University of Dhaka

INFLUENCE OF SELF EFFICACY AND SELF ESTEEM OF SPINAL CORD INJURY PATIENTS AT CRP- AN ICF BASED STUDY

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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

INFLUENCE OF SELF EFFICACY AND SELF ESTEEM OF SPINAL CORD INJURY PATIENTS AT CRP- AN ICF BASED STUDY

Submitted by **Mahbuba Mehrin** for the partial fulfilment of the requirement for the degree of Bachelor of Science in Physiotherapy (B.Sc. PT).

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I declare that the work presented here is my own. All sources used have been cited appropriately. Any mistakes or inaccuracies are my own. I also declare that same any publication, presentation or dissemination of information of the study. I would bind to take consent from the department of Physiotherapy of Bangladesh Health Profession Institute (BHPI).

Signature: **Date:**

CONTENT

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Acronyms

ASIA – American Spinal Injury Association

BHPI – Bangladesh Health Professions Institute

BMRC – Bangladesh Medical Research Council of Life

CRP – Centre for the Rehabilitation of the Paralysed

FIM - Functional Independence Measure

ICF – International Classification of Functioning, Disability and Health

LTPA – Leisure -Time Physical Activity

MSES - Moorong Self-Efficacy Scale

PTSD - Post Traumatic Stress Disorder

QOL – Quality Model

RoSES- Rosenberg Self-Esteem Scale

RTA – Road Traffic Accident

SCI – Spinal Cord Injury

SCIAM – Spinal Cord Injury Adjustment

SHCs – Secondary Health Conditions

SPSS – Statistical Package for Social Science

TSCI – Traumatic Spinal Cord Injury

UTI – Urinary Tract Infection

WHO – World Health Organization

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Abstract

*Purpose***:** The purpose of this study was to evaluate the level of influence of self-efficacy and self-esteem of spinal cord injury patient at CRP. *Objectives:* The objectives of this study were to determine the influence of self-efficacy and self-esteem of spinal cord injury patients in rehabilitation period, measure this relationship by a comprehensive bio-psycho-social perspective and evaluate the Moorong Self-Efficacy Scale and Rosenberg Self-esteem Scale. *Methods:* The cross-sectional study was chosen to carry out this study among 60 participants who were selected according to inclusion criteria. The "Moorong Self-Efficacy Scale" (MSES) and "Rosenberg Self-Esteem Scale" which are standard structured questionnaires along with socio-demographic and disease-related questions were used to find the level of self-efficacy and self-esteem of people with spinal cord injury during rehabilitation among 60 participants. The study was conducted by using quantitative descriptive analysis. *Results:* The study consisted of 60 SCI participants whom 73.3% (n = 44) were male and 26.7% (n = 16) were female. Complete tetraplegia 16.75% (n = 10), Incomplete tetraplegia 36.7% (n = 22), Complete paraplegia 40% (n = 24) and Incomplete paraplegia 6.7% (n = 4). The study showed an association between MSES or RoSES items and socio-demographic variables such as; age, gender, educational qualification, occupation, skeletal level of injury, neurological level of injury, causes of lesion, types of paralysis with a 5% ($p<0.05$) level of significance. *Conclusions:* Spinal cord injury (SCI) on individuals, emphasizing the emotional and physical challenges. Psychological and mental health issues are common consequences of SCI, which can have a detrimental impact on patient's overall quality of life. Enhancing self-efficacy and self-esteem is a target in SCI rehabilitation, which can be achieved through physical exercise and improving self-management skills.

Key words: Self-Efficacy, Self-Esteem, Spinal Cord Injury, ICF model, MSES, RoSES, Rehabilitation.

CHPATER-I	**INTRODUCTION**

1.1 Background

Spinal cord injury (SCI) is a health condition, which has not only severe physical, but may also have psychological and social consequences. The consequences depend on the level and completeness of the lesion, on facilitators and barriers in the surrounding environment as well as characteristics of the person. Functioning of the affected individuals, even with the same lesion level, may therefore vary considerably (Geyh et al., 2012).

Spinal cord injury (SCI) affects both physical and psychological functioning and challenges all areas of a person's life. Physical aspects include limitations in strength, function and mobility, loss of sensation, spasm, pain, and changes in bladder, bowel and sexual functioning. These effects are associated with increased dependence on caregivers, reduced social and work participation and diminished quality of life. Psychological consequences can include elevated depressive mood, anxiety and fatigue, which also may have a negative influence on quality of life (Van Diemen et al., 2020).

In recent years, there has been increased clinical and research interest in the contribution of self-efficacy (SE) in people with SCI. Self-efficacy is defined as the belief that one can successfully execute behavior required to produce the desired outcomes (Schwarzer, 2008).

The SCI Adjustment Model or SCIAM, incorporating aspects of social learning, stress and coping, and health belief theories, views SE not just as an indicator or predictor of the potential to adjust, but also as a key component in the person's appraisal/reappraisal process, labelled the "engine room" of the capacity to change, and thereby as a crucial element for adjustment and coping. In research, SE has been shown to be a key determinant of adjustment after SCI, as well as in other chronic health conditions (Benyon et al., 2010).

Self-efficacy is therefore a valuable clinical predictor of adjustment of people with SCI, with strong correlations with depressed mood, anxiety, participation and quality of life. Arguably, self-efficacy could be a promising target for interventions during the SCI rehabilitation process (Bisson and Newsam, 2017).

A conceptual framework that corresponds to the complexity and many-faceted nature of SCI is provided by the World Health Organization's International Classification of Functioning, Disability and Health (ICF) (Üstün et al., 2003).

The ICF is based on an integrative bio-psycho social model and serves as a reference for the description and understanding of functioning. Functioning is an umbrella term referring to body functions and structures, activities and participation. These components interact with the health condition (for example, disease or trauma), as well as with environmental and personal factors (PFs) (Figure 1). The ICF component 'personal factors' includes psychological resources, which might serve to buffer negative consequences of and to enhance adjustment to SCI. Among them, self-esteem and self-efficacy are prominent factors. Self-efficacy relates to 'beliefs in one's capabilities to organize and execute courses of action required to produce given attainments' (Geyh et al., 2011).

In other words, it is the belief 'He can do it'. Self-esteem is a general evaluation of the self-concept and the 'sense of personal worth or worthiness'.5 Put in simplified terms, it is the belief that 'He is all right the way he is. According to the findings of previous research in SCI, self-esteem and self-efficacy, seem to be associated with different components of the ICF framework. Regarding health conditions, persons with high self-efficacy or self-esteem show better mental health6 and less secondary physical conditions (Suzuki et al., 2007).

At the body level, high self-esteem and self-efficacy were associated with less impairment8 and might be compromised by pain. Concerning environmental factors, self-efficacy and self-esteem seem to be associated with social support in SCI, although some findings were contradictory (Müller et al., 2012). Although persons with high self-efficacy and self-esteem consistently report higher life satisfaction and well-being, the

relation of self-efficacy and self-esteem to participation as a key outcome of rehabilitation has seldom been examined in SCI (Peter et al., 2012).

1.2 Rationale

Spinal cord injury (SCI) is often a serious and life-changing disease with approximately 200,000 to 500,000 individuals newly diagnosed annually worldwide. In China, the annual incidence of SCI is 23.7 to 60.6 persons per million. SCI is a disastrous event for patients and their families owing to the associated lifelong disabilities and types of Spinal complications, which lead to deterioration of functioning independence, higher depression, higher readmission, poorer self-efficacy, and more problems compared with those observed in individuals without SCI. It can decrease one's quality of life (QOL) and have high care and treatment burdens. Self-efficacy is an important determinant of adjustment following spinal cord injury. Self-efficacy is defined as the belief that one can successfully execute behavior required to produce the desired outcomes. In its original conceptualization, self-efficacy refers to the confidence that people have in their ability to accomplish specific tasks and behaviors within a specific context. The concept of self-esteem is characterized by emotional, evaluative, and cognitive perceptions of the self. Self-esteem is one of the most popular psychological concepts and has been extensively studied, embedding itself in social and popular consciousness. Self-esteem also has been to shown to act as a buffer for emotional reactions to negative life events, mitigating their impact on emotional distress. In Bangladesh, especially the spinal cord injury patient is suffering from anxiety, depression and lead a low quality of life. They have low self-esteem and self-efficacy which is play and important role to improve quality of life. So, the aim of my study to evaluate or measure the influence of self-efficacy and self-esteem of spinal cord injury patient should be very helpful.

1.3 Research Question

How self-efficacy and self-esteem influencing the spinal cord injury patients during rehabilitation period?

1.4 Aims of the Study

The aim of the study is to find out the influence of self-efficacy and self-esteem of spinal cord injury patient during their rehabilitation period.

1.5 Objectives of the study
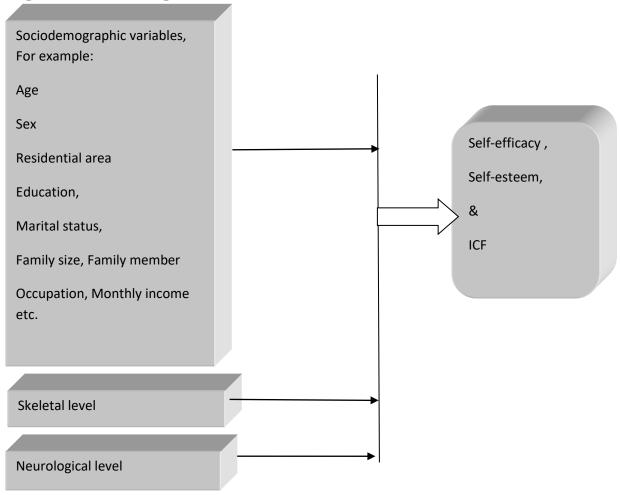
1.5.1 General Objective

-To determine the influence of self-efficacy and self-esteem of spinal cord injury patient in rehabilitation period.

1.5.2 Specific Objectives

-To gather socio demographic information among spinal cord injury patients.

-To examine the relationship of self-efficacy and self-esteem with participation of person with spinal cord injury.

-To measure this relationship by a comprehensive bio-psycho-social perspective.

-To explore the relationship of self-efficacy and self-esteem on the basis of conceptual framework of the International Classification of Functioning, Disability and Health (ICF).

-To evaluate the Moorong self-efficacy scale and Rosenberg self-esteem scale.

1.6 Conceptual Framework

Independent variable Dependent variable

Sociodemographic variables, For example:

Age

Sex

Residential area

Education,

Marital status,

Family size, Family member

Occupation, Monthly income etc.

Skeletal level

Neurological level

Self-efficacy ,

Self-esteem,

&

ICF

1.7 Operational Definition

ICF The International Classification of Functioning, Disability and Health, is known more commonly as ICF, is classification of health and health related domains. As the functioning and disability of an individual occurs in a context, ICF also includes a list of environmental factors. ICF is the WHO framework for measuring health and disability at both individual and population level. (According to WHO)

Spinal Cord Injury

Spinal cord injury is an insult to the spinal cord resulting in a change, either temporary or permanent, in the cords normal motor, sensory, or autonomic function (Devesa, 2017). Patients with SCI usually have permanent and often devastating neurologic deficits and disability. The most important aspect of clinical care for the SCI patient is careful about their psychological condition.

Self-Efficacy

Self-efficacy is a person's belief in his or her capability to successfully perform a particular task. Together with the goals that people set, self-efficacy is one on the most powerful motivational predictors of how well a person will perform at almost any endeavor. A person's self-efficacy is a strong determinant of their effort, persistence, strategizing, as well as their subsequent training and job perform.

Self-esteem

Self-esteem is an inner attitude at the base of the construction of personality and psychic balance in addition to be responsible of adaptive processes over the course of life. The concept of self-esteem is commonly used in several disciplines however, it seems that the consensus on its conceptualization and its operationalization is not yet reached.

Paraplegia

Paraplegia refers to impairment or loss of motor and/or sensory function in the thoracic, lumbar and sacral (but not cervical) segments of the spinal cord, secondary to damage of neural elements within the spinal canal (Zebracki, Melicosta, Unser and Vogel, 2020).

Through paraplegia, arm functioning is spared but the trunk, legs and pelvic organs may be involved depending on the level of injury. The term is used in referring to cauda equine and consumedullaries injuries, but not to lumbosacral plexus lesions or injury to peripheral nerves outsides the neural canal.

Tetraplegia (preferred to "quadriplegia")

It refers to impairment or loss motor and/or sensory function in This term It the cervical segments of the spinal cord due to damage of neural elements within the spinal canal. Tetraplegia results in impairment of function or paralysis of the arms, usually in the trunk, legs and pelvic organs, with including the four extremities. It does not include brachial plexus lesions or injury to peripheral nerves outside the neural canal and (Kirshblum, Schmidt Read Rupp, 2021).

Complete lesion

Complete lesion means complete damage of spinal cord that result in absence of sensory and motor functions of the lowest sacral segments.

Incomplete lesion

An incomplete lesion is the term used to describe partial damage to the spinal cord. With an incomplete lesion, some sensory and/or motor function remain at the lowest sacral segments.

Skeletal level

The level of vertebra which is mostly injured.

Neurological level

The most caudal level, where both sensory and motor function are intact

Spinal cord injury (SCI) is the injury of the spinal cord from the foramen magnum to the cauda equina which occurs as a consequence of compulsion, incision, or contusion. The functions performed by the spinal cord are disrupted at the distal level of the injury. SCI causes grievous disability among patients. Every year, about 40 million people globally suffer from SCI. Most of them are young men, typically aged from 20 to 35, although 1% of this population are children. (Ko, 2022)

SCI is permanent neurological damage resulting in varying levels of paralysis, sensory impairment, and sphincter disturbance which are irreversible in some cases (RahimiMovaghar et al., 2013). The spinal cord is located within the spinal column; Spinal cord is 42-45 cm long & it continues down from the brain to the L1-L2 vertebral level, ending in the conus medullaris, extending from the end of the spinal cord in the spinal canal, is the cauda equina (or "horse"s tail"). The spinal cord itself has neurological segmental levels that correspond to the nerve roots that exit the spinal column between each of the vertebrae; There are 31 pairs of spinal nerve roots. Among them 8 cervical, 12 thoracic, 5 lumbar, 5 sacral, and 1 coccygeal; Due to the difference in length between the spinal column and the spinal cord, the neurological levels do not necessarily correspond to the vertebral segments (Motiei-Langroudi & Sadeghian, 2017).

The incidence of Traumatic Spinal Cord Injury (TSCI) a recent review reported the worldwide varied between 4-10 and 83 per million per year. About 15–17 cases per million per year over the past decade the age-adjusted incidence rate of TSCI in adults aged 15 years has remained at and older surviving to reach hospital. In currently 11.9 cases per million adults per year is the incidence in Victoria in Australia (Jazayeri et al., 2023).

SCI can be traumatic or non-traumatic; traumatic SCI can be resulting from – falls, RTA, sports injuries, occupational injuries, violence. On the other hand, non-traumatic SCI usually includes pathological causes which can be – infectious disease, tumor,

musculoskeletal disease (i.e., osteoarthritis), congenital problems (i.e., spina bifida) (Alizadeh et al., 2019).

The acute phase ranges from 10 to 25/million inhabitants per year which data is recently published in Europe on the incidence of SCI in survivors. Showing consistent rates between 22 and 25/100 000 inhabitants, in the Nordic countries, two register-based studies have been published (Dahlberg et al., 2015). The retrospective study of Japan showed that the annual incidence of spinal column injuries ranges from 19-88/100,000. 15-50 per million per year is the incidence of spinal cord injury. 480-813 per million is the prevalence of Spinal Cord Injury. In Pakistan exact incidence of these injuries in this region is not known though there are few reports on demographics of spinal injuries (Wyndaele & Wyndaele, 2006).

Symptoms shown in individuals with SCI depend on the degree of injury or nontraumatic cause. Symptoms may include – loss of sensory or motor control of the upper limbs, trunk, lower limbs. Loss of autonomic regulations can affect breathing, heart rate, blood pressure, temperature control, bowel and bladder control, and sexual function. Cervical SCI usually causes sensory and motor paralysis in the arms, bod y, and legs 11 which are termed tetraplegia. Thoracic SCI causes sensory and/or motor loss in the trunk and legs and lumbar SCI commonly causes sensory and motor loss in the hips and legs both conditions are known as paraplegia. According to the International Standards for Neurological Classification of SCI with the American Spinal Injury Association (ASIA) Impairment Scale (AIS), SCI is believed complete if there is no sensory and motor function at S4-S5; Although some sensory and or motor function is conserved below the level of injury in incomplete SCI including the lowest sacral segments S4-S5, still may result in severe disabilities (Hagen, 2015).

In spinal cord injury risk of morbidity and mortality is high. In the first year after injury mortality risk is highest and stays high equated to the general population. People with spinal cord injury are likely to die prematurely 2 to 5 times more than general people. This grievous condition has several epidemiological studies that have been implemented in different parts of the world. The incidence of SCI varies from 9.2 to 56.1 per million worldwide (Mathur et al., 2015). Among worldwide incidence of spinal cord injury, the

number of males is predominant than females, children also included (Nas et al., 2015). According to WHO estimates, males are most at risk in young adulthood between 20-29 years and older age greater than 70 years. On the other hand, females are most at risk in adolescence between 15-19 years and older age greater than 60 years. Studies report male-to-female ratios of at least 2:1 among adults, sometimes much higher (DiMarco & Dawson, 2014).

SCI prevalence rate is raising because of better survival rates, worldwide prevalence estimation is a range between 223 and 75 per million people. The life expectancy of SCI people has been shown to increase in the national database of 30822 SCI people in the USA. With the mortality rate reduced, world age-standardized incidence ranges between 10.4 and 83 per million persons per year; men still being under the risk radar aged 15-24 years at approximately 40 per million. The majority of people commonly sustain SCI due to motor vehicle accidents, fall-related injuries, sports injuries, and gunshot wounds. In Bangladesh, falls while carrying heavy loads on the neck or back are a common cause (Øderud, 2014).

In the first systematic review of TSCI in Asia, the range of incidence was counted between 12.06 and 61.6 per million. In a comparison of incidence between Asia and North America, the estimate suggested that the incidence of TSCI in Asia was lower than that of in North America. The article reported that developing countries like in Asia had lower incidence rates compared to the developed ones like in North America. The average age in Asia ranged between 26.8-56.6 years (Ning et al., 2012).

The incidence of SCI increased gradually with the expansion of human activities. The incidence varies in a range between 13.019 to 163.420 per million people. In developed countries, the incidence ranges between 13.121 to 163.420 per million people, and in non-developed countries rates varied from 13.019 to 220.022 per million. Among developed countries, prevalence ranges from 49024 to 52625 per million. Prevalence is about 440.026 per million in non-developed countries (Elshahidi, 2018).

In Bangladesh, the ratio between males and females is 4.5:1 among the people with SCI. According to recent studies the number of females with SCI is on the rise (A. Razzak et

al., 2017). In Bangladesh's perspective, 60% is paraplegic TSCI, 40% tetraplegic TSCI; besides these among non-traumatic SCI cases 84% paraplegic and 16% tetraplegic. A study in Bangladesh uncovered that falling from height (either from trees, construction works, electric poles, or roofs) was detected to be the most common cause (40.30%), and falling while carrying a heavy load overhead was the second most common cause (16%). Among the non-traumatic cases of SCI spinal TB was found to be the most common (7%). Other causes were RTA, fall of an object on the back, GBS, and transverse myelitis (Øderud, 2014).

Shnek et al. (1997) defined self-efficacy as the belief of an individual that he/she will be able to perform specific behaviors in particular situations that may contain novel, unpredictable, and stressful elements. Self-efficacy is a concept that can generally be outlined as a person's belief or sense of confidence in his/her ability to perform a particular task or behavior successfully in the future. (Shulman et al., 2019)

Self-efficacy is the belief that one can successfully execute the behavior required to produce the desired outcomes. Therefore, self-efficacy is an important clinical predictor 13 of adjustment of people with SCI, with strong correlations with depressed mood, anxiety, participation, and quality of life. Arguably, self-efficacy could be a promising target for interventions during the SCI rehabilitation process (van Diemen et al., 2020).

Self-efficacy has been evidenced to be a strong predictor of health behaviors, and it can be a significant regulator of the experience of chronic illness. Studies have established that particular self-efficacy is nearly related to significant outcome measures such as subjective well-being, functional recovery, and psychological well-being after spinal cord injury (SCI). (Farley, 2019)

Self-efficacy was greatly linked with depression for the SCI. Employment status and disability were also importantly related to self-efficacy. Increased self-efficacy was consociated with greater psychological adaptation (Sardá et al., 2009).

For individuals with SCI, common challenges are often based on limitations in mobility, alters in appearance, reduced sensation, alterations in bowel and bladder function, continuing pain, and ongoing medical complications. These challenges may affect an

individual's confidence in his/her ability to achieve desired goals such as having purposeful relationships, a good sense of well-being, or the ability to manage health issues (Emerich et al., 2012).

Health promotion and self-care of SCI people are of great importance in avoiding Secondary Health Conditions (SHCs). It has also been proposed that, in chronic disease, a person's self-efficacy is required to execute self-care. Unitedly this directs to the assumption that better self-efficacy will lead to better self-care which in turn may prevent SHCs. This systematic review study discussed that there is an association between self-efficacy and SHCs. The study found that both somatic and psychological SHCs are negatively correlated with self-efficacy. These emphasize the magnitude of research into the prevention of this and the potential part of enhancing the self-efficacy of persons with SCI. Therefore, self-efficacy appears a significant target in the rehabilitation of patients living with SCI to prevent SHCs (Jeyathevan et al., 2021).

A multicenter randomized controlled trial study was done in Korea to evaluate the effects of self-efficacy enhancement program on self-care behaviors, self-care knowledge, and 14 self-efficacy concerning pressure ulcer prevention in patients with a spinal cord injury resulted in a significantly greater in the experimental group. The group was given an 8-week self-efficacy enhancement program. The study concluded that the self-efficacy enhancement program empowered patients with a spinal cord injury to engage in continued self-care behaviors and served them to improve their knowledge and self-efficacy regarding pressure ulcer prevention (Kim & Cho, 2016).

There has been found an association between self-efficacy or perceived control with definite aspects of participation, such as physical activity, mobility, work, school, recreation, or social integration. The study concluded that interventions focusing on targets like self-efficacy and self-esteem may enhance participation, sense of coherence, social support to enhance the quality of life (Mihalko et al., 2018).

The limitations that an SCI enforces may dramatically affect each individual's belief in his or her ability to execute daily tasks and attain larger life goals. The measurement of self-efficacy within rehabilitation may help discover areas in which individuals with SCI

may have limited self-efficacy, so that these areas may be covered in counseling and the development of rehabilitation goals. As persons with SCI go through a loss of physical functioning that may greatly affect their sense of self-efficacy, the psychometrically sound measurement of self-efficacy is important in rehabilitation settings. Subjective well-being and social support were found to be significantly correlated with self-efficacy in persons with SCI (Van Diemen et al., 2020).

A study conducted with over 100 persons with SCI living in the community and found that low self-efficacy and high pain intensity were associated with reduced QOL above and beyond the consequence of any physical impairment. Findings suggestive of the negative impact on QOL may well be cumulative. The combination of the two negative factors „low self-efficacy" and „pain intensity" was linked with an even greater reduction in QOL (Middleton et al., 2007).

Another study reported a small positive correlation between the FIM motor score and the score on the Moorong Self-Efficacy Scale. This suggests that people with better physical function report higher self-efficacy. Some past studies suggested that people with higher 15 education report higher self-efficacy. The study also found a positive and strong relationship between social functioning and self-efficacy. More confident people are more able to manage their symptoms this results in happier with their social roles and functions (Brooks et al., 2014).

Several mediating factors (e.g., hopelessness/helplessness and low self-efficacy) were considered that are felt to enhance the vulnerability of people with SCI to develop psychological morbidity. For instance, in a considerable number of SCI people, increased levels of hopelessness/helplessness and low self-efficacy have been accounted, and this has been found to alter their risks of developing depression and PTSD (Berardelli et al., 2019).

Given the number of depressions among people with SCI, it would be important to distinguish potentially modifiable causative psychological factors. Three of the given factors may be acquired helplessness, self-efficacy, and cognitive distortions (Kraft & Dorstyn, 2015).

Strengthening resources such as self-efficacy is important can help to achieve betterments in health behavior, which could in turn assist to avoid secondary complications in SCI, such as pressure sores or urinary tract infections. Improvements in self-efficacy of persons with SCI have been attained with an active or independent living program, physical activity, or sports programs (Kim & Cho, 2016).

Measurement of self-efficacy of SCI persons is important within rehabilitation settings and research. Individuals determined of having low self-efficacy anticipations may benefit from counseling directed at increasing confidence in their abilities (Middleton et al., 2007).

3.1 Study Design

A cross-sectional study was selected by the researcher to execute the research. Cross-sectional studies were carried out at a one-time point or over a short period. In this study, a cross-sectional study design is accustomed to determining the level of self-efficacy of people also with self-esteem with spinal cord injury at the time of rehabilitation in CRP. This study design was suitable to discover the objectives. The data was collected all at the same time or within a short time frame. A cross-sectional design provides a snapshot of the variables included in the study, at one particular point in time.

3.2 Study Site

Data was gathered from patients with spinal cord injury attending at SCI unit in Centre for the Rehabilitation of the Paralyzed (CRP), Savar, Dhaka; the only specialized & largest rehabilitation center in Bangladesh

3.3 Study Population and Sample Population

In this study, the people who had SCI and people who admitted at CRP were selected to carry out the study. About 60 samples were selected for this study

3.4 Sample Technique

Samples were selected through the convenience sampling method for carrying on this study. A convenience sample is a group of people who (conveniently) were available for study.

3.5 Sample size

The equations of finite population correction in case of cross-sectional study

$$n=\frac{Z^2 pq}{d^2}$$

$$= (1.96)^2 \times 0.15x\ 0.85/\ (0.05)^2$$

$$=195$$

Here, Z (confidence interval) = 1.96

P (prevalence) = .15 (Singh, Prakash, Bhatti and Mahen, 2019)

And, q= (1-p)

= (1-0.15)

= 0.85

The actual sample size was, n= 195.

Researcher was chosen to take 60 sample of population.

3.6 Inclusion Criteria

•Persons with spinal cord injury in community. It is an important criterion to conduct the study with appropriate identification of population.

• The Patients attending at the halfway hostel.

• Both male and female patients (Nasiri et el.,2020). It will help to identify ration of male and female to the study. It will also indicate who more vulnerable for the risk factor are.

• Patients who were willing to participate. Unwilling and unconscious patient will make a negative impact to the study.

• The patients who will volunteer with interest This will help to conduct the study in a smooth way (Equebal, Anwer and Kumar, 2013).

3.7 Exclusion Criteria

• Children with spinal cord injury.

• Patients who were mentally unstable. This patient can't provide correct information.

• Undiagnosed patient. If it is not diagnosed correctly then the correct information will not be available. Unconscious patient. If patient is unconscious can't give information. Not willing to participate (Amer, 2013).

3.8 Data Collection method

3.8 Data Collection method & tools

- The researcher used a 6 paged data collection form to collect information from the samples.
- Consent Form: The researcher took written consent from every participant during data collection by using a Bangla consent form.
- Structured questionnaire: The researcher used a structured questionnaire for collecting data.

Morong self-efficacy scale: The Moorong Self-Efficacy Scale (MSES) is a self-report questionnaire developed to measure self-efficacy in performing functional activities of daily living in people with SCI. It consists of two factors and sixteen items

Validity: High correlation with Sickness Impact Profile-68 (SIP68) Psychosocial Subscale: $\rho = -0.80$

Moderate to High correlation with Depression Anxiety Stress Scale - 21 (DASS-21) Subscales: $r = -0.58$ to -0.63

Moderate correlation with Centre for Epidemiologic Diseases Depression Scale (CESD-10) and correlation with Satisfaction with Life Scale (SWLS): CEDS: $r = -0.54$; SWLS: $r = 0.51$

Moderate correlation with Hospital Anxiety and Depression Scale (HADS) Subscales: ρ= -0.31 to -0.56

Moderate correlation with age and Factor 1 (Social Function Self-Efficacy): r=-.32 (P<.01)

Reliability: Low to High internal consistency for the item-total correlation: 6 of 8 items: 0.46-0.80 2 of 8 items (item 2 and item 4): 0.17 and 0.25

Moderate internal consistency for Factor 1 (social function self-efficacy; 5 items): α=.77

High internal consistency for Factor 2 (general self-efficacy; 4 items): α=.81

High internal consistency for Factor 3 (personal function self-efficacy; 7 items): α=.80

Rosenberg Self-Esteem Scale (RSE)

Scoring: As the RSE is a Guttman scale, scoring can be a little complicated. Scoring involves a method of combined ratings. Low self-esteem responses are "disagreed" or "strongly disagree" on items 1, 3, 4, 7, 10, and "strongly agree" or "agree" on items 2, 5, 6, 8, 9. Two or three out of three correct responses to items 3, 7, and 9 are scored as one item. One or two out of two correct responses for items 4 and 5 are considered as a single item; items 1, 8, and 10 are scored as individual items; and combined correct responses (one or two out of two) to items 2 and 6 are considered to be a single item. The scale can also be scored by totaling the individual 4-point items after reverse-scoring the negatively worded items

Reliability: The RSE demonstrates a Guttman scale coefficient of reproducibility of .92, indicating excellent internal consistency. Test-retest reliability over a period of 2 weeks reveals correlations of .85 and .88, indicating excellent stability.

Validity: Demonstrates concurrent, predictive and construct validity using known groups. The RSE correlates significantly with other measures of self-esteem, including the Coopersmith Self-Esteem Inventory. In addition, the RSE correlates in the predicted direction with measures of depression and anxiety

3.10 Data Analysis

Data were analyzed with Statistical Package for Social sciences (SPSS) version 22. The researcher analyzed the data by descriptive statistics using Frequency, Percentage (%), Pie diagram, Bar diagram, 95% confidence interval, Interquartile Range (IQR) and also showed the association by Chi-Square test.

Chi-Square test equation

It is used for data that consist of variables distributed across various categories and is denoted by χ^2.

The chi-square formula is:

$$\chi^2 = \sum (O_i - E_i)^2/E_i,$$

O_i = observed value (actual value)

E_i = expected value.

$\sum$ = Summation

χ^2 = Chi-Square value.

3.10.1 Association between socio demographic information with morong self-efficacy score

Association between variable	Chi squre test value	P value
Age with maintaining hygiene with or without help	44.580	.024*
Age with avoiding bowel accidents	44.580	.024*

Age with participating active number of household work	46.747	.014*
Age with maintaining relation with family	53.488	.024*
Gender with dealing with unexpected problem	16.014	.007**
Gender with spending time with friend	16.818	.010**
Gender with imaging working in future	17.395	.002**
Types of paralysis with participating active number of household work	33.373	.004**
Types of paralysis with maintaining relationship in family	34.424	.003**
types of paralysis with getting of room whenever needs to go	34.289	.024*
Types of paralysis with enjoy time with friend	71.754	.000***

Types of paralysis with finding hobbies and leisure that interests	39.021	.002**
Types of paralysis with maintaining contact with people that are important	44.622	.000***
Types of paralysis with dealing with unexpected problem	68.546	.000***
Types of paralysis with being able to work in the future	32.094	.001***
Types of paralysis with accomplishing most thing that set to do	40.313	.002**
Types of paralysis with learning new things until persist successful	47.888	.000***
Level of injury with dealing with unexpected problem that come up in life	18.422	.048*
Level of injury with imagine to have full filling lifestyle in the future	22.748	.012*

Cause of injury with getting of room for whenever to go	15.241	.018*
Causes of injury with enjoying spending time with friend	14.687	.023*

3.10.2 Association between socio demographic information with Rosenberg self-esteem scale

Association between variable	Chi square test value	P value
I feel I worth for equal plan with others with **age**	25.400	.031*
I wish I had most respect for myself with **age**	24.145	.044*
I wish I had most respect for myself with **educational status**	22.836	.011*
I feel I worth for equal plan with others with **types of paralysis**	13.287	.039*
I do not have much to be proud of with **types of paralysis**	33.156	.000***
On the whole I satisfied with myself with **types of paralysis**	18.781	.027*

I certainly feel useless at times with **types of paralysis**	39.100	.000***

3.11 Informed consent: Written consent was given to all participants prior to the completion of the structured questionnaire. I explained the participants about his or her role in this study. I received a written consent form every participant 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. I assured the participants that the study would not be harmful for 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 got benefit from it. The participants have the right to withdraw consent and discontinue participation at any time.

3.12 Ethical consideration

- Permission will be taken must from 'Institutional Review Board'(concern authority) before of the collecting data.
- All participants were informed about the aim, objectives for the study prior to participants.
- Must be informed consent had been taken.
- The participations or patients had given right to proceed & withdrawal from the study in anytime.
- Strictly maintained of the participation's information very confidentiality.

4.1 Characteristics of all participants (n= 60):

Table 1

Variables		Total=n	%
Age of participants	n (%)/Mean ±SD		
	27.82 ± 11.43		
Occupation	Job holder	12	20%
	Housewife	6	10%
	Businessman	5	8.3%
	Students	20	33.3%
	Others	17	28.3%
Level of injury	Cervical	20	33.3%
	Thoracic	15	25%
	Lumber	25	41.7%
Gender	Male	44	73.3%
	Female	16	26.7%
Family size	Single family	46	76.7%
	Joint family	14	23.3%
Marital status	Married	29	48.3%
	Unmarried	31	51.7%
Cause of injury	Traumatic	56	93.3%
	Non traumatic	4	6.7%
Educational status	Illiterate	7	11.7%
	Primary	18	30%
	Secondary	19	31.7%
	Higher secondary	11	18.3%
	Graduation	4	6.7%
Types of paralysis	Complete tetraplegia	10	16.7

	Incomplete tetraplegia	22	36.7
	Complete paraplegia	24	40
	Incomplete paraplegia	4	6.7
Types of Traumatic Injury	fall from height injury	25	41.7 %
	shallow water diving injury	1	1.7%
	road traffic accident	23	38.3%
	Carrying heavy load	3	5%
	Others	8	8%

4.1.1 Association between Age and Moorong self-efficacy scale

In MSES there are 16 items. Among 16 items there 4 item was significant. They are 'maintain hygiene' Chi square value is 44.580 with P value .024, 'avoid bowel accidents' Chi square value is 81.345 with P value .000, 'imagine to work in the future' Chi square value is 46.747 with P value .014, 'imagine having full fill life style' Chi square value is 53.488 with P value .024.

4.1.2 Association between age to MSES I can maintain my hygiene with or without help

Among 60 participants strongly disagreed 12 participants maintain hygiene with or without help where 29 participants disagreed and 4 participants slightly disagreed. 15 participants agreed that maintaining hygiene with or without any help.

4.1.3 Association between age and I can avoid having bowel accident

Among 60 participants strongly disagreed 9 participants maintain hygiene bowel accidents 29 participant disagreed and 7 participants slightly disagreed. 2 participants remain neutral where 13 participants agreed that maintaining their bowel accidents.

4.1.4 Association between age and i can participate as an active member of the household. Among 60 participants strongly disagreed 8 participants can practice as an active member of the household 32 participant disagreed and 12 participants slightly disagreed. 6 participants remain neutral where 2 participants agreed that can practice as an active member of the househol

4.1.5 Association between age and i can maintain my relationship in my family

Among 60 participants strongly disagreed 2 participants can maintain relationship in the family 13 participant disagreed and 8 participants slightly disagreed. 3 participants remain neutral where 34 participants agreed that can maintain relationship in the family.

4.1.6 Association between MSES and Gender

Among 16 items there 3 items were significantly associated with gender. they are 'spending time with friends' Chi square value is 16.818 with P value .010, 'deal unexpected problems' Chi square value is 16.014 with P value .007, 'imagine to able to work in the future' CHI square value is 17.395 with P value .002.

4.1.7 Association between gender and I can enjoy spending time with my friend

Among 60 participants strongly disagreed 8 participants can enjoy time with friend 18 participant disagreed and 4 participants slightly disagreed. 2 participants remain neutral where 20 participants agreed that can enjoy time with friend.

4.1.8 Association between gender and i can deal with unexpected problem

Among 60 participants strongly disagreed 4 participants can deal with unexpected problems that come up in life 18 participant disagreed and 13 participants slightly disagreed. 9 participants remain neutral where 16 participant agreed deal with unexpected problems that come up in life.

4.1.9 Association between gender and imagine to able to work in the

Among 60 participants strongly disagreed 6 participants can imagine being able to work at sometimes in the future. 2participants remain neutral where 42 participants agreed can imagine being able to work at sometimes in the future.

4.1.10 Association between MSES and Types of paralysis

Among 16 items there 13 items were significantly associated with paralysis types. They are 'participate an active member of the household' Chi square value was 33.375 with p value .004, 'maintain relationship in family' Chi square value was 34.424 with p value .003, 'get of room whenever need to' Chi square value was 34.289 with p value .024, 'enjoy time with friends' Chi square value was 71.754 with p value .000, 'find hobbies and leisure that interest me' Chi square value was 39.621 with p value .002, 'maintain contact with people who are important to me' Chi square value was 44.622 with p value .000, 'deal with unexpected problems' Chi square value was 68.546 with p value .000, 'imagine to being able to work in the future' Chi square value was 32.094 with p value .001, 'accomplish most things Iset to do' Chi square value was 40.313 with p value .002, 'learn new things i will persist until successful' Chi square value was 47.888 with p value .000, 'when i see someone like to make first contact' Chi square value was 31.909 with p value .023, 'maintain good health and wellbeing; Chi square value was 40.770 with p value .000, 'imagine having a full filling life style in the future' Chi square value was 24.364 with p value .045.

4.1.11 Association between types of paralysis to participate an active member of the household

Among 60 participants strongly disagreed 8 participants can participate as an active member of household 32 participant disagreed and 12 participants slightly disagreed. 6 participants remain neutral where 2 participants agreed can participate as a active member of household.

4.1.12 Association between types of paralysis to maintain relationship in family

Among 60 participants strongly disagreed 2 participants can maintain relationship in the family 13 participant disagreed and 8 participants slightly disagreed. 3 participants remain neutral where 34 participants agreed maintain relationship in the family.

4.1.13 Association between MSES and Level of injury

Among 16 items of MSES 2 item were significantly associated with level of injury. They were 'deal with unexpected problems that come up in life' Chi square value was 18.422 with p value .048, 'imagine to having full filling life style in the future' Chi square value was 22.748 with p value .012.

4.1.14 Association between level of injury to deal with unexpected problems that come up in life

Among 60 participants strongly disagreed 4 participants can deal with unexpected problem that come up in life 18 participant disagreed and 13 participants slightly disagreed. 9 participants remain neutral where 16 participants agreed can deal with unexpected problem that come up in life.

4.1.15 Association between level of injury to imagine to having full filling life style in the future

Among 60 participants strongly disagreed 6 participants can imagine being able to work at some time in the future. 2 participants remain neutral where 52 participants agreed can imagine being able to work at some time in the future.

4.1.16 Association between MSES and Causes of injury

Among 16 items of MSES 2 items were significantly associated with causes of injury. They are ' I can get of my room whenever I need to' Chi square value was 15.241 with p value .018, 'I can enjoy spending time with my friends' Chi square value was 14.687 with p value .023.

4.1.17 Association between cause of injury to I can get of my room whenever I need to

Among 60 participants strongly disagreed 19 participants can get of room whenever needs to go 22 participants disagreed and 5 participants slightly disagreed. 1 participant remain neutral where 9 participants agreed can get of room whenever needs to go.

4.1.18 Association between cause of injury to I can enjoy spending time with my friend

Among 60 participants strongly disagreed 8 participants can enjoy spending times with friends 18 participant disagreed and 4 participants slightly disagreed. 2 participants remain neutral where 20 participants agreed can enjoy spending times with friends.

4.1.19 Association between Rosenberg self-esteem scale between Age

Rosenberg self-esteem scale has 10 items. Among 10 items of RoSES 2 items were significantly associated with age. They are 'I feel I worth for equal plan with others' Chi square value was 25.400 with p value .031, 'I wish I had most respect for myself' Chi square value was 24.145 with p value .044.

4.1.20 Association between age to I feel I worth for equal plan with others

Among 60 participant 7 participants disagree to feel worth for equal plan with others where 33 participants agreed to feel worth for equal plan with others. 20 participants strongly agreed in this occasion for worth equal plan with others.

4.1.21 Association between age to I wish I had most respect for myself

Among 60 participant 1 participants disagree to wish most respect for themselves where 49 participants agreed to wish most respect for themselves. 10 participants strongly agreed in this time for wishing most respect for themselves.

4.2 Association between RoSES and Educational status

Among 10 items RoSES only 1 item were significantly associated with educational stats. That was 'I wish I had most respect for myself' Chi square value was 22.836 with p value .011.

4.2.1 Association between educational status I wish I had most respect for myself

Among 60 participant 1 participants disagree to wish most respect for themselves where 49 participants agreed to wish most respect for themselves. 10 participants strongly agreed in this time for wishing most respect for themselves.

4.2.3 Association between RoSES and Types of paralysis

Among 10 items of RoSES 4 items were significantly associated with types of paralysis. They were 'I feel I worth for equal plan with others' Chi square value was 13.287 with p value .039, 'I do not have much to be proud of' Chi square value was 33.156 with p value .000, 'on the whole I satisfied with myself' Chi square value was 18.781 with p value .027, 'I certainly feel useless at times' Chi square value was 39.100 with p value .000.

4.2.4 Association between types of paralysis to I feel I worth for equal plan with others

Among 60 participant 7 participants disagree to feel worth for equal plan with others where 33 participants agreed to feel worth for equal plan with others. 20 participants strongly agreed in this time feel worth for equal plan with others.

4.2.5 Association between types of paralysis to I do not have much to be proud of

Among 60 participant 31 participants disagree to feel do not have much to be proud of where 29 participants agreed to feel not have much to be proud of.

4.2.6 Association between types of paralysis to on the whole I satisfied with myself

Among 60 participant 10 participants disagree to feel the whole I satisfied with myself where 50 participants agreed to feel the whole, I satisfied with myself.

4.2.7 Association between types of paralysis to I certainly feel useless at times

Among the participants 10 participants strongly disagreed to have certainly feel useless at time where 19 disagreed. On the other side 19 participants agreed to have certainly feel useless at times where 12 participants strongly agreed certainly feel useless at times.

In this study among 60 participants there are 73.3% (n=44) were male and 26.7% (n=16) were female that indicates man are more vulnerable than women. Another study shows that The mean age of the participants was 41 (SD 11.9) years and 90% were male. Participants' mean self-efficacy score was 53.9 (SD 15.7). Multiple linear regression results indicated that injury type (i.e., paraplegia or tetraplegia; $\beta = 0.290$, $p < .001$) and adaptive coping ($\beta = 0.561$, $p < .001$) were significant predictors, accounting for 62% of the variance in self-efficacy scores.

This study also shows that 11.7% participants were illiterate (n=7), 30% were primary (n=18), 31.7% were secondary (n=19), 18.3% were higher secondary (n=11), 6.7% were graduate (n= 4), and 1.7% were master's level (n=1) among 60 participants. That indicates most of the participants act in self-efficacy are at secondary education level.

Among 60 participants most of them were paraplegic 28 and tetraplegic were 32. There is no significant difference between the type of injury (paraplegia and tetraplegia), anyone with spinal cord injury would be paraplegia or tetraplegia. 16.7% were complete tetraplegia (n=10), 36.7% were incomplete tetraplegia (n=24), 40% were complete paraplegia (n=24) and 6.7% were (n=4).

Most of the participant's injuries were caused by trauma 95.6% (n= 56) mostly fall from height and RTA. According to Ning et al. (2012) traumatic SCI is more frequent in Asia compared to other world regions.

This study found an association between age and self-efficacy levels among SCI participants. Association between gender and can enjoy spending time with my friend. Association between types of paralysis to participate an active member of the household. Association between types of paralysis to do not have much to be proud of. The associated item was "Dealing with unexpected problems". In this study, there was found an association between educational qualification and Self-efficacy levels among SCI

participants. The related item was "Able to work in the future" with a p-value of 0.012 (p<.05)

Skeletal level of injury was also associated with self-efficacy levels of SCI people in the current study. "Personal hygiene", "Getting out of the house", "Hobby and leisure pursuits", "Maintaining contacts", and "Fulfilling lifestyle" these items were significant with p<0.05

In this study, 4 items of MSES were found associated with the type of paralysis. Significant items were "Household participation" with a p-value of 0.006, "Getting out of the house" with a p-value of 0.039, "Spending time with friends" with a p-value of 0.047, and "Hobby and leisure pursuits" with a p-value of 0.001.

Among 16 items of MSES 2 items were significantly associated with causes of injury. They are 'I can get of my room whenever I need to' Chi square value was 15.241 with p value .018, 'I can enjoy spending time with my friends' Chi square value was 14.687 with p value .023

Among 10 items RoSES only 1 item were significantly associated with educational stats. That was 'I wish I had most respect for myself' Chi square value was 22.836 with p value .011.

Among 10 items of RoSES 4 items were significantly associated with types of paralysis. They were 'I feel I worth for equal plan with others' Chi square value was 13.287 with p value .039, 'I do not have much to be proud of' Chi square value was 33.156 with p value .000, 'on the whole I satisfied with myself' Chi square value was 18.781 with p value .027, 'I certainly feel useless at times' Chi square value was 39.100 with p value .000.

Rosenberg self-esteem scale has 10 items. Among 10 items of RoSES 2 items were significantly associated with age. They are 'I feel I worth for equal plan with others' Chi square value was 25.400 with p value .031, 'I wish I had most respect for myself' Chi square value was 24.145 with p value .044

Though this study found a few associations between socio-demographic variables and Self-Efficacy (MSES) items.

CHAPTER-VI	CONCLUSION AND RECOMANDATIONS

Conclusion

Spinal cord injury (SCI) causes one of the heaviest emotional and physical challenges to face a human being, with annihilating changes to an individual's physical functioning and independence; social, sexual, and vocational roles; and lifestyle. It is a major cause of disability in Asia as well as in Bangladesh. Every year many people are affected by spinal cord injury with traumatic or non-traumatic causes. Spinal cord injury can affect any person, at any age, at any time but active younger males are more prompt to having spinal cord injury than females. Spinal cord injury negatively affects not only the patient's physical condition but also all aspects of their lives more importantly their mental status and quality of life. Psychiatric disorders among spinal cord injury patients and appear to be more common in disabled persons than in non-disabled people. Psychological variables are well recognized as influencing health outcomes after the onset of SCI. Successful rehabilitation involves reintegration into the community and psychological adjustment to disability and changed life circumstances. One psychological variable that has been the subject of a recent study concerning health outcomes in people with a range of medical conditions is self-efficacy. Self-efficacy has gained interest in SCI research in the last decades. Self-efficacy is known as the belief that each individual has about his or her ability to acquire desired results when executing particular activities and pursuing desired goals. Enhancing self-efficacy has been described as a target in the rehabilitation of SCI. For instance, this can be done by exercise, through improving physical condition and functional abilities, or by improving self-management abilities through a creative way of thinking. Self-efficacy has a central role in the Spinal Cord Injury Adjustment Model (SCIAM). Enhanced self-efficacy is associated with positive adjustment in the future within this model. Often the outcome discussed in studies focusing on self-efficacy relates to a person's participation. Self-efficacy is important to the psychosocial accommodation of all persons, including those with disabilities. Self-Esteem also help the people to be confident to do work, it can help to grow functional activity.

Recommendations

Physical and psychological co-morbidities are inevitable as a consequence of having Spinal Cord Injury (SCI). It has a negative influence on the quality of life and functioning. Self-efficacy in persons with SCI is important within the rehabilitation of individuals with SCI. A small number of studies have also examined self-efficacy in people with SCI but none has been done in the perspective of Bangladesh's population. If other authors desire to carry out a further related study, they are recommended to do their study with an increased sample size, if possible, from a whole country perspective. Also, self-efficacy and self-esteem of people with SCI in the community to find out the relation with community reintegration or self-efficacy, self-esteem in vocational rehabilitation to increase the likelihood of successful employment outcomes can be recommended. I have to recommend to take large sample data and also it should be reliable and valid data. To minimize the obstacles. Take more time to collect data.

Alizadeh, A., Dyck, S.M. and Karimi-Abdolrezaee, S. (2019) 'Traumatic Spinal Cord Injury: An overview of pathophysiology, models and acute injury mechanisms', *Frontiers in Neurology*, 10.

Amer, A., 2013. Informed Consent in Adult Psychiatry. Oman Medical Journal, 28(4), pp.228-231.

Berardelli, I. *et al.* (2019) 'The role of demoralization and hopelessness in suicide risk in schizophrenia: A review of the literature', *Medicina*, 55(5), p. 200.

Bisson, T. and Newsam, C.J. (2017) "Short-duration, high-intensity bouts of physical therapy to increase self-efficacy, confidence, and function in an individual with incomplete spinal cord injury: A case report," Physiotherapy Theory and Practice [Preprint].

Brooks, J. *et al.* (2014) 'Psychometric validation of the *moorong self-efficacy scale* in people with Spinal Cord Injury', *Rehabilitation Counseling Bulletin*, 58(1), pp. 54–57.

Craig, A., Tran, Y. and Middleton, J. (2008) 'Psychological morbidity and spinal cord injury: A systematic review', *Spinal Cord*, 47(2), pp. 108–114.

DiMarco, A.F. and Dawson, N.V. (2014) 'Risk factors for mortality in spinal cord injury', *The Journal of Spinal Cord Medicine*, 37(6), pp. 670–671.

Elshahidi, M. (2018) 'Comment on the paper &Quot;Epidemiology of Worldwide Spinal Cord Injury: A literature Review&Quot';, *Journal of Neurorestoratology*, Volume 6, pp. 61–63.

Emerich, L., Parsons, K. and Stein, A. (2012) 'Competent care for persons with spinal cord injury and dysfunction in acute inpatient rehabilitation', *Topics in Spinal Cord Injury Rehabilitation*, 18(2), pp. 149–166.

Equebal, A., Anwer, S. and Kumar, R., 2013. The prevalence and impact of age and gender on rehabilitation outcomes in spinal cord injury in India: a retrospective pilot study. Spinal Cord, 51(5), pp.409-412.

Farley, H. (2019) 'Promoting self-efficacy in patients with chronic disease beyond traditional education: A literature review', *Nursing Open*, 7(1), pp. 30–41. doi:10.1002/nop2.382.

Geyh, S. et al. (2011) "The Personal Factors of the International Classification of Functioning, Disability and Health in the literature – a systematic review and content analysis," Disability and Rehabilitation, 33(13–14), pp. 1089–1102.

Geyh, S. *et al.* (2012) 'Self-efficacy and self-esteem as predictors of participation in spinal cord injury—an ICF-based study', *Spinal Cord*, 50(9), pp. 699–706. doi:10.1038/sc.2012.18.

Geyh, S. et al. (2012) "Self-efficacy and self-esteem as predictors of participation in spinal cord injury—an ICF-based study," Spinal Cord, 50(9), pp. 699–706.

Hagen, E.M. (2015) 'Acute complications of spinal cord injuries', *World Journal of Orthopedics*, 6(1), p. 17.

Jazayeri, Seyed Behnam *et al.* (2023) 'Incidence of traumatic spinal cord injury worldwide: A systematic review, data integration, and update', *World Neurosurgery: X*, 18, p. 100171.

Jeyathevan, G. *et al.* (2021) 'Conception and development of self-management indicators to   advance the quality of Spinal Cord Injury Rehabilitation: Sci-High Project', *The Journal of Spinal Cord Medicine*, 44(sup1).

Kim, J.Y. and Cho, E. (2016) 'Evaluation of a self-efficacy enhancement program to prevent pressure ulcers in patients with a spinal cord injury', *Japan Journal of Nursing Science*, 14(1), pp. 76–86. doi:10.1111/jjns.12136.

Ko, H.-Y. (2022) 'Pressure injuries in spinal cord injuries', *Management and Rehabilitation of Spinal Cord Injuries*, pp.

Kraft, R. and Dorstyn, D. (2015) 'Psychosocial correlates of depression following spinal injury: A systematic review', *The Journal of Spinal Cord Medicine*, 38(5), pp. 571–583.

Middleton, J., Tran, Y. and Craig, A. (2007a) 'Relationship between quality of life and self-efficacy in persons with spinal cord injuries', *Archives of Physical Medicine and Rehabilitation*, 88(12), pp. 1643–1648.

Mihalko, S.L. *et al.* (2018) 'Effect of intensive diet and exercise on self-efficacy in overweight and obese adults with knee osteoarthritis: The idea randomized clinical trial', *Translational Behavioral Medicine*, 9(2), pp. 227–235.

Motiei-Langroudi, R. and Sadeghian, H. (2017) 'Traumatic Spinal Cord Injury: Long-term motor, sensory, and urinary outcomes', *Asian Spine Journal*, 11(3), pp. 412–418.

Müller, R. et al. (2012) "The role of social support and social skills in people with spinal cord injury—a systematic review of the literature," Spinal Cord, 50(2), pp. 94–106.

Ning, G.-Z. *et al.* (2012) 'Epidemiology of Traumatic Spinal Cord Injury in Asia: A systematic review', *The Journal of Spinal Cord Medicine*, 35(4), pp. 229–239.

Øderud, T. (2014) 'Surviving spinal cord injury in low income countries', *African Journal of Disability*, 3(2).

Peter, C. et al. (2012) "Psychological resources in spinal cord injury: a systematic literature review.," Spinal Cord, 50(3), pp. 188–201.

Sardá, J. *et al.* (2009) 'The contribution of self-efficacy and depression to disability and work status in chronic pain patients: A comparison between Australian and Brazilian samples', *European Journal of Pain*, 13(2), pp. 189–195.

Sardá, J. *et al.* (2009) 'The contribution of self-efficacy and depression to disability and work status in chronic pain patients: A comparison between Australian and Brazilian samples', *European Journal of Pain*, 13(2), pp. 189–195.

Schwarzer, R. (2008) "Modeling Health Behavior Change: How to Predict and Modify the Adoption and Maintenance of Health Behaviors," Applied Psychology, 57(1), pp. 1–29. Benyon, K. et al. (2010) "Coping strategies and self-efficacy as predictors of outcome in osteoarthritis: a systematic review," Musculoskeletal Care, 8(4), pp. 224–236.

Shulman, L.M. *et al.* (2019) 'Comparative study of PROMISⓇ self-efficacy for managing chronic conditions across chronic neurologic disorders', *Quality of Life Research*, 28(7), pp. 1893–1901.

Suzuki, R. et al. (2007) "Understanding health outcomes: Physical secondary conditions in people with spinal cord injury.," Rehabilitation Psychology [Preprint].

Üstün, T.B. et al. (2003) "The International Classification of Functioning, Disability and Health: a new tool for understanding disability and health," Disability and Rehabilitation, 25(11–12), pp. 565–571.

van Diemen, T. *et al.* (2020) 'Enhancing our conceptual understanding of state and trait self-efficacy by correlational analysis of four self-efficacy scales in people with spinal cord injury', *BMC Psychology*, 8(1).

van Diemen, T. *et al.* (2020) 'Enhancing our conceptual understanding of state and trait self-efficacy by correlational analysis of four self-efficacy scales in people with spinal cord injury', *BMC Psychology*, 8(1).

Van Diemen, T. et al. (2020) "Enhancing our conceptual understanding of state and trait self-efficacy by correlational analysis of four self-efficacy scales in people with spinal cord injury," BMC Psychology, 8(1).

Wyndaele, M. and Wyndaele, J.-J. (2006) 'Incidence, prevalence and epidemiology of spinal cord injury: What learns a worldwide literature survey?', *Spinal Cord*, 44(9), pp. 523–529.

Yuan, S. *et al.* (2018) 'Epidemiological features of spinal cord injury in China: A systematic review', *Frontiers in Neurology*, 9..

APPENDIX

Ref: CRP/BHPI/IRB/03/2023/726

Date: 13/03/2023

To
Mahbuba Mehrin
B.Sc. in Physiotherapy,
Session: 2016-2017, DU Reg. No: 6876
BHPI, CRP, Savar, Dhaka- 1343, Bangladesh

Subject: Approval of the dissertation proposal **"Influence of Self-efficacy and Self-esteem of Spinal Cord Injury Patient at CRP - an ICF Based Study"**- by ethics committee.

Congratulations
Dear
Mahbuba Mehrin ,
The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above-mentioned dissertation, with yourself, as the Principal Investigator Dr. Mohammad Anwar Hossain, Associate Professor, Department of Physiotherapy, BHPI, as dissertation supervisor. The following documents have been reviewed and approved:

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

The purpose of the study is to determine or find out how self-efficacy and self-esteem influencing spinal cord injury patient. Should there any interpretation, typo, spelling, grammatical mistakes in the title, it is the responsibilities of the investigator. Since the study involves questionnaire that takes maximum 20- 25 minutes and have no likelihood of any harm to the participants. The members of the Ethics committee approved the study to be conducted in the presented form at the meeting held at 09:00 AM on January 9, 2023 at BHPI, 34th IRB Meeting.

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

Best regards,

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

Date: 13thFebruary, 2023
The Chairman
Institutional Review Board (IRB)
Bangladesh Health Professional Institute (BHPI), CRP
Savar, Dhaka-1343.Bangladesh
Subject: Application for review and ethical approval.
Dear sir,
With due respect, I am Mahbuba Mehrin, student of B.Sc. in physiotherapy program at Bangladesh Health Professional Institute (BHPI) the academic institute of Centre for the Rehabilitation of the Paralysed (CRP) under the Faculty of Medicine, University of Dhaka. As per the course curriculum, I have to conduct a dissertation entitled **"Influence of self efficacy and self esteem of spinal cord injury patient at CRP - an ICF based study"** under the supervision of Dr. Mohammad Anwar Hossain, Associate Professor, Department of Physiotherapy, BHPI.

The purpose of the study is **to determine how self efficacy and self esteem is influencing spinal cord injury patients.** The study involves face-to-face interview by using structured questionnaire to explore the influences of self efficacy and self esteem of persons with spinal cord injury residing at CRP, Savar in Bangladesh that may take 20 to 30 minutes to fill in the questionnaire and there is no likelihood of any harm to the participants. Related information will be collected from the patients' guide books. Data collectors will receive informed consent from all participants and the collected data will be kept confidential.

Therefore, I look forward to having your kind approval for the Dissertation proposal and to start data collection. I can also assure you that I will maintain all the requirements for study.

Dissertation presentation date: 9th January,2023

Sincerely,

Shofi 18.02.2023

Mahbuba Mehrin

Mahbuba Mehrin
4th Year B.Sc. in Physiotherapy
Session: 2016-2017
Student ID: 112160347
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Head, Department of Physiotherapy, BHPI.

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

Recommendation from the thesis supervisor

15/02/23

Dr. Mohammad Anwar Hossain
Associate Professor,
Department of Physiotherapy, BHPI.

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সম্মতিপত্র

আসসালামুয়ালাইকুম,

আমি মাহবুবা মেহরীন, আমি এই গবেষণা প্রকল্পটি বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই) এ পরিচালনা করি যা আমার ৪র্থ বর্ষ বি এস সি ইন ফিজিওথেরাপি কোর্সের অধিভুক্ত। আমার বিষয়-**সিআরপিতে চিকিৎসাধীন মেরুদণ্ডে আঘাতপ্রাপ্ত রোগীদের স্ব-কার্যকারিতা এবং আত্ম-সম্মানের প্রভাব-একটি আইসিএফ ভিত্তিক গবেষণা।** আমি এক্ষেত্রে আপনাকে কিছু ব্যক্তিগত রোগের বৈশিষ্ট্য এবং সংশ্লিষ্ট নিয়ামকের উপর আনুষাঙ্গীক কিছু প্রশ্ন করতে চাচ্ছি এতে আনুমানিক ১০-১৫ মিনিট সময় লাগবে আমি আপনাকে অনুগত করছি যে এটা আমার অধ্যয়নের অংশ এবং যা অন্য কোন উদ্দেশ্যে ব্যবহৃত হবেনা। এই গবেষণায় আপনার অংশগ্রহণ বর্তমান ও ভবিষ্যৎ চিকিৎসায় কোন প্রকার প্রভাব ফেলবে না। আপনি যেসব 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 প্রণোদীত এবং আপনি যেকোন 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 অংশগ্রহণকারী হিসেবে যদি আপনার কোন প্রশ্ন থাকে তাহলে আপনি আমাকে অথবা এবং আমার সুপারভাইজার, ড.মোহাম্মদ আনোয়ার হোসেন,পি এইচ ডি, সহযোগী অধ্যাপক, ফিজিওথেরাপি ডিপার্টমেন্ট, বি এইচ পি আই।-তে যোগাযোগ করতে পারেন।

শুরু করার আগে আপনার কি কোন প্রশ্ন আছে ?

আমি কি শুরু করতে পারি ?

হ্যাঁ   না

অংশ গ্রহণকারীর স্বাক্ষর.. তারিখ.................

সাক্ষীর স্বাক্ষর.. তারিখ.................

তথ্য সংগ্রহকারীর স্বাক্ষর.. তারিখ.................

Questionnaire in English

Title: - Influence of self-efficacy and self-esteem of spinal cord injury patients at CRP-An ICF based study.

Part 1: Personal information

1.1	Patients name	
1.2	Mobile No-	
1.3	Address	
1.4	Code No-	

Part 2: Socio-Demographic information

2.1	Age	
2.2	Gender	
2.3	Occupation	1. Service holder 2. Retired 3. Housewife 4. Businessman 5. Students 6. Others(Specify)
2.4	Educational Status	1. Illiterate 2. Primary 3. Secondary 4. Higher Secondary 5. Graduate 6. Masters and above
2.5	Marital Status	1. Married 2. Unmarried

		3. Divorced
		4. Separated
2.6	**Residential Area**	1. Urban
		2. Semi-rural
		3. Rural
2.7	**Family Size**	
2.8	**Family Member**	
2.9	**Monthly Income**	

Part: 3 Injury related Information

3.1	**Date of admission**	
3.2	**Causes of injury**	1. Traumatic 2. Non traumatic
3.3	**If injury is traumatic**	1.Fall from height 2. Shallow water diving 3.RTA 4.Carrying heavy load 5.Bull attack 6.VioleCervicalnce 7.Others
3.4	**Level of injury**	1. Cervical 2. Thoracic 3. Lumber

3.5	Types of paralysis	1. Complete Tetraplegia
		2. Incomplete Tetraplegia
		3. Complete Paraplegia
		4. Incomplete Paraplegia
3.6	Neurological level	
3.7	Skeletal level	

Part-4: Moorong Self-Efficacy Scale (MS ES)

SI	Question	Strongly Disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
4.1	I can maintain my hygiene with or without help							
4.2	I can avoid having bowel accidents							
4.3	I can participate as an active member of the household							
4.4	I can maintain relationships in my family							
4.5	I can get out of my house whenever I need to							
4.6	I can have a satisfying sexual relationship							
4.7	I can enjoy spending time with my friends							

4.8	I can find hobbies and leisure pursuits that interest me							
4.9	I can maintain contact with people who are important to me							
4.10	I can deal with unexpected problems that come up in life							
4.11	I can imagine being able to work at sometime in the future							
4.12	I can accomplish most things I set out to do							
4.13	When trying to learn something new, I will persist until I am successful							
4.14	When I see someone, I would like to meet, I can make the first contact							
4.15	I can maintain good health and well-being							
4.16	I can imagine having a fulfilling lifestyle in the future							

Part -5: ROSENBERG Self-Esteem Scale

S.I	Question	Strongly disagree	Disagree	Agree	Strongly Agree
5.1	I feel that i am a person of worth, at least on an equal plan with others				
5.2	I feel that I have a number of good qualities				
5.3	I am inclined to feel that i am a failure				
5.4	I am able to do things as well as most other people				
5.5	I do not have much to be proud of				
5.6	I take positive attitude toward myself				
5.7	On the whole, I am satisfied with myself				
5.8	I certainly feel useless at times				
5.9	I wish I had most respect for myself				
5.10	At times I think I am no good at all				

<u>প্রশ্নাবলী</u>

শিরোনাম: সিআরপিতে চিকিৎসাধীন মেরুদণ্ডে আঘাতপ্রাপ্ত রোগীদের স্ব-কার্যকারিতা এবং আত্ম-সম্মানের প্রভাব-একটি আইসিএফ ভিত্তিক গবেষণা

পার্ট-১: ব্যক্তিগত তথ্য

১.১	রোগীদের নাম	
১.২	মোবাইল নাম্বার-	
১.৩	ঠিকানা	
১.৪	কোড নং-	

পার্ট-২: সামাজিক-জনসংখ্যা সংক্রান্ত তথ্য

২.১	বয়স	
২.২	লিঙ্গ	
২.৩	পেশা	১.চাকুরীজীবী ২.অবসরপ্রাপ্ত ৩.গৃহিণী ৪.ব্যবসায়ী ৫.ছাত্র ৬.অন্যান্য (উল্লেখ করুন)
২.৪	শিক্ষাগত অবস্থা	১.নিরক্ষর ২.প্রাথমিক ৩.মাধ্যমিক ৪.উচ্চ মাধ্যমিক ৫.স্নাতক ৬.মাস্টার্স এবং তার উপরে
২.৫	বৈবাহিক অবস্থা	১.বিবাহিত ২.অবিবাহিত ৩.তালাকপ্রাপ্ত ৪.বিচ্ছিন্ন
২.৬	বৈবাহিক অবস্থা	১.শহুরে ২.আধা-গ্রামীণ ৩.গ্রামীণ
২.৭	পরিবারের আকার	
২.৮	পরিবারের সদস্য সংখ্যা	
২.৯	মাসিক আয়	

পার্ট-৩: আঘাত সংক্রান্ত তথ্য

৩.১	ভর্তি তারিখ	
৩.২	আঘাতের কারণ	১. আঘাতমূলক ২. অ-আঘাতমূলক
৩.৩	আঘাত যদি আঘাতমূলক হয়	১.উচ্চতা থেকে পড়ে ২.অগভীর জলে ডাইভিং ৩.সড়ক দুর্ঘটনা ৪.ভারী বোঝা বহন ৫.ষাঁড়ের আক্রমণ ৬.সহিংসতা ৭.অন্যান্য
৩.৪	আঘাতের মাত্রা	১.সার্ভিকাল(গ্রীবাসংবন্ধীয়) ২.থোরাসিক(বক্ষঃ) ৩.কটিদেশীয় মেরুদণ্ড(কটিদেশীয় মেরুদণ্ড)
৩.৫	পক্ষাঘাতের প্রকারভেদ	১.সম্পূর্ণ (টেট্রাপ্লেজিয়া)শরীরের উপরের এবং নীচের অংশগুলি সরাতে অক্ষমতা ২.অসম্পূর্ণ (টেট্রাপ্লেজিয়া)শরীরের উপরের এবং নীচের অংশগুলি সরাতে অক্ষমতা ৩.সম্পূর্ণ (প্যারাপ্লেজিয়া) পা এবং নীচের শরীরের পক্ষাঘাত ৪.অসম্পূর্ণ (প্যারাপ্লেজিয়া)পা এবং নীচের শরীরের পক্ষাঘাত
৩.৬	স্নায়বিক স্তর	
৩.৭	কঙ্কাল স্তর	

পার্ট-৪: মুরং স্ব-কার্যকারিতা স্কেল (এমএসইএস)

ক্রমিক নং	প্রশ্ন	দৃঢ়ভাবে অসম্মতি	অসম্মতি	সামান্য দ্বিমত	নিরপেক্ষ	সামান্য একমত	এক মত	দৃঢ়ভাবে একমত
৪ .১	আমি সাহায্যে বা সাহায্য ছাড়াই আমার স্বাস্থ্যবিধি বজায় রাখতে পারি							
৪.২	আমি আন্ত্রিক দুর্ঘটনা এড়াতে পারি							
৪.৩	আমি পরিবারের একজন সক্রিয় সদস্য হিসেবে কাজে অংশগ্রহণ করতে পারি							
৪.৪	আমি আমার পারিবারিক সম্পর্ক বজায় রাখতে পারি							
৪.৫	আমি যখনই প্রয়োজন আমার বাড়ি থেকে বের হতে পারি							
৪.৬	আমার একটা সন্তোষজনক যৌন সম্পর্ক হতে পারে							
৪.৭	আমি আমার বন্ধুদের সাথে সময় কাটাতে এবং উপভোগ							

	করতে পারি						
৪.৮	আমি আমার আগ্রহ অনুযায়ী যে কোন শখ এবং অবসর পালন করতে পারি						
৪.৯	আমি আমার প্রয়োজনে গুরুত্বপূর্ণ ব্যক্তিদের সাথে যোগাযোগ বজায় রাখতে পারি						
৪.১০	আমি আমার জীবনের উপরে আসা অপ্রত্যাশিত সমস্যা মোকাবেলা করতে পারি						
৪.১১	আমি কল্পনা করতে পারি ভবিষ্যতে কোনো একসময় কাজ করতে পারব						
৪.১২	আমি যা করতে চাই বেশিরভাগই আমি একা সম্পন্ন করতে পারি						
৪.১৩	নতুন কিছু শেখার ইচ্ছা হলে আমি সফল হওয়া পর্যন্ত চেষ্টা করতে পারি						
৪.১৪	আমি যখন কাউকে দেখি বা দেখা করতে চাই, আমি নিজে থেকে যোগাযোগ করতে পারি						

৪.১৫	আমি সুস্থভাবে জীবন যাপন করতে পারি							
৪.১৬	আমি ভবিষ্যতে একটি পরিপূর্ণ জীবন ধারার স্বপ্ন দেখি							

ক্রমিক নং	প্রশ্ন	দৃঢ়ভাবে অসম্মতি	অসম্মতি	একমত	দৃঢ়ভাবে একমত
৫.১	আমি অনুভব করি যে আমি একজন মূল্যবান ব্যক্তি, অন্তত অন্যদের সাথে সমান পরিকল্পনায়				
৫.২	আমি অনুভব করি যে আমার অনেক ভালো গুণ আছে				
৫.৩	আমি অনুভব করি যে আমি একজন ব্যর্থ মানুষ				
৫.৪	আমি অন্যান্য লোকেদের মতো সব করতে সক্ষম				
৫.৫	আমার গর্ব করার মতো খুব বেশি কিছু নেই				
৫.৬	আমি নিজের প্রতি ইতিবাচক মনোভাব নিয়ে থাকি				
৫.৭	সব মিলিয়ে আমি নিজেকে নিয়ে সন্তুষ্ট				
৫.৮	আমি অবশ্যই মাঝে মাঝে অকেজো বোধ করি				
৫.৯	আমি যদি নিজের জন্য সবচেয়ে বেশি সম্মান পেতাম				
৫.১০	মাঝে মাঝে মনে হয় আমি ভালো নেই				