociodemographic information.
- To identify the association between sociodemographic and the level of psychological distress experienced by caregivers of CWD.

### 3.2 Study Design

#### 3.2.1 Study Method

The student researcher used quantitative research method for this study. In the quantitative research method, data can be analyzed through statistics and numbers. Through the generation of numerical data, it is used to quantify attitudes, views, behaviors, and other established factors and estimate findings from a broader sample population (Mohajan, 2020). The student researcher used standardized questionnaire and

collected data in a numeric form to estimate the level of psychological distress among caregivers of children with disability from a broader sample population. For that reason, student researcher chooses quantitative research design in this study.

### **3.2.2 Study Approach**

A cross-sectional approach was used to conduct the study. A cross-sectional study is defined as a collection of data at a specific period and also the most appropriate design for assessing the participant's attitudes, knowledge, and disease prevalence (Kesmodel, 2018). In Cross-sectional studies, exposure and outcome are measured at the same time, and this study provides information about the prevalence of exposure or outcomes. So, the researcher used this approach to conduct the study because the researcher selected a population and, collected data at a given point of time and analyzed the data to measure the level of psychological distress experienced by caregivers of children with disability. The aim of the researcher can be achieved with a cross-sectional approach, that's why the researcher chose this study design.

## **3.3 Study Settings and Period**

### **3.3.1 Study Setting**

The study was carried out at seven areas in Dhaka city of Bangladesh. These organizations were:

#### **CRP Savar, Dhaka**

Centre for the Rehabilitation of the Paralyzed is a non-profit organization whose headquarters are located in Chapain, Savar, Dhaka-1343. It provides medical treatment, therapy services, rehabilitation and support services, assistive devices & technologies,

education, and income-generating activities, which aim is to promote the development of skilled professionals in health care services and rehabilitation services. It has developed 12 centers in all around the country. The researcher collected data from the pediatric unit's inpatient and outpatient units by obtaining permission from the head of the pediatric department for the procedure.

### **CRP Mirpur, Dhaka**

CRP Mirpur is located at Mirpur, Section-14a, a thirteen-story structure accessible to those with and without impairments. In addition, CRP-Mirpur uses six levels to house its medical, therapeutic, and diagnostic facilities. CRP-Mirpur offers a range of services, including Inpatient services (Cabin, ward), Physiotherapy, Occupational Therapy, Speech and Language Therapy, Orthopedic, Neurology, pediatric consultancy, Multi-Disciplinary Team (MDT) Outpatient, Autism Corner, etc. The researcher collected data with permission from the center manager from both the inpatient and outpatient units of the pediatric department.

### **William & Marry Taylor School (WMTS)**

WMTS is an Inclusive school of CRP located within CRP, Savar, Dhaka. It provides a nurturing environment to value each child and promote positive attitudes and lifelong learning to help children grow into independent, respectful, and creative environments with unique gifts and talents. It provides a range of services, including rehabilitation in which therapists (OT, PT, and SLT), teachers, and social workers visit every unique child's home to assess the child's condition, their home environment, and lifestyle and to

discuss ways of improving the child's development. The researcher collected data with permission from the principal of this school.

**INNOBHAT Hospital (Institute for Autistic Children & Blind, Old Home and TN Mother Child Hospital)**

The hospital's aim is to provide quality health care with a multidisciplinary approach. A few children with cerebral palsy were admitted for a long time. The organization also provides outpatient therapy services. Researchers contacted the responsible occupational therapist to get permission and then collected data after getting permission.

**Prottasha Center For Autism Care**

A special school located in Dogormura, Savar, Dhaka, provides special education and therapy services to CWD. The researcher collected data with permission from the principal of this school.

**Shonirvor Special School for Autism & Neuro Developmental Disorder**

A particular school in Savar, Dhaka, provides special education and rehabilitation services to the CWD. The researcher collected data with permission from the principal of this school.

**Therapy station: Autism Rehab centre**

A particular school and therapy center is located at 117 Shantinagar, Dhaka. Opposite Rajarbag Police Line, Gate number 1, Dhaka 1217. It also provides special education and therapy services including physiotherapy, occupational therapy, speech & language

therapy. The researcher contacted the senior occupational therapist and got permission from the head of the organization to collect data.

### **Autism Care foundation Special School**

A special school located at house no 13, road 12, block-G, South Banashree, Dhaka. The professionals of this organizations are committed to provide special education, therapy services and a safe inclusive space. Researcher contacted with the principal of the organization to collect data.

#### **3.3.1 Study Period**

The study period was between May2023 to February 2024

### **3.4 Study Participants**

#### **3.4.1 Study Population**

The target population of this study were the caregivers of children with disability.

#### **3.4.2 Sampling Techniques**

This study used purposive sampling since the students were explicitly chosen to fulfill a research goal. It can help researchers extract a great deal of information from their gathered data. Participants demonstrated a willingness to engage in the study and the capacity to express ideas and experiences clearly, thoughtfully, and expressively. It can prioritize generalizability and similarity to find and choose every case that satisfies a specific, significant criterion. This was the most appropriate method for this research (Palinkas et al., 2015).



### 3.4.3 Sample size

Sample size was calculated for this study according to the formula 95% confidence interval (CI) so the sampling error was 5% ( $r = 0.5$ ). The standard deviation was considered 1.96.

For calculating sample size, the researcher used the principle of sample size determination

$$n = z^2 pq / d^2$$

Here,

$n$  = sample size

$Z$  = 1.96 (P value) standard deviate

$P$  = 0.5 (Though the precise number of children with disabilities are unknown as well as prevalence of assumed 50%)

$$q = (1 - p)$$

$$= (1 - 0.5)$$

$$= 0.5$$

$d$  = 0.5 (Margin of error)

$$n = (1.96)^2 \times 0.5 \times 0.5 / (0.5)^2 = 384.16$$

Adding 10% nonresponse rate for actual sample size =  $422.576 \approx 423$ . The calculated sample size is 423. But it was an educational study for the researcher and there were some limitations to the research work, such as time limitations, cost limitations etc. So, the researcher collected (n=257) participants for this study.

#### **3.4.4 Inclusion Criteria**

- Primary caregiver of children with disability
- Caregiver who are continuing therapy for their children with disability
- Age Range: Caregiver within 18-60 years.

#### **3.4.5 Exclusion Criteria**

- Caregiver with chronic mental illness.
- Caregiver who cares more than one child with disability

### **3.5 Ethical Considerations**

All ethics were followed by the ethical principles the World Medical Association (WMA) created for medical research (World Medical Association, 2022).

#### **3.5.1 Ethical Clearance From IRB**

Ethical clearance sought from the Institutional Review Board (IRB). The researcher proposed the study to the IRB by providing a proposal presentation through the department of Occupational Therapy, BHPI. The board critically appraised the study. After receiving the clearance number (CRP-BHPI/IRB/10/2023/747) the researcher continued the further process. Permission from the Head of every selected school and organization also taken before taking participants information.

### **3.5.2 Informed Consent**

Verbal and written consent were taken from the participants. Researcher explained the research aim and objective to the participants, if they felt willing interest to participate so that their data were taken.

### **3.5.3 Right of Refusal to Participate or Withdraw**

In this study, participants were free to choose, whether to participate or not. They were also free to withdraw their participation from the study within December.

### **3.5.4 Confidentiality**

The information provided by the participants was confidential. Their name and identity were not be disclosed to anyone except from the supervisor. The participants were informed that their identity will remain confidential for future uses, such as report writing, publication, conference or any other written material and verbal discussion.

### **3.5.5 Unequal Relationship**

The researcher had not had any unequal or powerful relationship with the participants. So equal relationship was ensured.

### **3.5.6 Risk and Beneficence**

The participants had not had any risk and they didn't get any beneficence from this research.

## **3.6 Data Collection**

### **3.6.1 Participant Recruitment Process**

The participants of this study were recruited from selected schools and organizations. The researcher went to the selected school and organization and contacted with the Head of the organization to get permission to collect data from the participants. After getting permission from the Head, the researcher carried out the further process according to individual organizational rules. Such as sometimes the researcher contacted with the occupational therapist of the organization so that they can refer the participants to the researcher. Sometimes the researcher talked with the individual participant (introduced with themselves and explained aim, objective of the research project, invite to participate, taking consent, taking time for getting data) and collected data based on inclusion and exclusion criteria

### **3.6.2 Data Collection Method**

The researcher used face-to-face survey to collect data. It is the most common method of data collection. Direct interpersonal interaction between the interviewer and interviewee is one of its significant benefits. The key strengths of face-to-face surveys are that they are easily understandable, flexible, and adjustable. They may be regulated in the survey setting based on interpersonal interaction. Respondents can be observed, and physical stimuli applied in the Face-to-face survey (Szolnoki & Hoffmann, 2013). The researcher used standardized questionnaire and sociodemographic variables for this research. The standardized questionnaire and sociodemographic variables were explained to the participants and asked every question to the individual participants.

### **3.6.3 Data Collection Instrument**

Kessler psychological distress scale(k10) was used to measure the level of psychological distress. Kessler Psychological Distress Scale which is a 10-item questionnaire intended to measure global distress based on questions related to anxiety and depressive symptoms experienced in the preceding 4 weeks. Items are rated on a 5-point Likert scale (1 = none of the time, 2=a little of the time, 3= some of the time, 4= most of the time, 5 = all of the time). The scores were added together to get the overall (K10) score (George et al., 2020; Smout, 2019). 10 was the lowest possible total score, while 50 was the highest. The following categories applied to the participant scores: Scores of 20 to 24 indicate mild psychological distress, 25 to 29 indicate moderate psychological distress, and 30 to 50 indicate severe psychological distress (Qamar et al., 2014). The K10 is widely used in clinical and research settings, and shows strong psychometric properties (Keenan et al., 2016).

### **3.6.4 Pilot Survey**

The researcher did pre- test of the survey questionnaire from three participants. While taking their data researcher identified some issues that were difficult to participants to answer easily. The researcher conducted a supervision from the research supervisor and finally the researcher changes asking pattern to make easy to answer according to participant's overview. After that the data were collected from every participant by asking the questions in same pattern.

### **3.7 Data Management and Analysis**

Research data is the key component of any research data. A study's conclusions and findings are wholly dependent on the research data. In order to create and maintain research materials so that they can be used for as long as they have value, research data management (RDM), is a crucial step in the research process. plan data management (creating consent forms, questionnaire, sociodemographic questionnaire), processing data (collecting data & Entering data, store data), analyzing data, preserving data (interpreting, deriving data), Preserving data (creating documentation, archiving data), giving access to data (Distribute data, share data), reusing data (for follow up & new research) (Krahe et al., 2020).

Properly analyzing data is essential for any research. Researcher used descriptive statistics to describe, organize, summarize data by using terms such as frequencies, percentage, and central tendency description. Researcher entered data into the statistical Package for Social Science (SPSS) version 26 and analyzed data. To organize the data presentation, SPSS and Microsoft Office Word were used. All of the information was compiled into a single SPSS variable. Descriptive statistic, mean and standard deviation was calculated. Descriptive statistics was stated as mean standard deviation (SD) and frequencies (count and percentage) to estimate the level of psychological distress among caregivers of children with disability. Chi-square test, Fisher exact test, independent t test was used to identify the association between demographic factors and level of psychological distress experienced by caregiver of children with disability. The association was considered significant if the p value was less than 0.05.

### **3.8 Quality Control and Quality Assurance**

All data was done accurately under the supervision of the respective supervisor and followed all the instructions. Before selecting the study methodology, it was ensured that it may fulfil the study purpose. Researcher used standardized questionnaire in this research. Prior to collecting the final data, a pilot survey was conducted with 3 participants to ensure the proper adjustability of the questionnaire. There were some changes that were needed to use the questionnaire properly.

## CHAPTER IV: RESULTS

This chapter included the findings of this study. The study group included the caregivers of CWD. Table 1 showed the sociodemographic information of the participants. It included age & gender of both CWD & caregiver, occupation, education, relationship with child, suffering from any chronic illness, hours that spend with CWD, how many children do you care, Number of children with disability that you care, Daily sleeping hours, Monthly income, Types of disability. Sociodemographic variables were analyzed by descriptive statistics where researcher found the frequency and percentage of the participants of this study.

**Table 4.1**

**Sociodemographic characteristics of caregivers of children with disability** [ Table 4.1 extends from page no 26-28]

Variable		Frequency (n)	Percent (%)
Gender of caregiver	Male	10	3.9%
	Female	247	96.1%
	Mean±SD= 1.96±.194		
Children age	1-5 years	179	69.6%
	6-10 years	68	26.5%
	11-15 years	10	3.9%
	Median (IQR) = 4(2- 6)		
Occupation	Government job	5	1.9%
	Non-government job	13	5.1%
	Businessman	7	2.7%
	Housewife	226	87.9%
	Student	5	1.9%



Variable		Frequency (n)	Percent (%)
	Unemployed	1	0.4%
Education	Illiterate	9	3.5%
	Primary	26	10.1%
	Secondary	101	39.3%
	Higher secondary	31	12.1%
	Higher education	90	35%
Relationships with child	Mother	226	87.9%
	Father	10	3.9%
	Sister	3	1.2%
	Grand mother	11	4.3%
	Others (paid caregiver, paternal/maternal aunt)	7	2.7%
Suffer from any chronic disease	Yes	14	5.4%
	No	243	94.6%
Hours that you spend with children with disability	10-12 hours	9	3.5%
	More than 12 hours	248	96.5%
How many children do you care	1 child	173	67.3%
	2 children	79	30.7%
	3 children	5	1.9%
Number of children with disability that you care	1 child	257	100%
Daily sleeping hours	6 or less than 6 hours	112	43.6%
	More than 6 hours	145	56.4%
Monthly income	Less than 10 thousand	30	11.7%
	10-20 thousand	90	35%
	21-35 thousand	46	17.9%
	36-50 thousand	26	10.1%
	More than 50 thousand	65	25.3%

Variable	Frequency (n)	Percent (%)	Variable
Gender of the child	Male	168	65.4%
	Female	89	36.6%
Caregivers age	18-27 years	119	46.3%
	28-37 years	104	40.5%
	38- 47 years	27	10.5%
	48-57 years	7	2.7%
	Median (IQR) = 28 (34.00-24.00)		
Types of disability	Cerebral palsy	155	60.3%
	Autism spectrum disorder	59	23%
	Attention deficit hyperactivity disorder	30	11.7%
	Spinal cord injury	2	0.8%
	Spinal bifida	1	0.4%
	Down syndrome	2	0.8%
	Brain injury	1	0.4%
	Intellectual disability	5	1.9%
	Developmental delay	1	0.4%
	Others (Marfan Syndrome)	1	0.4%

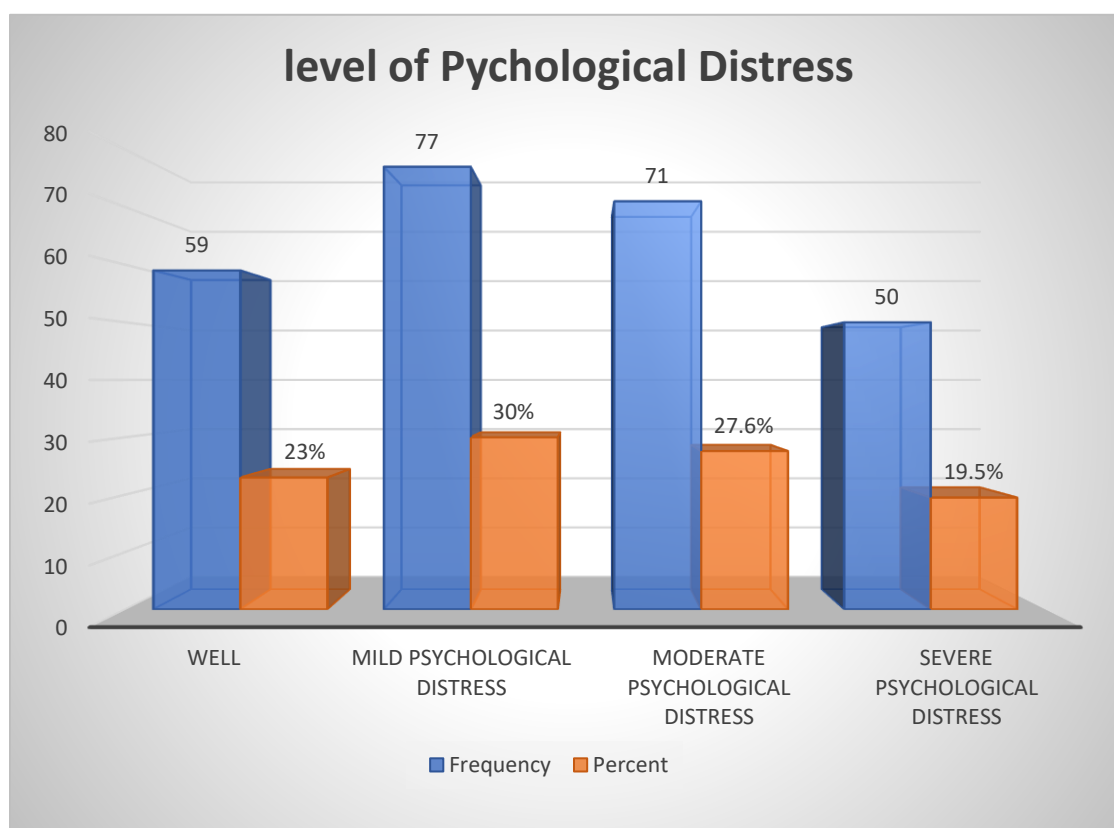
Sociodemographic variables were analyzed by descriptive statistics where researcher found the frequency and percentage of the participants of this study. Among 257 participants researcher found 3.9% (10) male and 96.1% (247) female caregivers. In this study, on average age of CWD were 4 (IQR 2-6) years in which 54.9 % of the children were in the age range of 1to 4 years, 40.9 %of the children were in the age range of 5-9 years and only 4.3% were in the age range of 10-14 years. As the most of the participants were female so most of the participants occupation was housewife 87.9% (226).

Researcher found only 1.9% of participants with government job holder in which 5.1% were nongovernment job holder, 2.7% were businessman, 1.9% were student and only 0.4% were unemployed. The educational level of 35% were higher education where 12.1% were higher secondary, 39.3% were secondary, 10.1% were secondary and only 3.5% were illiterate. Researcher found 87.9% caregivers (participants) as mother in which only 3.9% were father, 1.2% were sister, 4.3% were grandmother and 2.7% were others (paid caregivers, maternal aunt). Researcher investigated that 5.4% (14) suffered from chronic illness where 94.6% (243) participants didn't suffer any chronic illness. 96% (248) caregivers spent more than 12 hours with the CWD & 3.5% (9) spent 10-12 hours to the CWD daily. 67.3% (173) participants or caregivers cared for only 1 child that means only 1 CWD in which 30.7% (79) participants cared for 2 child that means 1 CWD and 1 child and 5 participants or caregiver cared for 3 children which includes 1 CWD among them. The monthly income of 25.3% (65) participants were more than 50 thousand, 35% (90) were 10-20 thousand, 21-35% (46) were 21-35 thousand, 11.7% (30) were less than 10 thousand, 10.1% (26) were 36-50 thousand. Gender of the child was found. Number of male genders were found 65.4% (168) and the number female gender of child were 36.6% (89). In this study on average age of caregivers were 28 (IQR 24-34) years. The number of caregivers between the age range of 18-27 years among 257 participants were 119 or 46.3% (119). Beside these 40.5% (104) of the caregiver were in the age range of 28-37 years and only 2.7% (7) of the caregiver were in the age ranges of 48-57 years. Researcher include different type of CWD in this study. Among them number of children with cerebral palsy was 60.3% (155), number of autism spectrum disorder was 23% (59), number of attention deficit hyperactivity disorder was 11.7% (30),

number of spinal cord injury was 0.8%(2), number of spina bifida was 0.4 % (1), number of down syndrome was 0.8% (2), number of brain injury was or 0.4% (1), number of ID was 1.9% (5) number of developmental delay was 0.4% (1), number of other type of disability (Marfan syndrome) was 1 or 0.4% (1).

**Figure: 4.1**

Level of psychological distress among caregivers of CWD



In this study, among 257 participants, 23% (59) were found to have no psychological distress, and (n=198) participants were found to have psychological distress. As 23% (59) participants had no difficulty, the level of psychological distress among caregivers of children with disabilities was 77%. Among these 77% (198) caregivers with CWD, 30%

(77) had mild, 27.6% (71) had moderate, and 19.5% (50) had severe psychological distress.

**Table 4.2**

Association among carer age, Occupation, relationship with the CWD, suffering from any chronic illness, spending hours per day, number of children, age of CWD, types of disability and level of psychological distress. [ Table 4.2 extends from page no 31-33]

The level of psychological distress						
	Variables	Well %(n)	Mild Psychologi cal distress	Moderate psychologic al distress	Severe psychological distress	P val ue
Carer age	18-27 years	21% (25)	32.8% (39)	33.6% (40)	12.6% (15)	0.1 20
	28-37 years	23.1% (24)	27.9% (29)	22.1% (23)	26.9% (28)	
	38-47 years	29.6% (8)	25.9% (7)	18.5% (5)	25.9% (7)	
	48-57 years	28.6% (2)	28.6% (2)	42.9% (3)	0%	
Occupatio n	Government	60% (3)	40% (2)	0%	0%	0.0
	Non-Govt	69.2% (9)	7.7% (1)	23.1% (3)	0%	
	Businessman	71.4% (5)	14.3% (1)	0%	14.3% (1)	
	Housewife	17.7% (40)	31.9% (72)	28.8% (65)	21.7% (49)	
	Student	20% (1)	20% (1)	60% (1)	0%	
	Unemployed	100% (1)	0%	0%	0%	
Relationsh ip with CWD	Mother	20.8% (47)	31% (70)	27.9% (63)	20.4% (46)	0.0 07
	Father	80% (8)	10% (1)	10% (1)	0%	
	Sister	33.3% (1)	0%	33.3% (1)	33.3% (1)	

	Variables	Well %(n)	Mild Psychologi cal distress	Moderate psychologic al distress	Severe psychological distress	P val ue
	Grandmother	0%	36.4% (4)	36.4% (4)	27.3% (3)	
	Others	42.9% (3)	28.6% (2)	28.6% (2)	0%	
Suffer from any chronic illness	Yes	0%	21.4% (3)	21.4% (3)	57.1% (8)	0.0
	No	24.3%(59 )	30.5%(74)	28%(68)	17.3%(243)	03
Spending hours per day	10-12 hours	44.4%(4)	33.3%(3)	0%	22.2%(2)	0.0
	More than 12 hours	22.2%(55 )	29.8%(74)	28.6%(71)	19.4%(48)	14 1
Age of the children with disability	1-5 years	24% (43)	28.5% (51)	26.8% (48)	20.7%(37)	
	6-10 years	20.6%(14 )	30.9% (21)	30.9% (21)	17.6% (12)	0.8 69
	11-15 years	20% (2)	50% (5)	20% (2)	10% (1)	
Number of children that caregiver care for	1 child	24.3%(42 )	31.2%(54)	27.7%(48)	16.8%(29)	0.6 34
	2 children	21.5%(17 )	26.6%(21)	26.6%(21)	25.3%(20)	
	3 children	0%	40%(2)	40%(2)	20%(1)	
Types of disabilities	Cerebral palsy	16.8%(26 )	29.7%(46)	27.1%(42)	26.5%(41)	0.3 1
	ASD	28.8%(17 )	35.6%(21)	28.8%(17)	6.8%(4)	
	ADHD	40%(12)	20%(6)	30%(9)	10%(3)	
	SCI	50%(1)	0%	50%(1)	0%	
	Spina bifida	0%	100%(1)	0%	0%	

Variables	Well %(n)	Mild Psychologi cal distress	Moderate psychologic al distress	Severe psychological distress	P val ue
Down syndrome	0%	0%	0%	100%(2)	
Brain injury	0%	100%(1)	0%	0%	
ID	20(1)	40(2)	40(2)	0	
Developmen tal delay	100%(1)	0%	0%	0%	
Others (Marfan syndrome)	100%(1)	0%	0%	0%	

*fisher exact significant value was considered as p value*

*while conducting chi-square test more than 20% cells have count less than 5 that's why the fisher exact significant value was considered*

In this study, only 21% of participants between the ages of 18 and 27 were found well, and 79% had PD, which was higher than the participants from other age ranges. However, a higher percentage of severe PD was found between the ages of 28 and 37, in which 26.9% (28) had a severe level of PD. The association was not significant, as the p-value was  $> 0.05$ .

A statistically Significant association was found between occupation & level of PD, and the p-value was 0 ( $P < 0.05$ ). Those who were housewives experienced more PD than the participants from another profession because among housewives, only 17.7% were well, and the rest of them experienced PD. Roughly, students, government job holders, non-government job holders, businessmen, and the unemployed experienced 80%, 40 %, 30.8%, and 28.6 % PD, respectively.

Researcher found that grandmother had higher PD than others as caregiver of CWD. The association was statistically significant between the relationship between CWD and the level of PD, as the p-value was 0.007 ( $p < 0.05$ ). Among 257 participants, 20% of mothers were well, 31 % of mothers had mild, 27.9 % moderate, and 27.6% severe levels of PD. Among fathers, 80% were well, 10 % had mild and moderate and no severe levels of PD. Among grandmothers, 36.4% had mild, 36.4% moderate, and 27.3 % severe PD.

Those who suffered from any chronic illness had higher PD than those who didn't suffer from any chronic illness. Among all the participants who suffered from chronic illness, 21.4% had mild, 21.4% moderate, 57.1% severe PD, and those who didn't suffer from chronic illness, 24.3% had mild, 30.5% moderate, and 17.3% severe PD. The association was statistically significant as  $p \text{ value} < 0.05$ .

There were no association found between how many hours caregivers spend with their child and level of PD as the p value was found greater than 0.05. Of caregivers who spent 10-12 hours, 44.4% were well, and 33.3% had mild, no one moderate, and 22.2 % had severe levels of PD among them. Of caregivers who cared for more than 12 hours, 22.2% were well among them, and 29.8% had mild, 28.6% moderate, and 19.5% severe PD among them. Similarly, no association was found between the number of children, age of the child, types of disability and PD, as the p-value was found to be greater than 0.05.



**Table 4.3:**

Association between educational level, spending hours daily, monthly income, gender of CWD, and level of psychological distress.

		The level of psychological distress				
	Variables	Well	Mild	Moderate	Severe	P value
Educational level	Illiterate	11.1%(1)	44.4%(4)	11.1%(1)	33.3%(3)	0.008
	Primary	12%(3)	16%(4)	28%(7)	44%(11)	
	Secondary	16.8%(17)	33.7%(34)	27.7%(28)	21.8%(22)	
	Higher secondary	21.9%(7)	31.3%(10)	37.5%(12)	9.4%(3)	
	Higher education	34.4%(31)	27.8%(25)	25.6%(23)	12.2%(11)	
Monthly income	Less than 10 thousand	13.3%(4)	36.7%(11)	20%(6)	30%(9)	0.017
	10-20 thousand	13.3%(12)	27.8%(25)	31.1%(28)	27.8%(25)	
	21-35 thousand	30.4%(14)	28.3%(13)	26.1%(12)	15.2%(7)	
	36-50 thousand	23.1%(6)	23.1%(6)	38.5%(10)	15.4%(4)	
	More than 50 thousand	35.4%(23)	33.8%(22)	23.1%(15)	7.7%(6)	
Gender of CWD	Male	23.8%(40)	30.4%(51)	27.4%(46)	18.5%(31)	0.645
	female	21.3%(19)	29.2%(26)	28.1%(25)	21.3%(19)	

*Chi-square significant value was considered as  $p < 0.05$*

The association between the educational status and level of PD was statistically significant as  $p \text{ value} < 0.05$ . In this study, the number of participants who experienced PD was higher in an illiterate group than others because only 11.1% among them were well, and 44.4% had mild, 11.1% moderate, and 33.3% severe levels of PD. Again, for caregivers whose educational status was higher education, 34.4% were well, 27.8% had mild, 25.6% were moderate, and 12.2% were severe levels of PD among them.

No association was found between how many hours caregivers spend with their child and their level of PD, as the  $p$ -value was greater than 0.05. The association between monthly income and level of PD was statistically significant as  $p \text{ value} < 0.05$ . The caregivers whose income level was below 10 thousand, they experienced more PD than another group of participants because only 13.3% were well, and 36.7% had mild, 20% moderate, and 30% severe levels of PD among them. The caregiver whose income level was 36-50 thousand, 23.1% were well and 23.1% had mild, 38.5% moderate and 15.4% severe level of PD among them. The caregivers whose income level was more than 50 thousand, 35.4% were well and 33.8% had mild, 23.1% moderate and 7.7% severe PD among them. On the other hand, there was no statistically significant association found between gender and the level of PD.

**Table 4.4:**

Association between gender of the caregiver, sleeping hours by comparing with mean score of PD among caregivers.

	Variables	N	mean	SD	T	df	p-value
Gender of caregiver	Male	10	17.50	4.743	-3.588	255	0.00
	Female	247	24.45	6.046			
Sleeping hours	less than 6 hours	112	26.21	5.938	4.848	255	0.00
	6 or more than 6 hours	145	22.61	5.851			

*Independent t test was conducted as the above data were normally distributed*

The researcher found significant mean differences between gender and PD among caregivers, as the P-value was 0.00, less than 0.05. Table 4.4 showed that the mean difference in PD between males and females was statistically significant. The mean score was 17.50 for males and 24.45 for females. This result indicates that females had higher PD than males.

The mean difference between the caregivers who slept less than 6 hours and those who slept more than 6 hours was statistically significant, which was 26.21 (n= 112) & 22.61 (n= 145). The caregiver who slept less than 6 hours had more PD than the caregiver who slept more than 6 hours.

## CHAPTER V: DISCUSSION

The purpose of this study was to estimate the level of psychological distress among caregivers of children with disability. The data were collected from CRP and many special schools where the researcher found the caregivers of children with disability. In this study the overall level of psychological distress among caregivers of children with disability was 77% which was closely related to a previous study of another country (Terengganu) that found 79.5% of psychological distress among parents of children with special needs (Wahab & Ramli, 2022). The mean age of the CWD was 4.46 years & the mean age of the caregiver was 29.67.

The first objective of this research was to identify the extent of psychological distress among caregivers of CWD. The researcher found that 30% of caregivers had mild levels of psychological distress, 27.6% had moderate levels of psychological distress, and 19.5% had severe levels of psychological distress. Numerous previous studies found the caregiver had psychological discomfort. Common mental disorders were present among 90.5% and high levels of distress among 46% of caregivers of children with NDD (Maridal et al., 2021). The finding of a study discovered that roughly 16.2%, 29.4%, and 54.4% of the individuals, respectively, experienced mild, moderate, and severe psychological distress (O'leimat et al., 2019).

On the hand, this prevalence rate is higher than the findings of some previous study such as a US study revealed that 47% parents expressed significant psychological distress (PD) during COVID 19 period for children with ASD. A study of Japan showed that only 15.1% caregivers had psychological discomfort (Yamaoka et al., 2015).

The second objective of this study was to identify sociodemographic information. In this study, there were 96.1% were female, and only 3.9% were female caregivers, which was relevant to previous studies, which showed that the majority of participants were female (O'leimat et al., 2019). The age range of caregivers between 30-39 years was the highest frequency according to a study of Terengganu, whereas in this current study of Bangladesh, the researcher found the highest frequency among the caregivers of the age range of 18-27 years (Wahab & Ramli, 2022).

Another finding from the study was significant differences in PD between caregiver gender (male & female) whereas some previous study could not find any statistically significant differences in PD between caregiver gender (male & female) (Al-Gamal & Long, 2013; O'leimat et al., 2019). Previous study in Bangladesh investigated caregiver burden that revealed that mothers of ASD experienced higher burden than father (Solaiman et al., 2023) which was little bit consistent to this current study.

Another interesting finding of this study was caregivers who were housewives had higher psychological distress than others. Hence, the housewife category was not counted as a job in our country; therefore, this result was not exactly inconsistent but closer to a previous study which found that employed parents felt a higher burden level than unemployed parents (Alnazly & Abojedi, 2019). But this finding is more consistent with another study which found that parent who were retired had more PD than the parents who were full time worker (O'leimat et al., 2019).

The third objective of this current study was identifying the association between sociodemographic information and level of PD. The results of present study revealed that there was significant association between the relationship with CWD and PD among

caregivers. But this result was inconsistent with a study that doesn't find any association with relationship with CWD and PD.

According to this study caregivers who suffered from any chronic illness than the other who doesn't suffer any chronic illness. This result also consistent with previous study. Another interesting finding of the study was the caregivers who were respectively less educated had higher levels of PD and caregivers who were higher educated had lower level of PD, whereas numerous studies found no association between educational level and PD among caregivers (Barutcu et al., 2021; O'leimat et al., 2019; Wahab & Ramli, 2022).

One of the findings of this current study was no statistically significant association between caregiver age and PD, but a previous study investigated that the high caregiver age is associated with caregiver burden (Barutcu et al., 2021). But the result of this current study is consistent with a previous study of Amman city where they found no statistically significant association between participants age and level of PD (O'leimat et al., 2019). However, this current study findings showed that the caregiver between the age ranges of 48-57 years had 25.9% severe level of PD whereas between the age ranges of 18-27 years only 12.6% had severe level of PD.

The study findings showed that in several children, the child's age and gender were not associated with the caregiver's psychological distress. This finding was similar to the previous study, which revealed that age, gender, and number of siblings were not associated with parental stress (Barutcu et al., 2021; Majnemer et al., 2012). The findings of the present study revealed that no significant association between the types of disability and PD of caregiver. It Whereas another study revealed that caregivers of ASD,

ADHD, ID had equivalent high percentages of PD (O'leimat et al., 2019). The monthly income of the caregiver was associated with the findings of this current study, which agrees with the previous studies that showed that caregivers as parents who had higher income levels experienced less psychological distress (Al-Gamal & Long, 2013). The another findings of this study was caregiver who slept for less than 6 hours had higher level of PD than who slept for more than 6 hours this was consistent with previous study (Dhungel et al., 2023; Marquis et al., 2019).

In this study only 28.3% were well that means 71.7% had PD among the caregivers of ASD experienced psychological distress whereas among the caregivers of cerebral palsy only 16.8% were well that means 83.2% had psychological distress. This finding was inconsistent with previous study as they found that caregiver of children with autism had higher level of PD than other types of neurodevelopmental disorders (Marquis et al., 2019). A previous study in Bangladesh investigated caregiver burden that revealed that mothers of ASD experienced a higher burden than father (Solaiman et al., 2023) which was agrees to this current study.

## CHAPTER VI: CONCLUSION

### 6.1 Strength and Limitations

#### 6.1.1 Strengths

- Reviewing the existing literature to establish a solid theoretical foundation for this research
- Using validated and reliable instrument to assess psychological distress ensures the data quality.
- The author permitted the Bengali version of the tools.
- The participant response rate in this study was 98.2, which was one of the strengths.
- The researcher ensured ethical practice during the whole research period.
- Including nine types of CWD in this study could enhance the study's generalizability.

#### 6.1.2 Limitations

- Though the study included caregivers of different types of CWD in this research, the number of caregivers of cerebral palsy was highly greater than other types of disability. It was the limitation of this study.
- In addition, a few schools and organizations were closed due to winter vacation during the data collection period, so the researcher couldn't reach those participants.



## **6.2 Practice Implication**

### **6.2.1 Recommendation for Future Practice**

The findings of this study indicate a significant implication for future practice for health professionals and also for healthcare organizations. Based on the study the health professionals can develop a support program to address PD experienced by CG of CWD which encompasses counselling, peer support group etc. Another important implication for future practice is to providing education and training opportunity considering associated factors regarding PD so that they enhance their ability to cope with PD and also manage effectively.

Besides this another recommendation for future practice is integrating mental health services into existing health care services so that CG can get professional support when needed.

### **6.2.2 Recommendation for future research**

- Exploring the in-depth insights into the lived experiences of caregivers.
- Exploring the factors that can contribute to caregiver resilience.
- Identifying areas for improvement in healthcare services.
- Investigating the effectiveness of intervention for reducing psychological distress.

## **6.3 Conclusion**

Caregivers of children with disability had significant ranges of psychological distress with a striking 77% prevalence rate. The identification of specific factors with psychological distress, such as the occupation of the caregiver and the educational level of the caregiver, highlights the importance of targeted intervention tailored to address the

diverse needs of this population. The high prevalence of psychological distress among caregivers indicates the urgent need for a comprehensive support system. This research emphasizes the critical role of early intervention & prevention to address the caregiver's distress level. The investigation of sociodemographic-related psychological distress will help a health professional to understand the factors of psychological distress. Early diagnosis and screening of the mental health of the caregiver will make it less complicated to identify high-risk risks. However, the result of this study raises awareness about the mental health of a caregiver, which can help for creating a more supportive environment for both the caregiver and CWD.

## LIST OF REFERENCES

- Al-Gamal, E., & Long, T. (2013). Psychological distress and perceived support among Jordanian parents living with a child with cerebral palsy: A cross-sectional study. *Scandinavian Journal of Caring Sciences*, 27(3), 624–631. <https://doi.org/10.1111/j.1471-6712.2012.01071.x>
- Alnazly, E. K., & Abojedi, A. (2019). Psychological distress and perceived burden in caregivers of persons with autism spectrum disorder. *Perspectives in Psychiatric Care*, 55(3), 501–508. <https://doi.org/10.1111/ppc.12356>
- AlShatti, A., AlKandari, D., AlMutairi, H., AlEbrahim, D., AlMutairi, A., AlAnsari, D., Abduljaleel, L., AlEnzi, H., AlFoudari, L., AlShaib, H., AlAzmi, K., & Ahmed, J. (2021). Caregivers' perceptions and experience of caring for persons with Down syndrome in Kuwait: a qualitative study. *International Journal of Developmental Disabilities*, 67(5), 381–390. <https://doi.org/10.1080/20473869.2021.1910780>
- Barutcu, A., Barutcu, S., Kolkiran, S., & Ozdener, F. (2021). Evaluation of Anxiety, Depression and Burden on Caregivers of Children with Cerebral Palsy. *Developmental Neurorehabilitation*, 24(8), 555–560. <https://doi.org/10.1080/17518423.2021.1917718>
- BBS. (2022). National Survey on Persons with Disabilities (NSPD) 2021. In *Bangladesh Bureau of Statistics (BBS)* (Vol. 5, Issue 3).
- Dhungel, B., Kato, T., Kachi, Y., Ochi, M., Gilmour, S., & Takehara, K. (2023). Prevalence and Associated Factors of Psychological Distress Among Single Fathers

in Japan. *Journal of Epidemiology*, 33(6), 294–302.  
<https://doi.org/10.2188/jea.JE20210273>

Emerson, N. D., Morrell, H. E. R., & Neece, C. (2016). Predictors of Age of Diagnosis for Children with Autism Spectrum Disorder: The Role of a Consistent Source of Medical Care, Race, and Condition Severity. *Journal of Autism and Developmental Disorders*, 46(1), 127–138. <https://doi.org/10.1007/s10803-015-2555-x>

García-López, C., Recio, P., Pozo, P., & Sarriá, E. (2021). Psychological Distress, Disorder Severity, and Perception of Positive Contributions in Couples Raising Individuals With Autism. *Frontiers in Psychology*, 12(June), 1–12.  
<https://doi.org/10.3389/fpsyg.2021.694064>

George, E. S., Kecmanovic, M., Meade, T., & Kolt, G. S. (2020). Psychological distress among carers and the moderating effects of social support. *BMC Psychiatry*, 20(1), 1–9. <https://doi.org/10.1186/s12888-020-02571-7>

Gordon, N. (1992). Children with developmental dyscalculia. *Developmental Medicine and Child Neurology*, 34(5), 459–463. <https://doi.org/10.1111/j.1469-8749.1992.tb11460.x>

Hussain, M. M., & Raihan, M. M. H. (2022). Disadvantage, discrimination, and despair: Parental experiences of caring for children with disability in Bangladesh. *Asian Social Work and Policy Review*, 16(1), 80–91.  
<https://doi.org/https://doi.org/10.1111/aswp.12249>

Isa, S. N. I., Ishak, I., Ab Rahman, A., Mohd Saat, N. Z., Che Din, N., Lubis, S. H., & Mohd Ismail, M. F. (2016). Health and quality of life among the caregivers of

- children with disabilities: A review of literature. *Asian Journal of Psychiatry*, 23, 71–77. <https://doi.org/https://doi.org/10.1016/j.ajp.2016.07.007>
- Kalb, L. G., Badillo-Goicoechea, E., Hologue, C., Riehm, K. E., Thrul, J., Stuart, E. A., Smail, E. J., Law, K., White-Lehman, C., & Fallin, D. (2021). Psychological distress among caregivers raising a child with autism spectrum disorder during the COVID-19 pandemic. *Autism Research*, 14(10), 2183–2188. <https://doi.org/10.1002/aur.2589>
- Keenan, B. M., Newman, L. K., Gray, K. M., & Rinehart, N. J. (2016). Parents of Children with ASD Experience More Psychological Distress, Parenting Stress, and Attachment-Related Anxiety. *Journal of Autism and Developmental Disorders*, 46(9), 2979–2991. <https://doi.org/10.1007/s10803-016-2836-z>
- Kesmodel, U. S. (2018). Cross-sectional studies – what are they good for? *Acta Obstetricia et Gynecologica Scandinavica*, 97(4), 388–393. <https://doi.org/10.1111/aogs.13331>
- Krahe, M. A., Toohey, J., Wolski, M., Scuffham, P. A., & Reilly, S. (2020). Research data management in practice: Results from a cross-sectional survey of health and medical researchers from an academic institution in Australia. *Health Information Management Journal*, 49(2–3), 108–116. <https://doi.org/10.1177/1833358319831318>
- Ma, G. Y. K., & Mak, W. W. S. (2016). Caregiving-specific worry, affiliate stigma, and perceived social support on psychological distress of caregivers of children with physical disability in hong kong. *American Journal of Orthopsychiatry*, 86(4), 436–

446. <https://doi.org/10.1037/ort0000171>

- Majnemer, A., Shevell, M., Law, M., Poulin, C., & Rosenbaum, P. (2012). Indicators of distress in families of children with cerebral palsy. *Disability and Rehabilitation*, *34*(14), 1202–1207. <https://doi.org/10.3109/09638288.2011.638035>
- Maridal, H. K., Bjørgaas, H. M., Hagen, K., Jonsbu, E., Mahat, P., Malakar, S., & Dørheim, S. (2021). Psychological distress among caregivers of children with neurodevelopmental disorders in Nepal. *International Journal of Environmental Research and Public Health*, *18*(5), 1–14. <https://doi.org/10.3390/ijerph18052460>
- Marquis, S., Hayes, M. V., & McGrail, K. (2019). Factors Affecting the Health of Caregivers of Children Who Have an Intellectual/Developmental Disability. *Journal of Policy and Practice in Intellectual Disabilities*, *16*(3), 201–216. <https://doi.org/10.1111/jppi.12283>
- Masefield, S. C., Prady, S. L., Sheldon, T. A., Small, N., Jarvis, S., & Pickett, K. E. (2020). The Caregiver Health Effects of Caring for Young Children with Developmental Disabilities: A Meta-analysis. *Maternal and Child Health Journal*, *24*(5), 561–574. <https://doi.org/10.1007/s10995-020-02896-5>
- Mohajan, H. (2020). Munich Personal RePEc Archive Quantitative Research: A Successful Investigation in Natural and Social Sciences. In *Journal of Economic Development, Environment and People* (Vol. 9, Issue 4). <https://mpa.ub.uni-muenchen.de/105149/>
- Murphy, N. A., Christian, B., Caplin, D. A., & Young, P. C. (2007). The health of caregivers for children with disabilities: Caregiver perspectives. *Child: Care, Health*

*and Development*, 33(2), 180–187. <https://doi.org/10.1111/j.1365-2214.2006.00644.x>

Murshid, M., & Haque, M. (2020). Disability Brief in Single Chapter and Bangladesh Perspectives: A Rapid Overview. *Advances in Human Biology*, 10, 41–50. [https://doi.org/10.4103/AIHB.AIHB\\_6\\_20](https://doi.org/10.4103/AIHB.AIHB_6_20)

O’leimat, A. S., Alhussami, M., & Rayan, A. (2019). The correlates of psychological distress among parents of children with psychiatric disorders. *Journal of Child and Adolescent Psychiatric Nursing*, 32(1), 24–32. <https://doi.org/10.1111/jcap.12223>

Olusanya, B. O., Kancherla, V., Shaheen, A., Ogbo, F. A., & Davis, A. C. (2022). Global and regional prevalence of disabilities among children and adolescents: Analysis of findings from global health databases. *Frontiers in Public Health*, 10, 977453. <https://doi.org/10.3389/fpubh.2022.977453>

Ou, W. X., Cha, C. H., & Wang, L. H. (2010). Mental health state of parents of children with autism. *Chinese Journal of Contemporary Pediatrics*, 12(12), 947–949.

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533–544. <https://doi.org/10.1007/s10488-013-0528-y>

Qamar, K., Kiani, M. R. B., Ayyub, A., Khan, A. A., & Osama, M. (2014). Higher stress scores for female medical students measured by the Kessler Psychological Distress Scale (K10) in Pakistan. *Journal of Educational Evaluation for Health Professions*,

11, 27. <https://doi.org/10.3352/jeehp.2014.11.27>

Rockhill, C., Violette, H., Stoep, A. Vander, Grover, S., & Myers, K. (2013). Caregivers' distress: Youth with attention-deficit/hyperactivity disorder and comorbid disorders assessed via telemental health. *Journal of Child and Adolescent Psychopharmacology*, 23(6), 379–385. <https://doi.org/10.1089/cap.2013.0019>

Shahar, H. K., Debnath, S. C., Ahmad, N., Azman, A. Z. F., & Islam, M. N. (2021). Determinants of the psychological states of mothers of children with cerebral palsy: A cross-sectional study in bangladesh. *Malaysian Journal of Medicine and Health Sciences*, 17(4), 13–20.

Silva, R. A. R. da, Silva, R. T. S., Nascimento, E. G. C. do, Gonçalves, O. P., & , Maiara Menezes Reis, B. C. O. da S. (2016). Perfil clínico-epidemiológico de adultos hiv-positivo atendidos em um hospital de Natal/RN. *Revista Online de Pesquisa*, 8(3), 4826–4832. <https://doi.org/10.9789/21755361>

Smout, M. F. (2019). The factor structure and predictive validity of the Kessler Psychological Distress Scale (K10) in children and adolescents. *Australian Psychologist*, 54(2), 102–113. <https://doi.org/10.1111/ap.12376>

Solaiman, M. A., Morshed, A. S. M., Morshed, N. M., Mullick, M. S. I., Rahman, M., & Ahmed, S. (2023). Psychological Distress and Perceived Burden Among Bangladeshi Parents of Children with Autism Spectrum Disorder: A Cross-sectional Study. *Psychological Studies*, 68(3), 319–325. <https://doi.org/10.1007/s12646-023-00720-y>

Szolnoki, G., & Hoffmann, D. (2013). Online, face-to-face and telephone surveys -



Comparing different sampling methods in wine consumer research. *Wine Economics and Policy*, 2(2), 57–66. <https://doi.org/10.1016/j.wep.2013.10.001>

UNICEF. (2022). *UNICEF Fact Sheet Children with Disabilities*. 63.

Wahab, R., & Ramli, F. F. A. (2022). Psychological Distress Among Parents of Children With Special Needs. *International Journal of Education, Psychology and Counseling*, 7(46), 498–511. <https://doi.org/10.35631/ijepc.746037>


Warnink-Kavelaars, J., van Oers, H. A., Haverman, L., Buizer, A. I., Alsem, M. W., Engelbert, R. H. H., & Menke, L. A. (2021). Parenting a child with Marfan syndrome: Distress and everyday problems. *American Journal of Medical Genetics, Part A*, 185(1), 50–59. <https://doi.org/10.1002/ajmg.a.61906>

Winefield, H. R., Gill, T. K., Taylor, A. W., & Pilkington, R. M. (2012). Psychological well-being and psychological distress: is it necessary to measure both? *Psychology of Well-Being: Theory, Research and Practice*, 2(1), 3. <https://doi.org/10.1186/2211-1522-2-3>

Yamaoka, Y., Tamiya, N., Moriyama, Y., Alfonso, F., & Garrido, S. (2015). *Mental Health of Parents as Caregivers of Children with Disabilities : Based on Japanese Nationwide Survey*. 1–14. <https://doi.org/10.1371/journal.pone.0145200>

## APPENDICES

### Appendix A: Approval / permission letter



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

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Ref: **CRP-BHPI/IRB/10/2023/797** Date: **18.10.2023**

To  
 Fatema Akter  
 4<sup>th</sup> Year B.Sc. in Occupational Therapy  
 Session: 2018-2019; Student ID: 122180313  
 Department of Occupational Therapy  
 BHPI, CRP, Savar, Dhaka-1343, Bangladesh

**Subject:** Approval of the thesis proposal “Psychological distress among caregivers of children with disability: A Cross Sectional Study” by ethics committee.

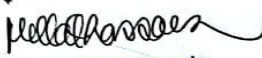
Dear Fatema Akter,  
 Congratulations.  
 The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above mentioned dissertation, with yourself, as the principal investigator and Sk. Moniruzzaman as thesis supervisor & Monika Singha as thesis co-supervisor.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

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

The purpose of the study is to measure the level of psychological distress among caregivers of children with disability. The study involves use of Standardized scale (Kessler Psychological distress Scale) to measure the psychological distress level that may take about 20 to 25 minutes to fill in the questionnaire for collection of specimen and there is no likelihood of any harm to the participants and no economical benefits for the participants. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 8.30 AM on 23<sup>rd</sup> September 2023 at BHPI 38<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  
 Project & Course Coordinator  
 Dept. of Rehabilitation Science  
 BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Member Secretary  
 Institutional Review Board  
 BHPI, CRP, Savar, Dhaka-1343, Bangladesh.

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

Date: 19-10-2023

To

The Head of the Pediatric Department  
Centre for the Rehabilitation of the Paralyzed (CRP)  
Savar, Dhaka-1343, Bangladesh.

**Subject: Regarding permission for data collection for undergraduate research**

Dear sir/ Madam,

With due respect I would like to draw your kind attention that I am a student of B.Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI), an academic institute of Centre for the Rehabilitation of the Paralyzed (CRP) under faculty of Medicine of University of Dhaka. According to my course curriculum I have to conduct research and my research title is "Psychological distress among caregivers of children with disability; A cross sectional study." with myself, Sk. Moniruzzaman as my thesis supervisor & Monika singha as my thesis co-supervisor. The purpose of the study is "to measure the level of psychological distress among caregivers of children with disability". That's why I need to collect data from caregivers of children with disability from both of your inpatient & outpatient unit. So, I will be obliged if you grant me permission to collect data.

I therefore, pray and hope that you would be kind enough to grant my request and give me permission to collect data.

Sincerely yours,

*Fatema*  
Fatema Akter  
4<sup>th</sup> Year, B.Sc. in Occupational Therapy  
Session: 2018-2019, Student ID: 122180313  
Bangladesh Health Professions Institute (BHPI)  
CRP, Savar, Dhaka-1343

*she will collect data from  
this Department. please  
help her.*

*Shamsh*  
*SH*

21-10-23

Signature and comments of the Head of the Department

*Sk. Moniruzzaman*

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

**Mosnara Perveen**  
Head of Department  
Department of Paediatrics  
CRP, Savar, Dhaka

Date: 02-12-2023

To

The chairperson

Centre for the Rehabilitation of the Paralyzed (CRP)

Mirpur, Dhaka-1206, Bangladesh

Subject: Regarding permission for data collection for undergraduate research.

Dear Sir / Madam,

With due respect I would like to draw your kind attention that I am a student of B.Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI), an academic institute of Centre for the Rehabilitation of the Paralyzed (CRP) under faculty of Medicine of University of Dhaka. According to my course curriculum I have to conduct research and my research title is "Psychological distress among caregivers of children with disability: A cross sectional study." with myself, Sk. Moniruzzaman as my thesis supervisor & Monika Singha as my thesis co-supervisor. The purpose of the study is "to measure the level of psychological distress among caregivers of children with disability." That's why I need to collect data from caregivers of children with disability from both of yours inpatient & outpatient unit. So I will be obliged if you grant me permission to collect data.

I therefore, pray and hope that you would be kind enough to grant my request and give me permission to collect data from pediatric unit, CRP, Mirpur.

Sincerely yours,

*Fatema*

Fatema Akter

4<sup>th</sup> Year, B.Sc. in Occupational Therapy

Session: 2018-2019, Student ID: 122180313

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343

Comments and Signature of the head of the department

*Sk. Moniruzzaman* 02/12/2023

Sk. Moniruzzaman

Associate Professor & Head of the Department

Department of Occupational Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343, Bangladesh

Date: 19-10-2023

To

Principal

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

Subject: **Regarding permission for data collection for undergraduate research**

Dear Sir / Madam,

With due respect I would like to draw your kind attention that I am a student of B.Sc in Occupational Therapy at Bangladesh Health Professions Institute (BHPI), an academic institute of Centre for the Rehabilitation of the Paralyzed (CRP) under faculty of Medicine of University of Dhaka. According to my course curriculum I have to conduct research and my research title is "Psychological distress among caregivers of children with disability; A cross sectional study." with myself, Sk. Moniruzzaman as my thesis supervisor & Monika singha as my thesis co-supervisor. The purpose of the study is "to measure the level of psychological distress among caregivers of children with disability". That's why I need to collect data from caregivers of children with disability from your organization. So, I will be obliged if you grant me permission to collect data.

I therefore, pray and hope that you would be kind enough to grant my request and give me permission to collect data from pediatric unit, CRP, Mirpur.

Sincerely yours,

*Fatema*

Fatema Akter

4<sup>th</sup> Year, B.Sc in Occupational Therapy

Session: 2018-2019, Student ID: 122180313

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343

Signature and comments of the Head of the Department

*Sumit*

Sk. Moniruzzaman

Associate Professor & Head of the Department

Occupational Therapy Department

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343



*Permission Granted*

*Nayem*  
23/10/23

Md. Nayem Nizam Majumder  
B.Sc. OT (CRP, DU), MDS (UJ-International)  
Senior Occupational Therapist & V.P.  
Therapist Point & Shonirvor Special Schools

Date:19-10-2023

To

Principal

Prottasha Center for Autism Care.

Dogormora, CRP road, Savar, Dhaka.

**Subject: Regarding permission for data collection for undergraduate research**

Dear Sir / Madam,

With due respect I would like to draw your kind attention that I am a student of B.Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI), an academic institute of Centre for the Rehabilitation of the Paralysed (CRP) under faculty of Medicine of University of Dhaka. According to my course curriculum I have to conduct research and my research title is "Psychological distress among caregivers of children with disability; A cross sectional study." with myself, Sk. Moniruzzaman as my thesis supervisor & Monika singha as my thesis co-supervisor. The purpose of the study is "to measure the level of psychological distress among caregivers of children with disability". That's why I need to collect data from caregivers of children with disability from your organization. So, I will be obliged if you grant me permission to collect data.

I therefore, pray and hope that you would be kind enough to grant my request and give me permission to collect data from pediatric unit, CRP, Mirpur.

Sincerely yours,

*Fatema*

Fatema Akter

4<sup>th</sup> Year, B.Sc. in Occupational Therapy

Session: 2018-2019, Student ID:122180313

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343

**Signature and comments of the Head of the Department**

*Sumon*

Sk. Moniruzzaman

Associate Professor & Head of the Department

Occupational Therapy Department

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343

*W. S. S.*  
22.10.2023  
Prottasha Centre  
CRP Road



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

CRP-Chapaini, Savar, Dhaka. Tel: 02224445464, 02224444004. Website: www.bhpi.edu.bd

Date: 10.12.2023

To  
 The Chairperson  
 Therapy Station Autism Rehab Centre,  
 117, Shantinogor, Dhaka - 1217,

Subject: *Regarding Data collection for dissertation.*

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

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

4<sup>th</sup> year students of BHPI Fatema Akter would like to collect data in your organization from 11.12.2023 to 30.01.2024. Her title: "Psychological distress among caregivers of children with disability: A cross Sectional study".

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

With regards

  
 Sk. Moniruzzalman

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



২১শে ডিসেম্বর  
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Date: 19-10-2023

To

Principal

William & Marie Taylor School

CRP-Savar, Dhaka-1343, Bangladesh

**Subject: Regarding permission for data collection for undergraduate research**

Sir,

With due respect I would like to draw your kind attention that I am a student of B.Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI), an academic institute of Centre for the Rehabilitation of the Paralyzed (CRP) under faculty of Medicine of University of Dhaka. According to my course curriculum I have to conduct research and my research title is "Psychological distress among caregivers of children with disability; A cross sectional study." with myself, Sk. Moniruzzaman as my thesis supervisor & Monika singha as my thesis co-supervisor. The purpose of the study is "to measure the level of psychological distress among caregivers of children with disability". That's why I need to collect data from caregivers of children with disability from your institute. So, I will be obliged if you grant me permission to collect data.

I therefore, pray and hope that you would be kind enough to grant my request and give permission to collect data.

Sincerely yours,

*Fatema*  
Fatema Akter

4<sup>th</sup> Year B.Sc. in Occupational Therapy

Session: 2018-2019, Student ID: 122180313

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343

Comments and Signature of the head of the department

*Sk. Moniruzzaman*

Sk. Moniruzzaman.

Associate Professor & head of the department

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343, Bangladesh.

Permitted for Data  
Collection from WMTS.

*Zia* 1536  
31-10-23

MD. ABDULLAH AL ZUBAYER  
Principal  
William and Marie Taylor School  
CRP-Savar, Dhaka-1343



Date: 29.10.2023

To

The chairperson

Institute for Autistic Children & Blind Old Home & TN Mother Child Hospital.

Chandulia-Boliyarpur, Savar, Dhaka

**Subject: Regarding permission for data collection for undergraduate research**

Sir,

With due respect I would like to draw your kind attention that I am a student of B.Sc. in Occupational Therapy at Bangladesh Health Professions Institute (BHPI), an academic institute of Centre for the Rehabilitation of the Paralysed (CRP) under faculty of Medicine of University of Dhaka. According to my course curriculum I have to conduct research and my research title is "Psychological distress among caregivers of children with disability; A cross sectional study." with myself, Sk. Moniruzzaman as my thesis supervisor & Monika singha as my thesis co-supervisor. The purpose of the study is "to measure the level of psychological distress among caregivers of children with disability". That's why I need to collect data from caregivers of children with disability from your organization. So, I will be obliged if you grant me permission to collect data.

I therefore, pray and hope that you would be kind enough to grant my request and give permission to collect data.

Sincerely yours,

*Fatema*

Fatema Akter  
4<sup>th</sup> Year B.Sc. in Occupational Therapy  
Session: 2018-2019, Student ID:122180313  
Bangladesh Health Professions Institute (BHPI)  
CRP, Savar, Dhaka-1343

**Comments and Signature of the head of the department**

*Sk. Moniruzzaman*  
Sk. Moniruzzaman. 29/10/2023

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

*Lina*  
30.10.23



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

Date: 10.12.2023

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

Subject: *Regarding Data collection for dissertation.*

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

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

4<sup>th</sup> year students of BHPI Fatema Akter would like to collect data in your organization from 11.12.2023 to 30.01.2024. Her title: "Psychological distress among caregivers of children with disability; A cross Sectional study".

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

With regards

Sk. Moniruzzaman

Associate Prof. & Head

Dept. of Occupational Therapy

BHPI.



**Md :Jasim Uddir**

Principal  
 Autism Care Foundation Special Schoc

## Appendix B: Information sheet & consent from

### Information sheet (English Version)



## BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)

### DEPARTMENT OF OCCUPATIONAL THERAPY

CRP-Chapain, Savar, Dhaka-1343, Telephone: 02-7745464-5. 7741404. Fax: 0774506

#### Research information

**Research title:** Psychological distress among caregivers of children with disability; A cross sectional study.

**Researcher:** Fatema Akter, B.Sc. in Occupational Therapy (4th Year), Session: 2018-2019, Bangladesh Health Profession Institute (BHPI), CRP, Savar, Dhaka- 1343

**Supervisor:** Sk. Moniruzzaman, Associate professor and Head, Department of Occupational Therapy, Bangladesh Health Professions Institute.

**Co-supervisor:** Monika Singha, Lecturer, Department of Occupational Therapy, Bangladesh Health Profession Institute.

**Research place:** The study will be conducted in the Inpatient and outpatient of pediatric unit of CRP Savar & Mirpur, William and Marry Tailor School, Prottasha Center for Autism care, Therapist point & Shonirvor Special School for Autism and Neurodevelopmental Disorder, INNOBHAT Hospital (Institute for Autistic Children & Blind, Old Home and TN Mother Child Hospital), Therapy Station: Autism Rehab Centre, Autism Care Foundation Special School.

## **Information sheet**

### **Introduction**

I am Fatema Akter, a fourth-year Occupational Therapy student at the Bangladesh Health Professions Institute under the Medicine Faculty of Dhaka University and I am enrolled in the 2018–2019 academic session of the undergraduate education program. To complete the education program of B.Sc. in Occupational Therapy from BHPI I have to conduct an undergraduate research project. This research project will be done under the supervision of Sk. Moniruzzaman & Monika Singha. You will be given a thorough presentation of the research project's purpose, the data collection methods, and how the topic related to the research will be maintained through this participating information and paper. If you are willing to participate in this study, it will be easier for you to make judgments and if you have a clear idea about the topics related to this research. Of course, we don't have to confirm your participation now. If you wish, you can discuss this matter with your relatives, friends or confidants before making any decision. Feel free to ask if you have trouble in understanding any content by reading the information sheet or if there is a need to know more about something.

**Background and purpose of the research:**

This study will invite the caregivers of children with disability. So, you are also being invited to be a part of this study. This study will investigate the level of psychological distress of your life. Your emotional, mental and social information will help to determine your overall psychological distress. As you have to spend a lot of time with the children with disability, so the main purpose of my study is whether you feel any nervousness, restlessness, worthlessness for the children with disability. Your information will be helpful to reveal the understanding of your health status through your voluntary participation in this study. The general purpose of the study is to identify your overall psychological distress of your life for the children with disability.

**Issues related to participation in this research work:**

Through this participating information sheet, the information about the conducting the research project will be presented to you in detail before you sign the consent form. If you want to participate in this study, you must sign the consent form. Participants will then be asked to complete a standard questionnaire that may take 20-25minutes. This questionnaire will contain questions on socio-demographic factors (for example: age, gender, educational qualification).

The confidentiality of the information collected will be maintained and your identity will not be disclosed. If you don't give consent, you don't have to participate. You may withdraw your participation without providing any explanation to the researcher until the time before the data is approved.

**What are the benefits and risks of participating?**

During the course of the research project, you may have to answer some personal questions due to which you may feel extremely unprepared. If you don't want to do that, you don't have to participate. On the other hand, you may not benefit directly from participating in this study, but your valuable participation will help you to know the prevalence of psychological distress among caregivers of children with disability. It is expected that there is no additional risk, hazard or discomfort in participating in the relevant research here.

**Is it certain that the information is confidential?**

By signing this consent letter, you have allowed the research staff studying in this research project to collect and use your personal information. Any information collected for this research project, which can identify you, will remain confidential. The information collected about you will be mentioned in a symbolic way. Only the researcher and her supervisor directly associated with it will have access to this information. The data identified by the symbolic means will be used for further data analysis. The documents will be kept in a locked door. Electronic acquisition of the data will be collected in the Occupational Therapy Department of BHPI and on the personal laptop of the researcher.

It is expected that the results of this research project will be published and presented in various forums. In case of any type of publication and presentation, the information will be provided in such a way that you are not identified in any way without your consent. The data will be collected initially on paperwork.

**Participants fees**

There is no remuneration for participating in this study.

**Source of Fund**

This study will only be funded by the researchers' own resources.

**Where to contact to know more about the research?**

If you want to contact about the research project or if you have any complain or questions about the research project, you can ask now or at any later time. In that case, you can contact through the given address

**Researcher: Fatema Akter**

B.Sc. in Occupational Therapy

Session: 2018-2019

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain, Savar, Dhaka

Email: [fatema.crp.ot22@gmail.com](mailto:fatema.crp.ot22@gmail.com)

Contact: 01994365870

**Supervisor: Sk Moniruzzaman**

Associate professor& Head

Department of Occupational Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343

Phone- 01716358212

**Co-supervisor: Monika Singha**

Lecturer

Department of Occupational Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343

Phone- 01997631361

Email: [monikamoni.ot.edu@gmail.com](mailto:monikamoni.ot.edu@gmail.com)



### **Consent form (English Version)**

Assalamualaikum/ Namaskar,

I am Fatema Akter, 4<sup>th</sup> year student, BSc in Occupational Therapy at Bangladesh Health Profession Institute (BHPI) under the Faculty of Medicine, University of Dhaka. I have to conduct a research project and it is a part of my study to obtain my bachelor degree. My research title is "Psychological distress among caregivers of children with disability; A Cross Sectional Study" To fulfil my research project. I need to some information from you to collect data. So, you can be a respected participant of this research that's why I want to ask you some question related to the topic and the conversation time will be 20-25 minutes.

I would like to inform you that this is a purely academic study and will not to be used for any other purposes. I assure that all data will be kept confidential. Your participation will be voluntary. You may have the rights to withdraw consent and discontinue participation at any time of the experiment.

Please read the following statements to understand the content of information sheet and that you agree to take part in the study.

I confirmed that I have read the and understand the participant information sheet, aim and purpose of the study or that has been explained to me and I have had the chance to ask questions.

I confirmed that I voluntarily consent to participate in the above study.

If you have any query about the study, you may contact with researcher Fatema Akter and or my supervisor, Sk. Moniruzzaman (Associate Professor and Head, Dept. of Occupational Therapy BHPI, CPR, Savar, and Dhaka-1343)

Signature of the participant: .....

Date: .....

Signature of the researcher: .....

Date: .....

**Withdrawal Form**

**Research Title:** Psychological Distress Among Caregivers of Children with Disability;  
A Cross Sectional Study.

**Name of the Researcher:** Fatema Akter, 4<sup>th</sup> year, B.Sc. in Occupational Therapy, BHPI

I, .....(participant), wish to  
withdraw my consent to the use of data arising from my participation.

Reason of withdrawing.....

Participants Signature: ..... Date.....

Signature of the Researcher: ..... Date.....

Witness Signature: ..... Date.....

**Appendix: Information sheet, consent form, withdrawal form (Bengali Version)**

**বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউট (বিএইচপিআই)**

**অকুপেশনাল থেরাপি বিভাগ**

**সিআরপি, চাপাইন, সাভার, ঢাকা-১৩৪৩**

**অংশগ্রহণকারীদের তথ্য পত্র**

গবেষণার বিষয়: "প্রতিবন্ধকতার স্বীকার বাচ্চার কেয়ারগিভারদের সাইকোলজিক্যাল ডিসট্রেস।

গবেষক: ফাতেমা আক্তার, বি এস সি ইন অকুপেশনাল থেরাপি (৪র্থ বর্ষ), সেশন ২০১৮-২০১৭, বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউট (বিএইচপিআই), সাভার, ঢাকা- ১৩৪৩

তত্ত্বাবধায়ক: এস কে মনিরুজ্জামান, বিভাগীয় প্রধান, অকুপেশনাল থেরাপি বিভাগ, বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউট।

গবেষণার স্থান:

পেডিয়াট্রিক বিভাগ, সি আর পি, সাভার, ঢাকা।

পেডিয়াট্রিক বিভাগ, সি আর পি মিরপুর, ঢাকা।

উইলিয়াম এন্ড মেরী টেইলর স্কুল, সি আর পি, সাভার ঢাকা।

প্রত্যাশা সেন্টার ফর অর্টিজম কেয়ার, সাভার, ঢাকা।

ইন্সটিটিউট অফ অর্টিস্টিক চিলড্রেন এন্ড ব্লাইন্ড, ওল্ড হোম এন্ড টি এন মাদার চাইল্ড হসপিটাল, বলিয়ারপুর, সাভার, ঢাকা।

থেরাপি স্টেশন : অর্টিজম রিহ্যাব সেন্টার, শান্তিনগর, ঢাকা।

অর্টিজম কেয়ার ফাউন্ডেশন স্পেশাল স্কুল, বনশ্রী, ঢাকা।

**পর্ব ১ তথ্যপত্র:**

আমি ফাতেমা আক্তার, ঢাকা বিশ্ববিদ্যালয়ে চিকিৎসা অনুষদের অধীনে বাংলাদেশ হেলথ প্রফেশনাল ইনস্টিটিউটে বি.এস.সি. ইন অকুপেশনাল থেরাপি বিভাগে ৪র্থ বর্ষের ছাত্রী হিসেবে স্নাতক শিক্ষাকার্যক্রম (২০১৮-২০১৯ ইং) সেশনে অধ্যয়নরত আছি। বিএইচপিআই থেকে অকুপেশনাল থেরাপি বি.এস.সি শিক্ষা কার্যক্রমটি সম্পন্ন করার জন্য একটি গবেষণা প্রকল্প পরিচালনা করা বাধ্যতামূলক। এই গবেষণা প্রকল্পটি

অকুপেশনাল থেরাপি বিভাগের বিভাগীয় প্রধান এস কে মনিরুজ্জামান এর তত্ত্বাবধায়নে সম্পন্ন করা হবে। এই তথ্যপত্রের মাধ্যমে গবেষণা প্রকল্পটির উদ্দেশ্য, উপাত্ত সংগ্রহের প্রণালী ও গবেষণাটির সাথে সংশ্লিষ্ট বিষয় কিভাবে রক্ষিত হবে তা বিস্তারিত ভাবে আপনার কাছে উপস্থাপন করা হবে। যদি আপনি এই গবেষণায় অংশগ্রহন করতে ইচ্ছুক থাকেন, সেক্ষেত্রে এই গবেষণা সম্পৃক্ত বিষয়গুলো সম্পর্কে স্বচ্ছ ধারণা থাকলে সিদ্ধান্ত গ্রহন সহজতর হবে। অপরপক্ষে, তথ্যপত্রটি পড়ে, যদি কোন বিষয়বস্তু বুঝতে সমস্যা হয় অথবা যদি কোন কিছু সম্পর্কে আরো বেশি জানার প্রয়োজন হয়, তবে নির্দিধায় প্রশ্ন করতে পারেন।

### গবেষণার প্রেক্ষাপট ও উদ্দেশ্য:

এই গবেষণাতে প্রতিবন্ধকতার স্বীকার বাচ্চার কেয়ারগিভারদের কে অন্তর্ভুক্ত হবার জন্য আমন্ত্রণ জানানো হবে। তাই আপনাকেও উক্ত গবেষণা প্রকল্পে অংশগ্রহণের জন্য আমন্ত্রণ জানানো হলো। এই গবেষণায় মাধ্যমে আপনার মানসিক সংকটাবস্থার লেভেল বের করা হবে। আপনার শারীরিক, মানসিক, সামাজিক স্বাস্থ্য সম্পর্কিত তথ্যসমূহ আপনার সর্বোপরি স্বাস্থ্য সম্পর্কে ধারণা দিতে সাহায্য করবে। যেহেতু বাচ্চার পেছনে আপনার অনেকটা সময় দিতে হয় এমতাবস্থায় আপনার নিজেকে কি পরিমাণ বিচলিত, অস্থিরতা, বিষন্ন বোধ করেন, সেটা জানাই আমার গবেষণার মুখ্য বিষয়। আপনার কার্যকরী অংশগ্রহণ গবেষণার উদ্দেশ্য পূরণে সহায়তা করবে বলে আমরা আশাবাদী।

### এই গবেষণা কর্মটিতে অংশগ্রহনের সাথে সম্পৃক্ত বিষয়সমূহ

আপনার থেকে অনুমতিপত্রে স্বাক্ষর নেবার আগে, এই অংশগ্রহনকারী তথ্যপত্রের মাধ্যমে গবেষণা প্রকল্পটির পরিচালনা করার তথ্যসমূহ বিস্তারিত ভাবে আপনার কাছে উপস্থাপন করা হবে। আপনি যদি এই গবেষণায় অংশগ্রহন করতে চান, তাহলে সম্মতিপত্রে আপনাকে স্বাক্ষর করতে হবে। আপনি যদি স্বাক্ষর জ্ঞান সম্পন্ন না হন বা অন্য কোন কারণে স্বাক্ষর প্রদানে ব্যর্থ হন, সেক্ষেত্রে আপনার কাছ থেকে একজন স্বাক্ষরী উপস্থিতিতে বৃদ্ধাঙ্গুলির ছাপ সম্মতি পত্রে নেওয়া হবে। আপনি অংশগ্রহন নিশ্চিত করলে, আপনার সংরক্ষনের জন্য সম্মতিপত্রটির একটি অনুলিপি দিয়ে দেয়া হবে। পরবর্তীতে গবেষক দ্বারা এই গবেষণা সম্পর্কিত কিছু প্রশ্ন করা হবে। আপনার দেওয়া উত্তর অনুযায়ী, গবেষণার প্রশ্নোত্তর পত্রটি পূরন করা হবে। এই গবেষণার প্রকল্পে আপনার অংশগ্রহণ ঐচ্ছিক। যদি আপনি সম্মতি প্রদান না করেন তবে আপনাকে অংশগ্রহন করতে হবে না। আপনি সম্মতি প্রদান করা স্বত্বেও যে কোন সময় গবেষককে কোন ব্যাখ্যা প্রদান করা ছাড়াই নিজের অংশগ্রহন প্রত্যাহার করতে পারবেন।

## অংশগ্রহনের সুবিধা ও ঝুঁকিসমূহ কি?

গবেষণা প্রকল্পটিতে অংশগ্রহনের জন্য আপনি সরাসরি কোন সুবিধা পাবেন না। এই গবেষণা প্রকল্পটিতে অংশগ্রহনের জন্য আপনি সরাসরি কোন সুবিধা পাবেন না। এই গবেষণায় অংশগ্রহনের জন্য আপনার দৈনন্দিন কাজের সময় থেকে ২০-২৫ মিনিট সময় ব্যয় হবে। তার জন্য আপনার সাময়িক অসুবিধা হতে পারে। তবে আমরা আশাবাদী যে, এই গবেষণার ফলাফল থেকে প্রাপ্ত উপকারীতা এই অসুবিধাকে অতিক্রম করবে। যে সমস্ত প্রশ্নের মাধ্যমে আপনার পরিচয় সম্পর্কে অন্যরা জানতে পারে, সেই বিষয়ে উদ্বেগ না হবার জন্য অনুরোধ করা হচ্ছে। অংশগ্রহণকারীর নাম এবং ঠিকানা উপাত্ত বিশ্লেষণের সফটওয়্যারে উল্লেখ না করে পরিচয় উন্মুক্ত হবার ঝুঁকি কমানো হবে।

## তথ্যের গোপনীয়তা কি নিশ্চিত থাকবে?

এই সম্মতিপত্রে স্বাক্ষর করার মধ্য দিয়ে, আপনি এই গবেষণা প্রকল্পে জড়িত গবেষক কে আপনার ব্যক্তিগত তথ্য সংগ্রহ ও ব্যবহার করার অনুমতি দিয়েছেন। এই গবেষণা প্রকল্পের জন্য সংগৃহীত যেকোন তথ্য, যা আপনাকে সনাক্ত করতে পারে তা অবশ্যই গোপন থাকবে। আপনার সম্পর্কে সংগৃহীত তথ্যসমূহ সাংকেতিক উপায়ে উল্লেখ থাকবে। শুধুমাত্র এর সাথে সরাসরি সংশ্লিষ্ট গবেষক ও তার তত্ত্বাবধায়ক এই তথ্যসমূহে প্রবেশাধিকার পাবেন। সাংকেতিক উপায়ে ভূষিত উপাত্ত সমূহ পরবর্তী উপাত্ত বিশ্লেষণের কাজে ব্যবহৃত হবে। তথ্যপত্রগুলো তালাবদ্ধ ড্রয়ারে রাখা হবে। বিএইচপিআই এর অকুপেশনাল থেরাপি বিভাগে ও গবেষকের ব্যক্তিগত ল্যাপটপে উপাত্তসমূহের ইলেকট্রনিক ভার্সন সংগৃহীত থাকবে।

প্রত্যাশা করা হচ্ছে যে এই গবেষণা প্রকল্পের ফলাফল বিভিন্ন ফোরামে প্রকাশিত এবং উপস্থাপিত হবে। যে কোন ধরনের প্রকাশনা ও উপস্থাপনার ক্ষেত্রে তথ্যসমূহ এমন ভাবে সরবরাহ করা হবে, যেন আপনার সম্মতি ছাড়া আপনাকে কোন ভাবেই সনাক্ত করা না যায়।

## ফলাফল প্রচার সম্পর্কিত তথ্য

এই গবেষণার ফলাফল বই আকারে প্রকাশ হবে এবং তা ছাড়াও বিভিন্ন সামাজিক মাধ্যম, ওয়েবসাইট সম্মেলন, আলোচনাসভায় এবং পর্যালোচিত জার্নালে প্রকাশ করা হতে পারে।

## অংশগ্রহণকারীর পারিশ্রমিক

এই গবেষণায় অংশগ্রহনের জন্য কোন উদ্দীপনা ও পারিশ্রমিক দেবার ব্যবস্থা নেই।

## গবেষণা পরিচালনার ব্যয়কৃত অর্থের উৎস

এই গবেষণাটির খরচ সম্পূর্ণ গবেষকের নিজস্ব তহবিল থেকে ব্যয় করা হবে। এই গবেষণাটি ছোট পরিসরে করা হবে এবং এখানে কোন অর্থ বহিরাগত উৎস থেকে আসবে না।

### **গবেষণা সম্পর্কে আরও জানতে আপনাকে কোথায় যোগাযোগ করতে হবে?**

যদি আপনার এই গবেষণা নিয়ে অভিযোগ বা প্রশ্ন থাকে তাহলে আপনি গবেষণাচলাকালীন বা যেকোন সময়ে প্রশ্ন করতে পারেন। এক্ষেত্রে আপনি নিম্নলিখিত ঠিকানাতে যোগাযোগ করতে পারেন।

#### **গবেষক: ফাতেমা আক্তার**

বিএসসি ইন অকুপেশনাল থেরাপি

সেশনঃ ২০১৮-২০১৯

বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট

সিআরপি, সাভার, চাপাইন, ঢাকা।

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ফোনঃ ০১৯৯৪৩৬৫৮৭০

#### **তত্ত্বাবধায়ক: এস কে মনিরুজ্জামান**

বিভাগীয় প্রধান, অকুপেশনাল থেরাপি বিভাগ,

বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট,

সিআরপি, চাপাইন, সাভার, ঢাকা।

#### **সহকারী তত্ত্বাবধায়ক: মনিকা সিংহ**

লেকচারার, অকুপেশনাল থেরাপি বিভাগ,

বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট,

সিআরপি, চাপাইন, সাভার, ঢাকা

## সম্মতি পত্র (অংশগ্রহণকারীর কপি)

আসসালামুয়ালাইকুম / নমস্কার,

আমি ফাতেমা আক্তার, আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা অনুষদের অন্তর্ভুক্ত বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট (বিএইচপিআই) এর বি.এস.সি ইন অকুপেশনাল থেরাপি কোর্স এ অধ্যয়নরত ৪র্থ বর্ষের ছাত্রী। আমার পড়াশোনার একটি অংশ হিসেবে আমি একটি গবেষণা পরিচালনা করতে যাচ্ছি। গবেষণার বিষয়-প্রতিবন্ধিকতার স্বীকার বাচ্চার কেয়ারগিভারদের সাইকোলজিক্যাল ডিসট্রেস। গবেষণার উদ্দেশ্য হলো কেয়ারগিভারদের সাইকোলজিক্যাল ডিসট্রেস এর লেভেল বের করা। আমার গবেষণাটি সম্পূর্ণ করার জন্য আপনার থেকে কিছু তথ্য নেওয়া প্রয়োজন। এজন্য আমি আপনাকে কিছু প্রশ্ন করতে চাচ্ছি। এই আলোচনার সময়কাল হবে ২০-২৫ মিনিট।

আমি আপনাকে অনুগত করছি যে, এটা আমার অধ্যয়নের অংশ এবং যা অন্যকোন উদ্দেশ্যে ব্যবহৃত হবে না। এই গবেষণায় আপনার অংশগ্রহণ আপনার জীবন যাত্রায় এবং আপনার বাচ্চার বর্তমান ও ভবিষ্যৎ চিকিৎসায় কোন প্রকার প্রভাব ফেলবে না। আপনি যে সব তথ্য প্রদান করবেন তার গোপনীয়তা বজায় থাকবে এবং আপনার প্রতিবেদনের ঘটনা প্রবাহে এটা নিশ্চিত করা হবে যে এই তথ্যের উৎস অপ্রকাশিত থাকবে। এই গবেষণাতে আপনার অংশগ্রহণ স্বেচ্ছাপ্রণোদিত এবং আপনি যে কোন সময় এই অধ্যয়ন থেকে প্রত্যাহার করতে পারেন।

অনুগ্রহ করে নিম্নলিখিত বিবৃতিগুলো পড়ুন যাতে আপনি তথ্য পত্রের বিষয়বস্তু বুঝতে পারেন এবং আপনি উপরোক্ত গবেষণায় অংশ নিতে সম্মত হন।

-আমি নিশ্চিত করছি যে, আমি গবেষণায় অংশগ্রহণকারীদের তথ্য পত্রটি পড়েছি এবং এর লক্ষ্য এবং উদ্দেশ্য সম্পর্কে বুঝতে পেরেছি। তথ্য পত্রটি আমাকে ব্যাখ্যা করা হয়েছে এবং আমি প্রশ্ন করার সুযোগ পেয়েছি।

-আমি নিশ্চিত করছি যে উপরোক্ত গবেষণাতে আমি স্বেচ্ছায় অংশগ্রহণ করার সম্মতি দিচ্ছি।

এই গবেষণা নিয়ে যদি আপনার কোন প্রশ্ন থাকে তাহলে গবেষক ফাতেমা আক্তার অথবা / এবং সুপারভাইজার, এস কে মনিরুজ্জামান (বিভাগীয় প্রধান, অকুপেশনাল থেরাপি বিভাগ, বিএইচপি, সিআরপি, সাভার, ঢাকা) এর সাথে যোগাযোগ করতে পারেন।

অংশগ্রহণকারীর স্বাক্ষর ও তারিখ.....

গবেষকের স্বাক্ষর ও তারিখ.....

## অংশগ্রহণকারীর প্রত্যাহার পত্র

(শুধুমাত্র স্বেচ্ছায় প্রত্যাহারকারীর জন্য প্রযোজ্য)

গবেষনার শিরনামঃ প্রতিবন্ধিকতার স্বীকার বাচ্চার কেয়ারগিভারদের সাইকোলজিক্যাল ডিসট্রেস ; এ ক্রস সেকশনাল স্টাডি ।

গবেষক: ফাতেমা আক্তার, ৪র্থ বর্ষ, অকুপেশনাল থেরাপি বিভাগ, বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট।

আমি----- (অংশগ্রহণকারী,  
আমার অংশগ্রহণ থেকে পাওয়া ডেটা ব্যবহারের সম্মতি প্রত্যাহার করতে চাই।

প্রত্যাহার এর কারণ-----  
-----  
-----

অংশগ্রহণকারীর স্বাক্ষর :-----তারিখ :-----  
-

গবেষকের স্বাক্ষর :-----তারিখ :-----



## Appendix C: Questionnaire

### Questionnaires (English Version)

#### Kessler Psychological Distress Scale

Please tick the answer that is correct for you:	All of the time (score5)	Most of the time (score4)	Some of the time (score3)	A little of the time (score2)	None of the time (score1)
1. In the past 4 weeks, about how often did you feel tired out for no good reason?					
2. In the past 4 weeks, about how often did you feel nervous?					
3. In the past 4 weeks, about how often did you feel so nervous that nothing could calm you down?					
4. In the past 4 weeks, about how often did you feel hopeless?					
5. In the past 4 weeks, about how often did you feel restless or fidgety?					
6. In the past 4 weeks, about how often did you feel so restless you could not sit still?					
7. In the past 4 weeks, about how often did you feel depressed?					
8. In the past 4 weeks, about how often did you feel that everything was an effort?					

9. In the past 4 weeks, about how often did you feel so sad that nothing could cheer you up?					
10. In the past 4 weeks, about how often did you feel worthless?					

Interpretation of scores:

K10 Score: Likelihood of having a mental disorder (psychological distress)

10 - 19 Likely to be well

20 - 24 Likely to have a mild disorder

25 - 29 Likely to have a moderate disorder

30 - 50 Likely to have a severe disorder

Socio Demographic Information (English version)

Participants name:

Age:

Gender:

Male

Female

Educational level:

Illiterate

Primary

Secondary/ higher secondary

Higher education

What is your occupation?

Government job

Nongovernment job

Businessman

Abroad

Housewife

Student

Relationship with the child:

Mother

Father

Brother

Sister

Grandfather

Grandmother

Others (paid caregiver, paternal aunt, Maternal aunt)

Are you suffering from any chronic illness? Yes/ No

How much is your monthly income?

Below 10 thousand

10-20 thousand

21-35 thousand

36-50 thousand

More than 50

How many hours do you sleep daily?

less than 6 hours

6 or more than 6 hours

How many children do you care for?.....

Number of children with disability that you care for are .....

How many hours do you spent with children with disability?

a) 10-12 hours      b) More than 12 hours

What is the name of children with disability? .....

Gender of children with disability:

Male

Female

Age of children with disability:

Types of disability:

Cerebral palsy

Autism Spectrum Disorder

Attention Deficit Hyper Activity Disorder

Spinal Cord Injury

Spina Bifida

Down syndrome

Muscular Dystrophy

Brain Injury

Intellectual disability

Amputation

Developmental delay.

Others (Marfan syndrome)

## Kessler psychological distress scale (Bengali version)

আপনি গত চার সপ্তাহ যাবৎ কি রকম বোধ করেছেন সেই সম্বন্ধে নীচে দশটি প্রশ্ন করা হয়েছে। প্রত্যেকটি প্রশ্নের উত্তরে যেটি আপনার ক্ষেত্রে সবচেয়ে প্রযোজ্য সেখানে গোলাকৃতি চিহ্নে দাগ দিয়ে দেখান।	সব সময় (নম্বর ৫)	অধিকাংশ সময় (নম্বর ৪)	কিছু কিছু সময়/মারো মাঝে (নম্বর ৩)	খুব অল্প সময় (নম্বর ২)	কোন সময়ই না (নম্বর ১)
1. গত চার সপ্তাহে কতবার বিনা কারণে আপনি ক্লান্ত বোধ করেছেন?					
2. গত চার সপ্তাহে কতবার আপনি বিচলিত অনুভব করেছেন?					
3. গত চার সপ্তাহে কতবার আপনি এত বেশী বিচলিত হয়েছেন যে কিছুতেই আপনাকে শান্ত করা যায় নি?					
4. গত চার সপ্তাহে কতবার আপনার হতাশ লেগেছে?					
5. গত চার সপ্তাহে কতবার আপনি অস্থিরতা বা অস্বস্তি বোধ করেছেন?					
6. গত চার সপ্তাহে কতবার আপনি এত বেশী অস্থিরতা বোধ করেছেন যে আপনি স্থির হয়ে বসে থাকতে পারেন নি?					
7. গত চার সপ্তাহে কতবার আপনি বিষণ্ণ বোধ করেছেন?  8. গত চার সপ্তাহে আপনার কতবার মনে হয়েছে যে সব কিছুই খুব কষ্ট করে করতে হচ্ছে?					

8. গত চার সপ্তাহে আপনার কতবার মনে হয়েছে যে সব কিছুই খুব কষ্ট করে করতে হচ্ছে?					
9. গত চার সপ্তাহে কতবার আপনার এত বিমর্ষ লেগেছে যে কোন কিছুই আপনাকে উৎফুল্ল করতে পারে নি?					
10. গত চার সপ্তাহে নিজেকে কতবার অপদার্থ বলে মনে হয়েছে?					

স্কেরের ব্যাখ্যা:

K10 স্কের: মানসিক ব্যাধি হওয়ার সম্ভাবনা (মনস্তাত্ত্বিক সঙ্কট)

1. 10 - 19 ভাল হওয়ার সম্ভাবনা ।
2. 20 - 24 হালকা ব্যাধি হওয়ার সম্ভাবনা ।
3. 25 - 29 একটি মাঝারি ব্যাধি হওয়ার সম্ভাবনা ।
4. 30 - 50 গুরুতর ব্যাধি হওয়ার সম্ভাবনা ।

সামাজিক জনসংখ্যা সংক্রান্ত তথ্য

অংশগ্রহনকারীর নাম: \_\_\_\_\_

লিঙ্গ: ১) পুরুষ ২) মহিলা

আপনার পেশা কি? ১) সরকারী চাকুরী ২) বেসরকারী চাকুরী ৩) ব্যবসায়ী ৪) প্রবাসী  
৫) গৃহিণী ৬) ছাত্র/ছাত্রী

আপনার বয়স:

শিক্ষাগত যোগ্যতা: ১) নিরক্ষর ২) প্রাথমিক ৩) মাধ্যমিক ৪) উচ্চ মাধ্যমিক ৫) উচ্চ  
শিক্ষা

বাচ্চার সাথে সম্পর্ক: ১) মা ২) বাবা ৩) ভাই ৪) বোন ৫) দাদা / নানা ৬) দাদি, / নানি  
৭) অন্যান্য

আপনি কি কোন দীর্ঘস্থায়ী রোগে ভোগছেন? হ্যা/ না

প্রতিবন্ধকতার স্বীকার বাচ্চার সাথে আপনি দৈনিক কত ঘণ্টা সময় ব্যয় করেন

১) ১০ থেকে ১২ ঘণ্টা ২) ১২ ঘণ্টার বেশি

আপনি কতজন বাচ্চার দেখাশুনা করেন?.....।

আপনি যে বাচ্চাগুলোর দেখাশুনা করেন তাদের মধ্যে প্রতিবন্ধকতার স্বীকার বাচ্চার  
সংখ্যা কতজন?.....

প্রতিদিন আপনি কত ঘণ্টা ঘুমান? ১) ৬ ঘণ্টার কম ২) ৬ ঘণ্টা বা তার বেশি

আপনার মাসিক আয় কত? ১) ১০ হাজার এর কম ২) ১১ থেকে ২০ হাজার এর মধ্যে ৩)  
২১ থেকে ৩৫ হাজার এর মধ্যে ৪) ৩৬ থেকে ৫০ হাজার এর মধ্যে ৫) ৫০ হাজার এর  
উপরে

প্রতিবন্ধকতার স্বীকার বাচ্চার নাম কি \_\_\_\_\_

বাচ্চার লিঙ্গ: ১) ছেলে ২) মেয়ে ৩) উভলিঙ্গ

বাচ্চার বয়স:

প্রতিবন্ধকতার ধরন: ১) সেরেব্রাল পালসি ২) অটিজম স্পেকট্রাম ডিজঅর্ডার ৩)  
অ্যাটেনশন ডেফিসিট হাইপার অ্যাক্টিভিটি ডিজঅর্ডার ৪) স্পাইনাল কর্ড ইনজুরি ৫)  
স্পাইনা বাইফিডা ৬) ডাউনসিন্ড্রোম ৭) মাস্কুলার ডিসট্রফি ৮) ব্রেইন ইনজুরি ৯) বুদ্ধিগত  
প্রতিবন্ধকতা ১০) অ্যাম্পুটেশন ১১) ডেভেলেপমেন্টাল ডিলে ১২) অন্যান্য



**Bangladesh Health Professions Institute  
Department of Occupational Therapy  
4<sup>th</sup> Year B. Sc in Occupational Therapy  
OT 401 Research Project**

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

Title of thesis. Psychological distress among caregivers of children with disability; A cross sectional study.

Name of student: Fatema Akter

Name and designation of thesis supervisor: Sk. Moniruzzaman, Associate Professor & Head of the Occupational Therapy Department.

Co-Supervisor: Monika Singha, Lecturer of Occupational Therapy Department.

Appointment No	Date	Place	Topic of discussion	Duration (Minutes/Hours)	Comments of student	Student's signature	Thesis supervisor signature
1	08.08.23	BHPI	Discussion about the research topic	1.00 hours	Got an clear idea about research Topic	Fatema	Supervisor signature
2	14.8.23	BHPI	Title, aim, objective	2.00 hours	Understanding the aim objective	Fatema	Supervisor signature
3	14.8.23	BHPI	Research design and ethical consideration.	2.00 hours	Understanding the research design	Fatema	Supervisor signature
4	12.09.23	online	Data collection instruments	1.30 hours	Clear idea about the instrument & how to use	Fatema	Supervisor signature
5	14/09/23	online.	permission procedure to use the data collection instruments	1.30 hours	find out the way to use that instruments.	Fatema	Supervisor signature

6	16/09/23	online	Introduction for research proposal	1.00 hours	understand the guideline for introduction	Fatema	Sarwan
7	18/09/23	BHPI	significance, methodology for research proposal	1.00 hours	classical about the reasoning and whole methodology	Fatema	Sarwan
8	21/09/23	BHPI	How to prepare proposal presentation	2.00 hours	Got proper guideline	Fatema	Monika Singh
9	23/09/23	BHPI	Feedback from proposal presentation	1.30 hours	understand what to do the next submission	Fatema	Monika Singh
10	11/10/23	BHPI	Feedback on appendix (content form, withdrawal form, information sheet)	1.30 hours	Got idea about how to organize and also write well	Fatema	Monika Singh
11	21/10/23	BHPI	Data collection procedure	1.30 hours	Got an effective guideline	Fatema	Monika Singh
12	25/10/23	BHPI	Permission procedure to collect data from different organization	1.30 hours	understand the permission procedure	Fatema	Monika Singh
13	16/12/23	BHPI	Feedback on field test	1.30 hours	got effective guideline	Fatema	Sarwan
14	09/01/24	BHPI	Feedback on Introduction writeup for 1st draft submission	2.30 hours	got effective guideline	Fatema	Monika Singh
15	16/01/24	BHPI	Feedback on Literature review write-up	2.00 hours	Got effective guideline	Fatema	Monika Singh
16	18/01/24	BHPI	Feedback on significance write up	1.30 hours	Got effective guideline	Fatema	Monika Singh
17	20/01/24	BHPI	Feedback on the results data 1st draft submission	2.00 hours	find out the way to correct the mistakes	Fatema	Monika Singh
18	22/1/24	BHPI	Feedback on discussion, conclusion for final draft.	2.00 hour.	Got effective guideline	Fatema	Monika Singh

19	20/01/24	BHPI	Feedback on first draft	1.30 hours	got effective guideline	Fadma	number single
20	03/02/24	BHPI	Feedback on result, analysis and conclusion of first draft	1.30 hours	understand the tests of result	Fadma	number single
21	10/03/24	BHPI	Feedback on 2nd draft	1.30 hours	got effective guideline	Fadma	number single
22	24/03/24	BHPI	Feedback on formatting of the whole thesis	40 minutes	understand the formatting	Fadma	number single
23	28/03/24	BHPI	Feedback on result (association) of the study	40 minutes	understand the whole process and tests	Fadma	number single
24	02/04/24	BHPI	Discussion about correction of 2nd draft	1 hour	got necessary guideline for correction of mistakes	Fadma	number single
25	4/4/2024	BHPI	Discussion about making power point presentation for final submission	1 hours	got effective guideline	Fadma	number single

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