# CONCEPTION OF SPINAL CORD INJURED PERSON'S WITH HOSPITAL CARE, REHABILITATION AND NEW LIFE SITUATION

Jannatul Fardush

Bachelor of Science in Physiotherapy (B. Sc. PT)

Roll no: 144

Reg no: 6261

Session: 2013-2014

BHPI, CRP, Savar, Dhaka-1343



## **Bangladesh Health Professions Institute (BHPI)**

Department of Physiotherapy

CRP, Savar, Dhaka-1343

Bangladesh

August, 2018

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

## CONCEPTION OF SPINAL CORD INJURED PERSON'S WITH HOSPITAL CARE, REHABILITATION AND NEW LIFE SITUATION

Submitted by Jannatul Fardush, for partial fulfillment of the requirements for the degree of Bachelor of Science in Physiotherapy (B. Sc. PT).

Farjana sharmin Lecturer of BHPI & Jr. Consultant Department of Physiotherapy CRP,Savar,Dhaka

Mohammad Anwar Hossain Associate Professor BHPI & Head, Department of Physiotherapy CRP, Savar, Dhaka

E.Rab

Ehsanur Rahman Assistant Professor Department of Physiotherapy BHPI, CRP, Savar, Dhaka

Md. Shofiqul Islam Assistant Professor Department of Physiotherapy

**Prof. Md. Obaidul Haque** Head of Physiotherapy Department Vice Principal

#### DECLARATION

I declare that the work presented here is my own. All sources used have been cited appropriately. Any mistake is 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 the department of physiotherapy of Bangladesh Health Professions Institute (BHPI).

# Signature: Jannatul faridiesh

Date: 04.11.18

#### **Jannatul Fardush**

Bachelor of Science in Physiotherapy (B. Sc. PT) BHPI, CRP, Savar, Dhaka-1343

# CONTENTS

	Page No
Acknowledgement	i
Acronyms	ii
List of Tables	iii
List of Figures	iv
Abstract	V
CHAPTER-I: INTRODUCTION	1-4
1.1 Background	1-2
1. 2Justification	3
1.3 Research Question	4
1.4 Study Object	4
CHAPTER-II: LITERATURE REVIEW	5-11
CHAPTER-III: METHODOLOGY	12-16
3.1 Study design	12
3.2Target Population	12
3.3 Study site	13
3.4 Study population and Sample population	13
3.5 Sampling technique	13
3.6 Sample size	14
3.7 Inclusion criteria	15
3.8 Exclusion criteria	15
3.9 Data collection	15
3.10 Data collection tools	15
3.11 Ethical consideration	15
3.12Rigor of the study	16
CHAPTER-1V: RESULTS	17-28
CHAPTER-V: DISCUSSION	29-32
CHAPTER-VI: CONCLUSION AND RECOMMENDATIONS	33-34
6.1 Conclusion	33

33-34
35-37
38-44
38-41
42-44

### Acknowledgement

First of all, I am grateful to the almighty God who gave me life and I am always trying to lead this life with honesty. At the same time my thanks with respect to my parents who always want to see me as successful person in the world. I am thankful to my entire class teacher. Then I gratefully acknowledge to my supervisors & respected my teacher **Farjana Sharmin**, Lecturer, Department of Physiotherapy, BHPI, CRP, Savar, Dhaka. I am also thankful to my respectable teachers **Ehsanur Rahman**, Assistant Professor, Department of Physiotherapy, BHPI, CRP, Savar, Dhaka & Md. Shofiqul Islam, Assistant Professor, Physiotherapy, BHPI, CRP, Savar, Dhaka.

I also would like to thanks teachers of BHPI especially my greatest gratitude to the respectable Vice Principle **Prof. Md. Obaidul Haque** and other respected teachers of Bangladesh Health Professions Institute (BHPI), Department of Physiotherapy, who facilitated me and given contribution to complete this studies smoothly. I remain ever grateful to help for their guidance and support without that I could not have come to this stage. And I would also like to thanks **Mohammad Anwar Hossain**, Associate Professor and Head of Physiotherapy Department, CRP, Savar, Dhaka to provide proper guideline.

I am thankful to all the stuff of the BHPI Library for their cordial help to find out important books and computer. And I am also thankful to In charge of SCI unit who helped me about all information about SCI. I also would like to thanks all staff of SCI unit.

My special thanks for who were giving me valuable suggestion and helping me in different stage of the study that made the work easy relive from difficulties and inspired me to work with enthusiasm.

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

Lastly thanks to all who always are my well-wisher and besides me as friend without any expectation.

Acronyms		
BHPI	Bangladesh Health Professions Institute	
BMRC	Bangladesh Medical Research Council	
CNS	Central Nervous System	
CRP	Centre for the Rehabilitation of the Paralysed	
ICF	International Classification of Functioning	
IPA	Impact on Participation and Autonomy	
IRB	Institutional Review Board	
PCC	Person-Centered Care	
SCI	Spinal Cord Injury	
USAID	United States Agency for International Development	
WHO	World Health Organization	

# List of Tables

Page
------

		No
Table-1:	Patient's details	17
Table-2:	Perception about environment of CRP	23
Table-3:	Satisfaction of the patients about therapy session and condition	24
Table-4:	Training giving SCI patients during rehabilitation is sufficient or	26
	not sufficient	
Table-5:	After complete the treatment from CRP patient will able or will	27
	not able to return previous life.	
Table-6:	Adjust with new life situation.	28

# List of Figures

# Page No

Figure-1:	Age of patients	18
Figure-2:	Sex distribution of participants	19
Figure-3:	Education level of patient's	20
Figure-4:	Occupations of Patients	21
Figure-5:	Treatment cost of SCI patients in CRP	25

#### Abstract

Purpose: To find out Spinal cord injued person's conception of hospital care, rehabilitation and new life situation. Objectives: To identify the SCI patients perception about hospital care and explore the conception of Rehabilitation program and how to adjust the new life situation. Methodology: This study used the qualitative research design. The sample size was 10 and purposive sampling technique was used for sample selection who was admitted in Centre for the Rehabilitation of the Paralyzed (CRP) in Bangladesh which is the largest spinal cord injury rehabilitation centre in South Asia. This study was followed all rules of data collection including method of data collection, materials used for data collection, duration and procedure of data collection. Data collection is the strong point of any research which maintains the research validity and reliability. *Result*: Among the participants, three participants were female and seven were male. The average age was 37 with minimum age 14 years and maximum 65 years. There are female were 03 and male were 07. From10 participants, 02 participants were illiterate, 03 participants had primary education, 04 participants completed secondary education, and 01 participant had Bachelor degree. According to the transcripts, 10 of the participants stated that 04 patients said very good environment, 04 patients perception good and 02 patients also said poor. Maximum participants said that theyare satisfied about the patient's condition.70% patients said that treatment in the CRP expensive and rest 30% patients said that treatment in the CRP non-expensive. About 90% patients said that training is sufficient for SCI patient. After completed 60% will be able to return the previous life and 40% patients will not be able to return the previous life. 50% patients can adjust with new life situation and 50% patients can't adjust with new life situation. *Conclusion:* Most of the patient is satisfy about hospital care because all therapist, doctor, nurses and staff is friendly, give sufficient time, communication very well, environment is very nice of hospital and comparatively treatment cost is low.

Key word: Spinal Cord, Rehabilitation, Conception and New life.

## CHAPTER -- I

#### **1.1 Background**

The World Health Organization (WHO) states that, 10% of total population are disabled in Bangladesh & most of those are physically disabled. These disabled people are very often deprived of social opportunities and their right in our country. SCI is a devastating condition often affecting young & healthy individuals around the world. SCI can happen to anyone at any age. However, men between the age of 19 and 26 are more likely to have a SCI due to an accident or some act of violence (Ackery et al., 2005). SCI occur when the spinal cord is damaged in a way that results in some loss of sensation & motor control.

Spinal cord injury (SCI) is a devastating condition that produces severe functional impairment and requires intensive and specialized clinical rehabilitation. It is a catastrophic event that often affecting healthy and all individual. This debilitating condition not only creates enormous physical disability but also emotionally depress the patient. It causes important changes within an individual physical and psychological relationship in their environment. Long-term disability or death is the cause of Spinal Cord Injury SCI) and leading to permanent paralysis by modern man. It is one of the most catastrophic lesions (Van den Berg, et al., 2010).

Rehabilitation is a holistic approach that is characterized by respectful and individualized care that empowers patients to actively participate in their care (Morgan &Yoder, 2012). The term PCC, as currently used in the rehabilitation field, lacks a consensus definition. However, there appears to be a considerable agreement regarding its core components (Leplege et al, 2007). One vital component is patient participation (Kitsonet al, 2013). Patient participation is considered to be a core element of spinal cord injury (SCI) rehabilitation. Most SCI rehabilitation units strongly encourage and endorse active patient involvement in care and rehabilitation planning and decision-making. It is based on the theory that an individual's participation in the process is fundamental to its effectiveness (Pellatt,2004). For instance, it is well known that patients who actively participate in their own care are more adherent to treatments and also report better outcomes and satisfaction with their care (Sabate,2013). Even though patient participation is considered desirable and beneficial, little is known about what factors facilitate, promote and contribute to patient participation. However, it is important to recognize that such information

should be gleaned directly from the patient. Patients' preferences for participation can differ considerably (Murtagh & Thomson,2016). Most patients with SCI want to be as independent as possible to participate in and be 'in charge' of their rehabilitation. However, they must feel ready and need a supportive relationship with the staff (Angel et al., 2011). The aim of this study was to explore what patient participation in care and rehabilitation means to persons with SCI. Specifically, we were interested in identifying salient domains of patient participation to serve as a base for developing a questionnaire for assessing SCI patients' experiences and preferences of patient participation.

Patient participation is considered to be a core element of spinal cord injury (SCI) rehabilitation. Most SCI rehabilitation units strongly encourage and endorse active patient involvement in care and rehabilitation planning and decision-making (Pellatt,2014). It is based on the theory that an individual's participation in the process is fundamental to its effectiveness (Kennedy & Hamilton, 2013). For instance, it is well known that patients who actively participate in their own care are more adherent to treatments and also report better outcomes and satisfaction with their care. Even though patient participation is considered desirable and beneficial, little is known about what factors facilitate, promote and contribute to patient participation. However, it is important to recognize that such information should be gleaned directly from the patient. Patients' preferences for participation can differ considerably (Angel et al,2013). Most patients with SCI want to be as independent as possible to participate in and be 'in charge' of their rehabilitation.

However, they must feel ready and need a supportive relationship with the staff.8 The aim of this study was to explore what patient participation in care and rehabilitation means to persons with SCI. Specifically, we were interested in identifying salient domains of patient participation to serve as a base for developing a questionnaire for assessing SCI patients' experiences and preferences of patient participation.

#### **1.2 Rationale**

Injuries that are affecting the spinal cord and complicated by physical damage are an important health problem in Bangladesh as they carry a high rate of morbidity and mortality. SCI continues to be a major cause of disability throughout Asia as well as in Bangladesh (Islam, et al., 2011).

Rehabilitation is a long time process. Every patient is different and their conception also different. This period begins with admission to hospital and stabilization of the patient's neurological state and is a 6-12 week bed period. The aim of rehabilitation in this period is to prevent complications that may occur long term. Passive exercises should be done intensively to resolve contractures, muscle atrophy and pain during the acute period of hospitalization in patients with complete injury.

Health systems strengthening are an important international priority for the World Health Organization (WHO) the United States Agency for International Development (USAID) and numerous donor organizations. One of the WHO's six building blocks of health systems is the delivery of health services that are effective, safe and good quality for those who need them. Strengthening health service delivery requires special attention to the experiences of patients as it is a key indicator of whether improvements inhealth care delivery have been made and where to focus future improvement efforts.

It challenges of adjusting to life after a spinal cord injury. It's your reaction to loss, and it affects you both emotionally and physically. But letting your emotions control you can result in unhealthy decisions and behavior, a longer rehab, and taking longer to adjust to your spinal cord injury (SCI). Feeling and naming your emotions, and talking to others about them, will help you feel more solid and in control. Talking to a professional counselor who understands the challenges of living with an SCI can be very helpful during tough times.

In rehabilitation program of SCI Physiotherapist and other professionals work together. By this study we can learn about patient's perception about hospital care, Rehabilitation and new life situation.

# **1.3 Research question**

What are Spinal Cord Injured person's conceptions of hospital care, Rehabilitation and new life situation?

# 1.4 Study objectives

## **General objective**

To find out Spinal Cord Injured persons conceptions of hospital care, Rehabilitation and new life situation.

## **Specific objectives**

> To clarify the socio-demographic factors for such exposure group in relation to age, sex, occupation, living areas.

- > To identify the SCI patients perception about hospital care
- > To explore the conception of Rehabilitation program
- To find out the new life situation

#### **CHAPTER-II**

#### LITERATURE REVIEW

Bangladesh is one of the most densely populated countries in the world and is situated in the South Asian subcontinent, the total population of this country is about 130 million and about 830 people live in per square kilometer area. More than 80% population lives in the village and about 60% of the total labor forces are involved in agriculture, about 4.6% people are disabled due to spinal cord injury (Hossain, 2013).

The spinal cord is the part of the central nervous system (CNS) in the superior two third of the vertebral canal, it is roughly cylindrical to oval in cross section with a central canal (Grivna et al., 2015). It is protected by the vertebra and their associated muscles, ligaments, spinal meninges and the cerebrospinal fluid. The spinal cord begins as a continuation of the medulla oblongata; the caudal part of the brainstem (Ning et al 2012). The spinal cord is 42-45cm long and extends from the foramen magnum to the level of the L1 or L2 vertebra and the function of the spinal cord is to act as the main pathway for all incoming and outgoing impulses from the higher center to the periphery for reflex activities and also exerts traffic control over the muscular system (Grivna et al., 2015).

The life altering experience that affects not only the patients with SCI but also their spouses, parents, siblings and children and the significant cause of mortality andmorbidity (Zahangir et al, 2015). Spinal cord injury results in a high level of individual disability, which is reflected in radical changes in lifestyle. In developing country like Bangladesh, life expectancy of spinal cordinjury patients was much lower than developed country (Gifre, et al., 2014).

Recent research (Fyffe et al, 2014) suggests that primary nerve injury occurs due to acute injury to the spinal cord that causes secondary damage by producing inflammation, ischemia, and toxicity. Deficit function in motor control occurs after SCI that causes disturb in daily activities (Rahman, 2012). One of the debilitating condition is SCI that causes paralysis of the limb and injury such as compression, contusion or laceration, disrupts autonomic function occurs at the site of injury or below, then permanent disability such as paralysis, loss of sensation, neuropathic pain etc. can occur depending on the level of the lesion ((Fyffe et al, 2014). Spinal cord injury or damage can cause a wide range of impairments, activity limitations and participation restrictions, which has an adverse impact on the society (Ali and Tawfiq ,2013).

Nwankwo and Uche (2013), found that in SCI, 31–45 years age group is the most frequently affected and male is more affected than female (4.3:1), 53% injury occurred in cervical spine, 22% thoracic spine and 25% lumbar spine injury. In United States the annual incidence of traumatic SCI is 40 cases per million or 1200 new cases each year (Rabadi, et al., 2013). In Australia, male is more affected than female in non-traumatic SCI and the ratio is 197:169 and the prevalence of paraplegia is more about 269 per million than tetraplegia (98 per million) (Ali and Tawfiq, 2013). The worldwide incidence of SCI is 10.4 and 83 per million per year and the mean age is 33 years old, male and female ratio is 3.8:1 and one- third of the patients are tetraplegic all over the world (Wyndaele and Wyndaele, 2006). Moreover, 2.5 million people live with SCI around the world (Chen et al, 2013). In Asia the incidence rates of SCI is ranged from 12.06 to 61.6 per million and the average age is 26.8 to 56.6 years old, men are more vulnerable than women also in traumatic spinal cord injury main causes are motor vehicle collisions (MVCs) and falls (Ning, et al., 2012). In CRP, Bangladesh, 25-29 years aged peoples are most commonly affected among them males are more 83% than female and 92% came from rural area and 8% came from urban area also majority of the patients are paraplegia 56%, Cervical lesion present in 44% cases, thoracic lesion 27% and lumber lesion 29% (Gurcay et al, 2010). A person can experience by spinal cord injury, which is most common among the catastrophic injuries. Young adult people are more suffering lifelong disability than other ages. Fifty four percent of spinal cord injuries occur in ages between 16 and 30 years, 75% of injuries occur in those < 45 years old (Winslow and Rozovsky, 2003). Generally, spinal cord injury is male's disease. Younger men are more affected in complete injuries than older adults and women. In a study, there are many causes of SCI since 2010 vehicular (36.5%), falls (28.5%), violence (14.3%), sports (9.2%) and other causes (11.4%). The affected rate is 80.7%. The average age of this injury is 46 years since 2010 (Ning, et al., 2012).

On the basis of a worldwide literature survey (Hoque et al,2012) the global estimate of spinal cord injury (SCI) incidence is estimated between 10.4 and 83.0 per million per year. Although life expectancy of most individuals with SCI remains below normal, it continues to increase substantially. The progress achieved in the biomedical sciences concerning SCI has a major impact on this survival rate and a decreasing number of rehospitalization. Consequently, the focus shifted to the importance of the long-term consequences of SCI and the quality of life of SCI patients. Despite the importance of the biomedical conception of disability after a SCI, there

is an increasing acceptance that health is determined not merely by behavioural, biological and genetic factors, but also by a range of economic, environmental and social determinants (Quadir et al, 2017). The increasing life expectancy after SCI has given 'participation', as defined within the International Classification of Functioning, disability and health (ICF), a new recognition as one of theultimate goals of a comprehensive rehabilitation programme. The ICF reflects a biopsychosocial model of disability because it seeks to locate an understanding of disability at the intersection between the biological body and the social and institutional structures. The ICF's definition of 'participation', 'involvement in life situation', points according to Hemming son and Johnson (2005) to an understanding of health that incorporates a relationship between people's daily life and health. 'Participation' replaces older terms such as community integration and it reflects the social and interpersonal aspects of disability. Concerning 'participation' there is little agreement about the meaning of the term itself. An extended search on the concept of 'participation' was conducted using the following resources: MEDLINE, CINAHL, AMED and PsychINFO. On the basis of the fact that the understanding of 'participation' as a theoretical concept has changed since the publication of the ICFin 2001, the search was limited between the year 2001 and the end of 2009. The predefined search terms were 'participation' combined with 'outcome measure' and 'ICF'. Further hand searches throughout this literature learned that the concept of 'participation' is frequently composed with adverbs to elucidate what is meant exactly, and consequently different interpretations are given (Sridharan et al,2015). A selection of adverbs and terms that have been found in the literature are: community participation social participation, participation in society, societal participation participation in activities occupational participation social involvement. By way of an example, only one reference (where there is a relation towards SCI) is given for each term, but many more references can be given. Furthermore, according to different authors a conceptual overlap between the concept of 'activity' and the concept of 'participation' is present. Research within the scope of SCI shows that recent empirical proof on the insider or subjective perspective is scarce even if related aspects such as environmental and personal factors influencing 'participation', have been touched upon in different studies. To our knowledge, the subjective experiences of people with SCI regarding their 'full participation' have not been explored in detail yet. The results of two studies are relevant to consider in this discourse. First, the subjective experience of participation in leisure activities is considered important for community living after SCI and second, to regain

participation in occupations it is necessary to have an increased understanding of the subjective changes that occur over time for a person with SCI (Fehlings et al,2014).But besides these aspects, a more in-depth examination of a SCI population is considered relevant to increase our knowledge of people with SCI. Such knowledge is important for rehabilitation professionals to increase their (i) understanding of the concept of 'participation' and (ii) to design rehabilitation intervention. The identification of values for 'participation' can enable professionals to distinguish persons at risk .For academics more in-depth knowledge can help to develop measurement instruments on the concept of 'participation(Rathore ,2010).

The review of the literature described above identifies that 'participation' is a complex concept. Vagueness and ambiguity on the definition of 'participation' impedes research and reduces practitioners' effectiveness. A more in-depth knowledge about the 'person-perceived participation' is needed and is lacking in the literature. It is the aim of this study to add to the existing body of knowledge by exploring the 'person perceived participation' in individuals with SCI (Arafat ,2016).

The concept of positive way as participation with the intention of increasing the understanding of the persons' lived experience of involvement in life situations. This shift in focus has consequences for the assessment of social involvement, as instruments used should be based on the new concept: participation. A review of instruments used to provide insight into the social involvement of persons with disabilities revealed in most cases that the instruments were based on the former concept of handicap. Therefore, Carr & Thompson and others have emphasized the need for a deeper knowledge of disabled persons' own perceptions; this is in contrast to conventional investigations of the occurrence of handicap situations from an outsider perspective. Consequently, there is a lack of knowledge about persons' perceived participation in different domains such as domestic life, work and social life, which in turn impede the possibility of addressing participation in rehabilitation programmes. Recently, Cardol and coworkers presented a new instrument - the Impact on Participation and Autonomy (IPA) - based on the concept of participation including autonomy. This significantly enhances the possibility of examining the participation of individuals with disabilities in various aspects of life. As IPA has been developed in the Netherlands, the original version was translated to enable examination of participation among people with disabilities in Sweden. Since persons with spinal cord injury

(SCI) represent a wide range of disabilities and ages, it was considered particularly relevant to examine this in this population. Furthermore, knowledge about participation among individuals with SCI is sparse, as research concerning the social involvement of persons with SCI has mainly used instruments based on the former concept of handicap. When researchers have tried to identify factors that may explain problems with the social involvement of persons with SCI, they have concentrated on personal and health-related characteristics, producing mixed results. For example, the severity of the injury has been found to decrease social involvement, but other factors, such as age, the amount of time passed since the injury and marital status lead to both an increase and decrease in social involvement. The influence of the physical and social environment on the participation of persons with SCI has received less attention than personal and health-related factors. Hence, several researchers have emphasized the need to study how environmental "mechanisms" facilitate or obstruct the social involvement of persons with SCI. In summary, studies focusing on the self-reported participation of persons with SCI are rare in contrast to studies of societally perceived handicap. Consequently, the influence of different factors in the interaction between the person and their environment on person perceived participation in persons with SCI has not yet been investigated satisfactorily. In addition, it is important to consider that factors related to the person, the health condition and the environment are all important when examining the social involvement of persons with SCI. Knowledge of this will increase our understanding of the perspective of the client and is essential in the implementation of client-centred rehabilitation that targets individuals' needs. Thus, the purpose of this study was to describe how persons with SCI perceive their participation in life situations and to determine the relationship between their participation and perceived problems herein. The purpose was also to evaluate the influence of age, sex, level of injury, time since injury, marital status and access to social support on perceived problems with participation (Arafat ,2016).

Person-centered care (PCC) is a holistic approach that is characterized by respectful and individualized care that empowers patients to actively participate in their care. The term PCC, as currently used in the rehabilitation field, lacks a consensus definition. However, there appears to be a considerable agreement regarding its core components. One vital component is patient participation. Patient participation is considered to be a core element of spinal cord injury (SCI) rehabilitation. Most SCI rehabilitation units strongly encourage and endorse active patient involvement in care and rehabilitation planning and decision-making. It is based on the theory

that an individual's participation in the process is fundamental to its effectiveness. For instance, it is well known that patients who actively participate in their own care are more adherent to treatments and also report better outcomes and satisfaction with their care (Ullrich et al., 2008). Even though patient participation is considered desirable and beneficial, little is known about what factors facilitate, promote and contribute to patient participation. However, it is important to recognize that such information should be gleaned directly from the patient. Patients' preferences for participation can differ considerably. Most patients with SCI want to be as independent as possible, to participate in and be 'in charge' of their rehabilitation. However, they must feel ready and need a supportive relationship with the staff. The aim of this study was to explore what patient participation in care and rehabilitation means to persons with SCI. Specifically, we were interested in identifying salient domains of patient participation to serve as a base for developing a questionnaire for assessing SCI patients' experiences and preferences of patient participation (Ning, et al., 2012).

According to Papadimitriou, patients undergo a process of habituating to the world from a new physical perspective, participating in activities using new skill strategies. New ways of acquiring these skills occurs with therapists physically engaging and communicating in action as new methods are practice (Ullrich et al 2008).Effective practice requires that clinicians interact with their patients in ways that make them feel included in their rehabilitation and tailor treatments towards the patient's individual goals. Several studies have explored factors that are necessary for a successful rehabilitation experience. Functional abilities, incidences of re-hospitalization and marital status have been identified as predictors of patient satisfaction with rehabilitation.((Fehlings et al, 2014).

Individuals with improved functional status were more satisfied with their medical rehabilitation, versus those whose expectations in rehabilitation were not met. Three important priority areas during rehabilitation as perceived by individuals with SCI include participation, information and relationship. In another study, Ripat and Woodgate interviewed 19 adults with SCI who described participation in four ways: inclusion, opportunity for reciprocity, accomplishment and autonomy. Active participation in the rehabilitation process as proposed by Pellat places patients as equal members of the rehabilitation team (Islam et al,2011).Therefore, it appears that a holistic approach to care that is carefully planned without professional boundaries such that

information is not delivered piecemeal is necessary for a therapeutic environment.Safe Work load (SWL) after SCI has been found to be effected by a patient's involvement in their rehabilitation; however, limited research has explored this connection (National Spinal Cord Injury Statistical Center,2013). Success during rehabilitation will often have a large role in SWL for an individual living with SCI. A recent meta-analysis found that specific qualities of the rehabilitation institution such as inflexible policies, processes involving making decisions, procedures and organizational practices directly influence the ability for a patient with SCI to visualize a capable future (Kawanishi and Greguol, 2013).Patients with SCI valued those therapists who worked directly with them to set goals that were important and specific to the individual. In addition, patients identified several negative aspects in traditional rehabilitation programs, including exaggerated focus on the physical aspect of SCI, a lack of attention to the individual and the inability to prepare the individual to their needs in the real world.

## **CHAPTER – III**

## 3.1 Study design

This study used the qualitative research design. A research question starting with what or how or a topic such as the patient's perception as in this study that needs to be explored in depth in order to explain the patient's feelings, is most suitable for the qualitative exploratory research approach. In this study, the qualitative approach was used because of its advantages. It places emphasis on understanding the individual"s life experiences through examining closely people"s words and actions and it brings out the situation as experienced by the participants (Maykut & Morehouse, 2007). In addition, the qualitative research design also permits the description of problematic moments in the individual"s life (Denzin & Lincoln, 2005). The qualitative approach was thus used to describe the expectations, experiences, satisfaction attained, and the problems encountered by the SCI patient's. The purpose of this study is to find out Spinal Cord Injured person's conceptions of hospital care, Rehabilitation and new life situation. Qualititative approach focus on specific individuals, rather than group or types of individuals. Qualitative research is suitable for exploring a new area & understanding individual attitudes & behaviours that why the researcher selected the qualitative research approach, which helps to gain understanding & explore the feelings, attitude, opinions, fears & behaviour of SCI patient's (Behrman, 2008). This research design utilized semi-structured and face to face interviews because this was suitable for collecting research description in this topic (Hammel & Crepenter, 2006). This methodology appropriate when there is only a small number of participant (Frankle & Wallen, 2008).

## **3.2Target Population**

All spinal cord injury patients who admitted in Centre for the Rehabilitation of the Paralysed. A population is the total group or set of event or totality of the observation on which a research carried out.

#### 3.3 Study site

The research was conducted the study at the Centre for the Rehabilitation of theParalyzed (CRP), Savar, Dhaka. Researcher collected data from those peoples whoare receiving treatment in SCI unit at CRP. The Centre for the Rehabilitation of theParalysed (CRP) has developed into an internationally respected organization (CRP-Bangladesh). Researcher has chosen that setting because the participants wereavailable in SCI unit. The hospital at CRP-Savar was the only hospital in Bangladeshthat specializes in the treatment of spinal cord injuries. At CRP in- patient unit onlyadmitted people with SCI. It consists of 100 beds, with 12 wards (one post-operativeward, one female and ten male wards, this is due to the majority of spinal cord injuriesoccurring in young males).

#### 3.4 Study population and Sample population

A population is the total group or set of events or totality of the observation on which a research is carried out. It is the group of interest to the researcher, the group whom the researcher would like to generalize the result of the study. About 10 samples were selected for this study.

#### **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 Sample size

For this study the researcher took a small sample size. So, the researcher could analyze the data from the participant deeply & easily. Researcher took 10 participants as sample until data saturation point was reached. Small numbers of potential study participants are appropriate for a qualitative methodology.

### 3.7 Inclusion criteria

- a) People who agree willingly participate in the study as maintaining ethical rules.
- b) At any age.
- c) Both male and female are included.
- d) People having SCI.

### 3.8 Exclusion criteria

- a) Mentally ill & medically unstable patient.
- b) Patient with cognitive problem as they won't cooperate with researcher.
- c) Patient suffering from serious pathological disease e.g. tumors, tuberosclerosis etc.
- d) Undiagnosed patient.

#### 3.9 Data collection

This study was followed all rules of data collection including method of data collection, materials used for data collection, duration and procedure of data collection. Data collection is the strong point of any research which maintains the research validity and reliability.

#### **3.10 Data collection tools**

To conduct the study data was collected through using different types of data collection tools. 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 patients identification, Sociodemographic information & finding out complicated information.

#### 3.11 Ethical consideration

The proposal of the dissertation including methodology was presented to the Institutional Review Board (IRB). The whole process of this research project was done by following the Bangladesh Medical Research Council (BMRC) guidelines and World Health Organization (WHO) Research guidelines. Then the research proposal was submitted to the physiotherapy department of BHPI for approval and the proposal was approved by the faculty members and gave permission initially from the supervisor of the research project and from the course coordinator before conducting the study. The necessary information has been approved by the ethical committee of CRP and was permitted to do this research. Also the necessary permission was taken from the incharge of the rehabilitation division of CRP. The participants were explained about the purpose and goal of the study before collecting data from the participants. Pseudonyms were used in the notes, transcripts and throughout the study. It was ensured to the participants that the entire field notes, transcripts and all the necessary information was kept in a locker to maintain confidentiality and all information was destroyed after completion of the study. The participants were also assured that their comments will not affect them about any bad thing. Written consent (appendix) was given to all participants prior to completion of the questionnaire. The investigator explains to the participants about his or her role in this study. The investigator received a written consent form every participants including signature. So the participant assured that they could understand about the consent form and their participation was on voluntary basis. The participants were informed clearly that their information would be kept confidential. The investigator assured the participants that the study would not be harmful to them. It was explained that there might not a direct benefit from the study for the participants but in the future cases like them might get benefit from it. The participants had the rights to withdraw consent and discontinue participation at any time without prejudice to present or future care at the

15

community. Information from this study was anonymously coded to ensure confidentiality and was not personally identified in any publication containing the result of this study.

### **3.12Rigor of the study**

During the interview session and analyzing the data researcher never tried to influence the process by her own value, perception and biases. The researcher accepted the answer of the questions whether they were of positive or negative impression. The transcripts were translated by another 6 peoples to avoid biasness and researcher checked it several times with his own translation and recording to reduce any mistake and compared it with the Bangla transcript. Researcher tried to keep all the participants related information and documents confidential. To reduce the sources of error and biasness of the study, this study was conducted in a systemic way by following the steps of research under supervision of an experienced supervisor.

# **CHAPTER-IV**

Participant's Details Ten patients both male and female were included in this study. Among the participants, three participants were female and seven were male. The average age was 37 with minimum age 14 years and maximum 65 years (Table-1).

Patient's ID No	Age (Year)	Sex
P1	50	Female
P2	14	Male
Р3	38	Male
P4	22	Male
Р5	25	Female
P6	44	Male
P7	50	Male
P8	38	Male
Р9	65	Male
P10	40	Female

Table-1 Patient's details

# Socio-demographic information at a glance

From the ten participants 10-30 years old participants were 03 and 31-50 years old participant 06 and 51-70 years old participants were 01 (Figure-01).

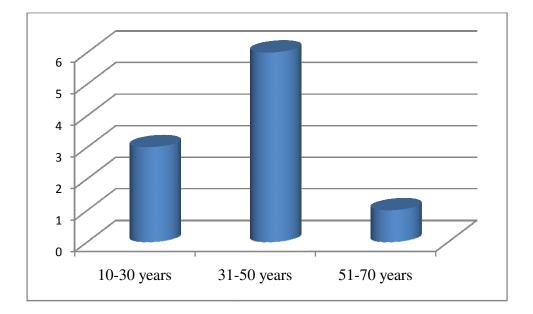


Fig-1: Age of patient's

Among the patients, female were 03 and male were 07 (Figure-02).

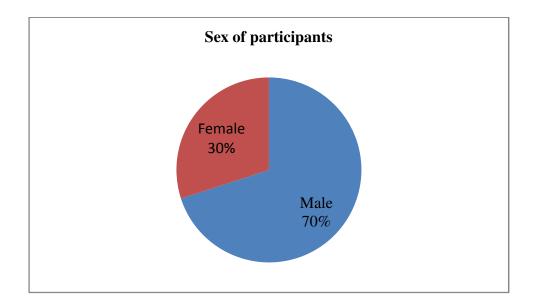


Fig-02: Sex distribution of participants

There are 10 participants, 02 participants were illiterate, 03 participants had primary education, 04 participants completed secondary education, and 01 participant had Bachelor degree (Figure-03).

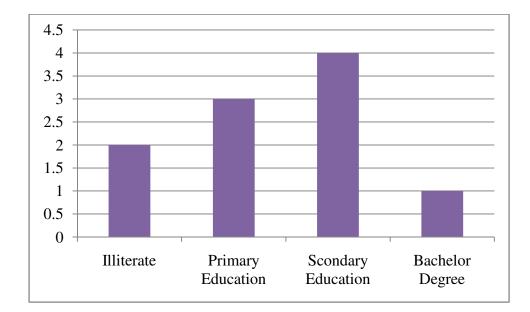


Fig-03: Education level of patient's

Among the 10 participants, 02 participants were housewife 02 participants were farmer 04 participants were service holder and 01 participant was study 01. (Figure-4).

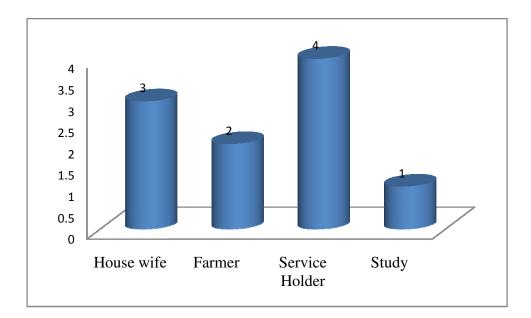


Fig 04: Occupations of patient's

# Following Themes are emerged on the basis of data analysis

- 1. Perception about environment of CRP.
- 2. Patients are satisfied with the patient's condition and therapy.
- 3. Treatment cost is not affordable by maximum SCI patients.
- 4. Training giving SCI patients during rehabilitation is sufficient or not sufficient.
- 5. After complete the treatment session return the previous life.
- 6. Adjust new life situation.

## Themes 01: Perception about environment of CRP

This theme relates to the perception about environment of CRP. The participant responses are displayed below (Table-02).

Patients ID No	Very good	Good	Poor
P1			
P2			
P3			
P4			
Р5			
P6			
P7			
P8			
P9			$\checkmark$
P10			

Table-2: Perception about environment of CRP

According to the transcripts, 10 of the participants stated that 04 patients said very good environment, 04 patients perception good and 02 patients also said poor.

According to patients statement the environment of CRP comparatively better than other hospital in Bangladesh. In CRP maximum Therapists are cooperative and give enough time to give treatment. They also get better service in CRP.

### Theme 2:Patients are satisfied with the patient's condition and therapy.

The researcher wanted to find out whether the patients were satisfied with the patient's condition and therapy. The participant responses are displayed at below (Table-3).

Patient's ID No	Satisfied	Not Satisfied
P1	$\overline{\mathbf{v}}$	-
P2	$\checkmark$	-
P3	$\checkmark$	-
P4	$\checkmark$	-
P5	$\checkmark$	-
P6	-	$\checkmark$
P7	$\checkmark$	-
P8	$\checkmark$	-
P9	-	$\checkmark$
P10		

Table-3: Satisfaction of the patients about therapy session and condition

This table represents all the 10 participants said that 08 patients said that they are satisfied about the patient's condition and therapy and 02 patients are not satisfied.

Patients said that they got therapy regularly. Therapists came in time and they gave enough time to patients. Their behavior very well. Patients got balance training, wheelchair training and also other training.

# Theme 3:Treatment cost is not affordable by maximum SCI patients at CRP.

Here the researcher wanted to know the cost for the patient's treatment. The patient's responses are displayed below (Figure-5).

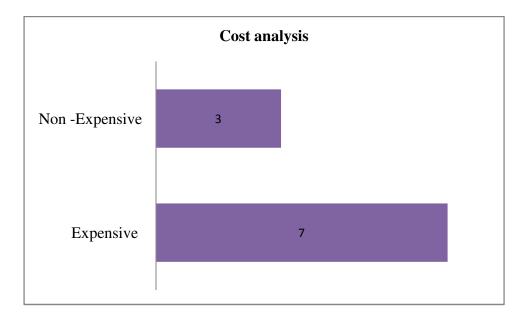


Fig-5: Treatment cost of SCI patients in CRP

Among of the 10 patients 07 patients said that treatment in the CRP expensive and rest 03 patients said that treatment in the CRP non-expensive.

Patients told that Spinal cord injury treatment high cost. But in CRP gave them support to get treatment.

## Theme 4:Training giving SCI patients during rehabilitation is sufficient or not sufficient.

The researcher wanted to find out whether the training given to the patient is sufficient or not. The patient's responses are displayed below (Table-4).

Patient's ID No	Sufficient	Not Sufficient
P1		-
P2		-
P3		-
P4	$\checkmark$	-
P5	$\checkmark$	-
P6	$\checkmark$	-
P7	$\checkmark$	-
P8	$\checkmark$	-
P9	-	$\checkmark$
P10	$\checkmark$	-

Table-4: Training giving SCI patients during rehabilitation is sufficient or not sufficient.

Training is most important for SCI patient because it change his/her life. Among the 10 patients 09 patients said that training is sufficient for SCI patient and 01 patient said not sufficient for SCI patient.

According to patients statement training is sufficient for them but they need more training for their rehabilitation. Some of them training is not sufficient for them.

## Theme 5:After complete the treatment session return the previous life

The researcher wanted to find out after complete the treatment from CRP patients can return or can't return the previous life. The patient's responses are displayed below (Table-5).

Table-5: After complete the treatment from CRP patient will able or will not able to return previous life

Patient's ID No	Can	Can't
P1		-
P2	-	
P3	-	
P4	$\checkmark$	-
P5	-	$\checkmark$
P6		-
P7	-	$\checkmark$
P8		-
P9		-
P10	$\checkmark$	-

Among the 10 patients 6 (60%) will be able to return the previous life and 4 (40%) patients will not be able to return the previous life.

•

Patients told that most them can return their previous work and earn for their family. But some of them can't return their previous job. But after training from CRP they will able to do new work.

## Theme 6:Adjust with new life situation

The researcher wanted to find out here when patient can adjust with new life situation or can't adjust with new life situation. The patient's responses are displayed below (Table-6).

Patient's ID No	Can	Can't
P1		-
P2	-	
P3	-	
P4	-	$\checkmark$
P5	-	$\checkmark$
P6	$\checkmark$	-
P7	-	$\checkmark$
P8	$\checkmark$	-
P9	$\checkmark$	-
P10		-

Table 6: Adjust with new life situation.

Among the 10 patients 5 (50%) can adjust with new life situation and 5 (50%) patients can't adjust with new life situation.

According to patients statement it is difficult them to adjust with their new life situation. Because they can't walk. But they will try to adjust their new life after complete treatment from CRP.

## CHAPTER-V

The aim of this study was to explore the perception of patients" about hospital care, Rehabilitation and new life situation. A qualitative study design was used to conduct the study. Ten SCI patients were recruited in this study. The samples were selected by convenience sampling method. The data were collected by using a semi-structured questionnaire form and coded by six themes; finally the coded data are analyzed and presented qualitative analysis. Following themes have been emerged on the basis of data analysis. These include Perception about environment of CRP, Patients are satisfied with the patient's condition and therapy, Treatment cost is not affordable by maximum SCI patients, Training giving SCI patients during rehabilitation is sufficient or not sufficient, After complete the treatment session return the previous life and Adjust new life situation.

10 patients both male and female were included in this study. Among the participants, 03 participants were female and 07 were male. The average age was 37 with minimum age 14 years and maximum 65 years; 10-30 years old participants were 03, 31-50 years old participants were 06 and 51-70 years old participants were 01. Among the participants, female were seven 03 and male were 07; 02 participants were illiterate, 03 participants had primary education, 04 participants completed secondary education and 01 participant had Bachelor degree. Among the 10 participants, 03 participants were housewife, 02 participants were farmer, 04 participants were service holder and 01 participant was study.

Among the 10 of the patients said that 04 patients said very good hospital care, 04 patients perception good and 02 patients also said poor and also10 patients stated that 08 patients said that they are satisfied about the patient's condition and therapy and 02 patients are not satisfied. Among of the 10 patients 07 patients said that treatment in the CRP expensive and rest 03 patients said that treatment in the CRP non-expensive. Training is most important for SCI patient because it change his/her life. Among the 10 patients 09 patients said that training is sufficient for SCI patient and 01 patient said not sufficient for SCI patient. Among the 10 patients 6 (60%) will be able to return the previous life and 4 (40%) patients will not be able to return the previous life. Among the 10 patients 5 (50%) can adjust with new life situation and 5 (50%) patients can't adjust with new life situation.

Among the all patients told that about hospital care. Among 10 of the patients gave their opinion that 04 patients said very nice hospital care, 04 patients perception good and 02 patients also said poor "The service of CRP is very good. There are friendly environment. Therapist, Doctor, Nurse and other staff care is good. They didn't find the such kind of hospital care in other hospital in Bangladesh. They are happy to take the treatment from CRP but among of the 02 patients stated that CRP hospital care is not sufficient good. There are some lacking such hospital bed and therapist."

10 patients conveied information that 08 patients opinion that they are satisfied about the patient's condition and therapy and 02 patients are not satisfied. One patient said that 'He is satisfied to take treatment from CRP. The behavior of both Physiotherapist and Occupational therapist is good, therapists are very communicative during treatment time". Above statement reflects that the therapist developed trust of the patients showing professional attitude which is very important to express their problem without any hesitation. Another one participant stated, "The behavior of the therapist is good. My patient's therapist is very cooperative and friendly. She gives lot of effort in order to make patient's condition improved." This statement reflects that careers are satisfied with the behavior of the therapist.

Among 10 participants, 7 participants reported that the "cost of treatment is not affordable". 3 participants stated that, "cost of treatment is not expensive". Different participants expressed their opinion in different ways. Among 10 participants one of them stated that, "Treatment cost is which is not affordable for me. Authority should reduce the treatment cost after a certain period of time". Another one stated that, "Treatment cost should not exceed more". Another participant said, "We have no problem to bear treatment cost because Samajkallayan supported me financially. Now my treatment cost is affordable". These statements reflect that treatment is not affordable for most of the patients. The last statement also reflect that, if any patients find it difficult to pay the treatment cost, CRP provides financial support through Samajkallayan which is the social welfare department of CRP to help the poor patients. The findings are supported by a study in which it is said that treatment is costly (Egglestone et al., 2009).

Training is most important for SCI patient because it change his/her life. Among the 10 patients 09 patients said that training is sufficient for SCI patient and 01 patient said not sufficient for SCI patient. One of the participants stated, "Training given to us I very importance, but it would

have more effective if CRP support them financially after training whether we are able to start a new business." Another patient said that ' After complete the training from CRP I will be able to star new job and is help to bear my family cost and support'. This state reflects that as training plays an important role to change the life and give support to the patient.

10 patients 6 (60%) will be able to return the previous life and 4 (40%) patients will not be able to return the previous life. One patient said that "He will be able to return his previous life and job. Treatment of CRP helps him to return his life" This state reflects that many patients to return to his life after complete the treatment from CRP. One patient said that "It is difficult to return his previous life because he will not get his previous job and he can't stand and walking. His family doesn't give proper support" This state reflects that return to all patients will not be able to return his previous life.

Among the 10 patients 5 (50%) can adjust with new life situation and 5 (50%) patients can't adjust with new life situation. One patient said that "it is difficult to adjust with new life. But she will try to adjust with new life. Her physical condition is not remaining same and people attitude change about her that why it's difficult to adjust with new life". This state reflects that people change their attitude about the SCI patient. Another patient said that "He will be able to adjust his new life if his family support him and also by Marcy Allah" This state reflects that to adjust new life patient family support.

## Limitations

The researcher was a 4th year B.Sc. in physiotherapy student and this was her first research project. She had limited experience with techniques and strategies in terms of the practical aspects of research. As it was the first research of the researcher so might be there were some mistakes that overlooked by the supervisor and the honorable teachers.

There was no available research done in this area in Bangladesh and worldwide. So, relevant information about with rebound therapy for Bangladesh was very limited in this study.

Complete accuracy is not being possible in any research so that some limitations may exist. Regarding this study, there were some limitations or barriers to consider the result of the study as below:

- The first limitation of this study was small sample size.
- The data was taken only in one year.
- As the study was conducted at Centre for the Rehabilitation of the paralyzed (CRP) which may not represent the whole country.

• The study was only the demography of the spinal cord injury patients, in further study would be carry out the other sectors of the Spinal cord injury.

#### **CHAPTER –VI**

#### 6.1 Conclusion

This study explored the perception of patient about hospital care, Rehabilitation and new life situation. Most of the patient is satisfy about hospital care because all therapist, doctor, nurses and staff is friendly, give sufficient time, communication very well, environment is very nice of hospital and comparatively treatment cost is low. The rehabilitation process of CRP is very systematic and right way. In CRP patients get various training when they take treatment from CRP. It is very importance for SCI patient because it change his life style helps to return previous life and also help to get new job. After complete the treatment SCI patient can adjust with new life situation. As they got some training from CRP they are more hopeful to lead a better life. Straight forward information, participation in the planning of the rehabilitation process after the SCI. Professionals working with SCI rehabilitation should make use of patients' experiences in order to develop better rehabilitation programmes that focus on the individual needs of the patient. People are individuals and failure to take this into account can impact negatively on quality of life and the effectiveness of the rehabilitation

### **6.2Recommendation**

The purpose of the study was to find out perception of patient about hospital care, Rehabilitation and new life situation. The main recommendations would be as follow:

The random sampling technique rather than the convenient would be chosen in further in order to enabling the power of generalization the results, the duration of the study was short, so in future wider time would be taken for conducting the study, investigator use only 10 participants as the sample of this study, in future the sample size would be more, the ratio of rural and urban participants were not equal, in case of further the equality of the rural and urban participant should be maintained for the accuracy of the result, in this study, the investigator took the people only recommended from CRP and in another hospital as a sample for the study. So for further study investigator strongly recommended to include the patients from all over the Bangladesh to ensure the generalizability of this study. Also to cheek Adjusting to Life after Spinal Cord Injury.

- A physical or occupational therapist can help with activities of daily living.
- A doctor or nurse who is an SCI-specialist can help with medical needs.
- A counselor, psychologist, or social worker can help with concerns about mood, anxiety, relationships, substance use and getting back into enjoyable and meaningful activities. They can help with couples and family issues, too.

• Spinal cord injured persons' conceptions of hospital care, rehabilitation, and a new life situation

## REFERENCES

Ackery, A., Stator, C., and Krassioukov, E., (2005). A global perspective on spinal cord injury Epidemiology. American Journal of Neurotrauma, 21(10):783-6.

Ali DKA, Tawfiq NB (2013). Assessment of spinal cord injured persons' quality of life. Kufa Journal for Nursing Science, 3(1): 231-243.

Angel S, Kirkevold M, Pedersen BD. Rehabilitation after spinal cord injury and the influence of the professional's support (or lack thereof). J Clin Nurs2011; 20: 1713–1722.

Angel S, Kirkevold M, Pedersen BD. Rehabilitation after spinal cord injury and the influence of the professional's support (or lack thereof). J Clin Nurs2011; 20: 1713–1722.

Arafat SMY (2016) Anti-ulcerants: The driving force of the pharma market of Bangladesh. Int J Perceptions Pub Health 1: 1-2.

Chen Y, Tang Y, Vogel LC, Devivo MJ (2013). Causes of spinal cord injury. Topics in Spinal Cord Injury Rehabilitation, 19(1): 1-8. http://dx.doi.org/10.1038/sc.2013.48. http://dx.doi.org/10.1038/sc.2013.6. PMid:23459123

Corrigan JM, Donaldson MS, Kohn LT, eds. Crossing the quality chasm: a new health system for the 21st century. Washington, DC: National Academy Press, 2013.

Darby C, Hays RD, Kletke P. Development and evaluation of the CAHPS hospital survey. Health Serv Res 2005;40:1973-1976

Fehlings M, Singh A, Tetreault L, Kalsi-Ryan S, Nouri A (2014) Global prevalence and incidence of traumatic spinal cord injury. Clin Epidemiol 6: 309–331.

Fyffe D, Deutsch A, Botticello A, Kirshblum S, Ottenbacher K (2014) Racial and ethnic disparities in functioning at discharge and follow-up among patients with motor complete spinal cord injury. Arch Phys Med Rehabil 95: 2140-2151.

Gifre L, Vidal J, Carrasco J, Portell E, Puig J, et al. (2014) Incidence of skeletal fractures after traumatic spinal cord injury: a 10-year follow-up study. Clin Rehabil 28: 361-369.

Grivna M, Eid H, Abu-Zidan F (2015) Epidemiology of spinal injuries in the United Arab Emirates. World J Emerg Surg 10: 20.

Gurcay E, Bal A, Eksioglu E, Cakci A (2010). Quality of life in patients with spinal cord injury. International Journal of Rehabilitation Research, 33(4): 356-8. <u>http://dx.doi.org/10.1097/MRR.0b013e328338b034. PMid:20354443</u>

Hoque MF, Hasan Z, Razzak ATMA, Helal SU (2012). Cervical spinal cord injury due to fall while carrying heavy load on head: a problem in Bangladesh. Spinal Cord, 50(4): 275–77. http://dx.doi.org/10.1038/sc.2011.153. PMid:22143680

Hossain S and Khundkar S (2013) Bacteriological status of pressure sore-A study of 50 cases. Bangladesh Journal of Plastic Surgery 18: 3.

Islam MS, Hafez MA, Akter M (2011) Characterization of spinal cord lesion in patients attending a specialized rehabilitation center in Bangladesh. Spinal Cord 49: 783-786.

Kawanishi CY, Greguol M (2013). Physical activity, quality of life, and functional autonomy of adults with spinal cord injuries. Adapted Physical Activity Quarterly, 30(4): 317–37. http://dx.doi.org/10.1123/apaq.30.4.317. PMid:24197622

Ning G, Wu Q, Li Y, Feng S (2012) Epidemiology of traumatic spinal cord injury in Asia: A systematic review. J Spinal Cord Med 35: 229-239.

Quadir M, Sen K, Sultana M, Ahmed M, Taoheed F, et al. (2017) Demography, diagnosis and complications of spinal cord injury patients in a rehabilitation center of Bangladesh. Int J Neurorehabilitation 4: 244

Rahman ZM (2012) Demographic profile of spinal cord injury: A retrospective study. Spinal Cord 50: 745-754.

Rathore FA (2010) Spinal cord injuries in the developing world. In: JH Stone, M Blouin (eds) International Encyclopedia of Rehabilitation.

Sridharan N, Uvaraj N, Dhanagopal M, Gopinath N, Anuswedha A (2015) Epidemiologic evidence of spinal cord injury in Tamil Nadu, India. Int J Res in Medical Sciences.

Ullrich PM, Jensen MP, Loeser JD, Cardenas DD (2008) Pain intensity, pain interference and characteristics of spinal cord injury. Spinal Cord 46: 451-455.

Zahangir CA, Barua S, Uddin MG, Khatun UHR, Biswas RSR (2015) Functional outcome in Paraplegic patients from spinal cord injury. Chattagram MaaOShishu Hospital Medical College Journal 14: 52.



বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই) Bangladesh Health Professions Institute (BHPI)

(The Academic Institute of CRP)

Date: 1.7 1011 2018

*Ref.* CRP-BHPI/IRB/11/18/1276

To Jannatul Fardush B.Sc. in physiotherapy Session: 2013-2014, Student ID:112130213 BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal "Conception of spinal cord injured persons with hospital care, rehabilitation and new life situation" by ethics committee.

Dear Jannatul Fardush,

Congratulations.

The Institutional Review Board (IRB) of BHPI has reviewed the above mentioned dissertation, with yourself, as the Principal investigator. The Following documents have been reviewed and approved:

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

The purpose of the study is to determine conception of spinal cord injured persons with hospital care, rehabilitation and new life situation. The study involves use of a questionnaire to find out the patients conception about hospital care and rehabilitation care and new life situation that may take to 20 to 25 minutes to answer the questionnaire and there is no likelihood of any harm to the participants. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 09:00 AM on  $24^{th}$  January, 2018 at BHPI.

The institutional Ethics committee expects to be informed about the progress of the study, any changes occurring in the course of the study, any revision in the protocol and patient information or informed consent and ask to be provided a copy of the final report. This Ethics committee is working accordance to Nuremberg Code 1947, World Medical Association Declaration of Helsinki, 1964 - 2013 and other applicable regulation.

Best regards,

Hellathassain

Muhammad Millat Hossain Assistant Professor, Dept. of Rehabilitation Science Member Secretary, Institutional Review Board (IRB) BHPI, CRP, Savar, Dhaka-1343, Bangladesh

সিআরপি-চাপাইন, সাভার, ঢাকা-১৩৪৩, বাংলাদেশ, ফোন ঃ ৭৭৪৫৪৬৪-৫, ৭৭৪১৪০৪ ফ্যাক্স ঃ ৭৭৪৫০৬৯

CRP-Chapain, Savar, Dhaka-1343, Tel: 7745464-5, 7741404, Fax: 7745069, E-mail: contact@crp-bangladesh.org, www.crp-bangladesh.org

June 4, 2018 Head of the Department Department of Physiotherapy CRP, Chapain, Savar, Dhaka-1343.

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

Dear Sir,

With due respect and humble submission to state that I am Jannatul Fardush, student of 4<sup>th</sup> Professional B.Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI). The ethical committee has approved my research project entitled on "CONCEPTION OF SPINAL CORD INJURED PERSON'S WITH HOSPITAL CARE, REHABILITATION AND NEW LIFE SITUATION". To conduct this research project, I want to collect data from the Spinal Cord Injury Unit with spinal cord injury patients. So, I need permission for data collection. I would like to assure that anything of my study will not be harmful for the participants.

I therefore, pray and hope that you would be kind enough to grant my application and oblige thereby.

Allow to have bur later with Sincerely yours Jasmatul fordesh Jannatul Fardush Student of 4<sup>th</sup> Professional B.Sc. in Physiotherapy . A. & Lessmmand Roll-18, Session: 2013-2014 RUTTURE

39

## Appendix -B

### Verbal Consent Statement

Assalamualaikum/Namasker,

My name is Jannatul Fardush, I am conducting this study as a part of my academic work of B. Sc. in Physiotherapy under Bangladesh Health Professions Institute (BHPI), which is affiliated to University of Dhaka. My study title is 'Spinal cord injured person's conception of hospital care, Rehabilitation and new life situation'.

I would like to know about some personal and other related information regarding Spinal cord injury. You will need to answer some questions which are mentioned in this form. It will take approximately 20-25 minutes. I would like to inform you that this is a purely academic study and will not be used for any other purpose. All information provided by you will keep in a locker as confidential and in the event of any report or publication it will be ensured that the source of information remains anonymous and also all information will be destroyed after completion of the study.

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 or your right as a participant, you may contact with me and/or Farjana Sharmin, Outdoor In charge, Physiotherapy Department, Savar, Dhaka.

Do you have any questions before I start? Yes / No

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

Yes			
No			
Signature of the Participant			

Signature of the Interviewer \_\_\_\_\_

# সম্মতিপত্র

# (অংশগ্রহনকারীকে পড়ে শোনাতে হবে)

## আসসালামু আলাইকুম/নমন্ধার,

আমার নাম, জান্নাতুল ফেরদাউস , আমি এই গবেষণা প্রকল্পটি বাংলাদেশ হেল্থ প্রফেশনস ইসটিটিউট (বিএইচপিআই)- এ পরিচালনা করছি যা আমার ৪র্থ বর্ষ বিএসসি ইন ফিজিওথেরাপি কোর্সের অধিভুক্ত। আমার গবেষণার শিরোনাম হলো "মেরুদন্ডে আঘাতপ্রাপ্ত রোগীদের হাসপাতালের সেবা ,পুনর্বাসন এবং নতুন জীবন সম্পর্কে কি ধারণা"। আমি এক্ষেত্রে আপনাকে কিছু ব্যাক্তিগত এবং আনুষাঙ্গিক প্রশ্ন করতে চাচ্ছি। এতে আনুমানিক ২০-৩০ মিনিট সময় নিবো। আমি আপনাকে অনুগত করছি যে , এটা আমার অধ্যয়নের অংশ এবং যা অন্য কোন উদ্দেশ্যে ব্যাবহার হবেনা । গবেষক সরাসরি এই অধ্যয়নের সাথে অন্তর্ভুক্ত নয়। তাই এই গবেষণায় আপনার অংশগ্রহন বর্তমান বা ভবিষ্যত চিকিৎসায় কোন প্রভাব ফেলবে না । আপনি যে সব তথ্য আদানপ্রদান করবেন তার গোপনীয়তা বজায় থাকবে এবং আপনার প্রতিবেদনের ঘটনা প্রবাহে এটা উল্লেখ করা হবে এই তথ্যেও উৎস অপ্রকাশিত থাকবে। এই অধ্যয়নে আপনার অংশগ্রহন স্বচ্ছা-প্রণোদীত এবং আপনি যে কোন সময় কোন নেতিবাচক ফলাফল ছাড়াই নিজেকে প্রত্যাহার করতে পারবেন। এছাড়াও কোন নির্দিষ্ট প্রশ্ন অপছন্দ হলে উত্তর না দেয়ার এবং সাক্ষাতকারের সময় কোন উত্তর না দেয়ার অধিকার আপনার আছে । এই অধ্যয়নে আপনার অংশগ্রহনকারী হিসেবে যদি আপনার কোন প্রশ্ন থাকে তহলে আপনি আমাকে/ এবং ফারজানা শারমিন , সিনিয়ার ক্লিনিচ্যাল ফিজিওথেরাপিষ্ট, ফিজিওথেরাপি বিভাগ, সিআরপি, সাভার, ঢাকা-১৩৪৩-তে যোগাযোগ করতে পারেনে । সাক্ষাতকার শুরু করার পূর্বে আপনার কি কোন প্রশ্ন আছে ? আমি আপনার অনুমতি নিয়ে এ সাক্ষাতকার শুরু করতে চাচ্ছি।

১.হ্যা 🖂

২.না 🗔

১.অংশগ্রহনকারীর স্বাক্ষর-২.কেয়ারের স্বাক্ষর-৩.প্রশ্নকারীর স্বাক্ষর-

Title: Conception of Spinal cord injured person's with hospital care, rehabilitation and new life situation.

## Questionnaire

Interview Sch	Interview Schedule				
Part A: Patient's identification					
(to be provide	(to be provide by patient or attendant)				
Identification r	number :			Date:	
Address:					
Contact numbe	er:				
Part B: Patient	t's socio-demograph	ic inf	formation		
(To be collecte	d from patient/ care	prov	ider)		
QN	Questions and filt	ers	Responses		
2.1	Age (In year)			years	
2.2	Sex		A. Male		B. Female
2.3	Marital status				
2.4	Religion				
2.5	Educational status	8			
2.6	Occupation				

2.7	Average monthly	Taka
	family income	
2.8	Earning member	
2.9	Residential Area	
3.0	Family type	

Part C: This part is designed to explore Spinal cord injured person's conception about hospital care, rehabilitation and new life situation.

Q.1.1: How much clean the environment in CRP?

Ans:

Q.1.2: How much respect and courtesy of physiotherapist during stay CRP?

Ans:

Q1.3: How much time gives physiotherapist to hear your problem and treated you?

Ans:

Q1.4: How much cost to spend to complete your treatment in CRP?

Ans:

Q.2.1: Do you get balance training? Is it important to improve your balance?

a. Yes b. No, If yes, Please explain.....

Q.2.2: Do you get wheel chair training? Is it important for your life?

a. Yes b. No, If yes, Please explain.....

Q.2.3: Do you get gait training? Is it improve your gait?

a. Yes b. No, If yes, Please explain.....

Q.2.4: Do you get activity of daily life (ADL) training? Does it change your life style?

a. Yes b. No, If yes, Please explain.....

Q.3.1: Do you think, you can return your previous life?

Why?

Q.3.2: Do you think, you can return your previous job?

Why?

Q.3.4: Do you think, you can adjust your home environment after complete our treatment?

Why?

Q.3.5: Do you get any vocational training (VIT)? Does it help you to adjust your new life situation?

a. Yes b. No, If yes, Please explain.....