

**BARRIERS IN THE WORKPLACE AMONG PATIENTS WITH
SPINAL CORD INJURY WHO COMPLETED VOCATIONAL
TRAINING FROM CRP**

Md Mozahidul Haque Bhuyan

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Department of Physiotherapy

CRP, Savar, Dhaka-1343

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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.

**BARRIERS IN THE WORKPLACE AMONG PATIENTS WITH SPINAL CORD
INJURY WHO COMPLETED VOCATIONAL TRAINING FROM CRP**

Submitted by **Md Mozahidul Haque Bhuyan** for partial fulfilment of the requirements for the degree of Bachelor of Science in Physiotherapy (B.Sc. PT).


.....
Mohammad Habibur Rahman
Assistant Professor
Department of Physiotherapy
BHPI, CRP, Savar, Dhaka
Supervisor


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


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


.....
Md. Shofiqul Islam
Assistant Professor
Department of Physiotherapy
BHPI, CRP, Savar, Dhaka


.....
Md. Obaidul Haque
Associate Professor & Head of the
Department of Physiotherapy
BHPI, CRP, Savar, Dhaka

DECLARATION

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 decline that same any publication, presentation or dissemination of information of the study. I would be bound to take written consent from the Physiotherapy department, Bangladesh Health Profession Institute (BHPI).

Signature: Md Mozahidul Haque Bhuyan Date: 04/10/2017

Md Mozahidul Haque Bhuyan

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Acronyms

&	: And
BHPI	: Bangladesh Health Profession Institute
BMRC	: Bangladesh Medical Research Council
BTEB	: Bangladesh Technical Education Board
CRP	: Centre for the Rehabilitation of the Paralysed
IRB	: Institutional Review Board
NGO	: Non-governmental Organization
SCI	: Spinal Cord Injury
VR	: Vocational Rehabilitation
WHO	: World Health Organization

Abstract

Purpose: The purpose of the study was to identify barriers in the workplace among patients with spinal cord injury who completed vocational training from CRP. *Objectives:* The objectives were to identify the barriers in the workplace among patients with spinal cord injury who completed vocational training from Centre for the Rehabilitation of the Paralyzed (CRP). To find out the barriers faced during working. To gather suggestions from persons with SCI about workplace activity. *Methodology:* A qualitative study design was used to conduct the study where seven participants with spinal cord injury who completed vocational training from CRP selected by purposive sampling method. The data were collected by using a semi structured open ended questionnaire form and were analyzed through content analysis. *Results:* Out of seven male participants with SCI were enrolled at various time points who completed vocational training from CRP. Among seven participants the mean age was 40.57 (± 14.15) years with age range 22-62 years. Most of the participants about were at the age group 22-62 years. Among the participants four were married and three participants were unmarried. Most of the participants about three participants were lived in nuclear family whereas four participants in extended family. Three participants lived in urban areas and four participants about lived in rural area. The educational level among the participants, two participants completed SSC level, four participants completed primary level and one participant completed Honors level. Before injury two participants were farmers, two participants were nonresidents, one participant was businessman, one participant was day labor and about one participant was student. All of them wear earned by themselves. Majority of the participant's workplace distance 0.50 km. Emerging themes on the basis of content analysis, Seven major barriers were found these are participant have health and medical complications, transportation barriers, mobility aid related barriers, inaccessibility of workplace, disability discrimination, qualifications and working experience of participant and workplace modification related barriers. *Conclusion:* This study comprehends about the experienced barriers of the SCI towards their workplace. So, identification of these barriers will help to give emphasize on designing the overcoming strategy of those challenges.

Key words: Spinal cord injury; Vocational training; Barriers in the workplace.

1.1. Introduction

One of the medical complex and life disrupting condition is spinal cord injury (SCI). The mortality rates of this condition associated with historically, ever today high-income countries, and spinal cord injury can be viewed often productive and can be successfully overcome the personal and social challenge. This change reflects good medical practice, which means that people can survive, live and improve after injury. Now a day people with spinal cord injury carry to anticipate not just a long life, but also a fuller and more productive life, better than they have had in previous generations (WHO, 2013).

Immediately after injuries, the person is immersed with a series of physical, emotional, and social challenges (Neri & Kroll, 2003). Spinal cord injury can affect upper and lower motor sensitive pathways and serious cause of lesion complete or incomplete. Although current progress in primary in healing, rehabilitation and prevention of complications have improved the prognosis of SCI, but the sequences are still traumatic and disabling (Scivoletto et al., 2004).

Spinal cord injury affects different body part such as structure and function of body that cause limitation of activity and probably reduced the community participation and productive life (Ottomanelli & Lind, 2009). In low-income countries is four times greater than in high-income countries of Spinal cord injury incidence (Hansen et al., 2007). People with spinal cord injury are discharged home with little access to support services, most of the low income countries. Life threatening complications often develop that is nor remarkably. Few years of discharge many of them die (Michael & Roth, 2012).

In Bangladesh spinal cord injury is a major public health problem (Hoque et al., 1999). Six major categories causes of spinal cord injury are motor vehicle collisions, falls, violence, sports, aquatic or driving injuries, self-inflicted injuries or suicide attempts and others or unrecognized etiologies is founded by the global perspective of spinal cord epidemiology (Ackery et al., 2004). Low incidence, high burden, and life-altering health condition is happening in spinal cord injury. Reducing morbidity and mortality considerable

improvements made globally in recent times following spinal cord injury (Burns & O'Connell, 2012).

Most of the people carry loads on their heads in low income countries. Laborers carry a heavy weight as 100kg on their heads regularly. In Bangladesh people carry heavy load on the head and suffer cervical spinal cord injury caused by falling. Often poor young man working as porters and farmers in most cases, they load farm produce, fertilizer or rice. New and unskilled carriers, children and exceeds load 50kg is carrying a heavy load on the head that develop spinal cord injury due to falling (Hoque et al.,1999).

Early acute management and long-term rehabilitation measures are a large part of life expectancy and improved quality of life following spinal cord injury, the advancement in clinical care is largely attributed is enhanced (Krause et al., 2004). A severe impact on social activities and employment, thus producing related to lifelong social and economic costs often causes serious disability in young people with spinal cord injury (Priebe et al., 2007).

If there is appropriate work accommodation where require spinal cord injury people can work and can be productive members of the society. Unfortunately, work and livelihood opportunities are excluded from people with disabilities and other disabilities as a result, they are marginalized from the mainstream of society and their families live in poverty. It is problematic for people with spinal cord injury and this dalliance, hardship is other reasons for spinal cord injury people. Valuable human resources is wasted by disallowance. It estimates the unemployment and underemployment of people with disabilities that impact on economic and represent range 3% to 5% of gross domestic product in low and middle income countries (Buckup, 2009). Worker need to consider various factors that is multifaceted and give work disability addressing. Vocational rehabilitation is the key component of work ability and sometimes occupational rehabilitation or work or workplace rehabilitation is referred (Escorpizo et al., 2010).

Return to work associated with better health and overall goals of rehabilitation regards to community integration is most important (Schonherr et al., 2005). Better life satisfaction, higher level of activities and health is related to employment, in patients with spinal cord injury (Scelza et al., 2007). An important rehabilitation of employment for people, including the spinal cord injury and it is positively involved with the combination of life

satisfaction, a sense of purpose, mental stimulation, social contact and well-being (Ottomanelli & Lind, 2009).

Generally poor health is linked to higher mortality rates after spinal cord injury and unemployment or underemployment is also associated with low income (Krause et al., 2011). Numerous and well-documented employment benefits for a person's physical, psychological and financial health. Increasing employment is associated with social integration, improved physical and mental health and improved living conditions (Murphy, 2009). These injuries have an immense effect in all areas of the person's lifetime, including professional domains. Immediate absence of workplace, increased logical complexity, possible discrimination and physical and psychological support reflects the barrier to working after the spin cord injury. Emerging evidence suggests that in the early stages of the initial rehabilitation process, rehabilitation centers can overcome these obstacles (Krause et al., 2010).

Functional independence is predicted to return to the workplace. Thus, rehabilitation, education, self-care ability, community, mobility, vocational training and environmental changes, which should be focused on the spinal cord injury might improve the employment (Jang et al., 2005).

However, there is a lack of support for non-disabled people and the lack of inadequate income support (Jongbloed et al., 2007). The early positive expectation of a separate person with a spinal cord injury is an important indicator of successful reintegration. The Rehabilitation team can play an active role in creating a vocational reform plan to engage with the professional re-organization of patients, employers and all professionals (Schonherr et al., 2004). Spinal cord injury (SCI) rehabilitation treatment prehospital immobilization techniques from multiple disciplines that impact the surgical care to rehabilitation procedure. Those with severe spinal cord injury face risk of neurological decay due to spinal cord injury. Long-term rehabilitation from pre-hospital stability, any progress in the spectrum of care, will improve the quality of their life. Careful to identify inconsistencies and unified progress including this spectrum must definitely provide long-term results for individuals with spinal cord injury (Fehlings et al., 2011).

The conventional rehabilitation system is usually assumed that vocational intervention is inappropriate at the primary rehabilitation stage, because people must have the necessary physical and emotional adjustments to work. Thus, vocational intervention is usually distributed through the disability services of the referral or through the funded of private rehabilitation providers by the insurer. Early intervention is therefore called pre-discharge or vocational service during primary or hospital rehabilitation phase (Bloom et al., 2017). Community reintegration will extent to which a person with spinal cord injury will depend on the environmental barriers to overcome. In this section, environmental barriers are gradually explored, which begins with housing, recently a person who developed spinal cord injury came back after rehabilitation and works continuously with transport, which is important for participation in the community and access to meet school and education and employment rights where the workplace (WHO, 2013).

Vocational rehabilitation, which is a multidisciplinary method that aims to bring workers back to the share of profitable employment or employment, usually include special specialization services such as work place for employment, counseling, vocational training and employment opportunities (Escorpizo et al.,2011). Functional recovery after traumatic spinal cord injury may take up within 12 months, and with the loss the person needs medical attention and needs time to adjust to family and home. It may seem unrealistic to start an active vocational plan in the first months after the patient's extensive rehabilitation or discharge (Al-Khodairy & El, 2006).

Unfortunately, even in high-income countries, vocational rehabilitation and counseling is not always available to the spinal cord injury people, and these services have been made in policy level to meet the requirements (Ottomanelli & Lind, 2009). There is also strong evidence for the spinal cord that the important factor in returning to work is the availability of job space services provided by vocational counselors: especially job search and networking; job performance details available with effective strength and weakness; job Application Skills; and preparation for work interviews (Marini et al., 2008).

Recognized as an important factor for successful re-entry in the employment of the common social support requirements for spinal cord injury (Murphy et al., 2011). In order to meet the challenge of returning to work for disabled people such as spinal injury, such as serious injury, there are two overall types of vocational rehabilitation programs in high-

income countries. Transitional programs provide well-established services that help people to acquire and manage competitive jobs, also known as "Supported Employment" (Targett et al., 2005). Emphasis is given on training in job skills, job preparation advice and job placement services, followed by post-placement support and vocational counselors (Ottomanelli & Lind, 2009). Transitional services are of their nature-intensive and expensive, but services start as soon as possible and these costs are reduced when combined with other rehabilitation services (Escorpizo et al., 2011).

Bangladesh is a poor country, half of the 150 million people living below the poverty line. There is no general social security network and financial assistance is not available to help people with disabilities related to their sufferings. Centre for the Rehabilitation of the Paralysed (CRP), an NGO, was established in 1979 in response to the need for human rehabilitation specialist with spinal injury, desperate for rehabilitation services for people suffering from spinal cord injury. CRP is now an internationally respected organization has promoted physical and mental rehabilitation, job placement counseling, vocational retraining, self-employment for the micro-credit in securing support, planned reintegration in the community with the support of employment services, a full range of offers has been developed to ensure that the home environment is safe, the nature and consequences of spinal cord injury and educating local residents. CRP headquarters at Savar. Apart from this, two residential vocational retraining centers (CRP-Gonokbari and CRP-Govindapur for women and girls for out-of-school and community-based services) as well as a center for therapeutic and diagnostic services in the capital Dhaka. CRP operates 13 Community-Based Rehabilitation Projects, which facilitates the development and networking of spinal cord injury issues as well as the development of networking activities along with accident and disability prevention programs. In addition to promoting CRP awareness and dissemination for disrupting the barriers and stigma against people including spinal cord injury and other disabilities (Hansen et al., 2007).

In Bangladesh, a reputed non-governmental institution Center for the Rehabilitation of the Paralysed provides physical, psychological and economic rehabilitation service for patients with spinal cord injury. In South Asia it is one of the largest acute spinal cord injury care providers and annually it admits about 411 patients with spinal cord injury (Centre for the Rehabilitation of the Paralysed. Annual Report: 2014-2015). Individual with spinal cord

injury in the community after discharge performs regular follow-up home visits and it emphasizes on the importance of successful reintegration is outreach teams by assessing this reintegration (Center for Rehabilitation of the Paralyzed. Annual Report: 2013-2014).

1.2. Rationale

In Bangladesh, a majority of people with spinal cord injury are either poor or very poor. In most instances, their households undergo excessive complication as they lose the earnings of the most effective or fundamental incomes member. When an injury has occurred, the person is unable to lead a healthy life. When a person becomes unhealthy compared to the increase in poverty, and it has a huge impact on the economic sector of Bangladesh. Unemployment has a general and complex problem for people claiming spinal cord injury, which is predominantly delicate, that have the effect of both vocational results and longevity on the great impact. Most people want to work with spinal cord injuries but they need to provide vocational rehabilitation to help and receive education and help if needed. These sources of support help overcome many obstacles barriers, which can help people with financial and health care, accessibility and organizational sentiment. The work is not only necessary for the people because they can achieve profits and achieve health insurance and various benefits, but it offers the possibility of interaction with others and extends the happiness of brightness and natural existence. There is no cause-effect relationship, however, there is consistent results in analysis that those who use spinal cord injury once to live longer and report higher satisfaction with life and higher health than those who do not seem to be operating. Although people with spinal cord injury will continue active work life and successful career, and have to overcome many barriers compared to their disability. Legal guidelines and vocational training services exist to assist humans with spinal cord injury overcome their barriers. CRP is the only special spinal cord injury hospital and rehabilitation center in the country and hear therapists use vocational training programs for people affected by the spinal cord. If the training inspires people with the spinal cord injury and they find interesting and beneficial life, then more people can participate in vocational activities. After returning to the community and workplace, the person who can take up this activity in an income-generating activity. There are many studies done on patient and care-giver perceptions in different areas at CRP and community. But there is no research about workplace barriers on workplace activities. Through this study focus on activity of workplace the spinal cord injury patients and their experiences of their situation and evaluated what type of barriers they faced in their workplace activity. This study may be helpful to identify the barriers that faced in the workplace. The researcher will share the

information and result with the physiotherapists of vocational unit. So this study may help the therapists to know the barriers in the workplace form written document. It can be more helpful to establish evidence about workplace.

1.3. Aim of the study

- To identify the barriers in the workplace among patients with spinal cord injury who completed vocational training from CRP.

1.4. Objectives of the study

- To identify the barriers in the workplace among patients with spinal cord injury who completed vocational training from Centre for the Rehabilitation of the Paralysed (CRP);
- To find out the barriers faced during working;
- To gather suggestions from persons with SCI about workplace activity.

1.5 Operational definition

Spinal cord injury

A spinal cord injury (SCI), also called spinal cord lesion, is damage to the spinal cord as a result of trauma or pathological change, either temporary or permanent, of the normal motor, sensory, or autonomic function of the spinal cord.

Workplace

The location at or from which an employee ordinarily performs the duties of his or her position and, in the case of an employee whose duties are of an itinerant nature, the actual building to which the employee returns to prepare and/or submit reports, etc., and where other administrative matters pertaining to the employee's employment are conducted.

Vocational training

Vocational training, also known as Vocational Education and Training and Career and Technical Education, provides job-specific technical training for work in the trades.

Barriers

An obstacles faced by the participations in their own community as well as their everyday tasks.

A spinal cord injury linked to a wide range of health, which can limit the participation and limitations of activities. An important aspect of SCI's optimal management is to understand the depth and impact of SCI on health and everyday living activities. To gain greater understanding, people's experience of health problems is examined in a gradual way (Lohne, 2009). Spinal cord injury (SCI) is a relatively rare disorder, this effects can be devastating. The injury is usually associated with the negative effect on the health and well-being of the person, as well as the threat of social mobilization and functional independence, social and occupational activities, which results in the permanent paralysis of voluntary muscles and loss of sensation below the lesion (Middleton et al., 2007). C₄ injury- tetraplegia, C₆ injury- tetraplegia, T₆ injury- paraplegia, L₁ injury- paraplegia (Thuret et al., 2006). According to literature the spinal cord injury is affected by 2.5 million people worldwide (Thuret et al., 2006).

ASIA first published an international classification of spinal cord injury in 1982, called the International Standards for Neurological and Functional Classification of Spinal Cord Injury. It is based on the neurological responses, touching and testing each dermatome, pinprick sensations, and ten key muscles on each side of the body (Ditunno et al., 1997).

- A indicates a "complete" spinal cord injury where no motor or sensory function is preserved in the sacral segments S4-S5.
- B indicates an "incomplete" spinal cord injury where sensory but not motor function is preserved below the neurological level and includes the sacral segments S4-S5.
- C indicates an "incomplete" spinal cord injury where motor function is preserved below the neurological level and more than half of key muscles below the neurological level have a muscle grade of less than 3.
- D indicates an "incomplete" spinal cord injury where motor function is preserved below the neurological level and at least half of the key muscles below the neurological level have a muscle grade of 3 or more.
- E indicates "normal" where motor and sensory scores are normal.

According to the Adler (2006), some complications such as deep vein thrombosis, decreased vital capacity, osteoporosis, postural hypotension, spasticity and heterotopic ossification. From the practical observation of the CRP researcher, it is found that the most common complications are pressure sore, urinary tract infections, bowel and bladder problems, burning sensation, autonomic dysreflexia, abdominal distension, mental retardation etc. The common complications of tetraplegic patient are complications of the respiratory distress or chest pain. These injuries can be improved any time after injury.

After the rehabilitation stage and discharge, complexity can also develop. Patient and caregiver education play an important role in preventing these complications. In CRP It is found that most of the male patients are cared for by their wives (Adler, 2006). If his wife be always by his side, spinal cord injury person feels better. Along with treatment, partner care can reduce these complications because treatments become more effective despite proper care (Niroshanie & Pinto, 2014).

It is a common practice in Bangladesh to carry heavy loads on the head. While carrying such load, the majority of spinal cord injuries occur due to the collapse of the accident and it is a public problem (Hoque et al., 2012). In Bangladesh during harvest season, the farmers and workers carry their products on their heads and move from local crop storage or from one car to another. Coolie (heavy load carrying) of Bangladesh carries a load of about 50-100 kg. The common causes of spinal cord injury in Bangladesh are heavy loads on the head, road traffic accidents, falling from the height, falling of a heavy object in the head or neck, dive in shallow water (Hoque et al., 2012). Large quantities of Bangladesh fall in the production of food harvesting which is an important part of our agricultural economy. Due to road accidents, most of the spinal cord injuries include children, taxis and rickshaws such as 'three wheel vehicles' passengers. SCI has various non-traumatic and traumatic etiologies with equal consequences as a result of neurological damage. A study of Bangladesh aimed to live with SCI, that people expectation 40.30% of the reasons for falling from height, either from tree, construction work, electric poles or roofs, and carry heavy loads. The second most common cause of load on the head (16.0%). In SCI's non-traumatic cases, the most common causes of spinal tuberculosis are found, of which 7.0% were. Another reason was the road traffic accident, the fall of the object back, Guillain Barre Syndrome, and Transverse Mellitus (Razzak et al., 2011).

Reliable information on epidemiology for traumatic SCI is not available for many in the globe. Despite this, it is clear that incidence, prevalence and traumatic etiology are quite different in the region from the region and some trends are clear (Cripps et al., 2011). A comprehensive review of the worldwide epidemiological for traumatic SCI and a wide range of rates ranging from 236 to 1009 per million. The incident information is mainly in the developed regions, including North America (39 per million), Western Europe (16 per million) and Australia (15 per million), where four wheel motor accidents are the main leading etiology. Comparatively, two-wheeled accidents (such as motorcycles) in Southeast Asia are predominate and fall from roofs and trees are the most common injury etiology in Southern Asia and Oceania. Falls on the level ground is an important injury etiology in the region as the old population, such as Japan (42%) and Western Europe (37%). Due to traumatic SCI violence, sub-Saharan Africa (38%) is more likely to be seen in developing regions, with higher rates being in North Africa / Middle East (24%), and Latin America (22%), North America (15%) When similar resources are rich, compare with developed regions. In general, traffic accidents are the main cause of injury among developed countries, when the leading causes of developing countries (Chiu et al., 2010).

Men consider SCI to be more prone in all countries, although the reported gender ratio varies greatly - 1.73 in 7.55 in China, in Pakistan (Chiu et al., 2010). Among resource-rich countries, most people live in the first year post-injury; however, there is a major deviation in death among resource-rich and resource-poor environments. Only 24 subjects from Sierra Leone survey, 7 people died in initial hospitalization, 8 people (average 17.4 months) were follow-up dead, and 4 were lost in the follow-up. Five were survivors, two were incomplete and injured. A recent study reported a two-fold difference in the highest mortality rates of developing countries (annual death of 17.5 attributable to SCI every million people in Nigeria). A developed country (8 million deaths for SCI 8 years in Canada) (Chiu et al., 2010). Trauma, types of transport, hospital access and resources available for treatment are mainly due to the consequences of the spinal cord injury loss. Prehospital trauma care, for the transport of persons with spinal trauma first aid sites and infrastructure in developing countries is one of the most inadequate (Nguyen et al., 2008). A 10-year study aimed at investigating the life of the people affected by the spinal cord injury has been observed that only 16.4% of the research population has survived for 10

years in Bangladesh, which is Finland (97.9%), Australia (86%), Canada (92%), UK (85%), and United States (80.7%). In addition, this study also found that worse conditions in Bangladesh than other developing countries. The information clearly mentions that there are very bad medical facilities in Bangladesh to promote safe and suitable life after spinal cord injury. Referring to potential possible causes of poor living with spinal cord injury, lack of inadequate acute management and proper social rearrangement (Razzak et al., 2011).

Spinal cord injury affects the physical, mental, social, psychological, and cultural effects of individual life overwhelming (Dorsett, 2001).

Life satisfaction is associated with some factors such as social integration, mobility, perceived control and self-determination health, there is no significant relation between life's satisfaction and paralysis (Clayton & Chubon, 1994). Similarly, when the effectiveness and perceived quality of life were found to be related, but quadriplegic and paraplegic persons perceived no difference in the quality of their lives could not be found (Saadat et al., 2010).

As a result of spinal cord injury, there is a significant change in function, so that people can change their lifestyle. Adjustment of disability can be difficult, and spinal cord injury may be at risk of developing mental disorders such as depression and anxiety (Kennedy et al., 2000). Post-injury is more likely to cause depression, and the expressed stress is shown as a predictor of depression after spinal cord injury (Lequerica et al., 2008).

The problem of self-neglect spinal cord injury populations is measured as a pointer. When a person faces a trauma or useless disability like spinal cord injury, daily performance can change the basic ability. In addition, the use of a person can also be also changed significantly. The person could not contribute full-time pay or employment or education before he or she is already injured (Barclay et al., 2011).

Due to spinal cord injury, which decreases the ability of the profession to return to the results of the extra free time wants to fight with the other activities. The type of retirement that was previously associated with the spinal cord injury could not be possible, so a person may have a deficit pension (Barclay et al., 2011). In a study, it is described that leisure is

an important element of person's life with disabilities and it is often related to life satisfaction, self-esteem and depression. Data from this study represent a blow to the satisfaction of retirement on quality of life (Daniel & Manigandan, 2005).

Vocational rehabilitation (VR) programs have a key role to encourage a person back to workplace, health condition plays an important role in bringing the disable person (Glassel et al., 2012). Vocational rehabilitation (VR) is a multi-professional evidence-based method that is provided in various settings, services and activities of different people while working with health issues, limitations or work restrictions and whose primary goal is optimized work participation (Escorpizo et al., 2011). Vocational rehabilitation focus on identifying and overcoming health, personal or psychology and social or occupational obstacles and work from the point of view should be monitored, vocational rehabilitation activities, various interventions and meaningful occupation by voluntary work, shelter work, supported employment and open employment opportunities (Desiron et al., 2011).

Spinal cord injury and other disabled people to return to work or to support vocational services are available. Vocational rehabilitation (VR) services increase the targets to help maintain healthy self-governance and sustainable job opportunities in the community to successfully support disabled people (Bolton et al., 2000). Vocational rehabilitation has given priority to services for disabled people in most states, this priority now exists in the Commonwealth of Virginia. However, the availability, utilization and efficacy of these services are not strong for the spinal cord injury patients (Meade et al., 2006). After the SCI, vocational rehabilitation goals are not only prevention of the disability, but also the community reintegration and better quality of life (Ramkrishnan et al., 2011). Providing effective vocational rehabilitation (VR) services, "Supportive Employment" and inter-agency collaborations "best practices" are available (Fleming et al., 2013). The technology has improved, the life of the people has increased consistently with the SCI and it has increased the expansion of effective vocational services to maximize the economic and community population. Despite this, the employment results decreased. Both program post-spinal cord injury studies have been used as a measure of the initial results of traditional employment rates to come to work in this area investigations (Cotner et al., 2013). Due to different cultural, economic and legislative environments, the employment

rate in different country is 25% and 60% (Piccenna et al., 2015). Recent literature about Australia people with spinal cord injury, the employment rate returns to work between 21% to 35% of the average life expectancy and 65% of the average employment participation rate (Johnston & Cameron, 2014). The vocational training organization had a significant interest in formal educational qualifications. More educated people are less interested and less educated people, they had to take the training were interested in the new vocational training. Less formal educated people were in the initial stage of employment (pre-spinal cord injury) where physical power was the key to work. So, when they are victims of spinal cord injury, then to return to their previous jobs were not enough options. Likewise, educated people play intellectually settled jobs or students and prefer to return to them. Education was also involved with occupation before background and disaster because education often defines the person's professional role. The people who were involved in income generating activities were positively involved with the acquisition of new training and were returning to work and negatively involved without returning their earlier jobs. It has been found that the majority of injuries were related to their previous work, it is expected that patients will have to take on a new professional role (Ackery et al., 2004) (Hansen et al., 2007).

These people mostly live in rural areas, and before their accidents were their primary earners (agricultural laborers, labor, construction workers, drivers, service holders) in their families. Only 18% of students and housewives were among some non-income-generated businesses. Not surprisingly, 84% of the participants did not complete secondary school education; it is understandable that they will prefer training that does not require high cognitive requirements. It was supported by these researchers that these participants had a high interest in shop management training (which required a lower level of education), and had very little interest in computer and electronics training (which required higher education). It is also found that it was more interested in male participant's new vocational training compared to women. The study results of Yasuda et al show that was related to the gender being returned to work. Most women were interested in coming back to their earlier non-refunded role without taking any new training (Yasuda et al., 2002).

A brief description of the evaluation process and possible participants should explain what might be expected. Assessment is customized, since the design will depend on the person's previous work history and current employment options.

In order to return to work, spinal cord injury workers may need to keep their work differently or change the workstation, schedule change or other accommodation or support. Nevertheless, the returning staff and or employers may need to identify and implement accommodation. Vocational assessment can provide possible accommodation and other useful information related to the cost, facilitate implementation, and provide ideas about the effectiveness. Another situation that can provide returns to work for employment when a spinal cord injury comes back working independently and soon discover that there is no difficulty in his or her work (Targett et al., 2005).

Some individuals may have to returning on work, others can enter vocational assessment without the need of this option but also following the employment encouragement that requires the use of his or her special skills, training, or educational background (Targett et al., 2005).

Some people with spinal cord injury with the desire to switch their career path will enter vocational evaluation process; others may have limited or no previous work experience, or was unemployed for an extended period of time. These people can benefit from the opportunity to understand themselves professionally and to explore the benefits of working in the world. A career exploration assessment knowledge can provide the consumer the need to place a desirable career path (Targett et al., 2005).

To go ahead for evaluation and to evaluate the assessment, the facilitator must decide what to expect from the process to achieve the goal and set goals and start building an assessment plan (Targett et al., 2005).

The purpose of determining the value of the initial interview to determine the time to be resolved the question. Following interviews, a plan or staff should certainly recommend. This is also the time when it is believed to build relationships with the participant (Targett et al., 2005).

Be able to recommend that the vocational facility providers will help define vocational prospects of participants. In addition, the results of the activities should be helpful in providing useful information for the job search process if the person does not return to the employer before any compensation (Targett et al., 2005).

According to CRP annual report: 2012-2013, CRP vocational training institute started in 1999. In October 2003, the institute was affiliated with the Bangladesh Technical Education Board (BTEB). Currently, there are two training centers, one at CRP-Saver and one in the CRP-Ganakbari. Most physically challenged people can take free residential training facilities offered at two centers. The CRP aims to ensure that all graduates of their professional training course move into profitable employment. In our country there are many people living with disabilities. Varieties of patient come into CRP and take treatment according to their needs. After that they returned to community and face great problem with their occupation. As a rehabilitation centre CRP realizes that problem and from its beginning builds up vocational training centre along with great aims that to make the person skillful so that at least they could do something at their community, earn money and provide support to the family. The types of vocational training provided include electronics, woodwork, metal work, computing, fishing net production, rug making, tailoring, sewing, shop management and teaching. A careful assessment and evaluate the patient's actual need; the social welfare department and vocational training centre undertakes follow up visits to each patient. In that case they assess the patient and identify if further training is necessary or not. A more recent development at CRP is the organization's micro –credit scheme. The micro-credit programme involves providing people with disabilities with small loans to set up businesses once they have completed their vocational training. Only spinal cord injured patients are included in inpatient training and other conditions like polio, amputee, and fracture are under outpatient training system. In these cases, 16 at a time are allowed to take, their educational qualifications need at least class eight and the duration of course is six months. The teacher who is continuing teaching and takes practical class is also a person with spinal cord injured who are continuing learning and get enough mental support. During this course time they do not pay any tuition fee and get stipend and accommodation conveniences. At the end of the course they are evaluated

by written and practical examination and who meet the requirements of the course get certificate from this center and back to their own community.

A review of literature indicates that many important issues related to employment are included in the persons with SCI. Type of employment, disability, intensity, age, time, sex, marital status, social assistance, vocational counseling and medical issues, employer's role, environment, occupational interests and education related to SCI (Ottomanelli & Lind, 2009). The educational achievement on behalf of a person is very strong for the SCI to return to work (Ramkrishnan et al., 2011). The age is significantly related to returning to work as the following is significant, when the aged persons have the highest employment rate between 16-30 years and among them there is a lower employment rate among 51-60 years old people (Ramkrishnan et al., 2011).

SCI's people use crutches or canes, or those using hand-driven or motorized wheelchairs, are less important than healthy living than traveling outside of an assistive device (Jain et al., 2007). Studies have shown that the expected results of higher (37.7%) results compared to work rate among those person with spinal cord injury, where the published literature ranges from 13.8 to 67.0% (Ramkrishnan et al., 2011). The effect of gender on receiving employment showed mixed results. Depending on the type of work, men are more likely to return to competitive (paid) employment, but if women are unnecessary productive role (householder) (Ottomanelli & Lind, 2009). Associated with positive return to work on certain issues such as functionality, motivation and social interaction. After returning to flexible work schedules, time is reduced to reduce pressure, access barrier free, ergonomic workplace design and positive attitude of the employer and colleague's staff work great as well as working back to work (Schonherr et al., 2004).

Another study found that the emphasis on work compared to those of other living areas (family, friends, retirement, and sports) is comparatively better vocational rehabilitation (Marti et al., 2012). The income of the people within the spinal cord depend on the type of employment. Some employments are offered, some house holdings are not affiliated with the activities and some employments require specific work time. Young and Murphy used the definition of employment according to the International Labour Organization for the study of the employment after SCI. The income generated by the SCI is not affected by

demographic or injury related effects. Receiving financial compensation is negatively related to income with a larger majority (Ramkrishnan et al., 2011). Additional factors such as low level injuries, therapeutic equipment and the cost of supply, the ability to sit for a long time, impossible to find a suitable job, chronic pain and rehabilitation staff felt the poor attitude of the SCI (Ottomanelli & Lind, 2009).

People with spinal cord injury who used to work, they understand the serious obstacles. In the case of unemployment, the transport was ranked number of identified as a barrier (Fiedler et al., 2002). Transportation barriers for persons with SCIs are a challenge for community reorganization with employment opportunities (Wehman et al., 1999). Krause (2001) found that the causes of unemployment were related to energy, health or health issues, and the reports barriers generally increase among the age groups. Instead of allowing them to see their occupational life as a career, the importance of encouraging the injured people is given underlining instead of considering employment options rather than seeing their vocational life.

Liese et al. (2002) found, the most common barriers to SCI's employment was the lack of health and physical limitations, lack of work experience, and lack of adequate education or training. Other frequently reported barriers in disabilities include physical or architectural barriers, discrimination by the employer, social security or medicare, negative social attitudes, and transportation problems such as loss of losses.

Another study, using qualitative method, described challenges related to work faced by African-American men. These include workplace corruption, employment isolation (treatment or other 'benefit loss), racial and disability discrimination, political challenges like the elimination of budgets, such as the effect of important programs, and the effectiveness of the bureaucratic challenges, the efficiency, responses and services of the companies (Jackson et al., 2006). With the failure of the SCI and workplace employers, the impact of workplace workouts has been discussed with important issues. Unemployment has been linked to discrimination in the workplace (McMahon et al., 2005). SCIs need additional efforts to overcome the problems of employment again (Chan & Man, 2005). It is known that among the six factors age, smoking, physical activity level, occupation, spinal cord injury levels, period since SCI, the level of SCI and physical activity levels are

the most important factors in determining physical performance among wheelchair-based males after spinal cord injury (Muraki et al., 2000).

SCI survivors are at risk of numerous secondary medical conditions as well as changes in the chances of activity as well as psychological challenges. In many studies there are risks associated with various medical complications, as well as the relationships between SCI and various variables after life-satisfaction, quality of life, mental health, and other outcomes. The effect of the employment situation is often considered as possible predictor of the results (Lidal et al., 2007). There is a positive side to the employment of good community integration among people, including SCI (Meade et al., 2004). In addition, the previous results in the study ensure that the good work of the SCI's people in general for the quality of life and living; however, Schonherr et al. (2005) did not find good life satisfaction among employed participants.

Fougeyrollas et al. (2002) state that The possibility of workplace is dependent on both the factors of severity of injury, urinary tract infections, pressure ulcers, pressure ulcer, and personal care, mobility, family responsibilities and environmental factors that are both organic level. Decreasing skills (physical or mental disability) related to mobility, physical activity, changing positions, voluntary body parts movement, proprioceptive functions, self-esteem, and adaptation of circumstances, consistency, responsibility understanding and self-recognition. Other relevant personal matters are age, gender, race, family status, mental torture, life history, education, work experience and personal goals. 'Work' is also influenced by physical environmental issues, facilitators as well as obstacles.

Yavuzer & Ergin (2002) showed that SCI employed 65% before, 11% housewife; 4% retired; 4% interval between return to work after unemployment discharge: 175 days (range 26 - 520). Returns 36% of SCI's earlier employers, 50% lose their jobs, and 14% are retired.

Unemployment can lead to emotional and social consequences, as well as to create financial problems and stress (Ottomanelli & Lind, 2009). Being out of work can affect a person's physical and mental health, as well as affect his or her family. Unemployment can lead to emotional distress and unemployment, which can lead to social burden (Yasuda et al., 2002). As a result of unemployment decrease social support and network. When social support and networks are not available and a person has no support from their friends and

family, their recovery may be delayed. The result of unemployment treatment is an effective goal for a person to return to work (Al Hasan et al., 2009).

After SCI, employment is relatively bigger in relation to life satisfaction, lifestyle related and functional activities, such as people involved in such activities. From unemployment to employment, SCI increases the coordination with people, and if they change work from workless, reduces coordination. After SCI, the employment includes mental emotional stimulation, social contact, motivation feeling and personal growth (Schonherr et al., 2005). The sooner injured person can return to work on some capacities, more likely he or she is both a physical and mental retrieval.

3.1 Study Design

Qualitative study design was selected to conduct this study as the study aim was to identify the barriers in the workplace among patients with spinal cord injury who completed vocational training from CRP. Qualitative research is suitable for exploring a new area and understanding individual's attitudes and behaviors. The semi-structured questionnaire was used and face to face interview was conducted. The participants was given freedom to express their view and feelings. That's why researcher selected the qualitative research approach, which help to gain understanding and exploring the feelings, opinion and barriers in the workplace among patients with spinal cord injury who completed vocational training from CRP.

3.2 Study setting

Qualitative research design focuses on the ordinary events of the natural settings. Study was conducted in the real workplace and of the participants in some districts of Bangladesh selected by the researcher purposefully. The researcher observed and interacted with the individual in their own contexts.

3.3 Study population

Patients with spinal cord injury who completed vocational training from Madhab Memorial Vocational Training Institute, CRP, Savar, Dhaka, Bangladesh and continue their work.

3.4 Sampling procedure

Participants were selected from the population by using purposive sampling technique. Purposive sampling based on some pre-defined criteria. This sampling was used because

the researcher did not simply study whoever was available but used judgment to select a sample to whom could believe and collected data was needed.

3.4.1 Inclusion criteria

- Participants those were completed vocational training from Madhab Memorial Vocational Training Institute, CRP, Savar, Dhaka, Bangladesh and continue their work.
- Participants those were use assistive device or orthotics device for mobility.
- Both male and female was selected.
- Subject who were willing to participate.
- Easy to communicated with subject.

3.4.2 Exclusion criteria

- Subject who were not willing to participate.
- Subject who had psychological problem.

3.5 Sample size

Seven participants were taken as sample from workplace settings

3.6 Data collection procedure

A semi-structured, face to face open ended questionnaire was designed to conduct the interview. With semi-structured question participants get the freedom to explain their feelings, experience and opinion in their own word, from which depth information for the study were obtained. Face to face interview helped the researcher to determine participants understanding of the questions by observed their facial expressions. During data collection interviewer took the file from CRP Madhab Memorial Vocational Training Institute then collected information on name, age, location of participant's home, mobile number and put

this information on the information checklist. Further information was collected after going to participant's workplace. Firstly interviewer was ensured a quiet environment in participant's workplace to avoid distraction and environmental noise. The interviewer explained about the aim of the study. Then a consent form was provided to participants. It was help to maintain the good rapport so that the researcher got the actual information from the participant's. The data collector collected all the data himself through interview and observation. Interview was conducted in Bangla so that participants can easily understand the questions and recorded by recorder of mobile phone. Interview continued until 'saturation point' was reached, that was no major new insights were being revealed and there was repetition of the same issue with different respondents.

3.7 Data collection tools and material

A phone recorder was used to record the interview of the participants. Pen, paper and clip board was used to write down observation notes. An information sheet and consent form was used for taking permission from the participants. Open ended question sheet was used to conduct the interview.

3.7.1 Questionnaire

For data collection a semi-structured questionnaire was used. The questionnaire was formed based upon the related literature, determine of the study title and also pilot study.

3.8 Duration of data collection

Data were collected from 10th April 2017 to 10th May 2017. Each participant provided time to collected data. Each interview took approximately 20-30 minutes to complete.

3.9 Data Analysis

Qualitative data analysis was a complex process; content analysis used to discover them which was a common data analysis. The investigator used content analysis for analysis of qualitative data. At first it included systematic organization of the field notes, transcripts of interviews & voice recorder in which the researcher listened to the recorded interview Several times. After that the interviews was transcribed into Bengali by the researcher. The investigator reviewed the interviews with the transcript to ensure all the data was presented within the text. The investigator was made three sets of transcripts from the main copy. Three copies were given to the other three people separately who translated the transcript from Bengali to English. The investigator read those several time & compared them with the recording to ensure that all words were present in transcript told by the participants. Data triangulation has been done. Then the investigator categorized the data from one or more questions of each interview questionnaire. Then code was made from the findings of the participant's interview. Codes were set in a table. The tables were arranged under each category that all participants are shown in a column; codes were focus in a row. Given tick on the participants response. Finally general themes were performed under each category through interpretation of findings from the data. Themes were made from major codes.

3.10 Field test

A field test was conducted with one participant. Before final data collection, it was necessary to carry out a field test. This helped the researcher to refine the data collection plan. Before the interview the researcher informed the participants about the aim and objectives of the study. From the field test the researcher becomes aware of any parts or questions the participants easily understand or not. The answers that come out from the selected questions help the researcher to modify the questions where necessary. This also helps to structure the questionnaire. Finally the questionnaire was developed from Bangla to English.

3.11 Ethical consideration

The researcher maintained ethical consideration in all aspect of the study. Before starting the study, a formal project proposal was submitted to the department of physiotherapy and after verifying the proposal, permission was taken from Institutional Review Board (IRB) of BHPI to continue the study. This study followed the World Health Organization (WHO) and Bangladesh Medical Research Council (BMRC) guideline and strictly maintained the confidentiality. Informed consent was used to take permission from all participants. Participants' rights and privileges were ensured. All the participants were aware about the aim and objectives of the study. After that they were interviewed following signing the consent form. The investigator has been ensured the confidentiality of participant's information and shares the information only with the research supervisor.

The aims and objectives of the study should be informed to the subjects verbally. Before participating in the study the investigator had provided them a written consent form and explained them about it and then asked to sign as well as the researcher had also signed in the consent form. It was mentioned that the subjects had the rights to withdraw themselves from the research at any times. It was assured to the participant that his or her name or address would not be used. Participation number and code name were used in the notes and transcripts throughout the study. The information might be published in any normal presentation or seminar or written paper but they would not be identified and these would not cause any harm to them. It was also ensured that every participant has the right to discuss about her problem with senior authority as related to this project.

3.12 Rigor of the study

Researcher always tried to maintain trustworthiness and honesty in this study. The study was conducted in a clear and systematic way to reducing the sources of error and bias. No leading questions were asked or no important question is avoided. During the data analysis the researcher not submits her own perspectives. The participant's information was coded accurately and checked by the research supervisor to eliminate any possible errors. During conduct the study every section of the study is checked and re-checked by the research

supervisor. All the raw data was collected from appropriate sources and maintained referencing system.

A qualitative study results were analyzed by content analysis. By using this analysis process, the researcher organized collected data according to categories, coding and themes. The aim of the study was to identify the barriers in the workplace among patients with spinal cord injury who completed vocational training from Centre for the Rehabilitation of the Paralyzed (CRP). Participants respond according to their perception. In this section coding was used to understand the participants' statement and to generate the themes.

4.1 Participant's Socio-demographic information

In this study seven males with SCI were enrolled at various time points who completed vocational training from CRP. Among seven participants the mean age was 40.57 (± 14.15) years with age range 22-62 years. Most of the participants about were at the age group 22-62 years. Among the participants four were married and three participants were unmarried. Most of the participants about three participants were lived in nuclear family whereas four participants in extended family. Three participants lived in urban areas and four participants about lived in rural area. The educational level among the participants, two participants completed SSC level, four participants completed primary level and one participant completed Honors level. Before injury two participants were farmers, two participants were nonresidents, one participant was businessman, one participant was day labor and about one participant was student (Table -1). Code name was used for all of the participants (Table-2). All of the participants working experience range was 4-15 years (Table-3). Majority of the participants workplace distance was 0.50 km (Table -4). All of them were earned by themselves (Table -5).

Table -1: Socio-demographic information of the participants

Socio-demographic Information	Number of the Participant (n)
Age	
22-42	4
43-62	3
Sex	
Male	7
Female	0
Marital status	
Married	4
Unmarried	3
Family type	
Nuclear family	3
Extended family	4
Living area	
Rural area	4
Urban area	3
Education level	
Illiterate	0
Primary	4
S.S.C	2
H.S.C	0
Honors	1
Occupation before injury	
Farmer	2
Nonresident	2
Businessman	1
Day labor	1
Student	1

Code Name of Participants

Table-2: Code name of participants

Participants number	Code name
1	P1
2	P2
3	P3
4	P4
5	P5
6	P6
7	P7

Duration of Working Experience:

Table -3: Working experience years

Participant	P1	P2	P3	P4	P5	P6	P7
Working experience (years)	15	6	4	6	15	4	12

Distance of Workplace from Home:

Table -4: Distance of workplace.

Participant	P1	P2	P3	P4	P5	P6	P7
Distance of workplace	0.50 km	0.50 km	20 yard	100 yard	1 km	0.50 km	0.50 km

Family Member and Earning Member:

Table 5: Family member and earning member.

Participant	P1	P2	P3	P4	P5	P6	P7
Family member	8	2	9	11	5	3	5
Earning member	2	1	2	4	1	1	3

Average Monthly Family Income and Expenditure:

Table -6: Average monthly family income and expenditure.

Participant	P1	P2	P3	P4	P5	P6	P7
Monthly income (Taka)	20000	8000	15000	5000	10000	4000	80000
Monthly expenditure (Taka)	15000	18000	25000	10000	10000	10000	50000

It has been possible to understand the participant opinions by content analysis, where some categories have been found. Under the different categories, patient different opinions were expressed by different codes. Seven major categories were found these are: Participant have health and medical complications, about transportation, mobility aid related barriers, accessibility of workplace, disability discrimination, qualifications and working experience of participant and workplace modification.

4.2 Theme that emerged from data analysis are given below

Theme -1: All of the participant have health and medical complications.

(emerged from category 1)

Category -1: Participant health and medical complication.

Table -7: Participants health and medical complication

Coding	P1	P2	P3	P4	P5	P6	P7	Total
Pain					√		√	2
Spasticity				√				1
Problem in bowel bladder	√							1
Physical limitation	√	√	√	√	√	√	√	7
Difficulty to move on	√		√	√	√		√	5

From the transcripts among all participants reported that physical limitation was the main problem, five participants had problem difficulty to move on, one participant had problem in bowel bladder, one participants had spasticity develop and one participants had pain problem.

Theme -2: Most of the participant said they need help from family members and other people to travel their workplace but some of the participant said they can travel alone in their workplace.

(emerged from category 2)

Category -2: About participant's transportation.

Table -8: About participant's transportation.

Coding	P1	P2	P3	P4	P5	P6	P7	Total
Need help	√	√		√	√			4
No need help			√			√	√	3

From the transcripts among four participants reported that they need help from family and other people to travel their workplace and three participants did not need any help to travel their workplace, they could travel their workplace in their own effort.

Theme -3: All of the participant said mobility aid cannot create barrier during travel.
 (emerged from category 3)

Category -3: About participant’s mobility aid.

Table -9: About participant’s mobility aid

Coding	P1	P2	P3	P4	P5	P6	P7	Total
Wheelchair	√	√	√	√	√			5
Long trolley							√	1
Elbow crutch						√		1

From the transcripts among five participants reported that wheelchair was main mobility aid for their travel, one participant used long trolley and one participant used elbow crutch for travel their workplace. All participants reported that their mobility aid did not create any barrier in their travel.

Theme -4: Most of the participant said workplace accessibility is suitable for them but some participant said sometimes they need help to access their workplace.

(emerged from category 4)

Category 4: Accessibility in workplace

Table -10: Accessibility in workplace

Coding	P1	P2	P3	P4	P5	P6	P7	Total
Self-independent	√				√	√	√	4
Dependent		√	√	√				3

From the transcripts among four participants reported that they were self-independent, did not need any help from other to access their workplace and three participants need help from other to access their workplace due to their health related complications.

Theme -5: The majority of participant said their colleagues and surrounding people show different attitude due to their disability but some of the participant said their colleagues and surrounding people show friendly attitude.

(emerged from category 5)

Category -5: Disability discrimination.

Table -11: Disability discrimination

Coding	P1	P2	P3	P4	P5	P6	P7	Total
Negative perception	√	√	√	√			√	5
Positive perception					√	√		2

From the transcripts among five participants reported that their colleagues and surrounding people had negative perception about them because of their disability and tow participants reported their colleagues and surrounding people showed friendly attitude.

Theme -6: The majority of participant said they cannot get workplace facilities but some of the participant said they get workplace facilities.

(emerged from category 6)

Category -6: Participants qualification and working experience.

Table -12: Participants qualification and working experience.

Coding	P1	P2	P3	P4	P5	P6	P7	Total
Not neglected					√	√		2
Neglected	√	√	√	√			√	5

From the transcripts among five participants reported that workplace facilities was not available for them, they were always neglected and two participants reported that they were not neglected to get about their workplace facilities, they got all type of workplace facilities.

Theme -7: All of the participant said workplace modification is present in their workplace.

Subtheme -7.1: All of the participant said workplace modification is done by owe effort.

(emerged from category 7)

Subtheme -7.2: All of the participant said it is suitable for them but some of the participant says if they can modify more in workplace, it can be suitable more.

(emerged from category 7)

Category -7: Workplace modification.

Table -13: Workplace modification.

Coding	P1	P2	P3	P4	P5	P6	P7	Total
Suitable	√	√	√	√	√	√	√	7
Not suitable								0

From the transcripts among all participants reported that workplace modification was suitable for them and all participants also reported that they were modify their workplace in their own effort. All participants reported they need more modification.

In this chapter the results of the study were discussed in relation to the research questions and objectives of the study. It has been possible to understand the barriers in the workplace among patients with spinal cord injury who completed vocational training form CRP. By content analysis different categories were found under which different opinions were expressed by different codes. Seven major categories were found under which seven themes were emerged. This part was carried out on the basis of analysis of acquired data and its relevance with other published literature related to the study.

Summary of theme that emerged from data analysis:

Theme -1: All of the participant have health and medical complications.

As a result of SCI the health and medical complications consequence play a great effect on the participant's workplace. During interview, most of the participants claimed about their health and medical complications.

Participant -1 said,

"I cannot go to work many times. There is a problem to urinate urination. Wheel chairs are a problem to run. I cannot do any work soon."

Participant -2 said,

"There are only diabetes, I have no problem with it."

Participant -3 said,

"I cannot walk. If I walk, it would have been good."

Participant -4 said,

"Many complications. The right side hip joint is fixed. I cannot go alone. Normally I cannot sit. It takes a lot of problems."

Participant -5 said,

“There are pain in my back and shoulder that create problems in work.”

Participant -7 said,

“As a spinal cord injury patient, spinal cord injury related all problem I face.”

From the transcripts among seven participants, all participants reported that physical limitation is the main problem, four participants had problem in difficulty to move on, two participants had problem in pain, one participant had spasticity in hip and one participant had problem in bowel bladder.

Literature show that Physical limitations, financial crises, insufficiency, pain, stress ulcers, weakness, lack of social support, depression etc. are important issues that work as a challenge for employment after SCI (Targett et al., 2005). Different literature explain about how these affect the employment after SCI.

So my study say that most of the participants face health and medical complications. This health and medical complications can affect their workplace activity.

Theme -2: Most of the participant said they need help from family members and other people to travel their workplace but some of the participant said they can travel alone in their workplace.

In literature shows, person who is employed cannot understand the difficulties with the spine cord injury. However Transportation becomes the number one barrier. Transportation was frequently rated as the main cause of unemployment (Fiedler et al., 2002).

From the transcripts among seven participants, four participants reported that they need help from family members and other people to travel their workplace and three participants reported they can independently travel to their workplace.

Participant -1 said,

“Help takes a lot of time. Get help, I do not get much time. It was too late to drive wheel chair and it is difficult to drive.”

Participant -2 said,

“I can run wheelchair myself but need help to get into workplace and home.”

Participant -4 said,

“It takes time to go to work. Due too many complications of health.”

Participant -5 said,

“My wife helps me to go to work. Because of my physical illness, need help to go to workplace.”

Participant -3, 6, 7 said similar,

“Need help before, now it does not take anymore.”

Most of the participants workplace distance 0.50 kilo-meter from home and they cannot use any vehicals to travel their workplace. They only use their mobility aid to travel. They only focus their physical illness, as a result need help from family member and other person to go to workplace. Some of the participants said that they can self dependent to go to their workplace.

Theme -3: All of the participant said mobility aid cannot create barrier during travel.

In my study all participants reported about their mobility aid five participants use wheelchair, one participant use long trolley and another one participant use elbow crutch.

All of the participant said similar,

“For a long time due to the habit of using. Now it does not seem bored anymore.”

So we can say that all of our participants is used to their mobility aid.

Theme -4: Most of the participant said workplace accessibility is suitable for them but some participant said sometimes they need help to access their workplace.

Most of the participant mentioned that they are easily access their workplace and some of the participants mentioned they need help form other person to access their workplace due to their unappropriated workplace modification.

In my study, four participants reported that workplace accessibility is suitable for them because it was made suitable for them and three participants reported, workplace accessibility is not suitable for them.

Participant- 1,5,6,7 said similar,

“The entry was made suitable, so there is no problem to access. Everybody help me to access my workplace.”

Participant- 2 said,

“Need somebody's help to access my workplace, because of my physical illness and the workplace modification is not appropriate to access my workplace.”

Participant- 3 said,

“Where I work, there the ramp is are not suitable for me and it is too high. By that I cannot access easily my workplace, so I need someone else's help”

Participant- 4 said,

“I need help because of my physical complexity. Say others to help. If they can help, I can enter my workplace. If they cannot help, I have to stay outside my workplace.”

In literature shows, access to workplace and all other areas access point of access to work needs wide doors for wheelchair users and path clearance; workplace changes, including height adjustable desk or table, accessible filing systems and other work areas and accessible facilities such as toilets, conference areas, and launch and rest areas (Somerville et al., 2000).

In the basis of all transcript, we can say that workplace modification and physical condition is important for workplace accessibility. If workplace modification and physical condition is well, participants can enter easily their workplace without any barriers.

Theme -5: The majority of participant said their colleagues and surrounding people show different attitude due to their disability but some of the participant said their colleagues and surrounding people show friendly attitude.

Literature shows that discrimination by reporting employers mainly due to unemployment. Spinal cord injury people will have to make extra efforts to overcome re-employment problems (Chan & Man, 2005). Unemployment has been linked to discrimination in the workplace (McMahon et al., 2005).

From the transcripts among seven participants, five participants faced different attitude from their colleagues and surrounding people and two participants reported their colleagues and surrounding people show friendly attitude.

Participant- 1 said,

“Many times I ask for help. But people around me do not help, because I'm disabled. They feel burdened about me.”

Participant- 2 said,

“Many people behave differently. Many people do not evaluate my work as I am disabled.”

Participant- 3 said,

“It does not do much before. Someone else would come and say that I cannot do it. He is a disabled, we are very much different from the disable people.”

Participant- 4 said,

“This is normal. If I want help from someone else, they do not listen to me. Those who are not always seeking help, they understand what I want but they do not help. My evaluation is less.”

Participant- 7 said,

“People always, makes some discriminatory behavior.”

Participant- 5, 6 said similar,

“My colleagues and surrounding people love me, they help me all time.”

So my study say that majority of participants experience in discrimination in workplace during work. It makes them frustrated. This discriminate attitude they overcome their own effort. Some of the participants give their opinion their colleagues and surrounding people encourage them to work.

Theme -6: The majority of participant said they cannot get workplace facilities but some of the participant said they get workplace facilities.

Literature shows that skills and knowledge to work fairly extensively at work, temporary jobs to work closer and some are facing discrimination in workplace (Konrad et al., 2013). The probability of being engaged in employed with profiles can be related to those with negative attitude, prejudice to others (i.e., a negative overgeneralized image of a person or group) and discrimination (i.e., promotion or refusal of employment) (Krause et al., 2010).

Participant- 1 said,

“I do not get all advantages because of my disability.”

Participant- 2 said,

“It would have been better to get better training. It would have been better to get a better working environment.”

Participant- 3 said,

“All facilities is not available. According to our social, political, governmental situation that our rights are not given properly. According to the official situation, if I ask some help from the office's chief officer, they will see different excuses. They say you cannot get anything. Say more you have it, it's there. But there is really nothing. According to socialism, I'm disabled. So, I cannot get all the facilities. All facilities are not provided under the Disability Law.”

Participant- 4 said,

“No financial help. It would have been good if I got financial help.”

Participant- 7 said,

“Cannot find. Cannot work like a normal person, so all facilities are not provided. But then not acting as a patient, it is happy to earn some of the minimum amount of work to do. Thereby, do not have to depend on anyone else.”

Participant- 5, 6 said similar,

“I am satisfied to work.”

In my study all participants reported about their workplace facilities, five participants they cannot get their workplace facilities according to their qualification and working experience, they also said social, political, governmental system is not helpful for them and they can get facilities according to Disability Law. Two participants reported they are happy with what they get because they can work.

So my study say, disable people do not get advantage according to their qualification and working experience. Because of that their disability, education level, lack of workplace, neglected attitude and negative social, political, governmental view. Some of the participants give their opinion they are satisfied to work.

Theme -7: All of the participant said workplace modification is present in their workplace.

Subtheme -7.1: All of the participant said workplace modification is done by owe effort.

Subtheme -7.2: Majority of the participant said it is suitable for them but some of the participant says if they can modify more in workplace, it can be suitable more.

From the transcripts among seven participants, all participants reported that workplace modification is suitable for them.

Literature shows that accommodation starts with physical accessibility, includes more comprehensive and integration of assistive technology in employment, and changes the nature or location of the job (Sabata et al., 2008).

Participant- 1 said,

“Everything is suitable. I can easily move with a wheel chair.”

Participant- 2 said,

“I modify my workplace for my own favor.”

Participant- 3 said,

“Suitable. But it would have been better if I got better.”

Participant- 4 said,

“I have made everything my effort. But there is a problem to get something down but still try to get it.”

Participant- 5 said,

“Everything has been made in suitable way. I have made everything my effort.”

Participant- 6 said,

“Everybody helps me, so I cannot face any barrier.”

Participant- 7 said,

“There is modify everywhere. Which can be used well.”

So that my study say, workplace modification is present in their workplace that is suitable for them.

As the study was focused on barriers in the workplace among patients with spinal cord injury who completed vocational training from CRP and the setting in participants workplace settings but it was not possible for the researcher to go to different area in Bangladesh and researcher could not find any female participants who could continue their working activity in their workplace, for this reason this study not represents the overall image of Bangladesh in respect of the study. The study topic was new in the context of physiotherapy in Bangladesh. Therefore it was difficult to find sufficient books or journal on this area in the context of Bangladesh. So, it was not possible to compare the findings with other findings in the context of Bangladesh. Another limitation was researcher could not cover more participants for the limitation of resources and time. It was the first research project and has had limited experience with techniques and strategies in terms of the practical aspects of researcher there might be some mistakes and depth information might not be collected properly.

6.1 Conclusion

Spinal cord injury is known as one of the most devastating condition of mankind. Spinal cord injured person can survive, even after the most serious cord injuries, return to a healthy, happy and productive life possible. The patients lose some of the functional ability after the SCI. But it is very important try to return their functional ability. When functional ability are achieved, vocational training plays an important role in participating in a new job while coming back to social reintegration and new work.

This study comprehends about the experienced barriers in the workplace among patients with spinal cord injury who completed vocational training from CRP in terms of health and medical complications, transportation, mobility aid related barriers, accessibility of workplace, disability discrimination, qualifications and working experience and workplace modification. Although SCI causes a residual disability to the people but they can reintegrated themselves if these identified barriers can resolves. So identification of these barriers will help to give emphasize on designing the overcoming strategy of those challenges. In social life they confronted the prejudice and social stigma about their disability. Inaccessibility of public transport, physical and medical complications barriers hinder them mostly from their all kind of workplace participation whereas lack of inaccessibility in workplace and workplace modification issue are the most experience barrier in the workplace activity. So, if these barriers are minimized or overcoming strategies are developed and implicate, these people with spinal cord injury can work in their workplace life successfully.

6.2 Recommendation

It is recommended to do further research on large group of people from various districts and geographical areas in a quantitative approach and also find out the overcoming strategies of barriers faced among patients with spinal cord injury who completed vocational training from CRP. It also recommended that further research on female participants and compare between male and female participants they faced barriers in their workplace among patients with spinal cord injury who completed vocational training from CRP.

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Appendix

CONSENT STATEMENT

Assalamualaikum / Namasker,

I am Md Mozahidul Haque Bhuyan. I am conducting this study for 4th professional B.sc in Physiotherapy project study dissertation titled **“BARRIERS IN THE WORKPLACE AMONG PATIENTS WITH SPINAL CORD INJURY WHO COMPLETED VOCATIONAL TRAINING FROM CRP”**. By this I would like to know spinal cord injury patient barriers in the workplace. Now I want to ask some personal and workplace related question. This will take approximately 20-30 minutes.

I would like to inform you that this is a purely academic study and will not be used for any other purpose. Your participation in the research will have no impact on your present workplace. All information provided by you will be treated as confidential and in the event of any report or publication it will be ensured that the source of information remains anonymous.

Your participation in this study is voluntary and you may withdraw yourself at any time during this study without any negative consequences. You also have the right not to answer a particular question that you don't like or do not want to answer during interview.

If you have any query about the study or your right as a participant, you may contact with me and or my Supervisor Mohammad Habibur Rahman, Assistant Professor, Physiotherapy Department, BHPI, CRP, Savar, Dhaka-1343.

Do you have any questions before I start?

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

Yes

No

Signature of the Participant and date _____

Signature of the Data collector and date _____

Signature of the researcher and date _____

Questionnaire (English)

Title: Barriers in the workplace among patients with spinal cord injury who completed vocational training from CRP

Please give a tick (✓) mark on the left side of the box of correct answer.

1. Identification number -
2. Date of interview-
3. Name of participant-
4. Address-

House number/Village:

P.O:

P.S:

District:

5. Mobile number-
6. Place of data collection-
7. Age-
8. Sex-

Male

Female

9. Marital status-

Married

Unmarried

Separated

Divorced

10. Family type-

Nuclear family

Extended family

11. Living area-

Rural

Urban

12. Educational level-

- Illiterate
- Primary
- S.S.C
- H.S.C
- Honors
- Masters

13. Occupation before injury-

14. Duration of working experience-

15. Distance of workplace from home-

16. Family members-

17. Family earning members-

18. Average monthly family income-

19. Average monthly family expenditure-

20. What type of vocational training you completed from CRP?

21. Do you have any health and medical complication that can affect your workplace?

Yes No

If yes, please explain your health and medical complication that can affect your workplace?

22. Do you need any help from a family member or personal care attendants to travel to your workplace with you?

Yes No

If yes, please explain what is reasoning for need help family member or personal care attendants to travel to your workplace?

23. What type of mobility aids you used to travel your workplace?

24. Do you think mobility aids create a barriers, travel you at workplace?

Yes No

If yes, please explain what kind of barrier you face?

25. Do you face barriers due to entering your workplace?

Yes No

If yes, please explain what kind of barriers to be faced?

If no, please explain what is the reason?

26. Do you find any different attitude from your colleagues due to your disability?

Yes No

If yes, please explain what type of different attitude find from you colleagues?

27. Do you get promotion according to your qualifications and working experience?

Yes No

If no, please explain the reasons for, not to get promotion.

28. Is there any workplace modification present for you work facility?

Yes No

If yes, please explain is workplace modification is suitable for you?

If no, please explain what is the reason absence of workplace modification?

সম্মতিপত্র

আসসালামুয়ালাইকুম/ নমস্কার,

আমি মোঃ মোজাহিদুল হক ভূঞা, আমি এই গবেষণা প্রকল্পটি বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট (বিএইচপিআই)-এ পরিচালনা করছি যা আমার ৪র্থ বর্ষ বিএসসি ইন ফিজিওথেরাপী কোর্সের অধিভূত। আমার গবেষণার শিরোনাম হল-“ মেরুরজ্জুতে আঘাত প্রাপ্ত রোগীদের কর্মক্ষেত্রের প্রতিবন্ধকতা অনুসন্ধান যারা সিআরপি থেকে কারিগরি প্রশিক্ষণ সম্পন্ন করেছে ” এর মাধ্যমে আমি মেরুরজ্জুতে আঘাত প্রাপ্ত রোগীদের কর্মস্থলের প্রতিবন্ধকতা সম্পর্কে জানতে চাই। আমি এখন আপনাকে কিছু ব্যক্তিগত এবং কর্মস্থলে প্রতিবন্ধকতা সম্পর্কে আনুষঙ্গিক কিছু প্রশ্ন করতে চাচ্ছি এতে আনুমানিক ২০-৩০ মিনিট সময় নিবো।

আমি আপনাকে অবগত করছি যে, এটা আমার অধ্যয়নের অংশ এবং যা অন্য কোন উদ্দেশ্যে ব্যবহৃত হবে না। এই গবেষণায় আপনার অংশগ্রহণ বর্তমান কর্মস্থলে 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 স্বেচ্ছাপ্রণোদিত এবং আপনি যেকোন সময় এই অধ্যয়ন থেকে কোন নেতিবাচক ফলাফল ছাড়াই নিজে থেকে প্রত্যাহার করতে পারবেন এছাড়াও কোন নির্দিষ্ট প্রশ্ন অপছন্দ হলে উত্তর না দেয়ার এবং সাক্ষাৎকারের সময় কোন উত্তর না দিতে চাওয়ার অধিকারও আপনার আছে।

এই অধ্যয়নে অংশগ্রহণকারী হিসেবে যদি আপনার কোন প্রশ্ন থাকে তাহলে আপনি আমাকে অথবা এবং আমার সুপারভাইজার মোহাম্মদ হাবিবুর রহমান, সহকারী অধ্যাপক, ফিজিওথেরাপী বিভাগ, বিএইচপিআই, সিআরপি, সাভার, ঢাকা-তে যোগাযোগ করতে পারেন।

সাক্ষাৎকার শুরু করার আগে কি আপনার কোন প্রশ্ন আছে ?

সুতরাং আমি আপনার অনুমতিতে এই সাক্ষাৎকার শুরু করতে পারি ?

হ্যাঁ না

১। অংশগ্রহণকারীর স্বাক্ষর ও তারিখ _____

২। উপাত্ত সংগ্রহকারীর স্বাক্ষর ও তারিখ _____

৩। গবেষকের স্বাক্ষর ও তারিখ _____

প্রশ্নাবলী (বাংলা)

শিরোনাম: মেরুর জুতে আঘাত প্রাপ্ত রোগীদের কর্মক্ষেত্রের প্রতিবন্ধকতা অনুসন্ধান যারা সিআরপি থেকে কারিগরি প্রশিক্ষণ সম্পন্ন করেছে।

অনুগ্রহপূর্বক নিচের প্রশ্নগুলোর মধ্যে সঠিক উত্তরের বাম পাশে টিক (✓) চিহ্ন দিন।

১। সনাত্তকরণ সংখ্যা -

২। সাক্ষাৎকারের তারিখ -

৩। উত্তরদাতা নাম -

৪। ঠিকানা -

বাসা নম্বর / গ্রাম:

পোস্ট অফিস:

থানা:

জেলা:

৫। মোবাইল নম্বর -

৬। তথ্য সংগ্রহের স্থান -

৭। বয়স -

৮। লিঙ্গ -

পুরুষ

মহিলা

৯। বৈবাহিক অবস্থা -

অবিবাহিত

বিবাহিত

তালাকপ্রাপ্ত

বিধবা

১০। পরিবারের ধরন -

একক পরিবার

যৌথ পরিবার

১১। বসবাসের এলাকা-

গ্রামীণ

শহুরে

১২। শিক্ষাগত যোগ্যতা -

অশিক্ষিত

প্রাইমারী

এস.এস.সি

এইচ.এস.সি

স্নাতক

মাস্টার্স

১৩। আঘাত পূর্বকালীন পেশা -

১৪। কাজের অভিজ্ঞতা সময়কাল-

১৫। বাড়ি থেকে কর্মক্ষেত্রের দূরত্ব-

১৬। পরিবারের সদস্য সংখ্যা -

১৭। পরিবারের উপার্জনক্ষম ব্যক্তি -

১৮। পরিবারের গড় মাসিক আয় -

১৯। পরিবারের গড় মাসিক ব্যয় -

২০। আপনি কি ধরনের কারিগরি প্রশিক্ষন সি আর পি থেকে গ্রহন করেছেন?

২১। আপনার কি কোন ধরনের স্বাস্থ্যগত ও চিকিৎসা সংক্রান্ত জটিলতা আছে যা আপনার কর্মক্ষেত্রে প্রতিবন্ধকতা বা সমস্যা তৈরি করে?

হ্যাঁ না

যদি হ্যাঁ হয় , স্বাস্থ্যগত ও চিকিৎসা সংক্রান্ত জটিলতা সম্পর্কে বলুন যা আপনার কর্মক্ষেত্রে প্রতিবন্ধকতা বা সমস্যা তৈরি করে?

২২। আপনার সাথে আপনার কর্মক্ষেত্রে যাতায়াত করার জন্য কোন পারিবারিক সদস্য বা ব্যক্তিগত পরিচর্যাকারী কাছ থেকে কোন সাহায্যের দরকার হয়?

হ্যাঁ না

যদি হ্যাঁ হয় , আপনার কর্মক্ষেত্রে যাতায়াত করার জন্য পরিবারের সদস্য বা ব্যক্তিগত পরিচর্যাকারীর সাহায্যের কারণ সম্পর্কে বলুন?

২৩। আপনার কর্মক্ষেত্রে যাতায়াতে কি ধরনের চলন সহায়ক যন্ত্র ব্যবহার করে থাকেন?

২৪। আপনার কি মনে হয় চলন সহায়ক যন্ত্র আপনার যাতায়াতে প্রতিবন্ধকতা বা সমস্যা তৈরি করে?

হ্যাঁ না

যদি হ্যাঁ হয়, দয়া করে ব্যাখ্যা করুন চলন সহায়ক যন্ত্র আপনার যাতায়াতে কি ধরনের প্রতিবন্ধকতা বা সমস্যার তৈরি করেছে?

২৫। কর্মক্ষেত্রে প্রবেশের সময় কি কোন ধরনের প্রতিবন্ধকতা বা সমস্যার সম্মুখীন হয়ে থাকেন?

হ্যাঁ না

যদি হ্যাঁ হয়, কি ধরনের সমস্যার সম্মুখীন হয়ে থাকেন?

যদি না হয়, না হওয়ার কারণ?

২৬। আপনার প্রতিবন্ধিতার কারণে আপনার সহকর্মীরা আপনার প্রতি কি ভিন্নরূপ আচরণ করে থাকে ?

হ্যাঁ না

যদি হ্যাঁ হয়, দয়া করে ব্যাখ্যা করুন আপনার সহকর্মীদের কি ধরনের ভিন্নরূপ আচরণ আপনি লক্ষ্য করেছেন যা আপনার কর্মক্ষেত্রে প্রতিবন্ধকতা বা সমস্যার তৈরি করেছে?

২৭। আপনি কি আপনার যোগ্যতা এবং কাজের অভিজ্ঞতা অনুসারে আপনার সহকর্মীদের মত সকল ধরনের সুযোগ সুবিধা বা পদোন্নতি পেয়ে থাকেন?

হ্যাঁ না

যদি না হয়, যোগ্যতা এবং কাজের অভিজ্ঞতা অনুসারে আপনার সহকর্মীদের মত সকল ধরনের সুযোগ সুবিধা বা পদোন্নতি না পাওয়ার কারণ?

২৮। আপনার কাজের সুবিধার জন্য কর্মক্ষেত্রে কোন ধরনের পরিবর্তন করা হয়েছে?

হ্যাঁ না

যদি হ্যাঁ হয়, দয়া করে ব্যাখ্যা করুন কর্মক্ষেত্রে পরিবর্তন আপনার উপযোগি?

যদি না হয়, দয়া করে ব্যাখ্যা করুন কর্মক্ষেত্রে পরিবর্তন না করার কারণ?

Date: August 14, 2016

The Chairman
Institutional Review Board (IRB)
Bangladesh Health Professions Institute (BHPI)
CRP-Savar, Dhaka-1343, Bangladesh

Subject: Application for review and ethical approval.

Sir,

With due respect I would like to draw your kind attention that I am a student of B.Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI)- an academic institute of CRP under Faculty of Medicine of University of Dhaka (DU). I have to conduct a thesis entitled, "BARRIERS IN THE WORKPLACE AMONG PATIENTS WITH SPINAL CORD INJURY WHO COMPLETED VOCATIONAL TRAINING FROM CRP" under honorable supervisor, Mohammad Habibur Rahman, Assistant Professor, Department of Physiotherapy, BHPI, CRP, Savar, Dhaka-1343, Bangladesh. The purpose of the study is to identify the barriers in the workplace among patients with spinal cord injury who completed vocational training from CRP.

A structured questionnaire will be used that will take about 20 to 30 minutes followed by measurements of barriers in the workplace. Patient information will be collected from Madhab Memorial Vocational Training Institute, CRP, Savar, Dhaka, Bangladesh. Data collectors will receive consents from all participants. Any data collected will be kept confidential.

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

Sincerely yours,

Md Mozahidul Haque Bhuyan

Md Mozahidul Haque Bhuyan
B.Sc. in Physiotherapy
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Recommendation from the thesis supervisor:

Habib

Mohammad Habibur Rahman
Assistant Professor
Department of Physiotherapy
BHPI, CRP-Savar, Dhaka-1343, Bangladesh.

Attachment: Thesis Proposal including measurement tools and process and procedure for maintaining confidentiality, Questionnaire (English and Bengali version), Information sheet & consent & any other paper (if applicable).

Permission letter

March 30, 2017

Head of the Department,
Department of Physiotherapy,
Bangladesh Health Professions Institute (BHPI),
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 Md Mozahidul Haque Bhuyan a student of 4th Professional B.Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI). The ethical board of BHPI has approved my research project entitled on “**BARRIERS IN THE WORKPLACE AMONG PATIENTS WITH SPINAL CORD INJURY WHO COMPLETED VOCATIONAL TRAINING FROM CRP**”. To conduct this research, I want to collect data from the patients with spinal cord injury who completed vocational training form CRP and attending in the workplace. So, I need permission for data collection from the patients with spinal cord injury who completed vocational training from CRP. 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 give me the permission to make this research project successful.

Sincerely

Md Mozahidul Haque Bhuyan

Md Mozahidul Haque Bhuyan

4th Professional B.Sc. in Physiotherapy

Class Roll-34, Session: 2012-2013

Bangladesh Health Professions Institute (BHPI)

(An academic Institute of CRP)

CRP, Chapain, Savar, Dhaka-1343.

Forwarded
Habil 30.3.2017

Allowed for data collection
30.03.17
Md. Obaidul Haque
Associate Professor & Head of Department
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343



বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)

BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)

(The Academic Institute of CRP)

CRP-Chapain, Savar, Dhaka, Tel: 7745464-5, 7741404, Fax: 7745069

BHPI-Mirpur Campus, Plot-A/5, Block-A, Section-14, Mirpur, Dhaka-1206. Tel: 8020178,8053662-3, Fax: 8053661

তারিখ : ০৬.০৪.২০১৭

প্রতি

সমন্বয়কারী

মাধব স্মৃতি ভোকেশনাল ট্রেনিং ইনস্টিটিউট

সিআরপি, সাভার, ঢাকা।

বিষয় : রিসার্চ প্রজেক্ট (dissertation) প্রসঙ্গে।

জনাব,

বিএইচপিআই'র ৪র্থ পেশাগত বিএসসি ইন ফিজিওথেরাপি কোর্সের ছাত্র মোঃ মোজাহিদুল হক ভূঁইয়াকে তার রিসার্চ সংক্রান্ত কাজের জন্য আগামী ১০.০৪.২০১৭ তারিখ থেকে ১০.০৫.২০১৭ তারিখ পর্যন্ত সময়ে আপনার নিকট প্রেরণ করা হলো। তার রিসার্চ শিরোনাম

“ Barriers in the workplace among patients with spinal cord injury who completed vocational training from CRP.

তাই তাকে সার্বিক সহযোগীতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদান্তে

মোঃ গুভায়দুল হক

সহযোগী অধ্যাপক ও বিভাগীয় প্রধান

ফিজিওথেরাপি বিভাগ

বিএইচপিআই।



Seen
R. Halder
20/4/17

RAMESH CHANDRA HALDER
Vocational Training Coordinator
CRP-Chapain, Savar, Dhaka.



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

Ref: CRP-BHPI/IRB/04/17/113

Date: 15/04/2017

To
Md. Mozahidul Haque Bhuyan
B.Sc. in Physiotherapy
Session: 2012-2013, Student ID: 112120035
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Barriers in the workplace among patients with spinal cord injury who completed vocational training from CRP.

Dear Md Mozahidul Haque Bhuyan,

The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application on 16/08/2016 to conduct the above mentioned thesis, with yourself, as the Principal investigator. The Following documents have been reviewed and approved:

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

Since the study involves self-administered questionnaire that takes 20 to 30 minutes and have 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 August 17, 2016 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,

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

CRP-Chapain, Savar, Dhaka-1343. Tel: 02-7745464-5, 7741404 , Fax: 02-7745069,
Email: contact@crp-bangladesh.org, www.crp-bangladesh.org