

**EXPERIENCE IN WORK ENVIRONMENT OF PEOPLE WITH
SPINAL CORD INJURY WHO RETURNS IN COMMUNITY
AFTER COMPLETING REHABILITATION FROM CRP**

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

Session: 2009-2010

BHPI, CRP, Savar, Dhaka-1343



Bangladesh Health Professions Institute (BHPI)

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Bangladesh

February, 2015

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

EXPERIENCE IN WORK ENVIRONMENT OF PEOPLE WITH SPINAL CORD INJURY WHO RETURNS IN COMMUNITY AFTER COMPLETING REHABILITATION FROM CRP

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

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DECLARATION

I declare that the work presented here is my own. All sources used have been cited appropriately. Any mistakes or inaccuracies are my own. I also decline that for any publication, presentation or dissemination of information of the study. I would bind to take written consent of my supervisor and head of the department of physiotherapy, BHPI

Signature:

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CONTENTS

	Page No.
Acknowledgement	i
Acronyms	ii
List of Tables	iii
Abstract	iv
CHAPTER- I: INTRODUCTION	1-7
1.1 Introduction	1-5
1.2 Rationale	6
1.3 Aim of the study	7
1.4 Objective of the study	7
CHAPTER- II: LITERATURE REVIEW	8-15
CHAPTER-III: METHODOLOGY	16-19
3.1 Study design	16
3.2 Study settings	16
3.3 Study population and participants	16
3.4 Inclusion criteria	17
3.5 Exclusion criteria	17
3.6 Data collection instrument	17
3.7 Data collection procedure	17
3.8 Data analysis	18
3.9 Field test	18
3.10 Inform consent	19
3.11 Ethical considerations	19
3.12 Rigor	19
CHAPTER- IV: RESULTS and DISCUSSION	20-35
4.1 Categories and themes	20-21
4.2 Discussion and result	22-35
4.3 Limitations of the study	35

	Page No.
CHAPTER – V: CONCLUSION AND RECOMMENDATIONS	36-37
5.1 Conclusion	36
5.2 Recommendations	37
REFERENCE	38-41
APPENDIX	42-48
6.1 Appendix-I : Consent form	42-45
6.2 Appendix-II: Questionnaire	46-48

Acknowledgement

First of all, I would like to pay my gratitude to Almighty Allah who gave me the passion to complete my study. At the same time I want to thank with respect to my parents who always want me to see as a successful person in the world.

Then I gratefully acknowledge to my supervisor, Mohammad Alamgir Chowdhury, Assistant professor of physiotherapy, BHPI, CRP and also Md. Anwar Hossain, Associate Professor and head of the Physiotherapy Department; Md. Obaidul Haque, Associate Professor of Physiotherapy and Head of the Department of Physiotherapy BHPI; Md. Shofiquel Islam, Assistant Professor of BHPI and Muhammad Millat Hossain Lecturer, Department of Physiotherapy for their guidance and support. However it is their cooperation without which I could not be a successful person in the field of physiotherapy.

I am also thankful to Md. Shafiullah (Head of Social Welfare Unit, CRP), and BHPI librarian Mrs. Mohosina for their positive response as well as help during the project studies. Above all I would like to give thanks to the participants of this study. Lastly thanks to all who always being my well-wisher and stand beside me as friend without any expectation.

I am grateful to my participants who gave me their valuable appointment and spend time with me.

Acronyms

ASIA	American Spinal Injury Association
BHPI	Bangladesh Health Professions Institute
CRP	Centre for the Rehabilitation of the Paralysed
NSCISC	National Spinal Cord Injury Statistical Center
SCI	Spinal Cord Injury
WHO	World Health Organization
USA	United States of America
UN	United Nation
NGO	Non-Governmental Organization

List of Tables

Table No.	Discription	Page No.
Table-1:	Profile of the participants	22
Table-2:	Pre-injury, post-injury employment status and job expectation	23
Table-3:	Challenges feel to getting job	25
Table-4:	Help or facilities to getting job	26
Table-5:	Ways to get job after spinal cord injury	27
Table-6:	Challenges feel in employment	28
Table-7:	Help or facilities in workplace	31
Table-8:	Ways to overcome challenges in employment	33

Abstract

Purpose: The purpose of the study to explore the experiences and perspective of people with paraplegia regarding gaining and keeping a job in the community, following spinal cord injury after completing rehabilitation, specifically employer's attitude, physical accessibility, transportation, health and psychological issue. **Methodology:** Convenient qualitative type of study design and semi-structured face-to-face explorative type of interview. Study setting was Participant's house and their work environment. Grounded Theory was used in this study for data analysis. It was done according to coding and categorization to make themes. The analysis of data begins with transcriptions of the entire interviews from voice recorder and written documents. The study was conducted in different communities among paraplegia SCI people. Grounded theory was used to know about the experiences of the persons with paraplegia about challenges related to their employment in the community. **Results:** Among the four participants three were able to gain employment and remaining one participant try to established self-employment. All of the participants perceived difficulties in transportation, accommodation facilities, inaccessible wheelchair environment and workplace discrimination in the general workplace. Later on two of the participants experienced a fully wheelchair accessible environment at their current office campus and that was a rehabilitation center and a NGO. Self-employment participant experienced negative attitudes from working environment. Depression and financial crisis are vital barrier for returning to work for uneducated or little educated person. Pressure ulcer has experienced who work for a long time. Bowl-bladder incontinence was another vital barrier for returning to work. More over lack of job assistance, financial support, health and rehab support at the community level were also identified in the study. **Conclusion:** Results point to the need for rehabilitation professionals to make special efforts to maximize employability after SCI.

Key words: Spinal cord injury, employment, returns to work.

1.1 Introduction

Spinal cord injury is one of the major physically disabling medical conditions that can cause multiple impairments in participation with community reintegration (Ramakrishnan et al., 2011a). Globally many people are experiencing spinal cord injury almost every year. Individuals who sustain traumatic spinal cord injury (TSCI) encounter a range of challenges related to their functioning and disability as they strive to adjust to their impairments and the consequences of their injury. In the process of getting on with life, vulnerability and strength act together with dependency of others and close relationships are strongly affected. In the transition from hospital rehabilitation to home and community, TSCI individuals also meet various barriers (Noe et al., 2014). These injuries can be devastating causing physical and emotional distress as well as loss of wages. As a result of SCI, important changes occur within an individual's physical and psychosocial relationship with their environment. Some of these changes involve the loss of motor and sensory function, inability to control bladder or bowel function and vitiated sexual functioning. Long term physical problems may reduce the person's involvement in work, school, social and community activities. Persons with SCI experience poor health related quality life than general people (Ottomanelli et al., 2009). Most spinal cord injuries occur in males, experts believe this is particularly due to males being more likely to engage in risk taking behaviors. Rehabilitation goals formulated by Spinal Cord Injury (SCI) individuals returning home reflect these barriers and problems as well as the individuals' hopes. Furthermore, goals might enlighten organizations and processes of importance for the patients, as the most frequently reported goals are related to physical training, equipment services, psychosocial support, accommodation, recreation, and employment (Noe et al., 2014).

Spinal cord injury (SCI) is caused by direct mechanical damage to the spinal cord that usually results in complete or incomplete loss of neural functions such as mobility and sensory function. Motor vehicle accidents (40.4%), falls (27.9%), and acts of violence (15%) are the most frequent causes of SCI, and people with the average age of 40.7

years are most at risk. The annual incidence of SCI is 40 cases per million population in the United States. An estimated 12000 cases of paraplegia and quadriplegia are caused by SCI in the United States in each year, and approximately, 4000 patients die on the way to hospital and 1000 die during their hospitalization. (Saunders et al., 2012).

Bangladesh is one of the least developed countries in the world. Presently, there are no reliable data from either the government or other agencies to establish the number of disabled people in Bangladesh (Hansen et al., 2011). According to WHO statistics 10% of the population of developing countries are disabled and Bangladesh appears to be no exception. Among this 10%, 4.6% are spinal cord injuries, (from 1996 board of Bangladesh statistics). The UN suggests that disabled people constitute as many as 20% of people in some developing countries. The estimates with reference to Bangladesh, over the past twenty years have ranged from 0.5% to 10% highlighting the need for a comprehensive, accurate study about the size and nature of the disabled population in the country. Regardless of which estimate is closer to the truth, it is evident that the absolute number of people living with a disability is extremely large. Even if one were to adopt the rather conservative estimate of 5%, one is looking at a population in excess of 7 million people who are disabled and most of whom are presumed to live below the poverty line (Carpenter et al., 2007).

Numerous studies about the employment situation of disabled people in Bangladesh have shown that many become jobless as a result of their disabilities and are thus further disadvantaged or disabled as a consequence. The major barriers facing disabled people seeking to re-enter the workforce, reach far beyond the physical limitations imposed on them by their disabilities (Carpenter et al., 2007). Carpenter C et al also suggest that over 96% of people with disabilities in Bangladesh receive no help. Approximately 60% of cases occurred in people 16-40 years of age, corresponding to the developmental period associated with carrier development and establishment (Ottomanelli et al., 2009). Frequency of SCI is less in case of those below 20 and above 50 years of age (Razzak et al., 2011).

Like other sectors, the government of Bangladesh and several NGO are working for the advancement in “Disability” issues and some vital programs have accelerated more in the past decades. They have taken several initiatives to develop the quality of life for people with disabilities, living in the community. There are 68 organizations that are working in the field of disability rehabilitation, and 63 organizations that are working in sector of training and employment of disabilities (economic & Social commission for Asia & pacific, 1993-2000 report). The prime objective is to improve quality of life, through empowering the people with disabilities (PWD) to ensure their full participation and equal opportunities in the mainstream development programs. In order to shape the future program in disability, the primary goal was to achieve “full participation and equality” (Govt. of peoples republic of Bangladesh, Ministry of social welfare, department of social service, National Forum of organizations working with the disability, Action Aid Bangladesh ,99. Towards Equalization: ESCAP Decade of Disable persons, 1993-2000) (Hoque et al., 2012).

Employment rates vary dramatically after SCI, depending on the characteristics of the participant sample. Several participant characteristics have been related to differential employment rates after SCI, particularly educational level and age. Race and gender also appear to be important predictors of employment status (Jang et al., 2005). Injuries and illness affecting the spinal cord are an important health problem in Bangladesh. These carry high rates of morbidity and mortality (Hoque et al., 1999). Currently there is no national spinal cord lesion register in Bangladesh and a survey of the available literature has not revealed any previous reports from this country. Therefore it is difficult to know or estimate the total number of patients with spinal cord lesion in Bangladesh. Centre for the Rehabilitation of the Paralyzed is the only non-government organization in Dhaka, involved in rehabilitation and management of patients with spinal cord injury for more than 30 years (Islam et al., 2011).

Unemployment is a prevalent and serious problem for persons with spinal cord injury (SCI). Unemployment rates in the SCI population have been reported as 10 fold compared with the general population (Ottomanelli et al., 2009). The most common age group for spinal cord injury ranges from 25-29 years in Bangladesh and 83% of

them are male (Islam et al., 2011). This is due to males are exposed to higher risks because of their occupation or type of work they do. Women all over the globe are less exposed to the type of work they carry risk of this particular type of injury such as fall from tree, fall from height or falling while having load on head or neck (Islam et al., 2011).

A small number of non-governmental organisations are involved in rehabilitation and vocational training for disabled people in Bangladesh. CRP (Centre for the Rehabilitation of the Paralysed) is a non-governmental organization specialized in the rehabilitation of people with spinal cord lesion in Bangladesh. Great emphasis is placed upon vocational training at CRP. Given the difficult employment situation for disabled people, the organization recognizes work rehabilitation as vital to most rehabilitation programmed. A return to paid employment is regarded as the most important outcome measure of successful reintegration into society as it enables the patients to support their families as well as participating in their social life (Nahar et al., 2012). As the person's medical condition improves, a strategic shift in priority will allow training in daily living activities, vocational training and education according to the preference (Carpenter et al., 2007).

Government and NGOs are focusing on the vocational rehabilitation for the PWDs. But there are number of disadvantages, and in some places the training is becoming ineffective. This is due to the lack of skilled personnel, early detection, proper training, counseling, Assistive devices; and necessary adaptations are not taking place. Resulting in an inefficient training program existing resources and other facilities are not being used in a cost-effective way. Sometimes informal training and on-the-job training are effective than formal vocational training. Several studies, conferences, and seminars have taken place on the need of vocational training, assessment on setting up centers, but hardly any studies have taken place on those people's perspective and their expectations who will receive the service. It is really important to explore the patient's perspective towards vocational training and gaining employment. If we focus on quality of life of a paraplegic person, we have to provide

a variety of training options for them to choose according to their need and eligibility. In some places a disabled person is working successfully without having received any vocational training. They have trained on the job. This study will only focus on the person with paraplegia, specifically the people who have completed class 5 and above, pre-injury and whose age range is between 20-45 years (Mitra., 2006).

Return to work following SCI is very important. A return to work should be the ultimate goal of everyone concerned with workers' compensation as it gives people social status and meaning of life (Schonherr et al., 2004). The employee is certainly better off to be back on the job and earning wages, and an employer is better off to have a day's work in return for payment to an injured employee rather than to pay workers' compensation benefits. There is no curative treatment to overcome difficulty faced by persons with SCI. So rehabilitation program is the valid goal of treatment for persons with SCI. Important goals of rehabilitation are maximizing the independence in daily living activities and providing optimal reintegration in the society (Hasan et al., 2009). Reintegration for a person following spinal cord injury in terms of work, leisure activities and sports can play an important role in rehabilitation. Active involvement in activities and roles is strongly related to health and well-being (Schonherr et al., 2004).

1.2 Rationale

Return to work is regarded as one of the most important outcomes of reintegration in society following a spinal cord injury. It gives people a social status of life and makes them more financially independent (Schonherr et al. 2004). Now a day Spinal cord Injury is most commonly occurring disabling condition in all developing and developed countries in the world and it will increase day by day due to lack of awareness. As Bangladesh is a developing country and trying to develop health care system and economy so it is important to know that, experience of Spinal Cord Injury people who have returned in their work after completing rehabilitation. If their experience will be negative, the SCI patient doesn't join in work after completing rehabilitation. As a result the spinal cord injury patient will be burden for the family and country and development will be hampered.

This study is conducted towards the aim of to explore the experiences and perspective of people with paraplegia. This study's primary aims are to explore that- Are the paraplegic people involving themselves in employment after injury in relation to previous job? And if they are involved then, are they continuing in the work? What are the opportunities and hazards faced in the community for person with paraplegia (from the perspective of a person with paraplegia). Does the psychological state of the person with paraplegia have an influence on obtaining or continuing in employment? What are the major factors for depression in work? In addition to the above, the study will explore current status of employment situation for the person with paraplegia. To investigate and measure the potential involvement of a physiotherapist, in the process of rehabilitation and SCI post injury intervention regarding advocacy for employment, environment modification and necessary adaptations. From this type of study patient will be more benefited in future and physiotherapist would able to find out the process that how appropriately SCI patient will be rehabilitated.

1.3 Aim of the study

To explore the experiences and perspective of people with paraplegia regarding gaining and keeping a job in the community, following spinal cord injury after completing rehabilitation, Specifically employer's attitude, physical accessibility, transportation, health and psychological issue to know the problems that they are facing in their work place and to find out the factors which Influence to return to work

1.4 Objectives

- To know about the employment status before and after SCI.
- To know about the Challenges to getting job/business after Spinal cord injury.
- To know about the challenges of employment after SCI.
- To know about the facilities in work environment for a paraplegic Spinal Cord Injury people.
- To know about the way to overcome from the challenging situation

A spinal cord injury (SCI) is typically defined as damage or trauma to the spinal cord that in turn results in a loss or impaired function resulting in reduced mobility or feeling. Spinal Cord Injury (SCI) is defined as any traumatic event that causes damage to the spinal cord. Common causes include motor vehicle collisions, falls, acts of violence, and sports injuries. SCI results in complete or incomplete loss of function below the level of the lesion and has a broad impact on medical, social, psychological, and economic conditions for those directly affected, their paid or unpaid caregivers, and the community (Jang et al., 2005). There are typically two types of lesions associated with a spinal cord injury, these are known as a complete spinal cord injury and an incomplete spinal cord injury (Crepeau et al., 2003). A complete type of injury means the person is completely paralysed below their lesion. Whereas an incomplete injury, means only part of the spinal cord is damaged. A person with an incomplete injury may have sensation below their lesion but no movement. The following classification is also used in terms of spinal cord injury-

Tetraplegia: This term refers to impairment or loss of motor and /or sensory function in the cervical segments of the spinal cord due to damage or neural elements within the spinal canal (Kirshblum et al., 2011). Injury to the spinal cord in the cervical region is associated with loss of muscle strength in all four extremities.

Paraplegia: This term refers to impairment or loss of motor and /or sensory function in the thoracic, lumbar or sacral segments of the spinal cord, secondary to damage of neural elements within the spinal column (Kirshblum et al., 2011).

Previous studies have reported widely diverse employment rates after SCI. For instance, a summary of data collected on a large sample of persons from several SCI centers reported employment rates of only 14% to 28% among subsamples of persons with SCI who were about 5 years post injury. This was a considerable decrease from the 60% total of persons who were working at injury onset. In 2002, Yasuda et al, reviewed more than 20 studies of employment after SCI and found that reported employment rates ranged from 13% to 48%. He noted that comparisons between such studies were difficult because of differences in study design, such as whether the

definition of “employment ” includes student and/or homemaker status, and because of widely diverse subject populations (eg, differences in the amount of vocational training received). Participant characteristics also varied considerably in terms of demographic and injury-related variables in these studies. Further, many of the studies used current employment status as the sole outcome measure, a method that underestimates the actual number of people who return to work, since many people who find employment do not continue to work. A more useful approach is to investigate the relation of participant characteristics to a broad range of employment outcomes.

In Bangladesh it is a common practice to carry heavy load on the head. Most of the spinal cord injuries take place due to accidental fall while carrying such load and it is a public problem (Hoque et al., 2012). In Bangladesh during harvesting season the farmers and laborers carry their products on their head and transport them from harvesting areas to local store houses or from one vehicle to another. The coolies (Labours who undertake heavy load) of Bangladesh frequently carry a load between 50-100 kg. The common causes of spinal cord injury in Bangladesh are fall while carrying heavy load on head, road traffic accidents, falling from a height, fall of a heavy object onto the head or neck, bull attack and diving into shallow water (Hoque et al., 2012).The large number of falls in Bangladesh is a result of food harvesting which is an important part of our largely agricultural economy. Among the spinal cord injuries caused by road traffic accidents, mostly involve passengers of ‘three wheel vehicles’ like baby, taxis and rickshaws (Razzak et al., 2011). Prevalence of disability is believed to be high for reasons relating to overpopulation, extreme poverty, illiteracy and lack of awareness, and above all, lack of Medicare and rehabilitative service facilities. The only Spinal Cord Injury Center is run by an international NGO. There is no such individual specialized center on SCI at Government level (Carpenter et al., 2007).

According to the most recent figures, the population of Bangladesh is fast approaching 150 million people out of which almost half currently live below the poverty line (Hoque et al., 2012). Though understandably disability is a major social and economic phenomenon in Bangladesh, but in absence of any comprehensive

national survey in PWDs, there is hardly any reliable data available in regards to this. Discretely done by different agencies, available studies are either localized or focus on specific issues. Lack of precise definition/conception of disability and variation of professional mechanism for identification of their severity, the available survey portrays widely a different picture. The GOB surveys in 1982, 1986 and 1998 estimated national prevalence rate of disability at 0.64%, 0.5% and 1.6% respectively. Action aid Bangladesh and SARPV put the disable people at 8.8% of the total population. Bangladesh Protibondhi Kalyan Samiti records proportion at 7.8%. Dr. Julian Francis, in a report prepared in 1995 for the Aid Management Office (AMOD) of the Overseas Development Administration (ODA) of the British Government, has cited the figure as 9 million of which no less than 7 million live in the rural areas. The most estimates generally appear to be understand, sometimes grossly, for instance the World Health Organization (WHO) has a global estimate of about 10% of people having disability of one kind or another. Therefore, knowledgeable sources believe the prevalence is above 10% and it is more extensive in rural areas of Bangladesh. (Hoque et al., 2012).

Vocational Rehabilitation is the process of enabling those disadvantaged by illness or disability to access, maintain or return to employment or useful occupation. Vocational rehabilitation reflects a wide variety of interventions, including meaningful occupations through voluntary work, sheltered work, supported employment and open employment opportunities (Rathore et al., 2008). As a therapeutic intervention, return to work includes also patients who are assisted by their occupational therapists. A vocational rehabilitation programmed will involve detailed assessment of the individual's abilities, capacity, goals and preferences in relation to occupation, as well as connection with the employer (Crepeau et al., 2003). For those in employment or with a specific job in mind, worksite assessment is used to evaluate the suitability of the job and the environment for the individual. Vocational Rehabilitation involves observing the individual undertaking tasks associated with their job where it is safe and practicable to do so. Worksite assessment findings are integrated with the needs of the employer and their organisation to identify a vocational rehabilitation programme that aims to ensure productivity and satisfaction. Vocational rehabilitation must focus on identifying and

overcoming the health, personal/psychological, and social/occupational obstacles to recovery and return to work (Rathore et al., 2008). The objectives of vocational rehabilitation after SCI include not only prevention of disability but also community reintegration and improving quality of life (Ramkrishnan et al., 2011a). Most of those suffering spinal injuries are from poor backgrounds and work as manual laborers (Islam et al., 2011). Many patients at CRP will face difficulty to return to their previous employment after suffering from SCI. If a spinal cord injured person cannot earn a living to support his or her family, the physical and emotional rehabilitation at CRP will be of little value. The physiotherapist and other health worker make the home environment and workplace accessible as much as possible for successful reintegration into the society and community. Many people with disability have been rehabilitated in various sectors of CRP according to their skill and ability. Nowadays there is a vocational training institute in CRP which provides training at shop management, tailoring, computer application, and electronic repairing (Nahar et al., 2012).

(Jongbloed et al., 2007) had given a statement that spinal cord injury people take time to physically recover and prepare to resume employment or find new employment. In their study sample, there was a difference in the importance attributed to employment issues based on duration of injury: those whose injury was 4–9 years ago rated this as higher priority than did those who were injured 1–3 years ago (Jongbloed et al., 2007). The employment situation for disabled people in Bangladesh has been demonstrated to be extremely poor. CRP (Centre for the Rehabilitation of the Paralyzed) recently engaged in a new rehabilitation initiative, aiming at bringing people with spinal cord injury back to their previous occupations (Hoque et al., 2012). An estimated 50% of the participants successfully reintegrated into paid employment, of which three quarters returned to occupations very similar to their previous ones (Carpenter et al., 2007).

Generally “Unemployment” is a considerable problem in Bangladesh. According to a research, which was carried by CSID (Center for Services and Information on Disability), at the coastal belt of Bangladesh, there are 43% of PWDs who are unemployed even when they are in earning capacity. Many PWDs are not employed

or are being deprived of employment opportunities not because of their disabilities, but also due to a general lack of information combined with negative attitude of others. It seems this employment opportunities for PWDs is very limited. (Chowdhury Monsur, A. director, Impact Foundation Bangladesh, Dhaka). PWDS are usually excluded from most of the existing governmental and non-government development program. Even though there is a national policy on disabilities protecting equal rights of the PWDs (for instance 10% job quota for PWD), they in reality face unfair competition on negative attitudes. According to available estimates, the actual figure of employing PWD may be less than 1%. (Reported in “Towards Equalization” Excepting a few initiatives by some organizations, there is hardly any job opportunities created for the PWDs. Training facilities for people who can provide assistance to people with disabilities are limited at both the professional a primary rehabilitation therapy level. Training should be structured in such a manner by which PWDs can really earn their livelihood. Sometimes, in reality we see a different picture, for example, after receiving training from a vocational training center, that person with a disability is not getting a job. The person may experiences an inaccessible work place being a wheelchair user or may need an environmental modification or advocacy to get a job. In this regard a physiotherapist can help to structure and organize an effective program to train PWDs. In addition physiotherapist carry out a pre-vocational assessment, structure simulation program for work hardening, post-vocational assessment, and advice for necessary adaptations (Nahar et al., 2012).

A review of literature indicates that different key factors are associated with employability among persons with SCI. These include education, type of employment, disability severity, age, time since injury, sex, marital status, social support, vocational counseling and medical problem related to SCI, employer role, environment, professional interests etc (Gupta et al., 2011). Educational attainment works as the strongest predictors for a person with SCI to return to work (Ramkrishnan et al., 2011a). Persons with college level educational level backgrounds are more likely to return to work, whereas those with less than 12 years of education are at a disadvantage. One study showed re-employment rates of 95% for persons

with SCI who had 16 or greater years of education (Gupta et al., 2011). It has been suggested that higher level of education may be related to increased employability because of higher level of education being associated with higher socio economic status and increased employed options. Those with higher level of education are less likely to obtain manual labor jobs, which favors their potential to return to work in cases where SCI is involved (Gupta et al., 2011).

Younger people are returning to work more (Ramkrishnan et al., 2011b). Age is significantly related to return to work following spinal cord injury, whereas younger people in between 16-30 years old have the highest employment rate and those in between 51-60 years old have the lower rate to work of employment (Ramkrishnan et al., 2005c). Older age of onset of injury has also been found to be associated with additional barriers to employment such as requiring additional support and decreased energy. In addition, independence in personal care, mobility and ability to drive modified vehicles are some determinants with a better return to work (Ramkrishnan et al., 2011c). People with SCI using crutches or canes, or those using hand-propelled or motorized wheelchairs to get around, had a significantly lower health related quality of life than those getting around without an assistive device (Jain et al., 2008). Hence, a higher health related quality of life was related with the ability to get around independently (as in participants walking without assistance). Those who usually walked with crutches or canes had a similar or lower health related quality of life on most domains compared with those using hand-propelled or motorized wheelchairs. Because most participants using crutches or canes had lower SCI levels and incomplete injuries, we expected them to have a significantly higher health related quality of life than those using motorized or hand-propelled wheelchairs (who are weaker and have higher levels and more complete injuries). It is possible that participants using ambulatory aids reported a lower health related quality of life than would have been expected because of the greater effort and energy costs associated with using crutches or cane compared with hand-propelled or motorized wheelchairs (Jain et al., 2008). On the contrary being hospitalized in last 1year and receiving financial incentives are associated negatively in terms of employment after SCI (Ramkrishnan et al., 2011c). The study shows a relatively high (37.7%) return to work

rate among spinal cord injured persons where published literature expressed it in between 13.8 and 67.0% (Ramkrishnan et al., 2011b).

Gender and type of work have a significant relationship in employment (Shahandeh et al., 2012). The influence of sex on obtaining employment has shown mixed result. Depending on the type of work, men are more likely to return to competitive (paid) employment, whereas women are more likely to be engaged in non paid productive roles(homemaker) (Gupta et al., 2011). In many cases men are more likely to return to work after SCI. It is found that the females of Africa and America are twice more likely to obtain employment comparing with the males of Africa and America in relation with age and level of education (Shahandeh et al., 2012). In case of race Caucasian are more likely to be working than others (Gupta et al., 2011). Some subjective factors are associated with positive return to work such as coping abilities, motivation and social contact. After returning to work flexible work schedule, reduction of time pressure, barrier free access, ergonomic work station design and positive attitude of the employers and fellow employees are of great significance in terms of returning to work (Schonherr et al., 2004).

Another study found that the persons who put emphasis on work than with other life areas (family, friends, leisure, sports) had comparatively better vocational rehabilitation(Marti et al., 2012). Earnings of people among spinal cord injury vary depending on the type of employment. Some employments are paid, some are nonpaid including the house hold activities and some employment requires particular working hour. Young and Murphy used the definition of employment according to the International Labour Organization for the study of the employment after SCI. None of the demographic or injury related factors affected the income earned post SCI. Receipt of financial compensation was negatively related to income with the large majority (Ramkrishnan, et al., 2011a). Additional factors such as low level of injury, high cost of medical equipment and supplies, inability to sit for long hours, inability to find suitable job, chronic pain and perceived poor attitude of rehabilitation professionals have also been noted as barriers reported by those with SCI (Gupta et al., 2011).

Unemployment can have psychological and social consequences, as well as causing financial problems and stress (Gupta et al., 2011). Being out of work may have an impact on a person's physical and mental health, as well as affecting their family. The financial stress of unemployment can result in emotional distress. High unemployment rate create a social burden (Yasuda et al., 2002). Social support and network decreases as a consequence of unemployment. When social supports and networks are not available and a person does not have support from their friends and family, their recovery may be delayed. Returning the person to work is a valid goal of treatment (Hasan et al., 2009). Employment after SCI is associated with life satisfaction, quality of life and relatively greater in those individuals involved in productive activities such as work. As persons with SCI transition from unemployment to employment, adjustment increases and if they transition from employment to unemployment, adjustment decreases. Benefits of employment after SCI include mental stimulation, social contact, a sense of purpose, and personal growth. The sooner an injured person can return to work in some capacity, the more likely he /she is to make a full recovery both physically and emotionally (Schonherr et al., 2005).

3.1 Study design

Grounded Theory was used for this study as the researcher is concerned to explore the experiences and perspective of people with paraplegia regarding gaining and keeping a job in the community. The aim of this methodology is to explore the experiences of the participants about any events. From the study the researcher has explored the challenges and facilities experienced by the persons with paraplegia in their employment. This design helps to fulfill the aim of the study and that's why the researcher had selected qualitative type of study design.

3.2 Study settings

Qualitative research design focuses on the ordinary events of the natural settings. Study was conducted in the real workplace and own home environment of the participants at saver Thana in Dhaka district of Bangladesh selected by the researcher purposefully. The researcher observed and interacted with the individual in their own contexts.

3.3 Study population and participants

In this qualitative study, the researcher was interested to obtain a complete understanding of the topic by analyzing a range of participant's experiences. The study populations were the persons with traumatic paraplegia who had completed Rehabilitation from the Centre for the Rehabilitation of the Paralysed (CRP) to community and now engaged in employment. They were employed in different level of job in different organization executed purposive sampling procedure for the study as this procedure can be conducted relatively easily and with minimal financial costs. The researcher established inclusion criteria and selected those individuals who fit these factors and willing to participate in the study. Participants' were four persons from the community who completed Rehabilitation from CRP and now involved in employment. They were selected from different community settings. In qualitative study the sample size is generally small.

3.4 Inclusion Criteria

- Person with complete traumatic paraplegia
- Person whose upper extremity's functions are normal and has a normal trunk balance.
- Person who is independent in wheelchair management.
- One or more year post injury.
- Aged between 18-50 years.
- Involved or trying to get involved in employment.

3.5 Exclusion Criteria

- Person with tetraplegia or other diseases.
- Trunk balance and upper extremities functions are poor.
- Dependent for wheelchair management.
- Age less than 18 years or more than 50 years.

3.6 Data collection instrument

The researcher used semi structured questionnaire and direct observation as data collection instrument. The participants were observed in their real work places as much as possible. It helped the researcher to have a better practical understanding about the Experience in work environment of people with Spinal Cord Injury. Data was collected by the researcher own and during interview time the researcher used a voice recorder to collect the interview of all participants. In addition Pen, pencil, consent form, clip board were also used to collect data.

3.7 Data collection procedure

Semi structured interview was used for the study. The researcher used qualitative methodology and semi structured questions addressing a variety of issues about the experiences related to employment after spinal cord injury. Depoy (1998) suggested

that face to face interview helps the researcher to observe the participants facial expression and non-verbal expression during interview period. Initially the researcher addressed the participants and informed them about the significance of the study. Then researcher took the opinion of participants who are interested to participate and confirmed time and date of the interview. Before data collection, the researcher selected a quiet place where participants can feel comfort and able to give adequate attention during interview. The researcher ensured that nobody is present during the interview time except the researcher and the participants. At first the researcher took consent from the participants. Then, researcher spent sometimes with the participants to build rapport. The researcher explained the title and aim of the study to obtain the trust of the participants. Interview was conducted in Bangla so that the participants can easily understand. The answers were recorded by a voice recorder.

3.8 Data analysis

Grounded theory was used to discover theme as it is a common data analysis procedure most often used in qualitative data (Bailey, 1997). At first it includes systemic organization of the field notes, transcripts of interviews and other associated materials. The analysis of the data was begun with transcriptions of the entire interview from voice recorder. After transcription the researcher gave it to two individuals who belong to good proficiency in English with the intention that they can translate it from Bangla to English. By doing this the researcher verified the accuracy for data. The coding of data was done on the basis of the participants Experience in work environment who return to work. Then data was categorized according to participant's experiences. The similar categories of data were kept together. Finally from the categories themes are generated.

3.9 Field test

A field test was conducted with one participant. Before final data collection, it is necessary to carry out a field test. This helps 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 (Depoy et al.,1998). Finally the questionnaire was developed from Bangla to English.

3.10 Inform consent

Baily (1997) claimed that before conducting research with the respondents, it is necessary to gain consent from the subjects. For this study participants were selected by convenience sampling. Sample has chosen according to the inclusion and exclusion criteria and informs the study objective properly by using consent form. Participant and investigator signed willingly on the consent form. By the consent form the participants were informed that they were completely free to decline answering any question during data collection and also free to withdraw their agreement and participation any time from this study. The participants were informed clearly that the confidentiality should be maintained strictly and information might be published in any presentations or writing but they will not be identified. And it is also ensure that the investigator will be available at any time to answer any additional questions in regard to the study.

3.11 Ethical considerations

Informed consent of the participants was ensured. The participants became well known about the aim, significance and procedure of the study. The confidentiality of the participants is maintained. Study populations were selected fairly just not to complete the Study but also to accept any result regarding the study. Researcher granted permission from the research supervisor and Course Coordinator of the Department of physiotherapy of Bangladesh Health Professions Institute (BHPI) and head of the Rehabilitation Unit of CRP. Participants' were informed that they are not bound to complete the interview, just for volunteer ship. According to Bailey (1997) participants have full right to leave the study, if they feel discomfort.

3.12 Rigor

This study was conducted in systemic way. All the steps were followed properly. Data collection and analysis was done by avoiding the influence of perspective values and biases. Researcher was not influenced or biased by participants. A trustful relationship with participants was always maintained and documents were kept confidential.

The aim of the study is to explore the experiences and perspective of people with paraplegia regarding gaining and keeping a job in the community, following spinal cord injury after completing rehabilitation. In this section coding is used to understand the participants' statement and to generate the themes. The interview findings are given in each table below with coding. After completing data analysis the researcher formulates general categories and themes. These are as follows-

Category 1: Employment status before spinal cord injury. Theme under this category is-

Theme 4.1: Before spinal cord injury all participants were involved in employment.

Category 2: Employment status after spinal cord injury. Theme under this category is-

Theme 4.2: Employment is changed after spinal cord injury

Category 3: Arguments between desiredness and reality regarding job opportunity. Theme under this category is-

Theme 4.3: Maximum participants didn't get job of their expectation.

Category 4: Challenges related to getting job/business after Spinal cord injury. Theme under this category is-

Theme 4.4: All the participants face different type of challenges to get a job/business after SCI.

Category 5: Help for getting the job/business. Theme under this category is-

Theme 4.5: All participants got some helps for getting a job/business after spinal cord injury.

Category 6: Impacts of vocational training on getting a job. Theme under this category is-

Theme 4.6: All participants think good impacts of vocational training on getting job.

Category 7: Ways to get job after spinal cord injury. Theme under this category is-

Theme 4.7: All the participants think about different ways to overcome the challenges in employment.

Category 8: Challenges related to employment after Spinal cord injury . Theme under this category is-

Theme 4.8: All participants face different type of challenges in their work place after SCI.

Category 9: Facilities to overcome the challenges in workplace. Theme under this category is-

Theme 4.9: All participants are getting different type of facilities in their workplace.

Category 10: Ways to overcome challenges in work place after spinal cord injury. Theme under this category is-

Theme 4.10: All the participants think about different ways to overcome the challenges in workplace after spinal cord injury.

Category 11: Work satisfaction after spinal cord injury. Theme under this category is-

Theme 4.11: Overall, all participant satisfied in their job/business.

	P-1	P-2	P-3	P-4
Age (year)	40	35	28	45
Diagnosis	Traumatic paraplegia (ASIA- Complete-A)	Traumatic paraplegia (ASIA- Incomplete- c)	Traumatic paraplegia (ASIA- Complete- A)	Traumatic paraplegia (ASIA- Complete- A)
Level of injury	L4-5	L-2/3	L4-5	L4-5
Educational Qualification	Primary level	Post- Graduation	HSC	SSC
Marital status	Married	Un-married	Un-married	Married
Family member	4	5	3	5
Earning member	1(won)	2(father & he)	2(father & he)	2(he &his wife)
Dependent member	3	3	1	3
Assistive device	W/C	W/C	W/C	W/C

Table-1: Profile of the participants

Among the four participants, all participants are middle age group. Among the participants 75% were traumatic paraplegia complete-A and remaining 25% were traumatic paraplegia Incomplete-C according to American Spinal Cord Injury Association (ASIA). Participant-2 is higher educated person, participant-3 and participant-4 are educated and educational qualification level is poor of participant-1.

Among four participants two participants are married and remaining two participants are unmarried. All participants are the earning member of their family and they used wheel chair (W/C) for moving one to another.

Participant	Employment status before SCI	Employment status after SCI	Expected job after SCI
p-1	Grocery goods seller on door to door	Grocery shop(self-employment)	Shop
p-2	Student of B.Sc (final year)	Government job	Government job
p-3	Studying in Degree	Non-Govt. Job(NGO)	Government job
p-4	Worker (Power Development Board)	NGO (assistant occupational therapist)	Previous job

Table-2: Pre-injury, post-injury employment status and job expectation after spinal cord injury of people with SCI

Employment status before spinal cord injury:

Preinjury employment is a key issue in case of returning to previous job or in a new one. Pre injury employment often provides extra motivation after SCI. After injury they try to get back their previous role of employment more than those were not employed before SCI. Before SCI all the participants had employment. Following the injury all of them are also in employment but there is difference between the pre injury and post injury employment. Among four participants one participant returns to their previous employment.

And two participants firstly complete their study than join new job. Other one participant could not return to his previous job and joined to a new job. Pre injury employment statuses is factor that has impact on returning to work after SCI. those were employed before SCI are more likely to return to work.`

Before spinal cord injury all participants were involved in employment:

Participants had motivation and intrinsic enthusiasm to return to a job after SCI due to becoming employed before the accident. Besides the preinjury employment status, financial insolvency, becoming the male and prime bread winner of the family are some factors which have facilitated the employment after injury in terms of this study.

Employment status after spinal cord injury:

Spinal cord injury is a complicated condition which results in high rate of morbidity and mortality among the people all over the world. A return to work following spinal cord injury is considered as a valid goal of rehabilitation. Several factors are responsible for returning to employment after spinal cord injury. Often the employment is changed as a result of the injury. As people with SCI suffer from many limitations and need modification in new jobs (Schonherr et al. 2004). Engaging the persons with SCI in suitable jobs is the prime goal of rehabilitation.

Employment is changed after SCI

Out of four participants of the study three participants have changed their employments after SCI. Participant-2 & participant-3 did study continue before SCI. Participant-2 completed his study but participant-3 did not complete his study. Now they are continuing new job.

Participant-4 was a worker of power development board. He said that he was recommended not to do any heavy work in rest of his life by a doctor of CRP. That's why he changed his previous employment. Following SCI now he is going on with assistant occupational therapist job. After SCI people have to face numerous types of challenges in their employment including physical, environmental, social, educational, and attitudinal and so forth. Overcoming these challenges completely often becomes impossible in Bangladeshi context due to limitation of resources. Return to previous employment following SCI is very much challenging and difficult with their capabilities. As a result people with SCI change their previous employment and adopt another suitable one after SCI.

	P-1	P-2	P-3	P-4	Total
Financial crisis	√		√		2
Physical limitation	√	√	√	√	4
Pain	√		√		2
Difficulty to move on	√	√	√	√	4
Negative attitude of society	√	√	√		3
Physical Weakness	√		√		2
Psychologically weakness			√		1
Transportation		√	√	√	3

Table-3: Challenges feel to getting job

Most of the participants of the study talked about the financial crisis as a challenge for getting job/business. Participant-1 informed that he is the only earning member of his family even after the spinal cord injury. He has to maintain a family of four members. Participant-1 further mentioned that, when he returned to his community he felt a great challenge for getting a business that was financial crisis. For starting a business need more money. But he had no much money. Lastly he got some money from father in law. Then he started his business.

Participant-3 informed that he is a middle class family boy. His father was the only earning member in his family. He could not continue his study because of financial problem. Then he tried to a job, but for that needed more money. He had no money. So after some months he got a job in a Non-Government organization (NGO).

Participant-2 and participant-4 don't feel financial crisis because of they had money. They informed that financial crisis is a big issue for getting a job which is traumatic spinal cord injury patients.

Physical limitation, Difficulty to move on, Physical Weakness and transportation problems is another big challenges for getting job/business after spinal cord injury. Most of the participants face these problems when they tried to a job.

	P-1	P-2	P-3	P-4	Total
Family support	√	√	√	√	4
Financial support	√	√			2
Vocational training			√	√	2
Education		√	√	√	3
Job training			√	√	2
Positive attitude of society	√	√		√	3
NGO support			√	√	2

Table-4: Help or facilities to getting job

Help or facilities to getting job after spinal cord injury

For getting a job, people with spinal cord injury got different facilities from family, organization, education and different training. Participant-2 informed that his friend helped him to apply the job and father helped by financial support and his younger brother helped when he went to interview for job. He believes that he didn't not get job without these facilities. Further participant-2 informed that education and Positive attitude of society was helped him to getting the job. Participant-3 and participant-4 said that vocational training and job training with Positive attitude of society helped them to getting job. Participant-1 informed that family support, financial support and positive attitude of society helped him to getting job. His father in law gave him financial support for starting a business. Participant-3 and participant-4 got some facilities from Non-Government organization (NGO).

	P-1	P-2	P-3	P-4	Total
Education	√	√	√	√	4
Vocational training	√	√	√	√	4
Avoid depression		√	√	√	3
Social support	√	√	√	√	4
Expectation		√		√	2

Table-5: Ways to get job after spinal cord injury

Ways to get job after spinal cord injury.

Different participants think different ways to get job/business after spinal cord injury. They informed some ways to get job after spinal cord injury. Education, Vocational training, Avoid depression, Social support, Expectation these are the possible ways to get a job for a people with spinal cord injury. All participants informed that Education, Vocational training and Social support can help to getting a job. Participant-2 said educated spinal cord injury people get job easily rather than a uneducated spinal cord injury people. Participant-3&4 informed that for a good job must be educated. Participant-1 informed that, if he were a educated person than he will be a good business. Further he informed that vocational training will be could help for a good job/ business. Participant-3 and participant-4 took vocational training and they get job for that training. So both participants suggest that people with spinal cord injury must be rehabilitees in vocational training.

Avoid depression another possible way to get job/business. Participant-4 said that depression is the big barrier to get job for a people with spinal cord injury that complete rehabilitation. Participant-2 informed that maximum spinal cord injury people don't get job because of depression.

Without expectation people don't get a good job. Participant-2 said that spinal cord injury people don't expectation for a good job/business. There have many works in

working sector that SCI people can correctly. Participant-2 further said that every SCI people should be a high expectation in job sector.

	P-1	P-2	P-3	P-4	Total
Difficulty to move on	√	√		√	3
Poor coordination in hand	√		√		2
Difficulty to bear load on head	√		√	√	3
Absence of ramp		√			1
Lack of social support	√				1
Transportation	√		√		2
Toileting	√		√	√	3
Back pain	√	√	√		3
Pressure ulcer	√				1
Working hour	√				1
W/C inaccessible area	√	√			2
Embarrassing situation	√	√	√	√	4

Table-6: Challenges feel in employment

Challenges related to employment after Spinal cord injury:

Physical limitation, financial crisis, inaccessibility, pain, pressure ulcer, weakness, lack of social support, depression etc are the key issues which work as challenges for employment after SCI. (Targett et al. 2005). Different literature explain about how these affect the employment after SCI. The researcher assumes that inaccessibility and social discrimination affect mostly the employment after SCI in Bangladeshi context. Overcoming these challenges could increase the participation of employment after SCI.

Most of the participants of the study talked about the physical limitation (Difficulty to move on, Poor coordination in hand, Difficulty to bear load on head) as a challenge

for their employment. participant-1, 2&3 informed that they can't freely move in their workplace. They further mentioned that they can't bear load on hand maximum. So they face many problems in their employment. Participant-1&2 informed that poor coordination in hand face different type of challenges. Participant-1 informed that when he measure something or give something another than he could not perform properly. On the other hand participant-3 informed that need and clean hand writing is very difficult for him.

Among four participants four use wheelchair. They talked about the common issue of ramp. Most of the participant informed that absence of ramp is another big challenge for doing a job. Participant-1 notified that he has to go to the shop but there is threshold to reach for the shop. It is difficult for him to overcome the threshold with the wheelchair. He added that many times he has to go outside for bringing commodities for his shop. But there is no ramp in his home. He has to come out of room lifted by others and with the help of wood. In addition he tells that the doors of room and toilet are not wide enough to enter. Participant-2&4 seriously feel ramp because of participant-2 is working on the 1st floor. Although participant-4 is working on the ground floor but sometimes he goes to 2nd or 3rd floor for working purpose.

Social support is a key issue for ensuring the employment after SCI. Among four participants of the study four participants use wheel chair. They complain about not getting enough social support. Participant-1 mentioned often people tell them that they are the common wheel chair persons. So they are not eligible for employment. He stated that Mr. 'X' is a people with disability and working in CRP. He has visited many countries of the world with his disability. According to him this has become only possible due to creating a positive attitude and social support of the people of the organization. Another participant told that when he has to go outside for employment many people treat him as a disable person and often make negative words against him.

Majority of the participants mentioned Transportation and W/C inaccessible area as challenges for their employment. Participant-1&3 face transportation problem when they go to job sector from home. Participant 2&4 didn't complain this challenge when they worked. But participant-2 informed that his working area is no W/C accessible. So he faces much problem in working environment. Majority of the participants mentioned that embarrassing situation (toileting) is the most challengeable for a paraplegic spinal cord injury people who return to work. Participant -1,3&4 are complete paraplegic SCI people. There have no bowel-bladder control. They informed that sometimes automatically clear bowl or bladder that occurs totally unintentionally. But it creates an embarrassing situation.

Most of the participants mention pain as a common challenge for their employment. Participant-1 and participant-2 indicated pain in their spine. They complained that pain increase with activity performance in the employment. Participants-2 and participant-3 were involved in official job. Both of them complained about neck pain and back pain.

Among four participants of the study three participants mentioned that weakness as a challenge for their employment. Due to this weakness they become fatigue at workplace soon. Physical impairments after SCI like weakness, sensory loss, pressure ulcer, loss of bowel and bladder control etc are very much significant and functionally disabling. These have immense negative impact on the employment after SCI. Activities that requires hard manual labour, persons with SCI become fatigue due to low endurance and weakness. On the other hand, having too many health problems like pain, weakness are strongly related for not being employed. After SCI majority of the people tend to have a job with less time, flexible work schedule and less physical labour demanding in nature.

Participant-1 mentioned pressure ulcer as a significant challenge for employment. Participant-1 added that due to pressure ulcer he has to sit on a wheel chair very much difficult. He further stated that bladder emptying is another challenge for him. Literature supports the above mentioned findings. Long term medical complications play an important part in for facing frequent challenges in employment. These complications can be even the cause of morbidity and mortality. Besides, low quality life, frequent hospitalization, loss of employability was commonly caused by secondary complication. The pressure ulcer, deep venous thrombosis, spasticity, heterotrophic ossification etc are the common complications.

	P-1	P-2	P-3	P-4	Total
Support from colleague		√	√	√	3
Support from neighbor	√		√	√	3
W/C accessible area			√	√	2
Building ramp			√	√	2
Adequate health support		√	√	√	3
Nearly residence area	√	√		√	3
W/C accessible toilet			√	√	2
Family support	√	√	√	√	4

Table-7: Help or facilities in workplace

Generally we have to consider social barriers first, to overcome them because in Bangladeshi people are so family oriented and caring so, if they work together then hopefully a greater change will be seen in the field of disability regarding attitudes towards disabled people and their mobility. All participants are getting different type of facilities in their workplace. Most of the participant informed that great support from colleague and neighbor are more helpful in workplace. Participant-2, 3&4 statements that colleague are all-time support to them in different ways in workplace. Participant-1 informed neighbors and friend are very supportive and friendly and his elder son and his wife set up shop when they free. Participant-2 said when increasing working load his colleague help for finishing the work. Participant-4 informed that colleague and neighbor both are helped in workplace.

In this study two participant out of four participants have W/C accessible area. Participant-3 and participant-4 have wheel chair accessible area in their workplace. It is their great facilities for continue their job.

Most of the participant gets adequate health support and W/C accessible toilet use in their workplace. Participant-3 & participant-4 informed that W/C accessible toilet helps to continue his job. On the other hand participant-1 & participant-2 have no W/C accessible toilet in their work place. Building ramp another facilities for participant-3 in his employment. Participant-2 and participant-3 greatly feel building ramp in their work place. But participant-2 gets help from the lift in office building.

All participants informed that family support is big facilities for doing job or business. Participant-1 said that he could not continue his business with family support. Participant-2 and participant-4 informed that they get full support from family and all members of the family respect his job. Participant-3 said that he is the earning source of his family and his family maximum try to give support him.

	P-1	P-2	P-3	P-4	Total
Physical exercise		√	√	√	3
Financial solvency	√		√	√	2
Medical and health services	√	√	√	√	4
Taking medicine	√		√		2
Positive attitude towards disable people	√	√	√	√	4
Following Govt. policy		√	√	√	3
Building ramp/ramp	√	√	√	√	4
Taking adequate rest	√	√	√	√	4

Table-8: Ways to overcome challenges in employment

Ways to overcome challenges in employment after spinal cord injury:

All the participants told that there are different ways to overcome challenges in employment. Besides some revealed that total overcome may not be possible but certainly challenges can be reduced adopting some measures.

Among four participants three participants stated that financial solvency is a key issue in terms of overcoming challenges in employment. Participant-3 and participant-4 mentioned that due to financial crisis they had to do work earlier after SCI. They pointed out that if they could be financially solvent enough they would never start their job such the earlier. They think that as they could not keep on rest according the recommendation of the doctor, so they face more problems in their body. They started their work earlier due to not having enough money. As a result now they are facing different challenges in their employment. Participant-3 mentioned that if he could take rest and performed physical exercise regularly he would be healthy better.

All the participants told about the physical exercise. They all mentioned that they feel comfort and better if they continue physical exercise. Participant-4 stated that first he tries to keep his body fit and that is why he puts more emphasis on physical exercise. The other participants talked about the same that they feel better if they keep on physical exercise.

Participant-1 and participant-3 stated about the medicine as a way to overcome challenge in employment. Both of them told that if they take medicine regularly they feel comfort and better. Participant-2 mentioned that taking medicine and consulting with doctor is a good way to overcome challenge

Government's Policy for the inclusion of the disable people into the mainstream society is very much important. Govt. legislation, approach, initiatives are of great significance in terms of the employment of the persons with SCI. Participant-2 notified that at present the Govt. of Bangladesh is very much active on working with the disable people. He said, "We are the disable person too. Government of Bangladesh has taken many good policies for us. If these could be followed properly, we (the people with disability) could be self independent and job would be easier."

Positive attitude of the society towards the people with disability is very much significant for their employment. Flexible work schedule, reduced working hour, ergonomic design of the workplace, welcoming approach, accessibility issues are very vital for the employment after SCI. Participant-1 revealed that often he becomes the victim of social stigma. He added more that if we (the disable people) get opportunity and support from Govt. and society we will be able to self-independent.

All participants faced different challenges in regarding gaining and keeping job in the community and they had gotten different facilities from the community. They suggested different way to overcome these problems and how to establish in their employment. Among the four participants three were able to gain employment and remaining one participant try to established self-employment. All of the participants perceived difficulties in transportation, accommodation facilities, inaccessible wheelchair environment and workplace discrimination in the general workplace. Later

on two of the participants experienced a fully wheelchair accessible environment at their current office campus and that was a rehabilitation center and a NGO. Self-employment participant experienced negative attitudes from working environment. Depression and financial crisis are vital barrier for returning to work for uneducated or little educated person. Pressure ulcer has experienced who work for a long time. Bowl-bladder incontinence was another vital barrier for returning to work. More over lack of job assistance, financial support, health and rehab support at the community level were also identified in the study.

Limitations:

- Participants of this study were not observed in their real workplace all the time.
- Adequate information about the employment status of SCI persons and their exact number in Bangladesh was not found in the search of the researcher.
- Researcher could not cover more participants for the limitation of resources.

Conclusion

This study provides an exploration the experiences and perspective of people with paraplegia regarding gaining and keeping a job in the community, following spinal cord injury after completing rehabilitation, Specifically employer's attitude, physical accessibility, transportation, health and psychological issue. In this study we know that about the difference between expectation and getting job or business after spinal cord injury. Every participant face more challenges in their employment for getting and keeping the job/business. Common challenges affecting the employment of the participants are physical limitations, financial crisis, pain, less strength in upper and lower extremities, social discrimination, negative attitude of society, inaccessibility, depression and so on. Challenges affecting the employment after SCI could be overcome. On the basis of the experiences of the participants possible ways to overcome the challenges could be a good national policy for the people with disability, increasing social support, changing the negative attitude towards the positive, performing physical exercise regularly, increasing social support, ensuring accessibility, attaining financial solvency, receiving medical and health services etc.

Recommendations

- Following the discharge from CRP frequent home visiting program for persons with SCI.
- Future study covering participants from various districts and geographical areas in quantitative methodology.
- Governments' policy for better participation in employment following SCI.
- Ergonomic and Accessible workplace for the employment following SCI.

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Appendix-I(a)

অনুমতি পত্র

আমি..... এই গবেষণার একজন অংশগ্রহনকারী এবং এই গবেষণার উদ্দেশ্য সম্পর্কে তথ্য পত্রের মাধ্যমে অবহিত আছি। এই গবেষণা থেকে যে কোন অবস্থায়, যে কোন সময়ে নাম প্রত্যাহার করতে পারব। এই জন্য আমি কারো কাছে কোন প্রকার কারণ দর্শানো ছাড়া জবাবদিহী করতে বাধ্য থাকবোনা। আমি আরও অবগত আছি যে সাক্ষাৎকার এর মাধ্যমে এই গবেষণার জন্য সংগৃহীত তথ্যের নিরাপত্তা ও গোপনীয়তা রক্ষা করা হবে। শুধু গবেষক প্রকাশনার ক্ষেত্রে এই তথ্য ব্যবহার করতে পারবে। আমার নাম ও ঠিকানা এই গবেষণার কোথাও প্রকাশিত হবেনা। এই গবেষণা সম্পর্কিত যে কোন প্রশ্ন থাকলে উত্তর জানার ক্ষেত্রে গবেষক ও গবেষণা সুপারভাইজারের সাথে কথা বলার অধিকার আমার আছে।

আমি উপরিউক্ত তথ্য সম্পর্কে অবগত এবং আমি সজ্ঞানে এই গবেষণায় একজন অংশগ্রহনকারী হিসেবে থাকতে ইচ্ছুক।

অংশগ্রহনকারীর স্বাক্ষরঃ / টিপ সইঃ..... তারিখঃ

গবেষকের স্বাক্ষরঃ তারিখঃ.....

Appendix-I (b)

Consent form

I am..... a participant of the study and I am clearly informed about the aim of the study .I will have the right to refuse to take part any time at any stage of the study. For this I will not be obliged to answer to anyone.

I am also inform that, all the information collected through interview for the study would be kept safely and maintained confidentiality. Only the researcher will be eligible to access in the information for his publication of the research result. My name & address will not be published anywhere of this study.

I have the right to consult with the researcher & the research supervisor about the research process or get answer of any question regarding the research project.

I am informed about the above-mentioned information & I am willing to participate in the study with right consent.

Signature of participant: Date:

Signature of Researcher: Date:

Appendix-I (c)

তথ্য পত্র

আমি আলী আহম্মেদ, বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট, সি.আর.পি সাভার, ঢাকা এর বি.এসসি ইন ফিজিওথেরাপী কোর্সের চতুর্থ বর্ষে অধ্যয়নরত আছি। বি.এস.সি ডিগ্রী সম্পন্ন করার জন্য এই কোর্সের চতুর্থ বর্ষে একটি গবেষণা করা বাধ্যতামূলক। আমি আপনাকে এই গবেষণায় অংশগ্রহণের জন্য আমন্ত্রণ জানাচ্ছি। গবেষণাটি হল- "মেরুপঞ্জিতে আঘাত পাওয়া ব্যক্তিদের কর্মক্ষেত্রে অভিজ্ঞতা যারা পুনর্বাসন সম্পন্ন করে তাদের সমাজে ফিরে এসেছে"। আলী আহম্মেদ কর্তৃক পরিচালিত গবেষণাটি হবে অংশগ্রহণকারী ব্যক্তিদের প্রকৃত কর্মস্থল ও বাড়ির পরিবেশে। এই গবেষণার উদ্দেশ্য হল পেরাপ্লেজিক ব্যক্তির বাংলাদেশী পরিবেশে যারা পুনর্বাসন সম্পন্ন করে তাদের সমাজে ফিরে এসেছে তাদের কর্মক্ষেত্রে অভিজ্ঞতা সম্পর্কে জানা।

এই গবেষণায় আপনার অংশগ্রহণ হবে সম্পূর্ণভাবে স্বেচ্ছায়। এই গবেষণায় অংশগ্রহণ না করার ক্ষেত্রে আপনার পূর্ণ অধিকার আছে অথবা আপনি ইচ্ছে করলে যেকোন সময় এই গবেষণা থেকে আপনার নাম প্রত্যাহার করতে পারবেন, এমনকি প্রাথমিকভাবে অংশগ্রহণের জন্য মতামত দিয়ে থাকলেও। এই গবেষণায় অংশগ্রহণের ক্ষেত্রে সরাসরি কোন বিশেষ সুবিধা নেই। গবেষক কর্তৃক একটি সাক্ষাৎকার পরিচালিত হবে, যেটি ভয়েস রেকর্ডার এর মাধ্যমে রেকর্ড করা হবে। আপনার অংশগ্রহণের জন্য কোনরকম অর্থ দেওয়া হবে না। কিন্তু আপনি জানতে পারবেন কোন চ্যালেঞ্জগুলো আপনার কাজে বাধাগ্রস্ত করছে এবং কোন সহযোগিতাগুলো আপনার কর্মক্ষেত্রে আপনাকে সাহায্য করছে, যেটি আপনার এবং অন্যান্য মেরুপঞ্জিতে আঘাত প্রাপ্ত ব্যক্তির জন্য প্রয়োজনীয়। রেকর্ড করা তথ্যের গোপনীয়তা সম্পূর্ণভাবে সংরক্ষিত হবে। আপনার অনুমতি ছাড়া রেকর্ড করা তথ্য কোথাও প্রকাশিত হবে না, যাতে আপনাকে কোন প্রকাশনায় সনাক্ত করা সম্ভব হয়।

এছাড়াও যদি এই গবেষণা সম্পর্কে আপনার জানার আরও কিছু থাকে তবে কোন রকমের দ্বিধা ছাড়া নিম্নোক্ত ব্যক্তিকে জিজ্ঞাসা করার জন্য অনুরোধ করা হল।

আলী আহম্মেদ

বি.এসসি ইন ফিজিওথেরাপী, চতুর্থ বর্ষ

বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট, সি.আর.পি সাভার, ঢাকা

মোবাইল : ০১৬৭০৯৬৩৪৯২

ই-মেইল- ahmmedali1403@yahoo.com

Appendix- II (d)

Consent form

I am Ali Ahmmed involved in the B. Sc. in physiotherapy course of Bangladesh Health Professions Institute (BHPI), CRP, Savar, Dhaka. At present, I am going on my study of final year, under the Dept. of physiotherapy. For the fulfillment of study of the B. Sc. degree, it is mandatory to carry out a research in the final year of the course. I would like to invite you to take part in the research study, titled “Experiences in work environment of people with Spinal Cord Injury who have returned in their community after completing rehabilitation.” The study will be conducted by Ali Ahmmed at the real workplace and home environment of the participants. The aim of my study is to explore the experience in work environment of people with paraplegia who returns in their community after complete rehabilitation in Bangladeshi context.

Your participation in this study is voluntary in nature. You might have the right to not become the participant of the study or you may withdraw your name anytime you wish, even though consenting to take part initially. There will be no direct benefit in case of your participation in this study. There will be an interview conducted by the researcher, which will be recorded by a voice recorder. You will not be compensated for your participation. But you will know about the experience in work environment which is essential for you as well as others of SCI with paraplegia. To fulfill my research project, I need to collect data .You have met the inclusion criteria and I would like to request you as a subject of my study.

Confidentiality of all recorded information will be highly maintained. Recorded information will never be used in such a method that you could be recognized in any publication excluding your permission. If you have any more quarries regarding the study, you are requested to ask the person stated below without any hesitation.

Ali Ahmmed

Student of B. Sc. in Physiotherapy

Bangladesh Health Professions Institute (BHPI), CRP, Savar.

Cell Phone: 01670963492

E-mail: ahmmedali1403@yahoo.com

Questionnaire

Socio-demographic informations:

ID:	
Participant name:	
Sex: Male/Female	Age:
Address:	
Mobile Number:	

Diagnosis:
Level of injury:
Family member:
Marital status: Yes/No
Earning member:
Who are the earning members?
Occupations:
Monthly Income:
Dependent member:
Level of education:

- i. Were you doing any type of job/business before Spinal Cord Injury? Yes/No. If yes what was your job/business?
- ii. Are you continuing your previous job/business after spinal cord injury? Yes /No. If No what type of job/business are you doing now?
- iii. Have you got your expected job/business? Yes /No. If no why haven't you got your expected job/business?
- iv. Did you have to face any problem for getting the job/business? Yes /No. If yes how was that?
- v. Did you get any help for getting the job/business? Yes/No. If yes how was that?
- vi. Did you get any vocational training for getting the job/business? Yes /No. If yes what type of was that and how long was it?
- vii. Do you have any suggestion regarding to get a job for a person with paraplegia?
- viii. Do you have to face any type of challenge in your workplace? Yes/No. If yes what type of is that?
- ix. Are you getting any type of facilities to overcome these challenge in your workplace? Yes/No. If yes what type of are they?
- x. Do you have any suggestion to overcome these challenge that you are facing?
- xi. Are you satisfied with to do this work? Yes/No. If no why?

- ১। মেরুরজ্জুতে আঘাত পাওয়ার আগে কি আপনি কোন কাজ করতেন? হ্যাঁ/না, যদি হ্যাঁ হয় তবে কি কাজ করতেন?
- ২। মেরুরজ্জুতে আঘাত পাওয়ার পর আপনি কি আগের চাকুরি/ব্যবসা চালিয়ে যাচ্ছেন? হ্যাঁ/না, যদি না হয় তবে এখন আপনি কি ধরণের চাকুরি/ব্যবসা করছেন?
- ৩। আপনি কি আপনার প্রত্যাশিত চাকুরি/ব্যবসা পেয়েছেন? হ্যাঁ/না, যদি না হয় তবে কেন আপনি আপনার আশানুরূপ চাকুরি/ব্যবসা পান নি?
- ৪। চাকুরি/ব্যবসা পাওয়ার ক্ষেত্রে কি আপনাকে কোন সমস্যার সম্মুখীণ হতে হয়েছে? হ্যাঁ/না, যদি হ্যাঁ হয় তবে তা কেমন ছিল?
- ৫। চাকুরি/ব্যবসা পাওয়ার ক্ষেত্রে কি আপনি কোন সাহায্য-সহযোগিতা পেয়েছিলেন? হ্যাঁ/না, যদি হ্যাঁ হয় তবে তা কেমন ছিল?
- ৬। এই চাকুরি/ব্যবসা পেতে আপনাকে কি কোন প্রকার কারিগরি প্রশিক্ষণ নিতে হয়েছিল? হ্যাঁ/না, যদি হ্যাঁ হয় তবে তা কি ধরনের ছিল এবং তা কতদিন মেয়াদি ছিল?
- ৭। একজন প্যারাপ্লেজিক ব্যক্তির জন্য চাকুরি/ব্যবসা পাওয়ার ক্ষেত্রে আপনার কোন পরামর্শ আছে কি?
- ৮। কর্মক্ষেত্রে কি আপনাকে কোন প্রতিবন্ধকতার সম্মুখীণ হতে হয়? হ্যাঁ/না, যদি হ্যাঁ হয় তবে তা কি ধরণের?
- ৯। আপনার কর্মক্ষেত্রে এই প্রতিবন্ধকতা জয় করতে কি আপনি কোন সুযোগ-সুবিধা পাচ্ছেন? হ্যাঁ/না, যদি হ্যাঁ হয় তবে তা কি ধরণের?
- ১০। আপনি যে প্রতিবন্ধকতার সম্মুখীণ হচ্ছেন সেটাকে জয় করতে আপনার কোন পরামর্শ আছে কি?
- ১১। আপনি কি এই কাজে সন্তুষ্ট? হ্যাঁ/না, যদি না হয় তবে কেন?



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

Ref:

Date25.02.2015.....

To
Ali Ahmmed
4th year B.Sc in Physiotherapy
Session: 2009-2010.

Subject: Data Collection.

Dear Ali Ahmmed,

In response to your request, you are permitted to collect data from persons with spinal cord injury who has been discharged after completion rehabilitation from CRP and living in their community.

Your research title is " Experience in work environment of people with spinal cord injury."

Md. Obaidul Haque
Associate Professor & Head
Dept. of Physiotherapy
BHPI.