

# **IMPACT OF SWALLOWING DIFFICULTIES OF CHILDREN WITH CP ON CAREGIVERS**

A research presented to the  
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**Kazi Taiyeba Noor Nahreen**

Taiyebasltbd@gmail.com

**Supervisor**

Jannatul Ferdous

Lecturer, Department of Speech & Language Therapy

Bangladesh Health Professions Institute

In Partial fulfilment of the requirements for the degree of B.Sc. in Speech and  
Language Therapy

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**APPROVAL**

We the under signed certify that we have carefully read and recommended to the Faculty of Medicine, University of Dhaka, for the acceptance of this dissertation entitled- **‘Impact of Swallowing Difficulties of children with CP on Caregivers’**

Submitted by- **Kazi Taiyeba Noor Nahreen**

Bachelor of Science in Speech and Language Therapy (B. Sc. in SLT)

Approved by

**Supervisor’s Signature**

.....

**Jannatul Ferdous**

Lecturer

Department of Speech & Language Therapy

BHPI, CRP, Savar, Dhaka-1343

**Signature of the Head**

.....

**Md. Sazzad Hossain**

Head of Department

Department of Speech & Language Therapy

BHPI, CRP, Savar, Dhaka-1343

## Declaration

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I am **Kazi Taiyeba Noor Nahreen**, declare that any single discussion of the research project will not be harmful for any participants or others. I declare that the work presented here is my own. All sources used in the study have been cited appropriately. Any mistakes or inaccuracies are my own.

**Signature:**

**Date:**

Kazi Taiyeba Noor Nahreen

4<sup>th</sup> year, B. Sc. In Speech & Language Therapy

Bangladesh Health Professions Institute

## Dedication

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*Dedicated to.....*

*My Beloved Family Members*

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## **Glossary Terms**

APA- American Psychiatric Association

ASHA- American Speech-Language-Hearing Association

BHPI- Bangladesh Health Professions Institute

CRP- Centre for the Rehabilitation of the Paralyzed

DC- Dhaka City

FS IS- Feeding Swallowing Impact Survey

MCCP- Mother of Child with Cerebral Palsy

MHC- Mother of Healthy Child

SD- Swallowing Difficulty

SLT- Speech and Language Therapy

WMTS- William and Marie Taylor School

SLT: Speech & Language Therapy/Therapist

## Acknowledgement

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Finally I would like to thanks all the participants of this study.

## Executive Summary

People who are engaged with caregiving faces difficulties in their livelihood in all spheres such as daily life activities, social communication, feels stress and burden due to caregiving. When it comes to caregiving the Cerebral Palsy child with swallowing difficulties the burden becomes more because hunger is a basic need and feeding is very crucial for every human being. Feeding a CP child with SD is more tough as sometimes their muscle tone and posture does not allow them to maintain their posture, they may have choking, drooling, aspiration in mealtime. So, this mealtime becomes stressful for both caregiver and the child. The main purpose of the study was to explore the impact on caregivers life who have CP child with SD. To find out the impact on their daily life activities, their worry about the child, their difficulties in feeding the child. Quantitative research method was chosen by the investigator and used cross – sectional survey to meet the study aim as an effective way to collect data. The study was conducted by using Feeding/ Swallowing Impact Survey (FS/IS) tool among 150 participants with different types of caregivers at CRP, Savar. In context of Bangladesh, females are the caregivers of their CP child. Data analysis revealed that the participants had difficulties at different components according to the FS/IS tool. Most of the participant had barriers in daily life activities, depression and difficulty in feeding Professionals working with feeding and swallowing: Speech and Language Therapists need to remain alert to the caregivers as well as their CP patients with SD because their life quality will be improved by increasing the life quality of their caregivers.

**1.1 Introduction**

The word 'Cerebral' indicates concerning with brain and 'Palsy' means paralysis. So that Cerebral Palsy describes paralysis of the brain. Basically, injury to the immature brain causes cerebral palsy that affects a person's posture, movement, speech, swallowing, memory, cognition (Heinchcliffe, 2003). To survive in this earth each person has to eat, and in this eating the process of swallowing must be safe and sound. According to Gaziano (2002), a person may face nutritional deficiency and weight loss for having swallowing difficulty. Also, prolonged unnatural feeding has a risk of aspiration. This eating and drinking difficulty in children with Cerebral Palsy range from minor difficulties incoordination of oral movements causing the rate of eating slow with excessive spillage to severe in coordination of the swallowing mechanism which causes the health ill and even life-threatening condition (Hinchcliffe, 2003). CP is referred to as Little's Disease after the surgeon who first described it, also named as Significant development motor disability (Winzer, 2002).

According to Khondokar et al. (2015) worldwide there are 2 to 3 percent children who have CP in 1000 live births and it is 5 to 10 times more common in the unprivileged world. In the developing countries, 85% children are living with disabilities but the matter of concern is that less than 5 % children are aware of their rehabilitation services as well as taking that. Bangladesh is a South Asian densely populated and developing country where 2.6 million children are living with CP (under 18 years old) according to Bangladesh Cerebral Palsy Register 2015. Another study reported that there are 3.7 children born with CP per 1000 living birth which is 1.5 times higher than Australia or Europe. In whole world, CP is one of the most common non-progressive developmental disability that affects motor function. Europe established a register for CP in 1999 combining 9 European countries and Australia in 1979 that helped vastly to register the children with CP. This swallowing difficulty affects the quality of life of both the patient and the caregiver because mealtime is a great time for whole family as all of the family members seat together for having meal but the children with Cerebral Palsy who have swallowing difficulty have bad and negative experience in this time. Mothers and care givers are anxious about their nutrition as their mealtime is too difficult and different comparing typical children as they

experience choking and coughing frequently. Again, almost 75 percent children face gastroesophageal reflux. Swallowing difficulties in CP children are major cause of concern as if it not properly managed it can worsen the health of the child, may make physically weak, ill and longtime aspiration may cause pneumonia.

In Australia, 2 CP children is born within 1000 live birth (Benfer, 2013). The incidence of CP children is about 0.2-1.5 percent or about 2 per 1000 live births About 50,000 Canadians have CP, boys are more affected than girls. Again, poor socio-economic condition is another cause behind this. 25% cases have no definable cause of CP. (Pope & Tarlov, A. R.,1991).

Caregiving is a natural process that bonds a family together. From birth a child needs care from family that progressively reduces with the child's age. But, it does not happen to the child with special needs, they need care and support from mother, siblings and other family members for the rest of their life which may be burdensome for the caregiver. (Pousada et al., 2012)

A mother of a Cerebral Palsy children who have swallowing difficulty spends almost 3.5 hours a day where a mother having a typical child needs only 0.8 hours a day to feed her child. Again, some MCCC needs 7.5 hours a day. Prolonged mealtime hampers both mother and child. A long time may decrease the child's willingness to eat where it also leads to malnutrition. More, if the feeding period is unenjoyable, mother and child both becomes bore and sometimes forceful. Swallowing Difficulty of a CP child boundaries the life of the mother at both: home and outside (Sullivan & Rosenbloom, 1996)

Parental care for a child with a developmental disability is an enormous and almost lifelong responsibility. While most parents adapt well to the situation of caring for a child with a disability, some parents do not due to personal, familial and social problems. To understand parents' adaptations to their children's disabilities, the complex nature of stress processes must be accounted for and the constructs and factors that play a role in the caregiving must be considered. As they are the one who stays with the child day long, they take care of them, they feed them so that caregivers or parents physical and psychological well beings very crucial. Impact on the caregivers' daily life due to serving child with developmental disability is huge, and when it is related to swallowing, it affects more. Caregivers are the one who take care

of the patient. Patients who have SD needs special care from caregivers. In these circumstances daily life of the caregiver becomes a bit hard, different, and sometimes difficult. Stress, load of work, pressure, barrier in everyday life these are very common who take care of the CP child with SD (Raina et al, 2004)

In context of Bangladesh with a poor economic condition the health service is not enough for all and for children with special needs the opportunities of treatment the whole procedure limits in a boundary. The life of child with CP accompanied with their caregivers faces difficulties in their everyday life. Health professionals, working in national hospitals and for different NGOs are working for the development of children with different abilities as well as their caregivers about basic nutrition, feeding advices to improve the nutritional status, growth of children that would indirectly improve the life quality of the caregiver's wellbeing. (Adams, 2009)

## **1.2 Background and literature Review**

Chiluba and Moyo (2017) used MSCI (Modified Caregiver Strain Index) an ordinal scale, a set of 13 questions in their study to identify physical problems, tiredness, family problems, sleep, changes in personal plans, financial changes for 25 caregivers a sample at community Based Intervention Association Out-patients at University Teaching Hospital in Lusaka, Zambia and reported that 64% is facing difficulty in daily life due to caregiving the child with CP for a long time and 36% is starting the threshold of strain. Subscales of MSCI-13 recounted physical, financial, family change. The study reported that young age caregiver number is dominant and more than half of the caregivers need help for caregiving their child. In conclusion it was narrated that strain of a caregiver impacts on quality of caring.

Follent et al. (2017) states in their study that caregivers reported barriers in their daily life doing household chores, working at their workplace becomes tough while caregiving a child with swallowing difficulty. Caregivers were given CPE Questionnaire and dealt with a semi structured interview which explored experiences of the caregivers having a child with dysphagia and or feeding difficulties. Caregivers impressions of services and supports, and additional impacts to the child and to the family. The results brought from caregivers were significant challenges and concerns in their regular life. In conclusion the author described that Family-centered models of care are needed for the family in caring for a child with dysphagia or swallowing difficulties.

Caregiving may be burdensome and full of tiredness for a person with chronic condition or lifelong disability and can affect on caregivers life: physically, mentally, socially, economically. Naturally, parents having child with special needs show higher level of stress rather than parents with typically developing child. After analyzing 46 studies, authors narrated that 43.5% (20) articles compared the caregivers of CP child's health with parents or caregivers of typically developing child, 63% (29) articles compared parents having child with no health problems and the control group then the control group scored high in mental health: anxiety, caregiver or parents quality of life is worse than other parents of typical children reported in 26% (12) articles. Again, health related problems are seen in some studies that are more frequent in CP caregivers. In whole, authors showed in their study

higher levels of stress and depression and lower quality of life especially in mothers compared with parents of healthy children (Pousada et al., 2012)

Authors compared 2 groups: 46 M CCP (Mothers of children with Cerebral Palsy) and 46 MHC (Mothers of healthy children) for checking the QoL (Quality of Life) and psychological status where the authors purpose fulfilled with these three questionnaires: Nottingham Health Profile-1, Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI) and M CCPs (Mothers of children with Cerebral Palsy). The score was found very low in M CCP rather than MHC for Nottingham Health Profile-1. In case of BDI, M CCP scored very poor compared to MHC ( $p=0.00$ ); though BAI score were not significantly different in two groups but the QoL found poorer in M CCP (Ones, Yilmaz, Cetinkaya, & Caglar, 2005)

A study investigated the impact of an intensive interdisciplinary feeding program on caregiver stress and child outcomes of children who have feeding disorders in three categories. A screening tool PSI-SF was used to complete the study. Data from each sample were collected for two times: admission and discharge. At the time of admission of the 42% samples showed clinically significant level of stress that reduced into 30.58%, 7.44% scored in border rage and 15.7% scored under usual range at the time of discharge. Authors reported that caregivers increased stress, anxiety may increase the stress and anxiety on the child due to repeated failure in mealtime. Again, the child's swallowing problem and longtime intake of meal may lead the caregiver to long time frustration (Greer, Gulotta, Masler & Laud, 2008)

Interruption in mealtime affects the caregiver's life as well as full life quality because who feeds the child, faces difficulty more than 3 or 4 times a day for feeding with swallowing difficulty. Impact on daily work, household chores, job, social life (outing, party, gathering, shopping) burdens the life of a caregiver (Averdson, Clark, Lazarus, Schooling, & Frymark, 2010)

Raina et al. (2004) described that the most important predictors of caregivers' well-being are child behavior, caregiving demands, and family function. 468 families (CP Children's family) were taken as a sample from 19 children's rehabilitation of Ontario, Canada. A standardized, self-completed parent questionnaire with a face-to-face home interview was the assessment method for gathering information of caregivers' physical and psychological wellbeing of CP child. Authors found that the need of

caregiving, family problems and the behaviors of child are related with caregiver's daily life, their physical and mental health. Family support, total income have direct and indirect effect on consequently psychological and physical health status. Lower level lifestyle of caregiver is the result of higher score in child's behavioral problems. Better physical and mental health were found in the caregivers having less caregiving demand from their CP children.

### **1.3 Significance of the Study**

Cerebral Palsy is a very common disability in Bangladesh. According to a study occurred in 2015, there are 2,60,000 children who have CP in Bangladesh (Khondokar et al., 2015). Swallowing difficulty is often seen with these children who have CP. Swallowing is related with movement of food through the oral cavity to pharynx into the esophagus. Difficulty of swallowing may lead a person to death as the pharynx (air way passage) lies beside the food passage, epiglottis works as a protection between them so that no food can pass through the air way passage that causes aspiration which may lead to death (Averdson & Brodsky, 1993)

In case of neurological conditions skeletal muscles are associated which may impact on muscle functions of jaw, lips, cheeks, tongue, palate and pharynx causing swallowing difficulty in children with CP. For these reasons children face difficulty controlling saliva in the mouth, eating, chewing, drinking, swallowing foods and liquids properly. Swallowing is a complex process occurred by the direction of brain involving brainstem, cortical areas. Swallowing includes 3-4 overlapping phases: oral preparatory, oral, pharyngeal, esophageal phase and difficulty in any of these phases leads to a person having Oro Pharyngeal Dysphagia, Swallowing Disorder, Oro Motor Difficulty, Deglutition disorder (Benfer, 2013)

Investigator tried to find out the impact on caregivers of CP children with swallowing difficulty. This study will help the therapists to aware the caregivers to treat them carefully, not to lose patience during serving them. As swallowing problem is a life threatening issue for every patient with swallowing difficulty so that care givers of those patients must be more careful and stay cautious while treating them. Organizations that work for the people with disabilities or CP patients as well as SD patients will be benefited by this study because they will understand about caregiver's daily life and will be able to help them according to their needs and understanding. Thus, this study will make a helpline for SLT profession in Bangladesh for betterment of the understanding about the impact on caregivers life of CP children with SD.

## **1.4 Operational Definition**

**Cerebral Palsy:** In this study, investigator has used this word Cerebral Palsy (CP) as a medical term used to define a persistent, non-progressive (damage that is not extended or repeated) disorder of immature brain (under 2 years of age) that affects posture as well as movement and is associated with epilepsy, speech and swallowing disorder, ocular problem etc. Here, Cerebral indicates ‘concerning with brain’ and Palsy describes ‘paralysis’. Sadly, there are conditions that resemble CP but progressive and the patients usually don’t live more than 20 years (Hinchcliffe, 2003)

**Swallowing Difficulty:** Difficulty moving food from mouth to stomach is known as swallowing difficulty that combines all the physical and behavioral aspects due to any physical or structural abnormality (Roth and Worthington, 2011). Dysphagia is a medical term indicates swallowing difficulty in any of the four stages of swallowing: oral preparatory, oral, pharyngeal, esophageal stage (Arvedson& Brodsky 1993). In a more sensible way, Dysphagia is a delay or misdirection of food or solid from mouth to stomach. Usually, swallowing difficulty is never a medical diagnosis, it is a symptom of any disorder or disease that is defined by its characteristics (Crary & Groher, 2003). Investigator will use this word in the study for CP child who have difficulty in eating, drinking and swallowing.

**Caregiver:** Caregiver is the person who shows some or little act of care giving. It may include ‘hands-on’ care giving. Care giving responsibilities affects more or less in a person’s daily life and may affect the family. In this study, investigator will use the word care giver as CP child’s caregiver (mother) who feeds the CP child with SD (American Psychological Association, 2018)

## **1.5 Aim and Objective of the Study**

### **1.5.1 General Objective**

The aim of the study is to find out the impact of swallowing difficulty of children with CP on caregivers.

### **1.5.2 Specific Objective:**

- To identify caregivers barriers in daily life activities.
- To identify caregivers worry in daily life.
- To identify care givers problem while feeding the CP child with SD.
- To identify the socio demographic status of caregivers of CP child with SD in BD.

**2.1 Study Design**

In this study the investigator was keen to find out the impact of swallowing difficulties of Cerebral Palsy Children on Care Givers. Investigator explored daily life of the caregivers who have CP children with SD. In this study quantitative type of cross sectional survey design was used to accomplish the research. Moreover, it can be done at a point of time and it is less expensive (Depoy and Gitlin, 1998). Investigator has completed the study and evaluated the impact on caregivers using FS IS (Feeding/ Swallowing Impact Survey) questionnaire.

**2.2 Study Population**

Population can be described as a set or group of people or persons who may have same characteristics or qualities predefined by the investigator (Depoy and Gitlin, 1998).

In this study, the target population was caregivers of CP child with SD in Bangladesh. Only this population group were selected for the whole study as the aim of investigator was to explore the impact on daily life of caregivers of CP children with SD.

**2.3 Study Place**

The study has been conducted in three places. The settings were in Clinical Department of Speech and Language Therapy at Savar in CRP (Center for the Rehabilitation of the Paralyzed), Pediatric Indoor of CRP Savar and William and Marie Taylor School situated in CRP, Savar where patients with caregivers come from different districts of Bangladesh. Investigator has selected those places for getting enough samples for conducting the research.

**2.4 Sample Size**

Samples are a subset of total population that participates in the study and represents whole population. (Depoy and Gitlin, 1998). The appropriate sample size ensures that the result of the study is accurate or correct. Sample size is determined by the number of persons or elements availability, cost as well as time (Goyal, 2013)

The participants were those caregivers who have CP child with SD. It is impossible to include the whole population so that investigator calculated and made a sample size that participates in the study. Participants has been selected from the indoor and outdoor of CRP Savar and WMTS.

Sample size ,  $n = z^2 pq / d^2$

$$= (1.96 \times 1.96) \times 0.1625 \times 0.8375 / (0.05 \times 0.05) = 209.12$$

There are 2,60,000 CP children in BD, so here  $p = 0.1625$ ,  $q = 0.8375$ ,  $z = 95\% = 1.96$ .

## **2.5 Sampling Procedure**

In this study, investigator has used Purposive sampling procedure to accomplish the study as it is cost effective, easy and quickest sampling method (Bailey, 1997). According to Kothari 2004, in purposive sampling, each sample has an equal chance of getting included in the study. Tongco (2007) reported that purposive sampling procedure is a non probability sampling procedure which represents a specific characteristic by following exclusion and inclusion criteria to enhance the understanding of selected individuals or groups or for developing theories.

## **2.6 Inclusion Criteria**

- Caregivers who have CP child with SD.
- Caregivers who are new to SLT Department.
- Care givers who are willing to participate.

## **2.7 Exclusion Criteria**

- Caregivers of child with CP who does not have any swallowing difficulty.
- Caregivers who have completed feeding training by SLT at Pediatric Indoor of CRP.
- Caregivers having child with any other neurological deficit.
- Caregivers who are not willing will not be included as a participant.

## **2.9 Data Collection Tool**

Investigator used FS-IS (Feeding/Swallowing - Impact Survey) to identify the impact on care givers of CP child with SD. The set of Questionnaire is developed in English. As the investigator is using the set of questionnaire in Bangladesh for Bangali people, so it is translated into Bangla for the betterment of the investigation.

Response from the participant will be rated using a 6 degree scale where 1 indicates Never, 2 indicates Almost Never, 3 indicates Half of the time, 4 indicates Very often, 5 indicates Always, 6 indicates Not applicable. Low scale range will indicate the better quality of life. Investigator will use Bangla demographic questions with translated F/S – IS questionnaire, consent form for data collection (Lefton-Grief et al., 2013)

Questions will be asked and written in Bangla for the better understanding of the parents by the investigator. Consent form, questionnaire, pen, paper was used for data collection.

## **2.10 Data Collection Procedure**

Investigator collected data from face to face interview. Participants had the right to refuse any question from the F/S – IS questionnaire. Participants were given a form to complete as consent. It is the document that they are participating willingly. Investigator clearly made the participants understand that single information would not be published to any other person and every detail will be confidential. Literate caregivers of the children has filled up the form and for the illiterate parents of the children, investigator has accomplished the F/S - IS questionnaire as per their response. This form was used to identify the impact on daily life of CP child's caregiver.

## **2.11 Data Analysis**

Bailey (1997) suggested that, statistics that gives description, organize and summarize data are descriptive statistics. Investigator will use descriptive statistics for data analysis as these are usually used for survey data (Hicks, 2000). Frequencies, Percentage will be done using SPSS software. As the aim of investigator was to find the impact on daily life of SD child with CP's care giver so that descriptive statistics was most suitable.

## **2.12 Ethical Consideration**

Investigator has taken permission from the ethical committee of BHPI after presentation of the study. Permission has been taken from the Departmental Head of Speech and Language Therapy Department. Permission were granted from three mentioned study place: Clinical Speech and Language Therapy Department, Pediatric Unit of CRP, William and Marie Taylor School of CRP. Investigator has taken permission from the parents of the CP children and took a consent form. In case of illiterate parents, investigator has done it. Interview were conducted in a calm, safe and comfortable place. All information was kept confidential and was shared with only Supervisor.

**Results**

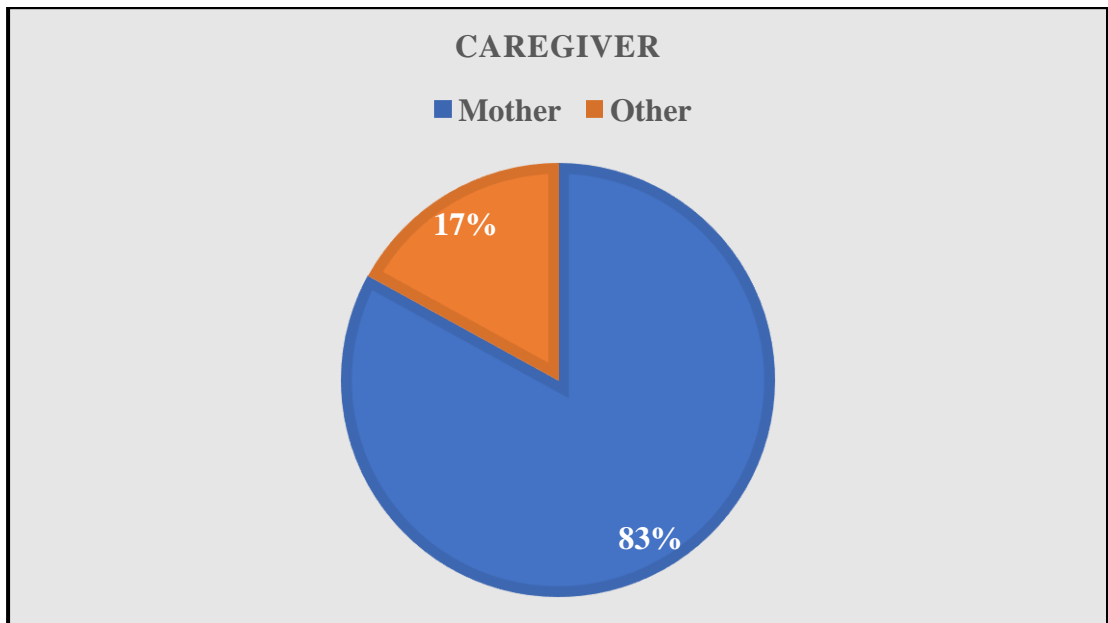
To accomplish the study the investigator has collected demographic information from the caregivers of the Cerebral Palsy child with swallowing difficulty for interpreting data that are included in the findings. The main objective of the study was to find out the impact of swallowing difficulties of CP children on Caregivers.

Investigator tried to find out the percentages and total count of three factors given in the questionnaire: problems carrying out daily activities, problems with worrying or worriedness and problems with feeding the child. In this chapter, the numerical outcome of the study will be described statistically using descriptive analysis. Findings of the study has given in the charts.

### 3.1 Socio Demographic Information:

#### 3.1.1 Caregiver

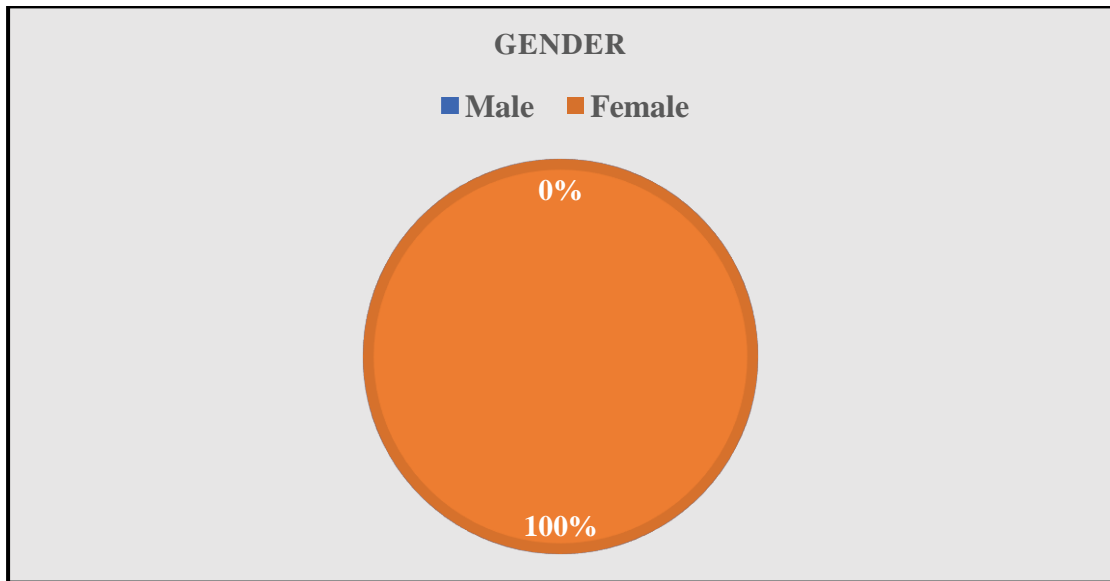
The survey was conducted among 150 caregivers. Among them 83% (n= 124) were mother of the CP child and 17% (n= 26) participants were other like grandmother, nanny, aunty.



**Figure 1: Percentage of Caregiver- Mother and Other**

### 3.1.2 Gender

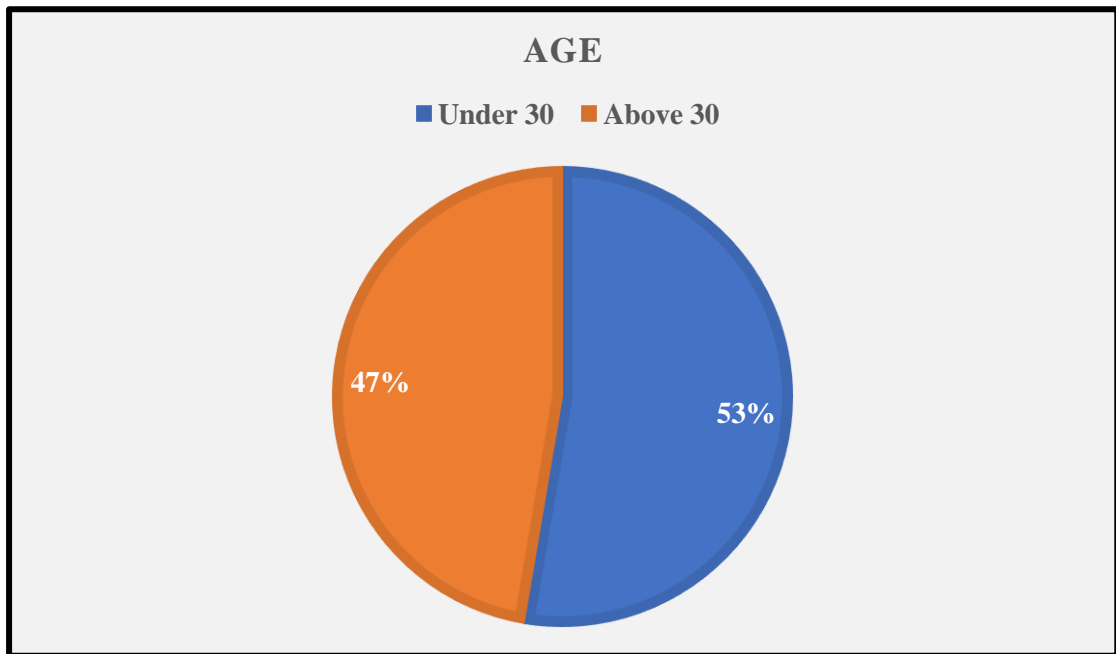
All the participants the investigator got were female. Single male caregiver was not found in the whole study so the ratio is 150: 0. Data shows that in context of BD only female persons take care of the child or feeds the child. No male caregiver was found in the total study time.



**Figure 2: Percentage of Gender- Male & Female**

### 3.1.3 Age

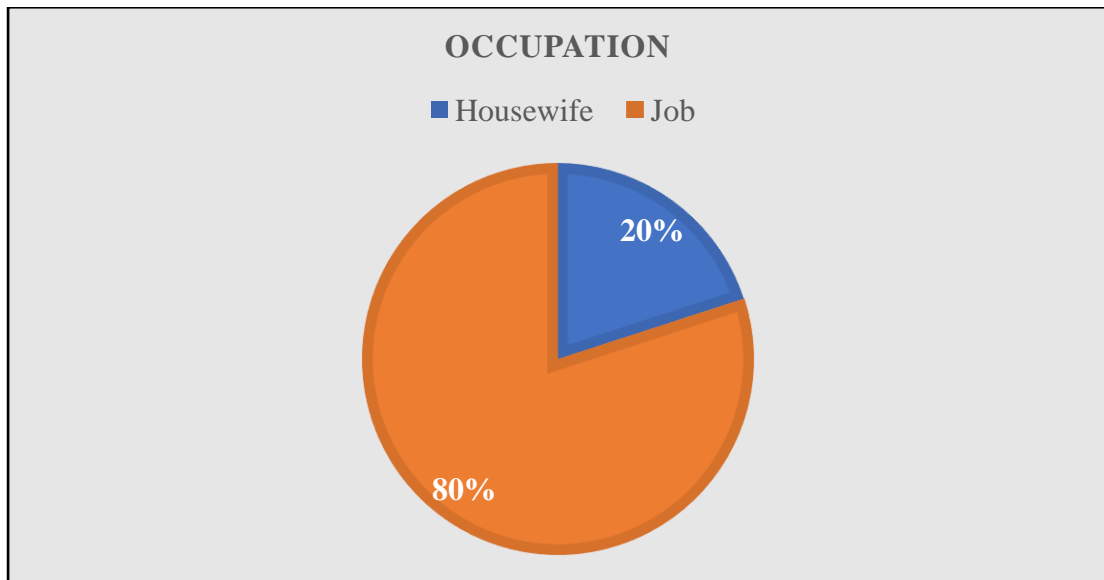
Among 150 participants, 53% (n=79) participants age is above 30 and 47% (n= 71) participants age were below 30. Data shows almost half of the caregivers age is under 30 and half of the participants are above 30 years old.



**Figure 3: Percentage of Age- Under & Above 30**

### 3.1.4 Occupation

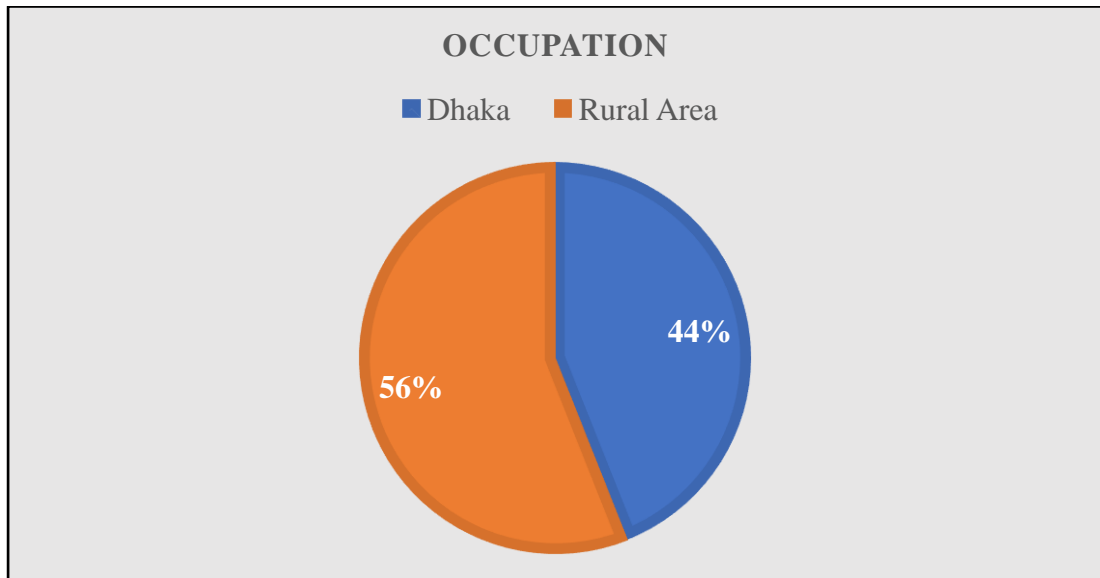
80% (n= 124) of the total participants were housewife and 20% (n= 26) participants do some job: work outside, work as nanny or caregiver for the child. CP child with SD at WMTS, their caregivers' are the ones who do job for caregiving.



**Figure 4: Percentage of Occupation- Housewife & Job**

### 3.1.5 Area

The survey was conducted among 150 caregivers who came to take treatment at CRP from different areas of Bangladesh. 44% (n= 66) caregivers were from Dhaka city and 56% (n= 84) participants were from rural area and outside of Dhaka city in Bangladesh.

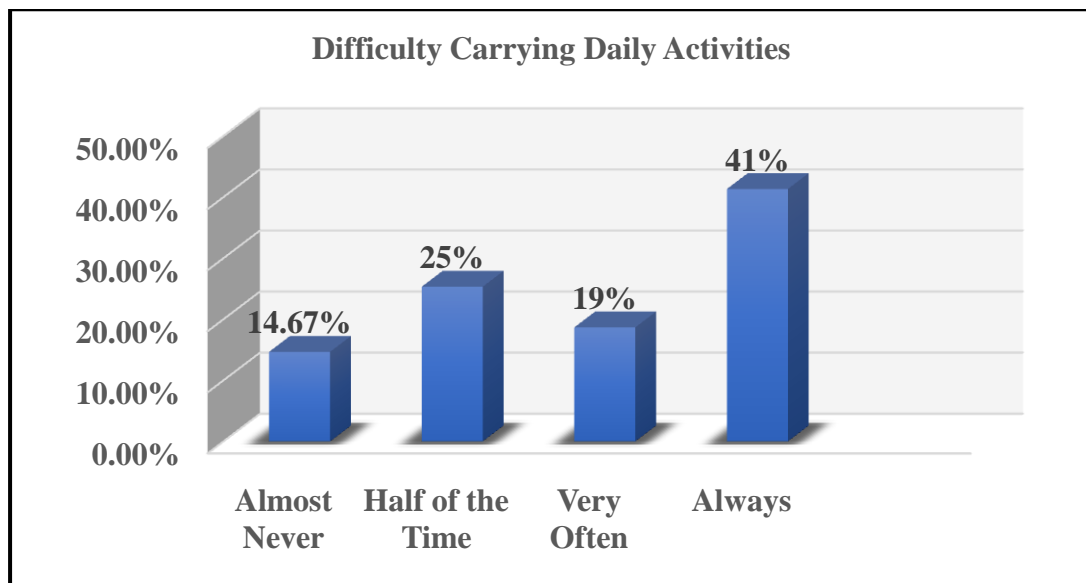


**Figure 5: Percentage of Area based Caregiver- Dhaka City & Rural Area**

### 3.2. Barriers in Daily Life Activities

#### Barrier in Daily Life Activity

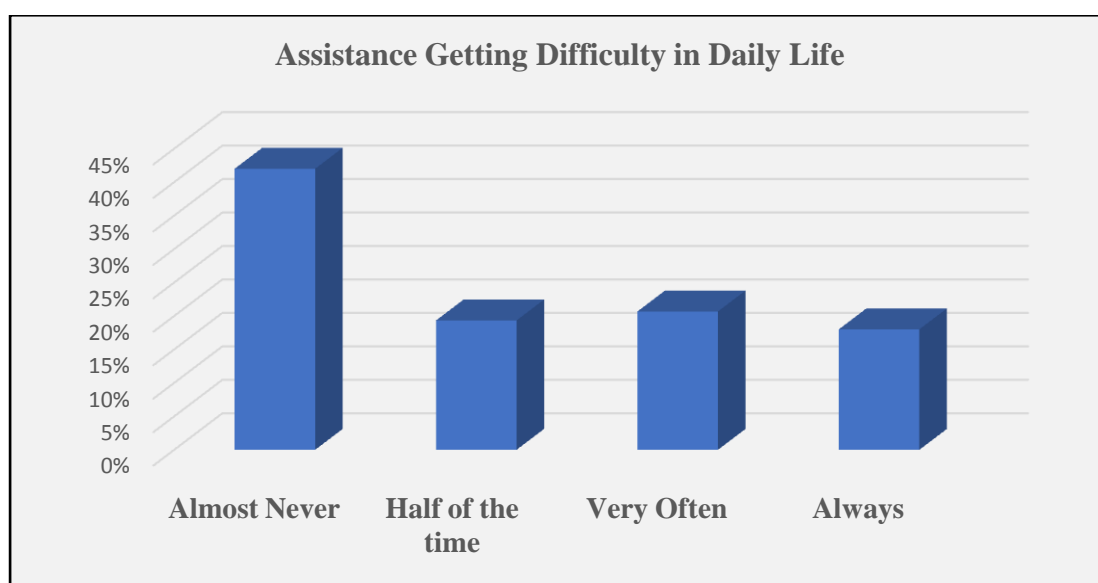
Among 150 caregivers 41% (n=62) reported difficulty carrying daily life activities Always for taking care and feeding the child with CP, 19%(n=28) marked it Very Often, 25%(n=38) labeled it as Half of the time and 14.67% (n=22) labeled it as Almost never. Mostly, mothers marked Always carrying daily life activities such as going for job, school, groceries, shopping etc. Of the 14.67% caregivers, most of them were the caregiver of WMTS whose job is to take care of the children with CP. So, it is seen from the chart that caregivers' daily life activities are hampered due to taking care of the CP child with SD.



**Figure 6: Caregivers Difficulty Carrying Daily Life Activities**

### Assistance getting difficulty in Daily Life

It is burdensome for all caregivers to have any assistance from others. In this study investigator got 42% (n= 63) caregivers having assistance 'Almost never' and also added that they do not seek help from others for their CP child, 19.33%(n=29) feels difficult to get help from others 'Half of the time', 20.67% (n=31) face hardship to get assistance Very often and 18% (n=27) caregiver Always feels hard to get any help from others for feeding and taking care of their CP child with SD, as no one is able to take care and feed them perfectly. So, works in caregivers daily life becomes harder.



**Figure 7: Assistance getting difficulty in daily life**

### Area based Outing Difficulty

Different people of different areas both Dhaka city and outside of Dhaka city were the participants (n=150) in this study. Participants from rural area 3% (n=5) reported having difficulty with outing as Almost Never. 10% (n=15) participants reported to have problem Very Often. 16.67% (n=25) caregivers face difficulty Always. For 26.67% (n=39) participants the question of outing was not applicable because they usually they do not go outside for travelling or a holiday. Participants again reported that they do not go for outing for their child.

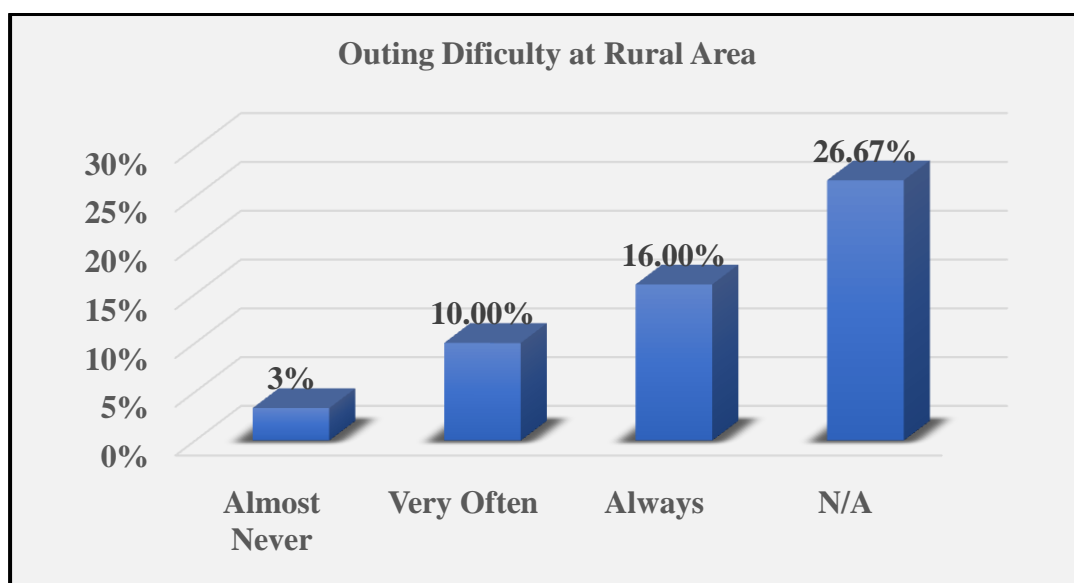


Figure 8: Outing Difficulty of Rural Area Caregivers

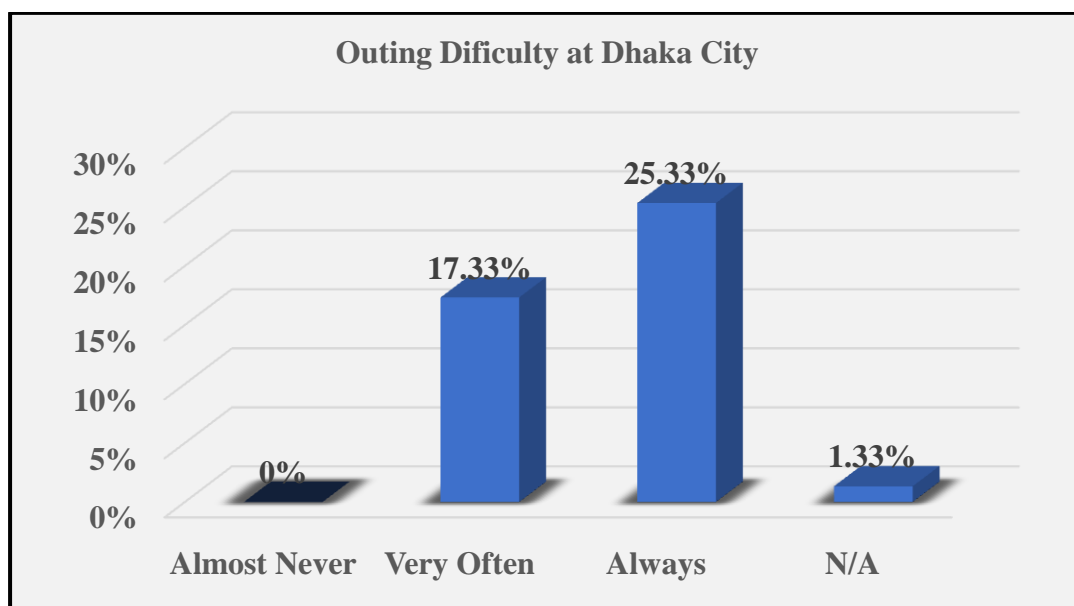


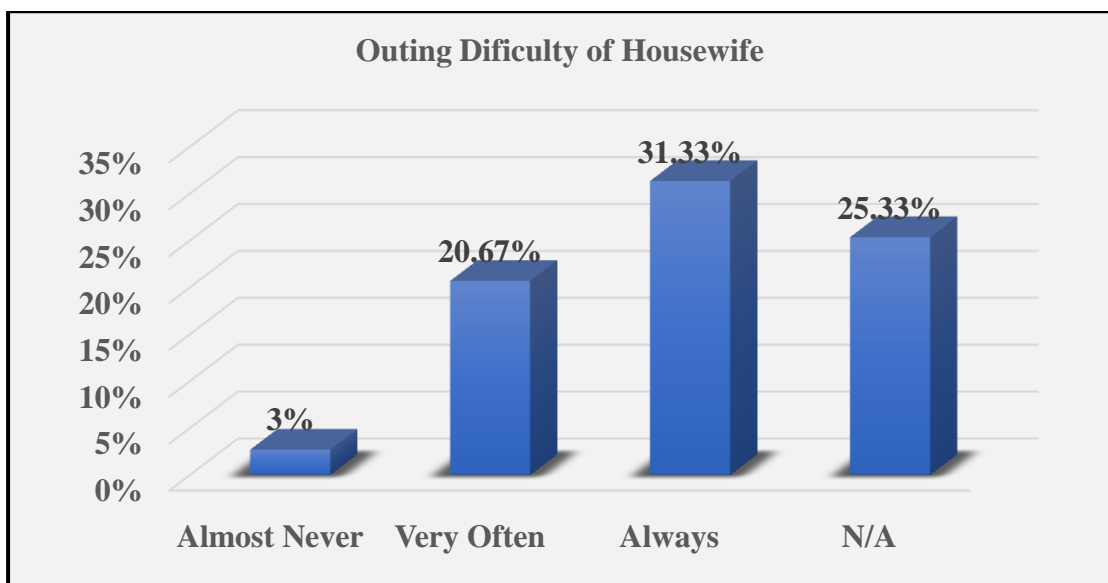
Figure 9: Outing Difficulty of Caregivers at Dhaka City

Caregivers of Dhaka city need to compromise their outing for their CP child with SD. 24.67% (n=37) caregivers of DC Always gets it difficult to move for outing with their child. For 17.33% (n=26) participants outing is impossible Very often and for 1.33% (n= 2) caregiver the question was not applicable because they too never go for travel or outing. In both area, outing is quite impossible for caregivers with their CP child that may affect the daily life activity, making it boring and monotonous. So, for both area caregivers outing is a difficulty.

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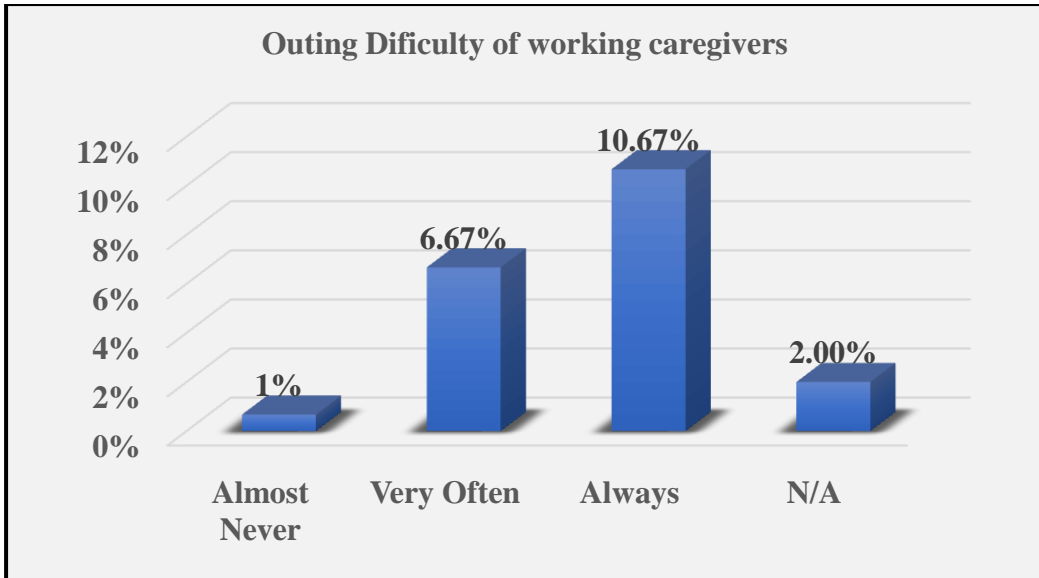
### Occupation and Outing Difficulty

Outing is seen a barrier as Always for most of the caregivers beyond their occupation. Either the caregiver is a housewife or a working woman it is marked an obstacle as Always. Of all the caregivers (n=150), 80% (n= 124) are housewife and 20% (n=26) are working woman and most of them face difficulty Always for outing. 31.33% (n=47) housewife caregivers reported it is Always tough to arrange and go for an outing. 20.67% (n=31) and only 3% (n=4) told it very often and almost never a burden for outing. But a large amount of housewife 25.33% (n=38) marked the question as 'Not applicable' because they never go for an outing.



**Figure 10: Outing Difficulty of Housewife**

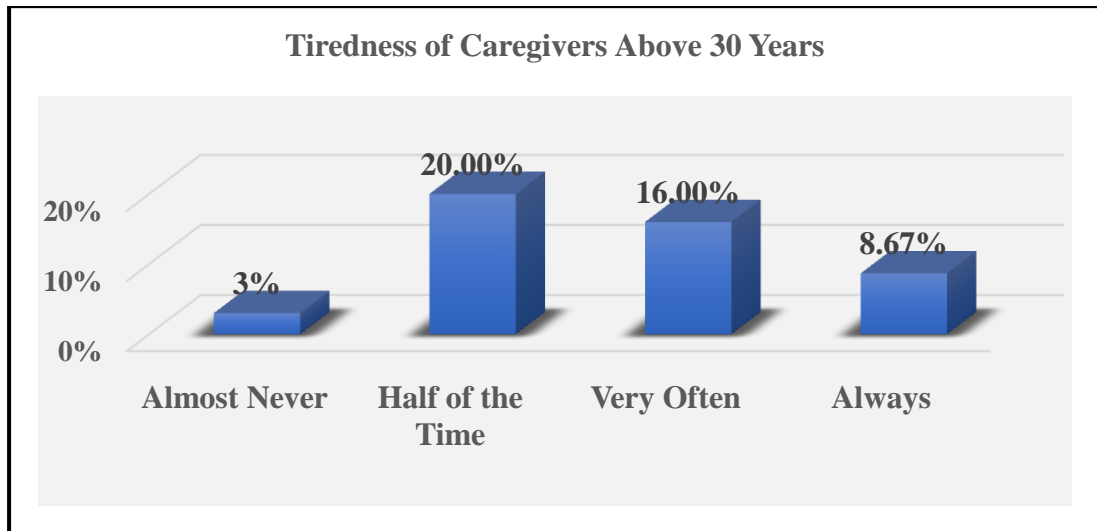
Same, for working women 10.67% (n=16) it is marked hard as Always. 6.67% told to have difficulty outing Very often, only 1 caregiver told to have problem Almost never and 2% said the question not suitable as they do not go for outing. In total, almost half of all sample, 42% (n=63) said they face difficulty for outing Always and for 27.33% (n= 41) caregivers never go for outing which recover nearly one third of total sample. So, it is very clear that outing is very difficult for the caregiver of a CP child with SD.



**Figure 11: Outing Difficulty of Working Caregivers**

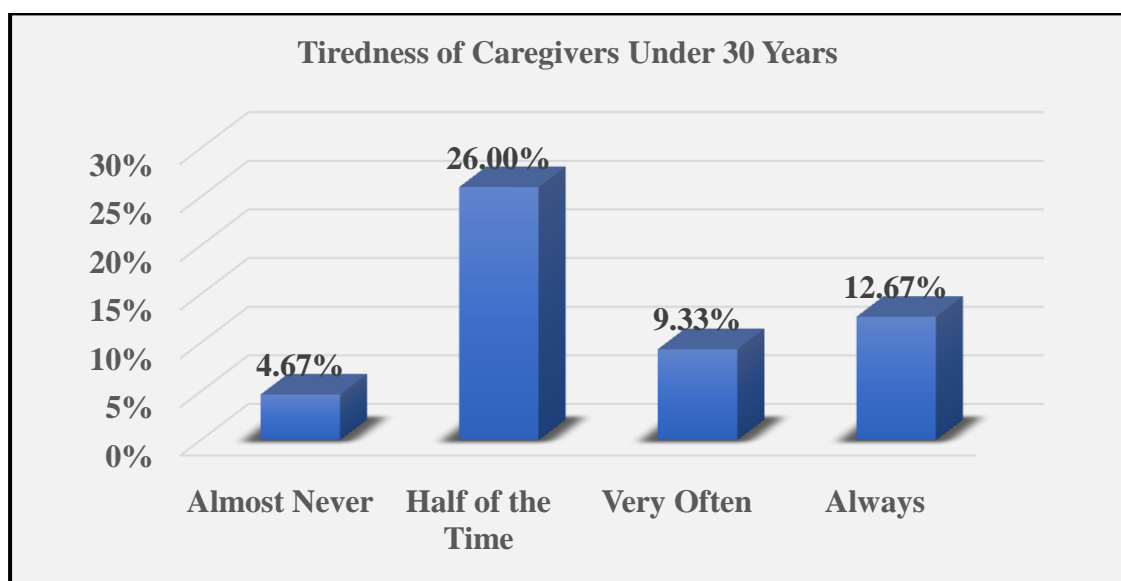
### Tiredness of Caregivers According to Age

Caregiver feels tired due to taking care, feeding the child with CP as well as doing all the household chores. Above 30 years old 8.67% (n=13) caregivers reported feeling tired as Always, 16% (n= 24) reported tiredness Very often, 20% (n=30) for half of the time and 3% (n=4) said the feeling of tiredness almost never.



**Figure 12: Tiredness of caregivers above 30 years old**

Caregivers under 30 years old marked almost same as the caregivers above 30 years old that the feeling of tiredness is Always for 12% (n=19), Very often for 9.33% (n=14), Half of the time for 26% (n=39), and Almost never for 4.67% (n=7) caregivers. 4.67% caregivers who marked tiredness Almost never added that as they have to take care and feed their child alone as a routine work so it is not a matter of tiredness to them.

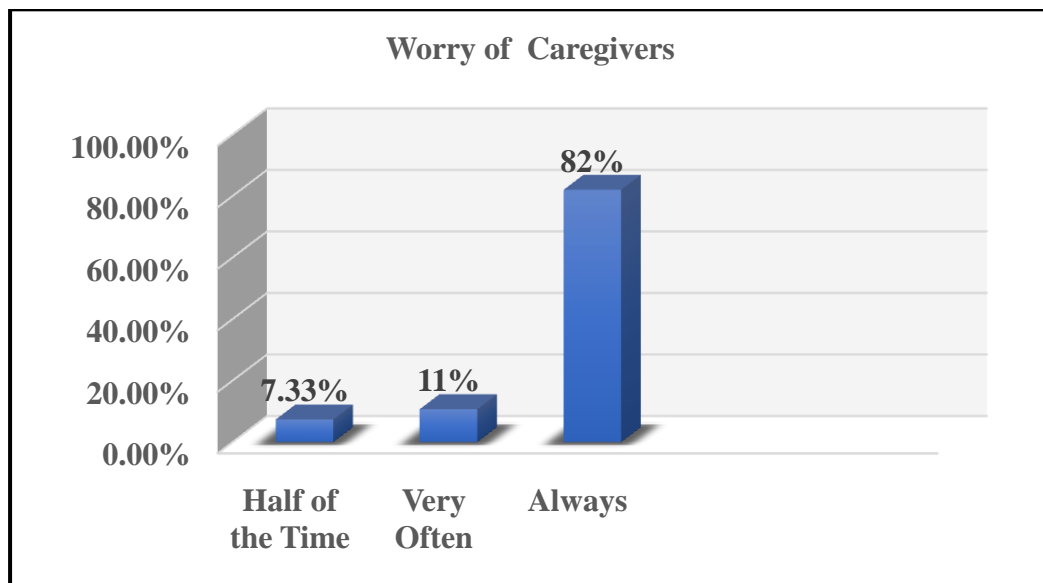


**Figure 13: Tiredness of caregivers Under 30 years old.**

## B. Caregivers Stress in Daily Life

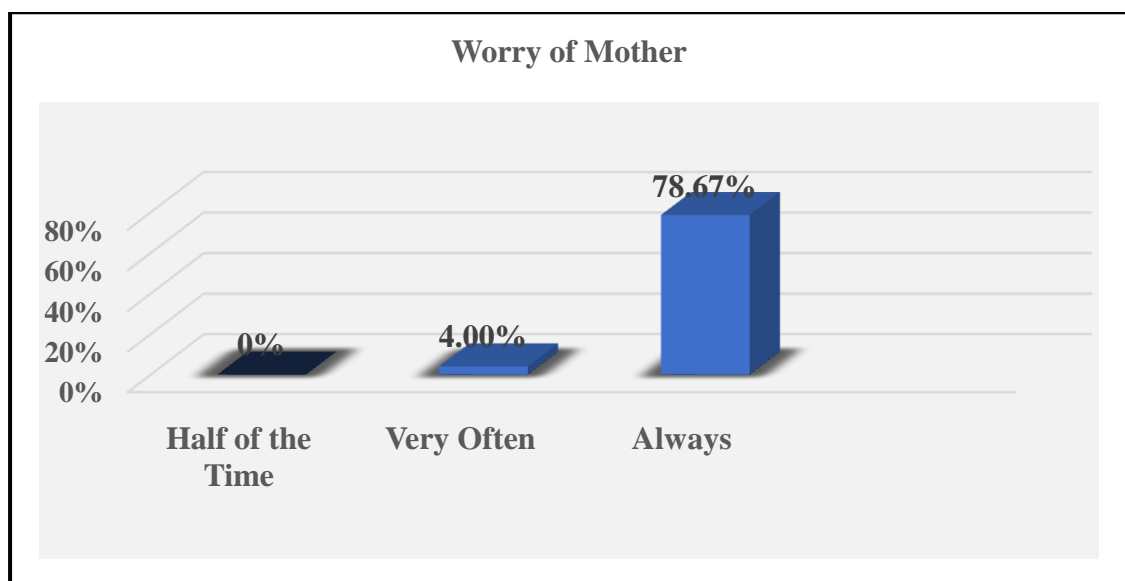
### Worry of Caregivers

Caregivers worry about their CP child's physical growth, health, communication and swallowing. 82% caregiver reported worrying for their CP child with SD for Always. 11% marked worry about child and 7.33% marked worry half of the time.

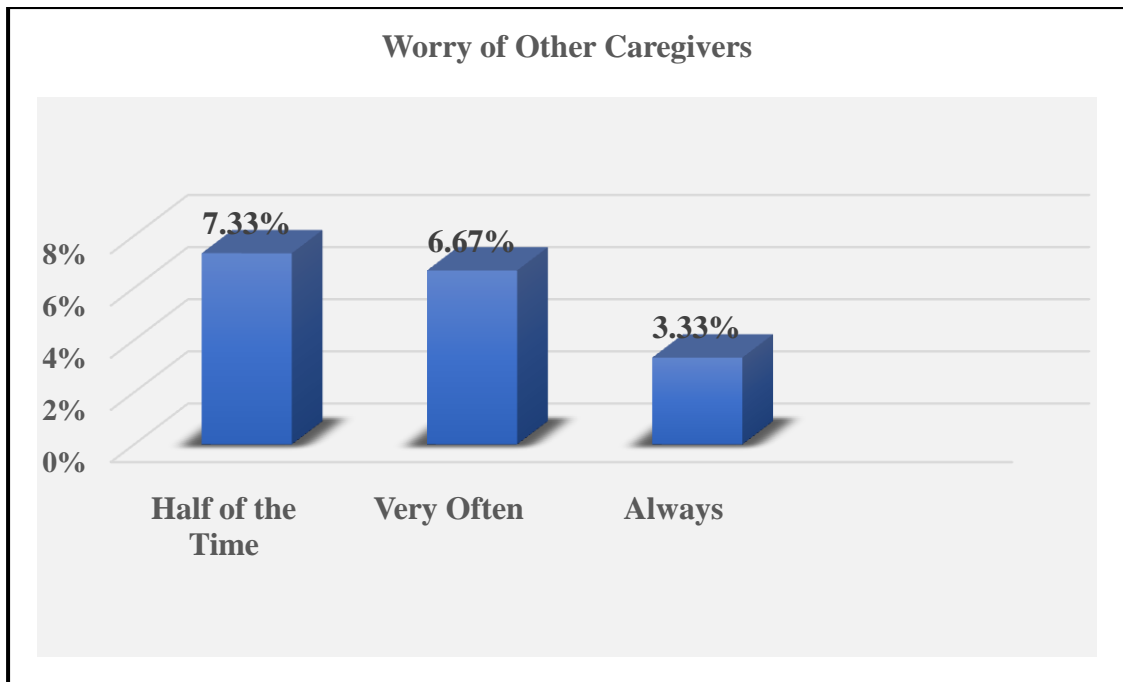


**Figure 14: Worry of Caregivers**

Worry is closely related to the caregiver (who is involved with the CP child with SD either mother or nanny, grandmother, aunty. Data collected from the participants showed that mother shows higher level of worry rather than any other caregiver.



**Figure 15: Worry of Mother**

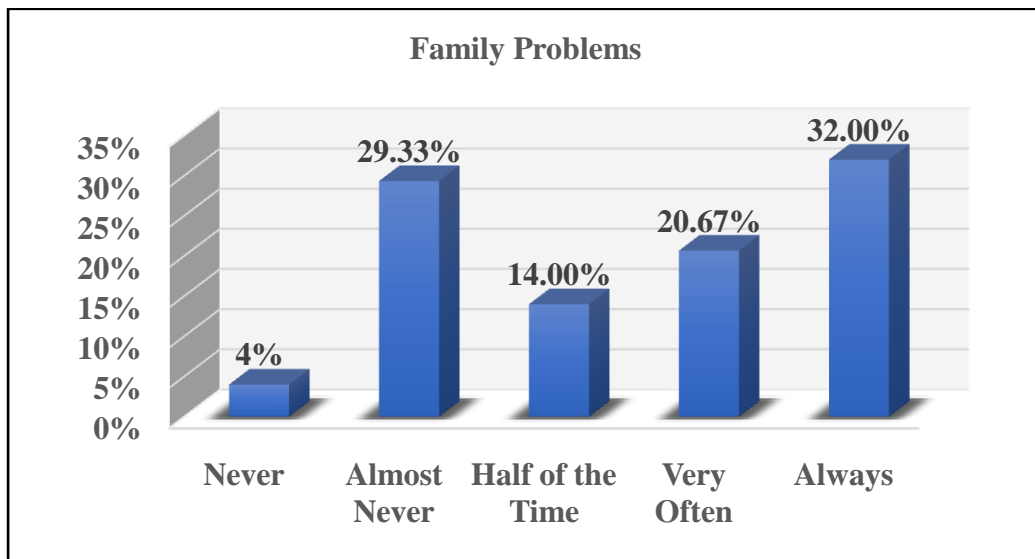


**Figure 16: Worry of other Caregivers.**

The bar chart given upward describes that if the caregiver is mother of the CP child the level of worry is labeled as always narrated by 78.67% (n=118) mothers, 4% (n=6) mothers said their worry for very often. In other hand, others (grandmother, nanny, aunty) the results were very different. 7.33% (n=11) labeled their worry half of the time, 6.67% (n=11) labeled very often and 3.33% (n=5) labeled as always.

### Caregivers Worry about Family Members Problem

A caregiver's worry about other family members due to child's swallowing difficulty is a great issue. Among 150 caregivers 32% (n=48) worry that their family members face problem for CP child with SD. 20.67% (n=31) caregivers family members face difficulty Very Often, 14% (n= 21) caregiver reported about family members difficulty Half of the time. Surprisingly 29.33% (n=44) caregivers reported other members difficulty at family as Almost never and only 4% (n=6) caregiver told it Never.



**Figure 17: Worry of caregivers for family problems**

The worry about family problems is related with the age of caregiver. Age under 30 years show more worry than caregivers above 30 years old. Where 46 caregivers under 30 years labeled worry as Always, only 2 caregivers (above 30 years) marked it as Always.

### Anxiety of Caregivers

Anxiety at the time of feeding the child with CP is another reason behind caregivers psychological disturbance. The thinking: child may choke is a cause of caregiver's worry. 64% (n=96) mothers feel it Always, 15% (n=22) mothers feel anxiety Very Often, 1% (n=2) feels Half of the time, 2.67% (n= 4) feels Almost never.

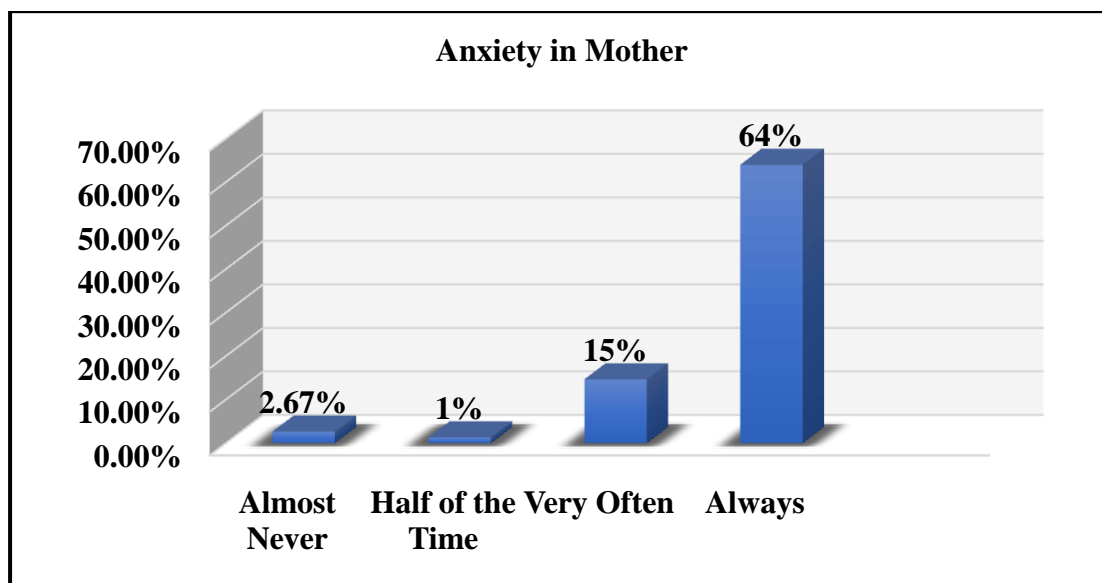


Figure 18: Anxiety of choking in caregiver: mother

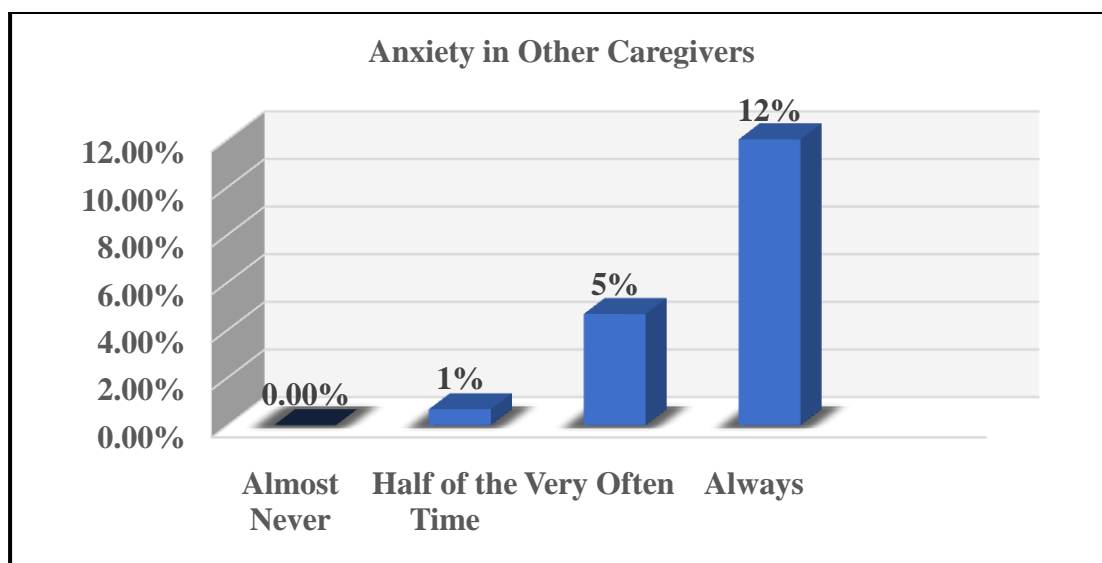


Figure 19: Anxiety of choking in caregiver: other

### 3.3 Difficulty in Feeding

#### Lack of Information According to Area

How much information a caregiver has regarding the CP child's swallowing, food, feeding, is also related with area the caregiver lives. The bar chart given below reveals that caregiver living in the rural area have lack of information Very often for 23.33% (n=35), Always for 10.67% (n=16), Half of the Time for 8.67% (n=13), Almost never for 11.33% (n=17), Never for 2% (n=3) cases.

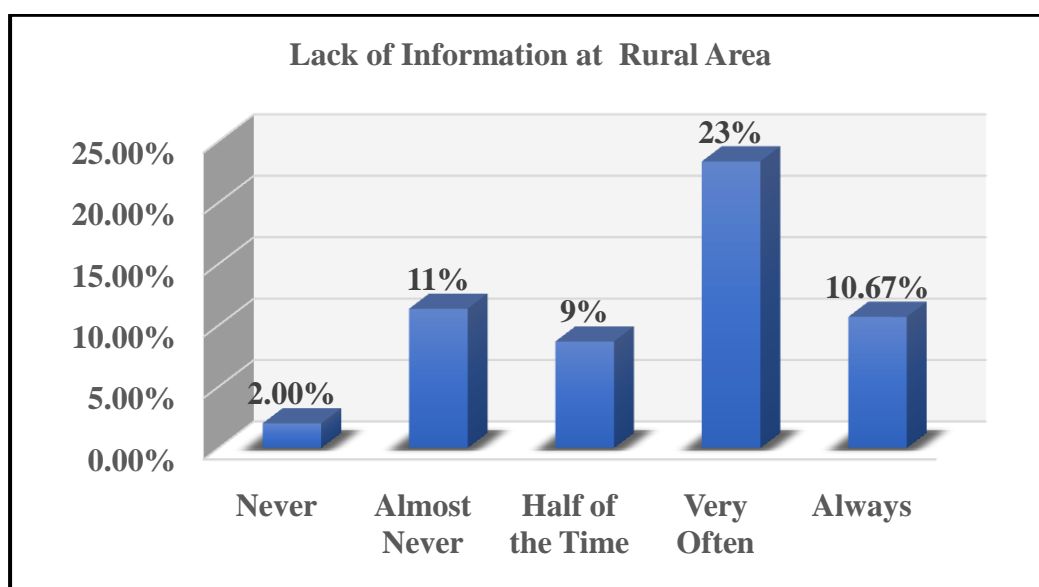


Figure 20: Lack of information of caregivers living at Rural Area

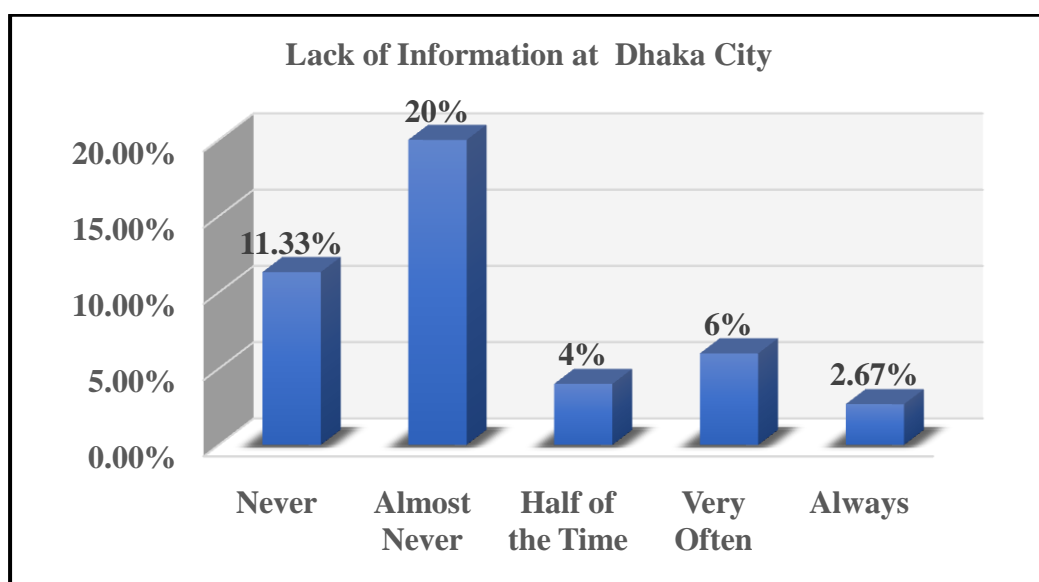
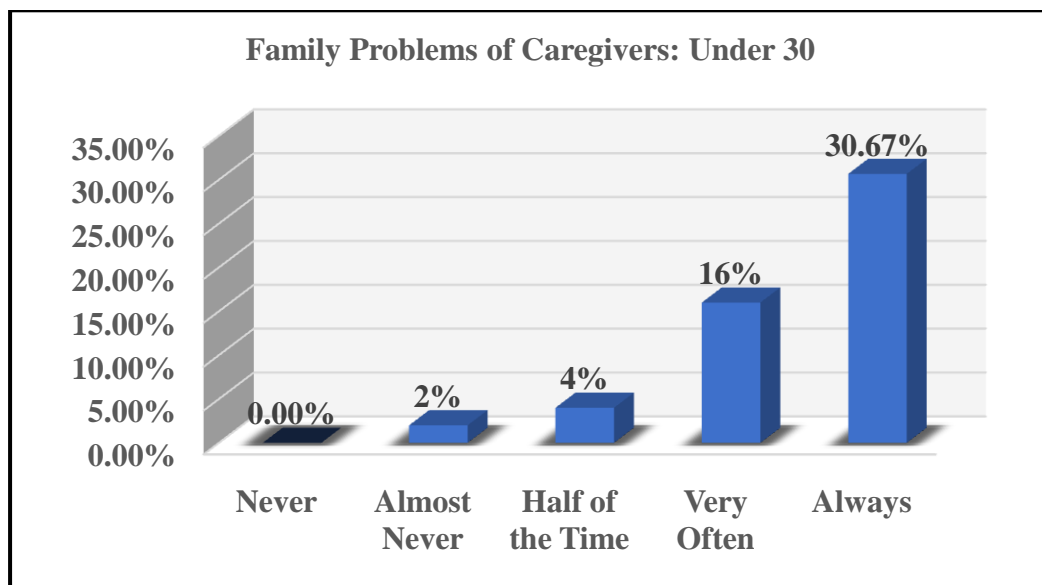


Figure 21: Lack of information of caregivers living at Dhaka City

On the other hand, caregivers living in DC have much information about their CP child with SD regarding child's food, texture, position as well as more awareness is found in them than village living caregivers. 11.33% (n= 17) caregivers never face any 'information not found' or 'lack of information'. 20% (n=30), 4% (n=6), 6% (n=9) caregivers face it respectively Almost never, Half of the time, Very often and Always. Here instead the information is much seen than the village living caregivers.

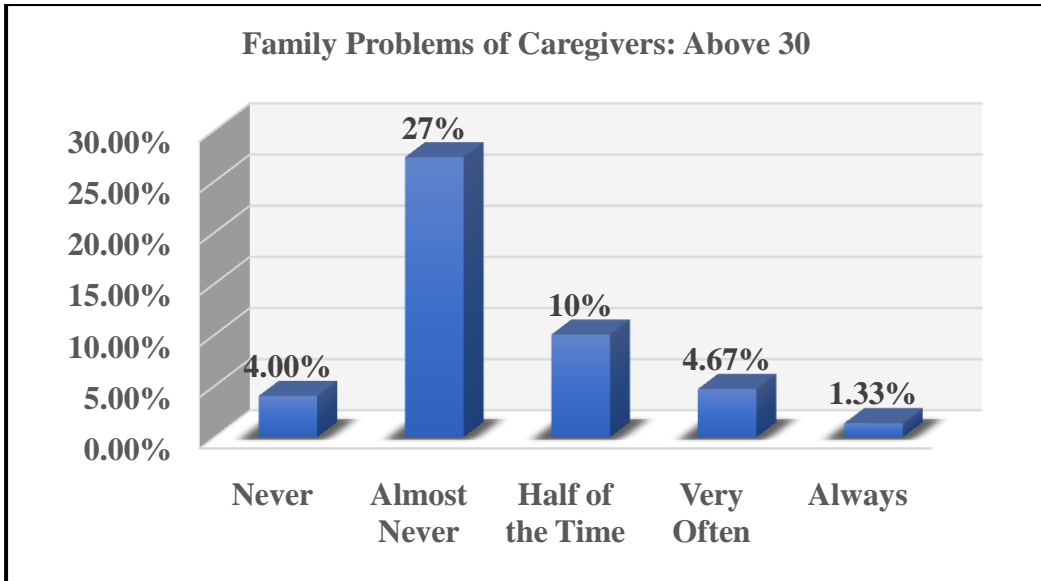
### Age and Family

The impact on whole family is quite related with the age of the caregiver of CP child with SD. Most of the caregiver under 30 years old gets it tough to manage other family members with their CP child with SD. To 30% (n=46) caregiver it is Always burdensome to organize family member and their child. 16% (n=24) reported it Very often, 4% (n=6) and only 2% (n=3) told that they Never gets it troublesome to supervise the family members and CP child with SD.



**Figure 22: Family Problems of Caregivers: Under 30 years old**

On contrary, caregivers who are more than 30 years old reported to handle both family and CP child with SD more easy than caregivers under 30 years old. 4% (n=6) of them Never gets hard to administer both, 27.33% (n=41) reported to face Almost never, 10% (n= 15) faces difficulty Half of the time. A small amount of caregiver: 4.67% (n= 7) and 1.33% (n= 2) told it hard to oversee family members and the CP child with SD.



**Figure 23: Family Problems of Caregivers: Above 30 years old**

**Impact on Daily Activities**

The study has identified the impact on quality of swallowing difficulty of children with cerebral palsy on caregivers. The data collection tool was FS/IS (Feeding Swallowing Impact Survey). Questions were separated into three parts: Barriers in daily life activities of caregiver, Worry and Difficulty in feeding. Answers were marked by the participant and for the illiterate caregivers' investigator has done it. 41% caregivers face difficulty carrying their daily life activities Always. 19% caregivers' daily life activities are hampered Very often, 25% caregivers daily life activities are hampered half of the time. Zuurmond, Mahmud, Polack & Evans (2015) stated that 90% mothers are the caregiver of their CP child living in rural area of BD. They compared the life of caregivers of CP child with caregivers of typical children using PedsQL reported the mean of the impact on caregivers daily life activities 38.9 where the caregiver of typical child's 72.1. Again, the their lower level of quality of life and limitation of day to day activities. 21.34% caregivers physical tiredness is reported for Always, 25.33% marked tiredness as Very often, 46% reported Half of the time and only 7.67% reported to have physical tiredness almost never. From the qualitative part of the study physical tiredness of the caregiver for conducting everyday household chores were identified. (Zuurmond, Mahmud, Polack & Evans, 2015)

**Worry of Caregiver**

82% caregivers showed worry Always which cause a big impact on caregivers' psychological wellbeing. 10.67% worry Very often and the rest 7.33% caregivers marked their worry Half of the time about the CP child with SD as well as their life, daily works, family members and etc. Anxiety is felt by 78% caregivers Always and for 20% caregivers, anxiety is felt Very often that indicates most caregivers' anxiety about the child. In the mixed study of Zuurmond, Mahmud, Polack & Evans (2015) they showed lower score of emotional functioning as well as worry in families and high score of worry and anxiety were found from the caregivers of CP child. Mean of worry for the CP child of the caregivers found low (52.9) compared to the typical

child (83.1). Mean score of emotional functioning (25.1) and family relationship (65.2) are too were very low than normative families (78.1, 85.2).

### **Difficulties with Feeding**

Feeding a CP child with SD is more difficult rather than feeding a typical child for a caregiver. Making the food in a proper way, having exact information: how to feed and what to feed, getting the right treatment and following it- so many difficulties a caregiver may have while feeding the child. 13.34% caregivers face difficulty to get exact information about feeding the CP child with SD, 29% faces lack of information for Very often, mostly the caregivers living in the rural area of BD face the scarce of information regarding feeding the CP child with SD. 23% village living caregivers face scarcity of information Very often and 10.67% gets it Always. Difficulty at the mealtime brings stress to both child and caregiver which promotes difficulty in feeding practices (Hurley et al., 2008, cited in Adams, 2011)

During study time the investigator got some limitations in different aspects. Most of the caregivers of CP child with SD in BD are a little educated and from rural area so they do not get the questions properly. The investigator needed to explain briefly about everything. One of the greatest boundaries was the investigator had to keep in mind that as it is an undergraduate research project and there is a time limit. Investigator had to complete the whole study within a short time where the data collection from total sample was difficult. Investigator collected data from 150 caregivers that is 71.77% of total sample. Here, duration of data collection was also a limitation due to limited availability of the participants in given time. The study was conducted at CRP, Savar where caregivers of CP child with SD from all over the BD so it covers all area of BD.

The implications of the study are described below-

- The findings of the study show that mostly mother or any female is related with caregiving and feeding the CP child with SD beyond age, area and occupation. Their daily life activities such as going outside for any need, outing, as well as getting help from others are hampered for caregiving the child.
- The findings describe that the caregivers are in tension very often. Most caregivers are in worry for their child's health. Lot of caregivers feel anxiety that their child may choke at the time of swallowing, a large number of caregivers are afraid that if they are helping their child properly at the mealtime. These are creating stress in their daily life that are hampering their psychological wellbeing.
- To mitigate caregiver burden, clinicians can identify caregivers and ask them about their particular circumstances, resources, their costs, coping strategies. A comprehensive treatment planning or indirect therapy model technique include caregivers, and clinicians should engage caregivers in developing them. Essential trainings should be arranged and provided for the betterment of the child's care as well as their psychological wellbeing.
- If Speech and Language therapists do some awareness-based program on feeding for the caregivers of CP child with SD, their worry for the child would be decreased.
- Again, most of the caregivers living in the rural area did not have enough information how to feed their CP child with SD properly: the position, food, texture. After taking SLT service, the Speech and Language Therapists helped them to recover that barriers. SLT service at the root level for mass people may decrease these hardships for all caregivers which will help to child too have proper nutrition and a better healthy life in future.

Caregivers are the big support for all those persons who need help for survival in daily life. When it come to a CP child with swallowing difficulty it is more essential because feeding posture; utensils; food's quantity, texture: all are related to the caregiver's knowledge and attitude. Caregivers face lots of barrier in daily life Sometimes due to caregiving. Their physical, psychological and social wellbeing is related to caregiving demand of the child. Caregivers often lose contact with their relatives, friends, neighbors, relatives. To sum up, society should honor caregiving as a valued and expected part of life, rather than taking it as only duty of a specific caregiver. The burden of a caregiver would be relieved if all the family members work together for well being of CP child with SD and their caregiver.

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## ANNEXURE I

Annexure: I

Questionnaire

F/S – IS (Feeding/ Swallowing Impact Survey)

Name:	Age:	Sex:
Area:	Occupation:	
Date:		

In the past ONE month, as a result of your child's feeding/swallowing problems, how often have you had problems carrying out your daily activities?	Never	Almost Never	Half the Time	Very Often	Always	N/A
1. It is hard for me to do my job, go to school, or work around the house.	1	2	3	4	5	6
2. It is hard for me to get help from others because they are scared to feed or take care of my child.	1	2	3	4	5	6
3. It is hard for me to leave my child because I am scared to have other people feed or take care of my child.	1	2	3	4	5	6

4. It is hard for my family to make plans or go out to eat.	1	2	3	4	5	6
5. I am too tired to do the things I want or need to do.	1	2	3	4	5	6

In the past ONE month, as a result of your child's feeding/swallowing problems, how often have you had problems with worrying?	Never	Almost Never	Half of the Time	Very Often	Always	N/A
1. I worry about my child's general health.	1	2	3	4	5	6
2. I worry that my child does not get enough to eat or drink.	1	2	3	4	5	6
3. I worry about how others will react to my child's feeding/swallowing problems.	1	2	3	4	5	6
4. I worry about how my child breathes when feeding and whether my child will choke.	1	2	3	4	5	6
5. I worry that my child will never eat and drink like other children.	1	2	3	4	5	6
6. I worry about whether I am doing enough to help with my child's feeding /swallowing problems	1	2	3	4	5	6
7. I worry about how my child's feeding/swallowing problems affect others in my family.	1	2	3	4	5	6

In the past ONE month, as a result of your child's feeding/swallowing problems, how often have you had problems feeding your child?	Never	Almost Never	Half of the Time	Very Often	Always	N/A
1. It is hard to feed my child because it takes a long time to prepare liquids and foods the "right" way.	1	2	3	4	5	6
2. It is hard to feed my child because I don't know how to prepare liquids and foods.	1	2	3	4	5	6
3. It is hard to feed my child because others give my child liquids or foods that are not allowed.	1	2	3	4	5	6
4. It is hard to feed my child because I don't know how long these problems will last.	1	2	3	4	5	6
5. It is hard to feed my child because family or professionals have different opinions about taking care of my child's feeding/swallowing problems.	1	2	3	4	5	6

6. It is hard to feed my child because I do not get enough information about how to get my child to eat and drink like other children.	1	2	3	4	5	6
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## Annexure: II

### Questionnaire Bangla Translated

খাদ্য সম্পর্কিত জীবনমান

নামঃ	বয়সঃ	লিঙ্গঃ	এলাকাঃ
পেশাঃ			তারিখঃ

গত এক মাসে আপনি আপনার শিশুর খাওয়ার সমস্যার জন্যে আপনার দৈনন্দিন কাজে কতটা ব্যাঘাত ঘটেছে	কখনইনা	না	মারো মারো	প্রায়শ	সব সময়	প্রয়োজ্য নয়
আমার জন্যে ঘরের কাজ , চাকরি এবং স্কুলে যাতায়াত অসুবিধা হয়	১	২	৩	৪	৫	৬
অন্যের সাহায্য পেতে আমার অসুবিধা হয় কারণ তারা আমার শিশুকে খাওয়াতে পারেনা	১	২	৩	৪	৫	৬
আমার শিশুকে আমি একা রেখে যেতে পারিনা কারণ অন্যকেও শিশুকে খাওয়াতে পারবেনা	১	২	৩	৪	৫	৬
আমার পরিবারের জন্যে বাইরে খেতে যাওয়ার পরিওল্পনা করা কঠিন হয়	১	২	৩	৪	৫	৬
আমাকে যা করতে হয় তা করতে করতে আমি ক্লান্ত	১	২	৩	৪	৫	৬

গত এক মাসে আপনি আপনার শিশুকে খাওয়ানোর সময় কতটা উদ্বিগ্ন ছিলেন	কখনইনা	না	মাঝে মাঝে	প্রায়শ	সবসময়	প্রযোজ্য নয়
আমি আমার শিশুর সামগ্রিক শারিরিক অবস্থা নিয়ে চিন্তিত	১	২	৩	৪	৫	৬
আমার শিশু পর্যাপ্ত পরিমাণে খায়না তাই আমি চিন্তিত	১	২	৩	৪	৫	৬
অন্যেরা আমার শিশুর খাবার খাওয়ার সমস্যাকে কিভাবে দেখবে ভেবে আমি চিন্তিত	১	২	৩	৪	৫	৬
শিশুকে খাওয়ানোর সময় আমি চিন্তিত থাকি তার গলায় খাবার আটকে গেল কিনা	১	২	৩	৪	৫	৬
আমার চিন্তা হয় যে আমার শিশু অন্য সকল শিশুর মত খেতে পারবে কিনা	১	২	৩	৪	৫	৬
আমি চিন্তিত থাকি যে শিশুকে সঠিকভাবে খাবার খেতে ও গিলতে সাহায্য করতে পারছি কিনা	১	২	৩	৪	৫	৬
আমি চিন্তিত থাকি যে আমার শিশুর খাওয়ার সমস্যা জনিত কারণে পরিবারের অন্য কারো অসুবিধা হচ্ছে কিনা	১	২	৩	৪	৫	৬

গত এক মাসে আপনি আপনার শিশুকে খাওয়ানোর সময় কতবার খাওয়াতে সমস্যা বোধ করেছেন?	কখনই না	না	মাঝে মাঝে	প্রায়শ	সব সময়	প্রয়োজ্য নয়
আমার শিশুকে খাওয়ানো একটি কঠিন কাজ কারণ সঠিকভাবে খাবার তৈরি করতে প্রচুর সময় প্রয়োজন হয়	১	২	৩	৪	৫	৬
আমার শিশুকে খাওয়ানো একটি কঠিন কাজ কারণ আমি জানিনা কিভাবে খাবার তৈরি করতে হয়	১	২	৩	৪	৫	৬
আমার শিশুকে খাওয়ানো একটি কঠিন কাজ কারণ অন্যেরা এমন খাবার বা তরল দেয় যা শিশুকে খাওয়ানো যাবে না	১	২	৩	৪	৫	৬
আমার শিশুকে খাওয়ানো একটি কঠিন কাজ কারণ আমি জানিনা শিশুর খাওয়া জনিত এই সমস্যা আর কতদিন থাকবে	১	২	৩	৪	৫	৬
আমার শিশুকে খাওয়ানো একটি কঠিন কাজ কারণ আমার পরিবার ও বিভিন্ন চিকিতসকেরা বিভিন্ন মতামত দিয়ে থাকেন কিভাবে শিশুর খাওয়া সংক্রান্ত সমস্যায় শিশুর যত্ন নেওয়া যায়	১	২	৩	৪	৫	৬
আমার শিশুকে খাওয়ানো একটি কঠিন কাজ কারণ আমার কাছে পর্যাপ্ত তথ্য নেই কিভাবে আমার শিশুকে অন্য সকল শিশুর মত করে খাওয়ানো	১	২	৩	৪	৫	৬

## ANNEXURE: III

### Consent Form: Bangla

গবেষক কাজী তাইয়েবা নূর নাহরীন বাংলাদেশ হেলথ প্রফেশন ইন্সটিটিউট এর স্পিচ এন্ড ল্যাঙ্গুয়েজ থেরাপি বিভাগের চতুর্থ বর্ষের একজন ছাত্রী। এই গবেষণা তার অধ্যয়নের একটি অংশ। গবেষণার বিষয় - ‘খাওয়া দাওয়া এর সমস্যা জনিত সেরিব্রাল পালসি আক্রান্ত শিশুদের জন্য শুশ্রূষাকারী এর জীবনমান এর উপর প্রভাব’

এই গবেষণায় আমি ..... একজন অংশগ্রহণকারী। গবেষণার উদ্দেশ্য সম্পর্কে আমি অবগত। যে কোন সময়ে আমি আমার অংশগ্রহন প্রত্যাহার করতে পারি, এজন্যে আমি কারো কাছে জবাবদিহি করতে বাধ্য নই।

যে সকল তথ্য গবেষণার কাজে ব্যবহৃত হবে, সেগুলো গোপন থাকবে। শুধুমাত্র গবেষকের এগুলো ব্যবহারের অধিকার আছে। অংশগ্রহনকারির নাম প্রকাশিত হবেনা।

উপরোক্ত সকল বিষয় সম্পর্কে আমি অবগত এবং এই গবেষণায় অংশগ্রহন করতে সম্মতি জানাচ্ছি।

অংশগ্রহনকারীর (বাবা/ মা) এর স্বাক্ষরঃ	তারিখঃ
সাক্ষীর স্বাক্ষরঃ	তারিখঃ
গবেষকের স্বাক্ষরঃ	তারিখঃ

## Annexure IV

### Consent Form: English

Researcher Kazi Taiyeba Noor Nahreen is a 4<sup>th</sup> year student of Speech and Language Therapy Department in Bangladesh Health Professions Institute. This research is a part of her academic curriculum. The research topic is- 'Impact of swallowing difficulties of children with CP on caregivers.'

In this research I ..... am a participant. I have known the aim of this research. I can withdraw anytime and for this I am not bound to answer any question to anyone.

The information will be very confidential, only the investigator has the right to use it. Name of the participant will not be disclosed to anyone.

I have been informed about the above mentioned facts and I am willingly participating in this investigation.

Signature of Participant:	Date:
Signature of Witness:	Date:
Signature of Investigator:	Date:

## Annexure V

### Permission Letter

#### ANNEXURE V

#### Permission Letter

To

Head of the Department

Speech and Language Therapy Department

BHPI, CRP

Savar-1343

Subject: Seeking permission for conducting a research project

Sir,

With due respect I state that I am a 4<sup>th</sup> year (session:2014-15) student of Speech and Language Therapy Department, BHPI. I am sincerely seeking permission to conduct my research project as a partially fulfillment of the requirements for the degree B.Sc in Speech and Language Therapy. The title of my project is 'Impact of swallowing difficulties of children with CP on caregivers'. Under honorable supervisor Jannatul Ferdous, lecturer of Speech and Language Therapy department, BHPI. The main objective of this study is to explore the impact of swallowing difficulties of children with CP on caregivers. Self-inventory questionnaire will be used that will take 5-10 minutes followed by inclusion criteria related information will be collected from speech and language therapists and client's caregiver. Data will be kept safely and securely maintaining confidentiality. Therefore, I look forward to have your kind approval for the thesis proposal and start thesis and data collection. I can also assure you that I will maintain all the requirements for conducting the study.

Your obediently: Kazi Taiyeba Noor Nahreen

DU: 1816

Session: 2014-2015

4<sup>th</sup> year student of Speech and Language Therapy

Bangladesh Health Professional Institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343

*Permission Granted*  
*Sayed*  
*12/10/18*  
Md Sazzad Hossain  
Asst. Professor & Head (Admin.)  
Department of Speech and Language  
Bangladesh Health Professionals Institute



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

CRP-Chapain, Savar, Dhaka, Tel: 7745464-5, 7741404, Fax: 7745069  
BHPI-Mirpur Campus, Plot-A/5, Block-A, Section-14, Mirpur, Dhaka-1206. Tel: 8020178, 8053662-3, Fax: 8053661

তারিখ : ১৪.১০.২০১৮

প্রতি  
অধ্যক্ষ  
উইলিয়াম এন্ড মেরি টেইলর স্কুল  
সিআরপি, সাভার, ঢাকা।

বিষয় : রিসার্চ প্রজেক্ট এর জন্য আপনার প্রতিষ্ঠান সফর ও তথ্য সংগ্রহ প্রসঙ্গে।

জনাব,  
বিএইচপিআই'র বিএসসি ইন স্পীচ এন্ড ল্যাঙ্গুয়েজ থেরাপি কোর্সের ৪র্থ বর্ষের ছাত্রী কাজী তাইয়েয়া নূর নাহরীন তার রিসার্চ সংক্রান্ত কাজে তথ্য সংগ্রহের জন্য আগামী ১৫.১০.২০১৮ তারিখ থেকে ৩১.১২.২০১৮ তারিখ পর্যন্ত সময়ে আপনার নিকট প্রেরন করা হলো।

তার রিসার্চের বিষয় হলো- "Impact of swallowing difficulties of children with CP on caregivers."

তাই তাকে সার্বিক সহযোগীতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদান্তে

*Sanaul*

মোঃ সাজ্জাদ হোসেন  
বিভাগীয় প্রধান  
এসএলটি, বিএইচপিআই।

Permitted for  
Data collection at WMTS.

*Zubayer*  
21-10-18  
Md. Abdullah Al Zubayer  
Principal (Acting)  
William & Marie Taylor School of WMTS  
(The Inclusive School of CRP)  
CRP-Savar, Dhaka-1243



বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)  
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)  
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তারিখ : ১৪.১০.২০১৮

প্রতি  
বিভাগীয় প্রধান  
স্পীচ এন্ড ল্যান্গুয়েজ থেরাপি বিভাগ,  
সিআরপি, সাভার, ঢাকা।

বিষয় : রিসার্চ প্রজেক্ট এর জন্য আপনার প্রতিষ্ঠান সফর ও তথ্য সংগ্রহ প্রসঙ্গে।

জনাব,  
বিএইচপিআই'র বিএসসি ইন স্পীচ এন্ড ল্যান্গুয়েজ থেরাপি কোর্সের ৪র্থ বর্ষের ছাত্রী কাজী তাইয়েবা নূর নাহরীন তার রিসার্চ সংক্রান্ত কাজে তথ্য সংগ্রহের জন্য আগামী ১৫.১০.২০১৮ তারিখ থেকে ৩১.১২.২০১৮ তারিখ পর্যন্ত সময়ে আপনার নিকট প্রেরণ করা হলো।

তার রিসার্চের বিষয় হলো- "Impact of swallowing difficulties of children with CP on caregivers."

তাই তাকে সার্বিক সহযোগিতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদান্তে

*Sana*

মোঃ সাজ্জাদ হোসেন  
বিভাগীয় প্রধান  
এসএলটি, বিএইচপিআই।

*Permission given with thanks.*

*SH*  
25/10/18  
**SHARMIN HASNAT**  
Acting Head Of SLT  
Dept of Speech & Language Therapy  
CRP Savar, Dhaka



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

তারিখ : ১৪.১০.২০১৮

প্রতি  
ইনচার্জ  
পেডিয়াট্রিক ইনডোর ইউনিট  
সিআরপি, সাভার, ঢাকা।

বিষয় : রিসার্চ প্রজেক্ট এর জন্য আপনার প্রতিষ্ঠান সফর ও তথ্য সংগ্রহ প্রসঙ্গে।

জনাব,  
বিএইচপিআই'র বিএসসি ইন স্পীচ এন্ড ল্যাঙ্গুয়েজ থেরাপি কোর্সের ৪র্থ বর্ষের ছাত্রী কাজী তাইয়েবা নূর নাহরীন তার রিসার্চ সংক্রান্ত কাজে তথ্য সংগ্রহের জন্য আগামী ১৫.১০.২০১৮ তারিখ থেকে ৩১.১২.২০১৮ তারিখ পর্যন্ত সময়ে আপনার নিকট প্রেরণ করা হলো।

তার রিসার্চের বিষয় হলো- “Impact of swallowing difficulties of children with CP on caregivers.”

তাই তাকে সার্বিক সহযোগীতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদান্তে

*Sayed*

মোঃ সাজ্জাদ হোসেন  
বিভাগীয় প্রধান  
এসএলটি, বিএইচপিআই।

*She will collect data  
from this Dept. please  
help her.  
Thank's  
15-10-18*