

**PERCEPTION ABOUT BACK CARE CLASSES AMONG THE
MOTHER'S OF CEREBRAL PALSY CHILDREN**

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We the undersigned certify that we have carefully read and recommended to the Faculty of Medicine, University of Dhaka, for the acceptance of this dissertation entitled

PERCEPTION ABOUT BACK CARE CLASSES AMONG THE MOTHER'S OF CEREBRAL PALSY CHILDREN

Submitted by **Mousumi Akter** for the partial fulfillment of the requirements for the degree of Bachelor of Science in Physiotherapy (B.Sc.PT).

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Declaration

I declare that the work presented here all my own. All sources used have been cited appropriately. Any mistakes or inaccuracies are my own. I also declare that for any publication, presentation or dissemination of information of the study. I would be bound to take written consent from my supervisor and Head of the Department of Physiotherapy, Bangladesh Health Professions Institute (BHPI).

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List of acronyms

&	And
BHPI	Bangladesh Health Professions Institute
BMRC	Bangladesh Medical Research Council
CP	Cerebral Palsy
CRP	Centre for the Rehabilitation of the Paralysed
ICP	Infantile Cerebral Palsy
IRB	Institutional Review Board
LBP	Low Back Pain
LBW	Low Birth Weight
US	United States
USA	United States of America
WHO	World Health Organization

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Abstract

Purpose: To find out the Cerebral Palsy mothers perception about the back care classes. **Objectives:** To investigate the socio demographic information, to find out the mothers understanding from the back care classes, value of the back care classes for mothers with CP and their mothers perspective and gather suggestions from mothers about the classes. **Methodology:** The qualitative study was used in this study. Study was conducted by using qualitative method and analysis was done in content analysis. **Participants** were selected by using purposive sampling. Data was collected using face to face in depth interview with a questionnaire. Total number of sample was 07. **Results:** The study was found that mothers of children with cerebral palsy understand all the information clearly and satisfactorily. Mothers of children with cerebral palsy addressed that the back care class enhance their knowledge about back problem and its management. Mothers thought that the back care class were very important to take care of their health and to prevent back pain. They will be utilizing their learning from the classes at their home which will be helpful for them. Mothers thought that demonstration of the back care technique by using video clip is better to make information easy to see and remember. Mothers preferred to get booklet on back care technique, which they might be use at home to show the techniques and related information to the other family members. A video clip can be used for providing information instead of only flashcard of picture about caring of back. Overall, the back care classes were very important for mothers of children with cerebral palsy and they learned many techniques to prevent back pain and maintain healthier life.

Keywords: Cerebral Palsy, Perception, Back care class.

1.1 Background

Cerebral palsy (CP) is a chronic condition defined as a set of functional limitations due to alterations in the development of the central nervous system. Damage to the brain can have a major effect on an individual (Rethlefsen et al., 2010). The world incidence of CP was estimated between 2 to 2.5 cases per 1000/ live births (Barasan, 2010). These estimates turn into 15000-20000 children with CP in Canada and 150000 in United States that the massive of whom are cared for at home by their parents and families (Brehaut et al., 2009).

A recent figures estimate that there are 20-25 CP child birth per 1, 000, 00 births. Cerebral palsy is the most common condition that is responsible for the child disability. The calculation based on estimations and forecasts of the U.S. Bureau of the census, International data base indicate that in 2010 the number of the patients with the infantile cerebral palsy (ICP) were increase to 1734000 people in the world. According to statistics population with cerebral palsy in USA exceeded 75000. Currently there are more than 1000 new cases occur each year. In New Zealand approximately 7000 people are affected by some degree of cerebral palsy. Bangladesh is considered to be one of the developing countries and more population is the major problem in Bangladesh. The literacy rate is increasing but most of the people are not aware about health condition. According to World Health Organization (WHO) 10% of total population in Bangladesh are disable. According to Bangladesh bureau of 16.41% of total disabilities are child disability due to birth injury (Khan et al., 2006). The prevalence of cerebral palsy in Bangladesh is 4157 person among 141,340,476 people and the rate is 0.003% among the whole population. In cerebral palsy children, eight children died: two of 49 (4%) from an urban area and six of 43 (14%) from a rural area (Collingwood, 2007). Our neighbour country India has cerebral palsy people about 31,325 among the total 1,065,070,607 population. Their CP rate is 0.004%. The incidence of CP is higher males than in female (Novak et al., 2013).

A large epidemiological study of children with disabilities aged 2-9 years in Bangladesh indicated a prevalence rate of 6.8% for all grades and types of disability and of 1.5% for serious disabilities (Damiano, 2006). Worldwide, the incidence is the same those 1 in 400 births. There is no per birth test and no known cure for most & the cause is unknown (Steinbok & Mcleod, 2005).

An estimated 20% of infants are born prematurely in Bangladesh, and 30% have low birth weight (LBW) , With a total population of greater than 146 million people, including 20 million children greater than 5 years of age, large, unrecognized populations may be at risk for neurodevelopment morbidity, particularly considering that 85% of deliveries occur at home, often with no skilled care; only 7% of birth are ever registered; and primary health care services do not include screening for the developmentally delayed child (Clancy & Clark, 2006). According to data based report of CRP's paediatric unit from July 2012 to June 2013 showed that types of conditions treated lead to impairment among 1468 patients; 1221 was cerebral palsy, autism 73, erb's palsy 30, down's syndrome 13, club feet 45 and others 86. From these statistics it is clearly seen that Cerebral palsy has covered a large area in the field of child disability in Bangladesh (CRP, 2012).

Cerebral palsy is not a disease. It cannot be passed from one generation to the next. There is no cure for cerebral palsy, but physiotherapy treatments, medications, and surgery can help many individuals improve their motor skills and ability to communication with the world. Cerebral Palsy is a motor disorder that affects movement and coordination, and it can also affect intellectual development. The prognosis will depend upon the type of Cerebral Palsy, as well as the child's ability both physically and mentally (Damiano, 2006).

Loco motor malformation is the main limitation of CP; it is also characterized by the cognitive, sensory and social developmental limitations. These limitations lead to significant influence on self care activities like eating, mobility, clothing, and personal hygiene. It is easy for a mother to do this activity for her child but it become challenging for mothers when children grow up. Child with CP faces difficulty in self care activity that's why family member especially mother depend on others (Behrman, 2008).

Rehabilitation services are internationally recognized as one of the key components of health care. Presently, only 2% out of over one million people with disabilities in rehabilitation services. This includes children with cerebral palsy (CP). Physiotherapy is one of the rehabilitation services that parents/caregivers of children with CP seek to alleviate the effects of disability on their children. In order to empower parents/caregivers in the care of children with CP and enable them to participate in the establishment of mutual goals of treatment for their children, highlighted that physiotherapists need not only to treat the children but also to appropriately educate parents/caregiver (Wayte et al., 2012).

Therefore CP in child affects not only the child's life but also life of family. Mother of children with CP is lead a more stressful life and they have lower quality of life compared of father of children with CP. Therefore involvement of mother in treatment of their child with CP is very much important for successful treatment of their child and thus it reduces stress of mother. For treatment purpose mother is the primary caregiver as well known organization. Back pain is one of the most problems with mother of CP child. Despite the important contribution of multifaceted risk factors on low back pain (LBP), that impact of functional level and environmental factors on LBP in mothers of children with CP. The most important risk factors associated with LBP in the care-giving mothers were type of housing, weight, and locomotion of the children in this order (Cerebral palsy Society of New Zealand, 2006).

Generally, the concept of caregiver-based spinal health interventions amounts to attaining a biomechanical healthy lifestyle by good understanding of basic back care-related principles, thereby reducing the burden of back pain. Early back education centred on its effective terms of improving back care knowledge, achieving behavioural change and decreasing spinal back pain (Cardon & Balague, 2006).

1.2 Rationale

Cerebral Palsy is one of the causes of physical disability in our country. There is several good numbers of researches in Bangladesh in this area. The researcher are interested this research due to no research are having in Bangladesh about the back care classes with mother's of cerebral palsy children. The aim of the study was to find out the mother perception about the back care classes among the mother of CP child. According to Hosneara Parveen, In- charge of paediatric unit-back care classes the mother with CP is a part of the mother education in physiotherapy intervention. For this purpose centre for rehabilitation of the paralysed (CRP) work for the mother of CP child. Inpatient of paediatric unit children and her mother/caregiver are admitted for two weeks residential program. The child with CP and their mother participate in different group therapy. Back care class is such an educational program which is run by physiotherapist to educate her mother about proper back care. These classes are important for every mother with CP Child. Most of the works are doing on floor sitting or bending its vulnerable position for every mother. This class mother knows that how to care her back. These classes to improve mother's knowledge by providing education and practical skill and mother know about the factors of back pain or reasons of back pain. Mother gathers knowledge how to prevent from back pain.

Furthermore, if the mothers provide any suggestions about this program, it was also gathered in this study. If the regarding authority focuses on the positive and negative sides of the classes and take necessary steps accordingly, then it may be beneficial for the other. The study findings may be used for the physiotherapists to let them informed about the value of the education program according to the perception of mothers. So this study may help the therapists to know mothers perception about the classes in the form of a written document. This study is also evidence of mothers' perception about the back care classes among the mother with CP child. This study may be helpful for service providers to continue good rapport with the caregivers by sharing and understanding their feel.

1.3 Research question

What are the perceptions about the back care classes among the mother's of cerebral palsy children?

1.4 Objectives

1.4.1 General objective

To find out the perception about the back care classes among the mother's of cerebral palsy (CP) children.

1.4.2 Specific objectives

- i. To investigate the socio demographic information.
- ii. To find out the mothers understanding from the back care classes.
- iii. To find out value of the back care classes for mothers with CP and mothers perspective.
- iv. To gather suggestions from mothers about the classes.

1.5 Operational definition

Perception

Perception is the ability to see, hear, or become aware of something through the sense or the way in which something is regarded, understood, or interpreted. Perception is a particular attitude towards something or a way of thinking about something or the ability to think about problems and decision in a reasonable way without exaggerating their importance.

Perspective is the theory of cognition is the choice of context or a reference from which to sense, categorize, measure or codify experience, cohesively forming a coherent belief, typically for comparing with another.

Cerebral Palsy (CP)

Cerebral palsy is a term used to describe a broad spectrum of motor disability, which non-progressive and is caused by damage to the brain at or around birth.

Back care

Back care consists of any of several approaches used to restore or maintain a healthy and pain free back.

Back care class

Back care class to teach patients about effective ways to prevent back pain and problems and to offer strategies to manager upper and lower back pain.

Cerebral palsy (CP) is a term used to describe a group of disorders effecting body and muscle co-ordination. The medical definition of cerebral palsy is “a non-progressive but not unchanging disorder of movement and posture, due to an insult or anomaly of the developing brain” because Cerebral Palsy influences the way children develop, it is known as a developmental disability (Aneja, 2006). Cerebral Palsy is defined as a permanent impairment of movement and posture resulting from a non progressive brain disorder due to hereditary factors or events occurring during pregnancy, delivery, neonatal period and the first two years of life (Pharaoh, 2007). Cerebral palsy is an umbrella term covering a group of non-progressive, but often changing, motor impairment syndromes secondary to lesions or anomalies of the brain arising in the early stages of development (Damiano, 2006). The term Cerebral palsy refers to any one of a number of neurological disorders that appear in infancy or early childhood and permanently affect body movement and muscle coordination but don't worsen over time (Keynes, 2006). Cerebral palsy results from damage to certain parts of the developing brain. This damage can occur early in pregnancy when the brain is just starting to form, during the birth process as the child passes through the birth canal, or after birth in the first few years of life (Goldstein et al., 2006).

A clinical presentation of Cerebral palsy (CP) may result from an underlying structural abnormality of the brain, early prenatal or postnatal injury due to vascular insufficiency, toxins or infections; of the path physiologic risks of prematurity. Evidence suggests that prenatal factors result in 70-80% of cases of cerebral palsy. Cerebral palsy, even in its mildest forms, can be seen in the first 12-18 months of life. It is present when children fail to reach movement milestones. Babies most at risk of cerebral palsy are those born prematurely or with low birth weight (McConachie et al., 2006).

Cerebral palsy is the most common cause of motor disability in childhood. It describes a group of permanent disorders of the development of movement and posture, causing activity limitation that occurred in the developing foetal or infant brain (Gunel, 2009).

The motor disorders of cerebral palsy are often accompanied by disturbances of sensation, perception, cognition, communication, and behaviour; by epilepsy, and by secondary musculoskeletal problems. CP is a condition that occurs early in life and is present throughout a person's lifetime. Actual brain damage of children with CP does not change but symptoms can become more severe over time. As a result, functional impairment or limitation may change as the child grows up. The ability to live independently with CP varies widely depending on the severity of each case (Mobarak et al., 2006). Some individuals with CP will require personal assistant for all activities of daily living. Others can lead semi-independent lives, needing support only for certain activities. Still others can live in complete independence. Children with CP may need assistance in everyday activities, overall health, well-being and physiotherapy performance and the need for personal assistance often depends on age and functional limitation (Thomas et al., 2012).

There are several causes of CP: prenatal events are responsible for approximately 75% of all cases of CP and include brain malformations, maternal infections and vascular events such as middle cerebral artery occlusion, metabolic conditions and toxins, Per natal causes are responsible for approximately 10–15% of cases and result from problems during labour and delivery such as ante partum haemorrhage or cord prolapsed, compromising the foetus, Post neonatal causes occurring after 28 days of life are responsible for about 10% of all cases of CP and include infections such as meningitis, accidental and non-accidental injuries. Some things increase the chance that a child will have CP and these are called risk factors. It is important to remember that having a risk factor does not mean that a child will have CP (Finnie, 2010). Some risk factors are like low birth weight, premature birth, multiple births, infections during pregnancy, jaundice and kernicterus, birth complications, medical condition of the mother such as thyroid problem, intellectual disability and seizure (Denzin & Lincoln, 2007). Some antenatal risk factors are repeatedly observed to related to CP; low gestational age, male gender, multiple gestation, intrauterine viral infections (Jacobsson & Hegberg, 2006).

The specific forms of cerebral palsy are determined by the extent, type, and location of a child's abnormalities. Doctors classify cerebral palsy according to the type of movement disorder involved - spastic (stiff muscles), athetoid (writhing movements), or ataxic (poor balance and coordination) - plus any additional symptoms. Doctors will often describe the type of cerebral palsy a child has based on which limbs are affected (National Institute of Neurological Disorder and Stroke, 2012). About two thirds of the children with cerebral palsy are not only physically, developmentally disabled, but also have sort of mental retardation. There are six major clinical presentation like muscle spasm and tightness, seizure, clumsiness in walking and overall mobility, distorted sensation and perception, and impaired hearing, speech and eye sight.

The signs of cerebral palsy are usually not noticeable in early infancy but become more obvious as the child's nervous system matures. Early signs include the following: Delayed milestones such as controlling head, rolling over, reaching with one hand, sitting without support, crawling, or walking. Persistence of "infantile" or "primitive reflexes" which normally disappear 3 to 6 months after birth. Developing handedness before age 18 months: This indicates weakness or abnormal muscle tone on one side, which may be an early sign of CP. Problems and disabilities related to CP range from very mild to very severe. Their severity is related to the severity of the brain damage. They may be very subtle, noticeable only to medical professionals, or may be obvious to the parents and other caregivers. Such as abnormal muscle tone, abnormal movements, skeletal muscle deformity, joint contracture, mental retardation, seizure, speech problems, swallowing problems, hearing loss, visual problems, mental retardation, bowel and bladder control problems (Gillette, 2007).

Physiotherapists play their role in early intervention by focusing on promoting function through remediation, compensation, adaptation and education techniques, while providing family support throughout the entire process (Stephens & Tauber, 2005). The goal physiotherapy is to enable individuals to achieve independence in areas of physiotherapy performance. Such independence can be achieved through self-independence or through an individual directing others such as in an assistant care situation.

Physiotherapy uses purposeful activity and task analysis to prevent and minimize the impact of disability on functional independence and facilitates the development of those skills and behaviours essential to meeting the demands of everyday life (Tirosh & Rabino, 2007). The focus of physiotherapy is not on the neurologic disease itself, but rather on the impact a disorder has or potentially will have on a child's ability to function in life roles. The primary goal is to facilitate physiotherapy performance and prevent dysfunction by providing the child with opportunities to develop, restore, and maintain those skills and behaviours necessary for independent living (Reddihough & Ong, 2008).

Mother is the primary care giver for the CP child. Cerebral palsy (CP) is a neurologic non progressive disorder permanently affecting body movement and muscle coordination and leading limitation of activities. 5 Function deficits developing cognitive, emotion and social disorder prevent children with CP from performing their roles in society. Families of children with CP fail to be into the children and themselves because of children's continuous requirements for special care, frequent medical checkups, and continuous physiotherapy treatment modalities and to take over their roles in society. Caring for a disabled family member can be challenging, potentially impacting caregivers' health, mental health, work, social relationships, and quality of life (Yilmaz et al., 2013).

Back education programmes for caregiver of child have been developed and evaluated within the scope of back pain prevention. Every care giver faces the back pain problem. The implementation of back education systems the European Guidelines regarding the prevention of LBP highlight that there is insufficient evidence to recommend for or against a generalized educational intervention for the prevention of LBP or its consequences in adult person (Dolphens et al., 2011). The back education programme, also implemented in previous studies consisted of six 1-h sessions at 1-week intervals and was taught by a physical therapist.

The programme was created making use of ten guidelines on “how to make your discs happy”: always keep the natural curves of the back, be active, join in sports, place the book on a ring binder or inclined desk, when you relax, lie down on back with your legs raised, bend knees not the back, to lift, stand as close as possible to the object, ask for help in lifting a heavy object, carry an object as close as possible to body, carry book bag on the back, and the book bag should not weigh more than one-tenth of body weight. The programme was given to one class group at a time (Jeffries et al, 2007). Back care knowledge, spinal care behaviour, self-efficacy towards proper back care behaviour, back pain in these information provide in the classes. The use of back care principles in daily life (spinal care behaviour) was assessed through the regarding checking weight of the book bag, elevator use, posture while putting on shoes, doing exercises every day, and postural behaviour while lifting and carrying objects (El-Metwall, 2008).

Low back pain is a common condition that is frequently seen in primary care. In the UK there are between 3 and 7 million GP consultations for back pain in a year (Henry et al., 2005). The common causes of low back pain of a caregiver are lifting heavy object, long time bending work, working on poor posture, prolong and some musculoskeletal condition such as musculoskeletal injuries, degenerative disease, herniated nucleus pulposus, and spinal stenosis. Less common causes include metastatic cancer, spinal infections, ankylosing spondylitis, and referred pain from visceral organs (Russell et al., 2011). For prevention these cause maintain some tips which is given on back educational program. Taking the time to learn the correct lifting and bending techniques is a great way to look after the back. If the object is particularly heavy then ask someone else to help or reduce the weight and do more lightly lifts, maintain regular break on the work time. Body was not designed to sit all day! So it's essential to keep moving. If job involves a lot of sitting in one position then make sure to take regular breaks. Stand up, have a stretch, walk around or even do a little exercise (how about up and down the stairs) (Dolphens et al., 2011). Some other exercise that can prevent low back pain – walking, swimming (especially back stroke) and using exercise bikes are all excellent to strengthen for back muscles but anything that enjoy and helps us keep active will be beneficial. Keep active and moving even when one has pain. Gentle walking and stretching will prevent stiffness. Also try to avoid long periods of bed rest as this is counterproductive.

Always lift and carry objects close to the body, bend the knees and the hips not the back and never twist and bend at the same time. Try to maintain a healthy diet and lifestyle as this will help prevent back pain. Quit smoking as it increases the chances of developing back pain. Use painkillers when pain occurs to allow carrying on being active. If pain is persistent see the General physician as they may be able to prescribe stronger painkillers or investigate further. Consider the work environment. If the work in an office looks at the workspace and ways to adapt it to help manage of back pain. If the work is more manual in nature try to be aware of and work according to health and safety procedures such as manual handling or loading procedures. Try to carry loads in a rucksack and avoid carrying single sling bags. Always try to maintain good posture. Avoid slumping in chair, hunching over the desk and walking around with shoulders hunched up. Always use a chair with a back rest and sit with your feet flat on the floor or on a foot rest. Don't forget to change your sitting position every few minutes. If you do suffer from back pain caused or made worse by being at work, talk to your employer or HR department. They may be able to help you come up with adaptations to your work environment, patterns and activities in order to help you better manage your back pain (Delitto, 2005).

Zarit et al., (2008) stated that burden as the impact that care giving has on the primary caregiver, i.e. the degree to which the care-giver perceives that the different spheres of his/her life (social life, leisure, health, privacy) have been affected by this task (Segui et al., 2008). A global understanding of the effects of care on the caregiver should take into account both the physical and mental limitations of the person being cared for, the context in which the care occurs, the consequences arising from the caring role and the factors that may moderate all of the above. Only by taking into account all these elements simple and effective interventions can be introduced to reduce the negative effects and enhance the positive effects of care (Pousada et al., 2009). It is important to understand the influence of these variables on the physical and mental health of the caregiver in order to reduce their negative impact, as much as possible. The levels of burden of care on parent caregivers of a child with cerebral palsy and its determinants were examined.

As we noted in the results section, the most important predictors of the burden in our study were degree of disability, depression and self-efficacy. An important aspect of caregivers burden is the demands of caring. Different studies have shown that they can directly contribute to both the caregiver's psychological well-being and physical health (Raina et al., 2005).

Mothers of the children with CP are the primary caregiver and play an important role in the development of the children. Individuals have their own way of understanding about their environment. A situation may be the same but the interpretation of that situation by two people may be vastly different. Perception can be defined as a process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment. Mother's perception about back care classes on the basis of their knowledge. From the mothers' perception, the researcher gained information about the mothers' understanding, learning from the class, value of the program and mothers' suggestion to recognize the program for better service (Reddihough, 2012).

3.1 Study design

The qualitative study design was conducted to collect more detail & in depth information about mother perception. The study was descriptive exploratory in nature which is suitable for exploring the patient centred phenomenology about back care class. Qualitative research is suitable for exploring a new area & understanding individual attitudes & behaviours (Barason, 2010). The open ended questionnaire was used & face to face interview was conducted. The participants were given freedom to express their views & feelings, that's why the qualitative research approach was selected which help to gain understanding & explore the feelings, attitude, opinions, fears & behaviour of mothers of Cerebral Palsy (CP) about back care class.

3.2 Study site

The study site was the inpatient paediatric unit of CRP, Savar, Dhaka. The inpatient paediatric unit is a residential program which provides two weeks of intensive service for children with CP and their mothers. The therapists mainly educate the mother about basic treatment and management of the Childs with CP and how to care them self. The participants are available due to the back care class is one of program for the mothers of CP child which is held in this institute. Most of the children in the inpatient paediatric unit are children with CP. The two weeks residential program starts on Saturday, then after having a weekend on Friday, it finishes on next Thursday. The study was conducted in paediatric unit of centre for the Rehabilitation of paralyzed (CRP), Savar, Dhaka, 1343.

3.3 Study population

The populations were mothers of children with CP who admitted in paediatric inpatient for two weeks with their children and attended the back care classes in paediatric inpatient unit, CRP, Savar, Dhaka.

3.4 Sample size

For this study small sample size was taken. So, the researcher could analyze the data from the participants deeply & easily. Only 7 participants was taken as sample until data saturation point was reached. Small numbers of potential study participants are appropriate for a qualitative methodology (Frankle & wallen, 2008).

3.5 Sampling technique

Purposive sampling technique was used for this qualitative study. This sampling procedure allowed choosing a typical case for the study. By using this sampling procedure can make a judgment about sample & able to collect in depth data from participant according to research needs. Though the study objective is to investigate the range of dimension of care according to mother perception the researcher used purposive sampling procedure for appropriate data. For this reason data collected from those patients who are more appropriate & fulfil the study purpose according to inclusion and exclusion criteria. Purposive sampling strategies are designed to enhance the understanding of selected individual or group experience or for developing theories & concepts.

3.6 Inclusion criteria

Mothers having CP child admitted in paediatric unit.

Mother's who were interested willingly to participate in the study. Because mothers willingness are helpful for coordinating, communicate in depth.

Mother's of CP child who has completed at least one back care class. Because in paediatric unit mothers of CP are admitted for two weeks and in two weeks two back care classes are held on every Tuesday.

Educational status-both literate & illiterate mother were include in the study. Because mother can admitted indoor paediatric unit in any educational level.

3.7 Exclusion criteria

The mother of child who is not diagnosed cerebral palsy.

Except mother all of other careers are excluded.

Mothers who are not interested for the participation in this study due to not interested subject selected are unethical.

3.8 Data collection tools

To conduct the study data was collected through using different types of data collection tools. The several materials were organized to successfully complete the interview session. The organized materials were questionnaire, consent form, a tape recorder, paper, pen & a pencil. For a data collection open ended questionnaire were designed to conduct the interviews, during the interview instrument were paper, pen & pencil to write field notes. Which include close ended questionnaire & open ended questionnaire to obtain patient's identification, Socio-demographic information & finding out complicated information.

3.9 Data collection

Data collection is the strong point of any research which maintains the research's validity & reliability. Qualitative data places an emphasis on peoples lived experience & are thus well suited for identifying & locating the meanings people place on the events, process, and structures of their lives. All the data were collected by the researcher herself. The data was collected in a natural setting.

Data was collected in between 4th October 2015 to 8th October 2013. Within 4 days data collection was completed because of patient's availability. Each data was collected carefully & confidentiality is maintained.

Data was collected from mothers after at least completing one class and used face-to-face interview with open ended questionnaire. That's why participants get more freedom to explore their opinions. Face to face interviews helped to determine participants understanding of the questions by observed their facial expressions. Questionnaires used in Bengali for easy understanding of the participants. Face to face interview were more effective allowing the participants to interact directly & have feeling, satisfaction & experience to make a good rapport with the participants. The researcher collected the data by own self.

At first, arranged a quiet place by communicating with the regarding authority, and spent some time building rapport and a trusting therapeutic relationship with participants. Initially the interviewer explained the titled & aim of the study to promote the trust of the participants. This was very important for the interview as the participants might have felt uneasy to share some sensitive issues & express their feelings & views.

Then the opinion of the participants by using an information sheet and consent form was taken. After completing these primary steps, asked questions to identify the understanding, learning, and importance of this program. All questionnaires and information sheets were translated into Bangla. Interviews were conducted in Bangla and recorded by recorder. Duration of interview was approximately 20 minutes for each participant. Venue of interview was inpatient paediatric unit of CRP, Savar, Dhaka.

3.10 Data analysis

The qualitative content analysis was used to analyze data of mother's perception about back care classes. The aim of data analysis was to find out actual meaning of information, which was collected according to the participant's opinion. In this study, data was analyzed by using content analysis. Content analysis is a methodology for determining the content of written, recorded, or published communications via a systemic, objective, & procedure. Thus, it is a set of procedure for collecting & organizing information in a standard format that follows analysts to draw inference about the characteristics & meaning of recorded material. Through this analysis the researcher can make numerical comparisons among & within document. Because, this analysis are important for tabulating the result of open ended survey question. At the first step of analysis, the recorded interviews listened in several times. After that the interview was transcribed into Bangali, and then reviewed the interviews with the transcript to ensure all the data was presented within the text. After that, verified those data sets and also read it several times to recognize what the participants wanted to say in the interviews. At the same time, the recorded interview listened to ensure the validity of data. Then Find out similarities and dissimilarities of data and try to categorize the data.

In the 2nd step, after categorizing the data started content analysis. Completing categorizes tried to find out the codes from participants' answer. Then according to the categories the data was organized. Under those categories, all the information coded from participants' interview. The coding was different from each participant and after finishing the coding; the investigator detected some important codes that reflected the themes of the study findings.

3.11 Ethical consideration

The ethical guideline of WHO (World Health Organization), IRB (Institutional Review Board) & BMRC (Bangladesh Medical Research Council) was strictly followed. The research proposal was submitted to the ethical review committee of Bangladesh Health Professions Institute (BHPI) for approval & to CRP's ethical committee for getting permission for data collection. After the proposal was approved to carry on with the study the researcher had moved the study. Then collect the approval to carry out with the study from paediatric department of CRP. Data collection was started and complete within the allocated time frame. Initially a consent form was given to each participant. This form explains the title, objective, confidentiality & anonymity of the research project. The participant was also informed that, they were free to withdraw at any time. The researcher was assured them that it would be never harmful for them & it would never affect in their lives. Otherwise they would not give the right information. The researcher also assured that their information will keep in a secured place. The interview notes & recording words would not be shared or discussed with others. It was being explained to all the participants that their personal identity will be kept confidential, their name & address would not be written, except for social number or a pseudonym. Before participating in the study the researcher had provided them a written consent form to sign, responsible physiotherapist sign as a witness. The researcher had also signed in the consent form. Only principle investigator had the access of that information. The raw data destroyed after the completion of the research & all the data on computer file were deleted.

Finally the study was reviewed & appropriate by the authorities. Considering all those ethical norms & values no ethical problem arises as there were some personal & sensitive questions. The participants were informed that they have the right to withdraw consent & discontinue participation at any time without any prejudice to present or future treatment at the paediatric unit of CRP.

3.12 Rigor of the study

The rigorous manner was maintained to conduct the study. This study was conducted in a systemic way by following the steps of research under supervision of an experienced supervisor. During the interview session and analyzing data, never tried to influence the process by own value, perception and biases. Be accepted the answer of the questions whether they were of positive or negative impression. The participants' information was coded accurately and checked by the supervisor to eliminate any possible errors. Try to kept all the participants' related information and documents confidential.

Result and discussion are carried out at the same time and presented together.

The participants in this study offered some important insight on the perspectives about the back care classes. Participants respond according to their perception.

There are seven participants from paediatric unit of centre for the rehabilitation of the paralysed (CRP).

Socio-demographic information at a glance

Socio-demographic Information	Number of participant
Age	
21-30	6
31-40	1
Religion	
Islam	7
Residential area	
Rural	5
Semirural	1
Urban	1
Occupation:	
Housewife	7
Educational status	
Illiterate	1
Primary School Certificate	2
Junior School Certificate	2
Secondary School Certificate	1
Bachelor	1

Table-1 Socio-demographic information of the participant.

Among seven participants, most of the participants' ages were 21-30 years and a few number of participant was 31-40 years. All of participants were Muslim. The majority of participants were lived in rural area and one participant was lived in semi rural area and another participant was lived in urban area. Most of the participants were literate and among them one participant was illiterate. All of the participants were housewife (Table-1).

In the result section, it has been possible to understand the mothers' opinions by content analysis, where some categories have been found. Under the different categories, mothers' different opinions are expressed by different codes. Four major categories were found these are: mother's understanding of back care classes, mother's learning from the back care classes, importance of the back care classes to mothers of children with CP, and give opinion to improve back care class. Under these categories following Themes and sub themes are emerged on the basis of data analysis.

4.2 Summery of theme that emerged from data analysis

Theme-1 Mothers clearly understanding of all information.

(Emerged from category-1)

Category-1 Mothers' understanding about the back care class

Coding	P1	P2	P3	P4	P5	P6	P7
Very clearly		✓					
Clearly	✓		✓	✓		✓	
Satisfactory					✓		✓

Table-2 Mothers understanding about the back care class

The most participants said that they clear understood all the information presented in the back care class and only two participants reported that they understand satisfactorily all the information presented in the back care class. One participant understood the information very clearly (Table-2).

Theme-2 Mothers understanding and knowledge about back problem and back care classes.

(Emerged from category-2)

Category-2 Mothers learning from the back care class.

Coding	P1	P2	P3	P4	P5	P6	P7
Learned many new information about back care		✓	✓		✓	✓	✓
Lifting heavy object	✓	✓		✓			
How to carry the baby	✓	✓		✓		✓	
Causes of back pain	✓		✓				✓
Prevention of back pain		✓	✓	✓	✓	✓	✓

Table-3 Learning of mothers from back care class.

Most of the participants said that they learned many new information about back care classes and known how to prevent back pain. Few number of participants said that they known causes of back pain, how to carry the baby and how to lifting heavy object (Table-3).

Theme-3 Important of back care class.

(Emerged from category-3)

Category-3: Importance of the back care classes to mothers of children with CP.

Coding	P1	P2	P3	P4	P5	P6	P7
Very important		✓					
Important	✓		✓	✓	✓	✓	✓

Table-4 Importance of back care class.

The majority of the participants state that, the back care classes were important for them and one participant said that the back care classes were very important (Table-4)

Theme-4 Suggestion.

(Emerged from category-4)

Categories-4 Opinion to improve back care class

Coding	P1	P2	P3	P4	P5	P6	P7
Used booklet and showing video clip		✓					
Information provided by small group	✓					✓	
No comment			✓	✓	✓		✓

Table-5 Opinion to improve back care class

The majority of the participants there was no comment about to improve back care classes. One participant state that It will be easier if the picture, flash card or some information is given him in a form of a booklet. Others participants said that, information provided by small group.

The analysis & discussion is about to identify published papers & determining the relevance with the acquired data. In this chapter the results of the study are discussed in relation to the research questions and objectives of the study. The discussion focus on dimensions of Mothers perception about back care classes

Theme-1 Mothers clearly understanding of all information.

Physiotherapist designed the back care class to improve mother's knowledge by providing education about how mothers can care their back and prevent back pain. One of the objectives of the study is to find the mother understanding from the back care classes. Researcher graded this category (understanding of information) into a three point measure scale: very clearly, clearly, satisfactorily. During the interviews, the most participants claimed that they have clear understanding all the information presented in the back care class and only two participants reported that they understand satisfactorily all the information presented in the back care class. In interview one participant said-

“I understand very clearly all information from the back care class”

Physiotherapist use of different technique and also demonstrate practical for educating participants. Literature suggested that different people understand information in different ways. Some people understand information when it is written down; others understand better when it is explained verbally or demonstrated practically (Hinchcliffe, 2007). Another participant said:

“I could understand all the information satisfactorily from the back care class”

Therapists provide information in such language that is easy to understand for participants. Therapists try to provide information by using local terms as much as possible. It is also discussed in literature that professionals should begin with positive points and then explain problem and deficit and avoid using technical terms. If they use technical terms then it should be explained in ways that everyone understands (Humphry & Case-Smith, 2005).

Physiotherapists teach the mothers of children with CP about different easy ways of caring of back in back care class in local language without using technical term and in such a way by using various techniques, demonstration, verbal instruction, practical session etc. Therefore, mothers can understand provided information during the educational program without facing difficulty.

Theme-2 Mothers understanding and knowledge about back problem and back care classes.

Physiotherapist worked with family members to support the needs and goals of the parents during therapy. From back care class, mothers can learn so many easy ways or techniques of caring of back that are beneficial for them when handling their children with CP. Most of the participants have learned much new information about how to care their back. They have learned different things from the back care class, they mentioned that they have learned how to lift heavy object, how to carry out the baby, causes of back pain, how to prevent back pain, proper technique sit to stand and stand to sit, how does the work take to time. One participant said:

“I have learnt much new information, before join in the class I have no idea about this. Now I am knowledgeable about the care of back”

Another participant said that she has learnt how to carry out the baby, how to lift heavy object, causes of back pain, proper technique sit to stand and stand to sit and has got much new information.

To meeting mothers’ needs at the start of program, physiotherapists discuss different type of causes which are common for back problem. Then therapists show that how to sit to stand and stand to sit practically with mothers with CP children. All participants reported that they have learnt proper technique about sitting and standing position. One participant said:

“I have learnt how to sit to stand and stand to sit and maintain the position which prevent the back pain”

Another participant said that she has learnt how to carry out her baby that helps to prevent their back pain.

During observation of the back care class, the researcher found that therapists teach ways how to maintain the instruction for caring the back. Therapists discuss that during long time work should maintain interval. One participant said -

“During work should maintain interval or take rest. Such as – I have been work from 2 hours then should take rest after one hour”

As physiotherapists main focus is to knowledgeable the mother about the causes of pack pain, prevention of back pain and how to be maintain healthier life. At the ending of the back care class, physiotherapists discuss summarizes of the back care class and says that it is very important for good health. After completing back education class, mothers become knowledgeable about the classes.

Theme-3 Important of back care class.

Most of participants said back care class important for them. From this program, mothers learn many techniques that they can apply their home. If they do not attend this class, they could not learn the technique. One participant said: “Yes, these learning are very important for us.”

Back care class is very important for mothers with CP children, because mothers gain knowledge how to care their back that are important for mother become maintain healthy life. One participant said:

“This program is very important because, if I do not know proper way then how I will maintain or prevent back pain my and this information were unknown to me before coming here.”

Mother’s education is an important part of all therapy for children because this education helps the caregiver and parent to learn specific techniques (Shepherd, 2005). Education is also a basic need of caregiver and physiotherapists are working to meet the need. It was also found in a study that physiotherapists have the responsibility to ensure the need of caregivers and children with disabilities addressed during intervention (Stewart & Neyerlin-Beale, 2012).

This class is also important for mother awareness about the back.

One participant said –

“Very important because, mothers can aware by providing information that helps to mother healthier life style. Mother shares their knowledge with other that is helpful for other”.

Theme-4 Suggestion.

After taking opinions from participants about the back care classes, the researcher found that physiotherapists demonstrating different type of technique such as how carry out the baby, how to lift heavy object, proper technique sit to stand and stand to sit. Mothers can understand information clearly and all participants said that provided information is enough for them but it is very difficult to remember all information. Therefore, they provided some suggestions about program such as increase duration of class, giving booklet which mothers will take at home, and showing video clip instead of only using flashcard, provide education in small group etc.

One participant said- “It will be easier if the picture, flash card or some information is given us in a form of a booklet which we can bring at home with us. We can also show this to our family member it will also helpful for our support when family members will be knowledgeable about this information.”

It is also found in literature that booklets are a highly valued and successful way for parents to keep important information and to have a regular, reliable method for expressing concern to the therapist and other team members (Humphry and Case-Smith, 2005).

In interviews, most participants provided suggestions to improve the program such as to use video or by showing television. Participant said that it is very hard to see one picture with all members. Other participant said:

“I think provided information is very important for us but remember all information is so hard. If we can see the information by video then it will be easier to remember.”

Literature also supports that video tapes are helpful for parents to learn particular handling skills, to teach them new techniques and to remember it for a long time. It is also preferable that to teach the parent handling and positioning skills by using video tape might be an effective way (Humphry and Case-Smith, 2005).

During interview the participants reported that they sit together in a room. For this reason, some participant sit near the therapist and some sit further back. Therapists provide lots of information at a time in a large group. It will be more helpful if therapists provide information in a small group. One participant said: “If the information is provided in a small group then it will be more helpful to understand and remember all information easily.”

Another study related to mothers’ perceptions about home treatment of occupational therapy found mothers become overwhelmed when occupational therapists provide lots of information in a large group (Hinojosa & Anderson, 2010).

5.1 Limitation

This study has provided for perception about back care class among the mother's of CP children. No research has been done before on this topic. So there was little evidence to support the result of this project in the context in Bangladesh.

The interview schedule and interviewing skills are not in-depth to get deeper information from the participant, axis the first attempt for the researcher. Time is limited which had a great deal of impact on the study. If enough time is available knowledge on this could be extended.

The research project was done by an undergraduate student and it was first research project for him. Therefore, the researcher had limited experience with techniques and strategies in terms of the practical aspects of research. So, there were some mistakes that overlooked by the supervisor and the honourable teacher.

Conclusion

Cerebral Palsy is the most common condition that is responsible for disability and mother is the primary caregiver for these children. For this reason, mother takes more responsibility to take care them. Therefore, Physiotherapists run a back care education class as a part of physiotherapy intervention to educate mother. The study has been conducted to find out perception about back are classes among the mother's of cerebral palsy children in the inpatient program of CRP paediatric unit. From the result of the study, it is found that mothers have a clear understanding about back care. It was also found that mothers feel back care class is very important for their and they will use these learning for their healthy life. It is also true that some mother understood provided information not very clearly and could not remember provided all information. That's why they provided some suggestions for further improvement of back care class. Suggestions were: increase duration of class, giving a booklet which mothers will take at home, and showing video clip instead of only flashcard, provide education in small group. So, this study may be helpful for the physiotherapist to find strength and limitation of back care class and find out some efficient strategies to make the class more effective and valuable for children with CP mother.

Recommendation

After completing the study, the researcher found some recommendations like professionals can make the back care class more structured and resourceful by educating in a small group; can show the toilet some techniques by using video clip according to mothers' need. Mothers can remember information easily if it is possible to show sitting and standing modification techniques by using video clip. A booklet on back care class strategies for children with CP can be provided to the mothers or caregivers after the class. Mother or primary caregiver can show the techniques to their husband, other family members and their neighbour. It will be better if it is possible to conduct the same study by using different method and also a large number of participants. Further study can be done about effectiveness of this back care class.

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APPENDIX

সম্মতিপত্র

(অংশগ্রহনকারীকে পড়ে শোনাতে হবে)

আসসালামুআলাইকুম,

আমার নাম মৌসুমী আক্তার, আমি এই গবেষণা প্রকল্পটি বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট (বিএইচপিআই)-এ পরিচালনা করছি যা আমার ৪র্থ বর্ষ বি এসসি ইন ফিজিওথেরাপী কোর্সের অধিভুক্ত। আমার গবেষণার শিরোনাম হল-“ব্যাক কেয়ার ক্লাস সম্পর্কে সেরেব্রাল পলসি বাচ্চার মায়েদের ধারণা ”। আমি এক্ষেত্রে আপনাকে কিছু ব্যক্তিগত এবং আনুষঙ্গিক প্রশ্ন করতে চাচ্ছি। এতে আনুমানিক ২০মিনিট সময় নিবো।

আমি আপনাকে অনুরোধ করছি যে, এটি আমার অধ্যয়নের অংশ এবং যা অন্য কোন উদ্দেশ্যে ব্যবহৃত হবেনা। গবেষক সরাসরি এই অধ্যয়নের সাথে অন্তর্ভুক্ত নয়। তাই এই গবেষণায় আপনার অংশগ্রহণ 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 অধ্যয়নে আপনার অংশগ্রহণ স্বেচ্ছা প্রণোদিত এবং আপনি যে কোন সময় এই অধ্যয়ন থেকে কোন নেতিবাচক ফলাফল ছাড়াই নিজেকে প্রত্যাহার করতে পারবেন। এছাড়াও কোন নির্দিষ্ট প্রশ্ন অপছন্দ হলে উত্তর না দেয়ার এবং সাক্ষাৎকারের সময় কোন উত্তর না দিতে চাওয়ার অধিকার ও আপনার আছে।

এই অধ্যয়নে অংশগ্রহনকারী হিসেবে যদি আপনার কোন প্রশ্ন থাকে তাহলে আপনি আমাকে অথবা/এবং মোঃ ওবায়দুল হক, সহযোগী অধ্যাপক, ফিজিওথেরাপি বিভাগীয় প্রধান, বি এইচ পি আই, সিআরপি,সাভার, ঢাকা-১৩৪৩-তে যোগাযোগ করতে পারেন।

সাক্ষাৎকার শুরু করার আগে আপনার কি কোন প্রশ্ন আছে?

আমি আপনার অনুমতি নিয়ে এই সাক্ষাৎকার শুরু করতে যাচ্ছি।

হ্যাঁ

না

১। অংশগ্রহনকারীর স্বাক্ষর এবংতারিখ.....

২। সাক্ষাৎগ্রহনকারীর স্বাক্ষর এবংতারিখ.....

৩। প্রত্যক্ষদর্শীর স্বাক্ষরএবংতারিখ.....

CONSENT FORM (English)

(Please read out to the participant)

Assalamualaikum, my name is Mousumi Akter, 4th year student of physiotherapy department, I am conducting this study for a Bachelor project study titled **“Perception about backcare classes among the mother’s of cerebral palsy children”** from Bangladesh Health Professions Institute (BHPI), University of Dhaka. I want to find out the perception about the back care classes among the mother’s of cerebral palsy children. This will take approximately 20 minutes.

I would like to inform you that this is a purely academic study and will not be used for any other purpose. I am not directly related with this area where you are taking treatment and you are not directly benefited as well as not harmed for participation. All information provided by you will be treated as confidential and in the event of any report or publication it will be ensured that the source of information remains anonymous. Your participation in this study is voluntary and you may withdraw yourself at any time during this study without any negative consequences. You also have the right not to answer a particular question that you don’t like or do not want to answer during interview.

If you have any query about the study, you may contact with me, or my supervisor Md. Obaidul Haque, Associate professor, Head of the Physiotherapy department, BHPI, CRP, Savar, Dhaka-1343.

Do you have any questions before I start?

So may I have your consent to proceed with the interview?

YES

NO

Signature of the Patient/Attendance.....

Signature of the Interviewer.....

Signature of the witness.....

প্রশ্নবলী

সনাক্তকারী নম্বর:	সাক্ষাৎকারের তারিখ:
সময় শুরু:	শেষ সময়:
অংশগ্রহনকারীর নাম:	
সাক্ষাৎকারীর নাম:	
সম্মতীগ্রহন: হ্যাঁ:	না:
সাক্ষীর নাম	

রোগীর বিবরণ:

রোগীর নাম:

বয়স:

লিঙ্গ:

ঠিকানা:

মোবাইল নং:

ভর্তি তারিখ:

আর্থ সামাজিক বিবরণ:

১. আমি কি আপনার বয়স সম্পর্কে জানতে পারি?

✓ বয়স বছর

২. আপনার ধর্ম কি?

✓

৩. আবাসিক এলাকা-

✓ গ্রাম

✓ মফস্বল

✓ শহর

৪. শিক্ষাগত যোগ্যতা-

✓ অশিক্ষিত

✓ শিক্ষিত

✓ প্রাইমারি স্কুল সার্টিফিকেট

✓ জুনিয়র স্কুল সার্টিফিকেট

✓ মাধ্যমিক স্কুল সার্টিফিকেট

✓ স্নাতক

✓ স্নাতকোত্তর

✓ অন্যান্য

৫. পেশা-

- ✓ গৃহিণী
- ✓ ছাত্র/ছাত্রী
- ✓ পোষাকশ্রমিক
- ✓ শিক্ষক
- ✓ সরকারী চাকুরীজীবী
- ✓ অন্যান্য

১. আপনি কি নিয়মিত ব্যাক কেয়ার ক্লাসে অংশগ্রহণ করেছেন?

২. আপনি কতগুলো ক্লাসে অংশগ্রহণ করেছেন?

৩. এই ক্লাসে প্রদত্ত তথ্যাবলী আপনি কি ভালভাবে বুঝতে পেরেছেন?

৪. আপনি এই ক্লাস থেকে কি বুঝতে পেরেছেন ? ব্যাখ্যা করুন-

৫. এই ক্লাসের প্রয়োজনীয়তা সম্পর্কে আপনি কি মনে করেন?

৬. আপনি এই ক্লাসে কোন সমস্যার সম্মুখীন হয়েছেন কি? ব্যাখ্যা করুন-

৭. ব্যাক কেয়ার ক্লাস উন্নতির জন্য আপনার কোন মতামত আছে কি ? যদি থাকে ব্যাখ্যা করুন--

Questioner (English) Questionnaire Sheet

Title: Perception about back care classes among the mother's of Cerebral palsy children.

Identification number:	Date of intererview:
Start time:	End time:
Name of participant:	
Name of the interviewer:	
Consent taken:	Yes No
Name and signature of witness:	

Section 1 : Patient detail

Name:

Age:

Sex:

Admission date:

Address:

Mobile No:

Section 2 : Socio-demographic information about mother with CP child

1. May I know your age please?

I. Age:..... years

2. What is your religion?

3. Residential area:

- I. Rural
- II. Semirural
- III. Urban

4 .Educational status:

- I. Illiterate
- II. Primary school certificate(PSC)
- III. Junior school certificate(JSC)
- IV. Secondary school certificate(SSC)
- V. Higher secondary certificate(HSC)
- VI. Bachelor
- VII. Masters
- VIII. Others

5. Your current Occupation:

- I. Housewife
- II. Student
- III. Garment' worker
- IV. Teacher
- V. Govt.employee
- VI. Others

1. Did you participate back care class regularly?

2. How many classes did you attend?

3. Did you clearly understand the provided information in the classes?
4. What you understand from the classes? Please explain.
5. What do you feel about the importance of the classes? Please explain.
6. Is there any problem you faced in the class? Please explain.
7. Is there any opinion to improve about the back care classes?

Permission letter

September 09, 2015

Head of the department of Physiotherapy
Centre for the Rehabilitation of the Paralysed (CRP)
Chapain, Savar, Dhaka-1343.

Through: Head, Department of Physiotherapy, BHPI.

Subject: Seeking permission of data collection to conduct my research project.

Dear Sir,

With due respect and humble submission to state that I am Mousumi Akter, student of 4th Professional B.Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI). The ethical committee has approved my research project entitled on“ **Perception about back care classes among the mother's of cerebral palsy children** ” under the supervision of Md. Obaidul Haque, Associate Professor & Head of Physiotherapy department, BHPI, CRP. This research project is partial fulfillment of the requirement for the degree of B.Sc. in Physiotherapy. I want to collect data for my research project from the Pediatrics unit at CRP. So, I would like to assure that anything of my study will not be harmful for the participants.

I, therefore, pray & hope that you would be kind enough to grant my application & give me permission for data collection and oblige thereby.

Sincerely Yours

Mousumi Akter

4th year B.Sc. in Physiotherapy

Roll-22, Session: 2010-2011

Bangladesh Health Professions Institute (BHPI).

She may be allowed for data collection.
7/09/09/15

Md. Obaidul Haque
Associate Professor & Head of the Department
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

Approved
Contact with Rehana Begum, Clinical PT, Paeds on a counter part of the data collection process.
09/09/15

Md. Obaidul Haque
Associate Professor & Head of Physiotherapy Dept
CRP, Chapain, Savar, Dhaka-1343

she will collect data from this unit. please help her.
06-10-15

HOSNEARA PERVEEN
Incharge Paediatric Unit
CRP, Savar, Dhaka

