Challenges Related To Employment Experienced By the Persons With Tetraplegia

By

Aynul Ashekin

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Study Completed by:

Aynul Ashekin

4th year B.Sc. in Occupational Therapy _____

Study supervisor's name and signature:

Mohammad Mosayed Ullah

Assistant professor

Department of Occupational Therapy

BHPI, CRP. _____

Head of department's name and signature:

Nazmun Nahar

Assistant professor

Head of Department

Department of Occupational Therapy

BHPI, CRP _____

Statement of Authorship

Except where reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis presented by me for any other degree or diploma or seminar.

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This thesis has not been submitted for the award of any other degree or diploma in any other tertiary institution.

The ethical issue of the study has been strictly considered and protected. In case of dissemination of the findings of this project for future publication, it will be duly acknowledged as undergraduate thesis.

Signature: Date:

Aynul Ashekin

4th year, B.Sc. in Occupational Therapy

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Dedication

To my parents for their laudable support and inspiration.

List of Abbreviations

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
U.S.A	United States of America
U N	United Nation

Abstract

Globally many people are experiencing spinal cord injury almost every year. Spinal cord injury is one of the major physically disabling medical conditions that can cause multiple impairments in participation with community reintegration. It is found that the spinal cord injury occurs mostly among people who are in between 16 to 40 years of age. Unemployment is a prevalent and serious problem for persons with SCI. Several factors are related to the employment of the 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.

Aim of the study

The aim of the study is to explore the challenges experienced by the persons with tetraplegia in their employment.

Method

The study is conducted in different communities among tetraplegia. Grounded theory is used to know about the experiences of the persons with tetraplega about challenges related to their employment in the community.

Data analysis

Grounded Theory is used in this study for data analysis. It is 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**.**

Key words

Spinal cord injury, employment, returns to work.

Content

Chapter 1 Introduction

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. 2011, p.812). Globally many people are experiencing spinal cord injury almost every year. According to the WHO, between 20-40 people per million of population acquire spinal injury each year (Hansen, Mahmud and Bhuiyan 2007, p.64). These injuries can be devastating causing physical and emotional distress as well as loss of wages. The persons with spinal cord injury (SCI) face major challenges on their occupational role, preferred lifestyle, expression of sexuality and in many other areas (Trombly 2003, p.26). 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 and Lind 2009, p.503). Most spinal cord injuries occur in males, experts believe this is particularly due to males being more likely to engage in risk taking behaviors. Among the developed countries only in the U.S.A. approximately 12000 new cases of spinal cord injuries are found every year according to the report of national spinal cord injury statistical center (NSCISC). Approximately 60% of cases occurred in people 16-40 years of age, corresponding to the developmental period associated with carrier development and establishment (Ottomanelli and Lind 2009, p.504). Frequency of SCI is less in case of those below 20 and above 50 years of age (Razzak, Helal and Nuri 2011, p.116).

Injuries and illness affecting the spinal cord are an important health problem in Bangladesh. These carry high rates of morbidity and mortality (Hoque, Grangeon and Reed 1999, p.858). 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 Paralysed 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, Hafez and Akter 2011, p.1).

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 and Lind 2009, p.510). The most common age group for spinal cord injury ranges from 25-29 years in Bangladesh and 83% of them are male (Islam, Hafez and Akter 2011, p.1). 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, Hafez and Akter 2011, p.3). According to the report of WHO, the prevalence of disabled people is around 10% in the world. The UN estimates that disabled people constitute as many as 20% of people in some developing countries (Hansen, Mahmud and Bhuiyan 2007, p.64).

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 organisation specialised in the rehabilitation of people with spinal cord lesion in Bangladesh (Hansen, Mahmud and Bhuiyan 2007, p.64). Great emphasis is placed upon vocational training at CRP. Given the difficult employment situation for disabled people, the organisation recognises work rehabilitation as vital to most rehabilitation programmes. 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 (Kurtaran et al. 2009, p.712). 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 (Hansen, Mahmud and Bhuiyan 2007, p.65).

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, p.177). 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, p.53). 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, p.241).

1.2 Significance

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, p.178). The study will explore the challenges experienced by the persons with tetraplegia in their employment after SCI in Bangladeshi context. Challenges faced by the individuals with tetraplegia may affect their productivity, which is a major concern of Occupational Therapy. The prime goal of Occupational Therapy is to make client independent as much as possible in the activities of daily living. The result of the study will assist the population to be informed about the common challenges related to employment earlier. Besides, they can pre-determinedly take some steps and receive consultancy from appropriate professionals minimizing these challenges. Identification of the challenges and adopting appropriate measures against these are of great significance for the persons with spinal cord injury. Occupational therapists can bring meaningful change in the employment by environmental modification and with the help of adaptive equipments. Finally the findings of this study will help to design further study in the field of spinal cord injury to some extent.

1.3 Aim of the study

The aim of the study is to explore the challenges experienced by the tetraplegia in their employment.

1.4 Objectives

- To know about the employment status before and after SCI.
- To know about the average working hour of employment after SCI.
- To know about the challenges of employment after SCI.

Chapter 2 Literature review

2.1 Spinal Cord Injury with Classification

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.

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 2003, p.183). 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, p.536). 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, lumber or sacral segments of the spinal cord, secondary to damage of neural elements within the spinal column (Kirshblum et al. 2011, p.536).

2.2 Causes of Spinal Cord Injury in Bangladesh

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, p.275). 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, p.276) & (Razzak et al. 2011, p.117). 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.

2.3 Signs, symptoms, and functional outcomes for complete lesions with tetraplegia

Level of injury	Sign and symptom	Functional outcome
C1 - C4	Loss of all motor and sensory function from the neck down Retention of reflexes in the biceps Loss of involuntary and voluntary respiratory function Loss of bladder and bowel control	Requires a ventilator, a tracheostomy, electric wheelchair with head support, home adaptations, and home care upon discharge
C5	Loss of all motor and sensory function below the upper shoulders Loss of voluntary respiratory function, bowel and bladder control	Can achieve some control of upper limbs and use some adaptive devices with head and mouth controls Requires an electric wheelchair with hand controls, dependent transfers, and home adaptations
C6	Loss of all motor function below the shoulders and upper arms Loss of sensory function below the clavicle, except arm and thumb sensation Loss of voluntary respiratory function, bladder and bowel control	May achieve independent feeding, dressing, and grooming with assistive devices, but needs an electric wheelchair and assistance in chair, bed, and toilet transfers.
C7	Loss of motor and sensory function in portions of the arms and hands Retention of reflexes in the triceps Loss of voluntary respiratory function, bladder and bowel control	Can perform some activities of daily living (ADLs) and, with assistive devices, induce finger flexion, push a wheelchair, and drive a specially equipped car
C8	Loss of motor function in portions of the arms and hands Loss of sensation below the chest and in portions of the hands Loss of voluntary respiratory function, bowel and bladder control	Can do pushups in a wheelchair and achieve some sitting tolerance Can grasp and release hands voluntarily and achieve independence in most ADLs, catheterization, and rectal stimulation for bowel movements.

Ref: Crepeau (2003)

2.4 Vocational Rehabilitation after SCI

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 (Desiron et al.2011, p.2). As a therapeutic intervention, return to work includes also patients who are assisted by their occupational therapists. A vocational rehabilitation programme 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 2003, p. 183-185). 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 (Desiron et al.2011, p.2). 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. 2011, p.812).

2.5 Vocational Rehabilitation during inpatient at CRP

Most of those suffering spinal injuries are from poor backgrounds and work as manual labourers (Islam, Hafez and Akter 2011, p.3). 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. To address this Occupational Therapists assess the functional capacity of the persons with SCI during the inpatient period. According to the interest and ability to function persons with SCI are provided here vocational facilities. Occupational Therapists observe and facilitate the persons with SCI in the half way hostel to do daily living activities and to cope with the residual disability in the communities. The occupational Therapists 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. Occupational Therapists at CRP try to reintegrate them in the mainstream society with various modifications. Now- a- days there is a vocational training institute in CRP which provides training at shop management, tailoring, computer application, and electronic repairing

2.6 Factors associated with employment after SCI

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 (Ottomanelli and Lind 2009, p.504). Educational attainment works as the strongest predictors for a person with SCI to return to work (Ramkrishnan et al. 2011, p.812). 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 (Ottomanelli and Lind 2009, p.513). 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 (Ottomanelli and Lind 2009, p.510).

Younger people are returning to work more (Ramkrishnan et al. 2011, p.812). 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. 2005, p.815). 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. 2011, p.815). 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, p.392). 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, p.390). On the contrary being hospitalized in last 1year and receiving financial incentives are associated negatively in terms of employment after SCI **(**Ramkrishnan et al. 2011, p.815). 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. 2011, p.815).

Gender and type of work have a significant relationship in employment (Targett et al. 2005, p.149). 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) (Ottomanelli and Lind 2009, p.510).

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 (Targett et al. 2005, p.150). In case of race Caucasian are more likely to be working than others (Ottomanelli and Lind 2009, p.512).

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, p.183).

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, p.01). 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, Loh and Omar 2011, p.986).

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 (Ottomanelli and Lind 2009, p.519).

2.7 Challenges related to employment after SCI

Although many studies have found an association between severity and employment, one study found that considering the functional interaction between level of injury and degree of completeness enhances the ability to predict return to work, with those individuals who had greater physical abilities being more likely to be employed. A study found that the persons with paraplegia are employed 2.0 to 2.2 times higher than the persons with tetraplegia (Ottomanelli and Lind 2009, p.518).The higher the level and the more complete the injury it would be more likely to loss of muscle function and strength and functional disability in SCI (Nitin et al. 2008, p.393). However, previous studies have reported conflicting results on the association between level and completeness of injury and health related quality of life. Some studies have reported a significant association between higher level and more complete injury and a lower health related quality of life. It is argued that complete motor lesions may lead to the occurrence of pressure ulcers and other complications by limiting the patient to bed or a wheelchair, so they might be associated with poorer health related quality of life than patients with incomplete SCI. It is

argued that since many individuals with incomplete injuries also use wheelchairs and are at high risk for pressure ulcers. Thus the completeness of injury as a single reason could not justify these differences and there is need to find out more specific reasons (Saadat et al. 2010 p.472).

People with SCI encounter some difficulties in their vocational decision making because of lack of information about occupation and employment opportunities, uncertainty about vocational and educational abilities and their overall feelings of uncertainty in many other areas of their lives.(Targett et al. 2005, p.150-151). These also affect vocational rehabilitation. Long term medical complications cause rehospitalization and increased costs along with loss of employability and decreased quality of life. Besides, emotional distress and depression responsible for decreased functional improvement (Targett et al. 2005, p.151).

Individual's interest, value, educational and vocational plans and the attitude of the society are of great impact on successful job reintegration. Educational and vocational counseling, contact with peer groups, changing employer perception, improving transport and equal access and reducing disincentives to working are some effective way to improve vocational outcome (Schonherr et al. 2004, p.178).

The perceptions of barriers associated with employment differ between employed and unemployed persons with SCI. It has been found that although employed persons with SCI tend to not perceive significant barriers to employment, 25% of individuals perceive lack of transportation and lack of social security as the main barriers. For persons with SCI who were employed 64% indicated lack of transportation, whereas 48% having no time off for health related concerns as being main perceived barriers to employment (Ottomanelli and Lind 2009, p.518). Difficulty accessing health care has also been related to higher employment or part time employment. Poor physical health, physical limitations, and frequent hospitalization have been reported by some as being associated with unemployment (Ottomanelli and Lind 2009, p.518).

2.8 The importance of employment after SCI

Unemployment can have psychological and social consequences, as well as causing financial problems and stress (Ottomanelli and Lind 2009, p.504). 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, p.177). 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, p.53). 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 (Schonherr et al. 2005, p.241). 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.

2.9 Role of Occupational Therapy in employment after SCI

Restoring the ability to work is a key element in the rehabilitation of adult patients. The primary goal of occupational therapy, as part of the rehabilitation program, is to enable people to participate in the activities of everyday life including the ability to work (Desiron et al. 2011, p.1). The occupational therapy practice provides a comprehensive post injury employment service through assessment, advice and treatment of individuals identified as requiring this specialist service (Trombly 2002, p.988). Occupational therapists are specialists in assessing, treating and rehabilitating individuals with a disability, illness or injury. Occupational therapy also helps to increase the individual's independence and function through a holistic and client centred approach whilst encompassing the individual's physical, psychological and social needs. Early occupational therapy immediately after the stabilization of patient's functional state is of great importance for return to work (Mingaila & Krisciunas 2005, p.852-853). The occupational therapists use standardised methods to assess the functional abilities of an employee, analyse the work duties that the person performs, identify those factors affecting performance, and provide practical recommendations for actions that will assist in returning an absent employee to work, or retain employees in their current work (Desiron et al. 2011, p.2 & Crepeau 2003, p.185). The occupational therapy intervention provides specific information about the employee's functional abilities, when that employee has an existing medical condition. This assists the employers in making informed decisions when managing an employee. Occupational therapists contribute

significantly to the initial and ongoing function and prevocational assessment Occupational therapists can involve, in order to reaching the therapeutic goals, modifying the occupation itself or the environment (Desiron et al. 2011, p.1).

Chapter 3 Methodology

3.1 Study design

Grounded Theory is used for this study as the researcher is concerned to explore the challenges experienced by the persons with tetraplegia in their employment. 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 experienced by the persons with tetraplegia in their employment. This design helps to fulfill the aim of the study and that's why the researcher has selected this methodology.

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 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 and participants

The study is a qualitative type of study. The researcher is interested to obtain a complete understanding of the topic by analyzing a range of participant's experiences. The study populations are the persons with tetraplegia who have completed the reintegration phase from half way hostel and discharged from the Centre for the Rehabilitation of the Paralysed (CRP) to community and now engaged in employment. The researcher selected 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 five persons from the community who completed the reintegration phase from half way hostel of CRP and now involved in employment. They are selected from different community settings. In qualitative study the sample size is generally small.

3.3.1 Inclusion Criteria:

- Persons with tetraplegia
- Persons with age of 18 years and above.
- Persons involved in employment after SCI at least for 1 year.

3.4 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 challenges related to employment. 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.

3.5 Data collection procedure

Semi structured interview was used for the study. The researcher used qualitative methodology and open ended 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.

3.6 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, p.164). 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 experiences of challenges related to employment after SCI. Then data was categorized according to participant's experiences. The similar categories of data were kept together. Finally from the categories themes are generated.

3.7 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 1998, p.171). Finally the questionnaire was developed from Bangla to English.

3.8 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 Occupational Therapy 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 volunteership. According to Hicks (2000) participants have full right to leave the study, if they feel discomfort.

Profile of the participants:

Participant	Age	Pre injury employment	Post injury employment	Assistive device	Area of residence
1	50 years	Govt. service (Notice server)	Non govt. service (Advocacy member)	W/C	Urban
2	52 years	Business (Shopkeeper)	Business	W/C	Rural
3	30 years	Van puller	Agricultural work (Looks after cows and cultivates vegetables)	Walking (No assistive device is required)	Rural
4	30 years	Business	Business	Walking stick	Rural
5	42 years	Service in abroad	Agricultural work (Looks after cows and cultivates paddy, sugarcane)	Walking (No assistive device is required)	Rural

Chapter 4 Result and discussion

The aim of the study is to explore the challenges experienced by the tetraplegia in their employment. 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: Average working hour in employment after spinal cord injury. Theme under this category is-

- **Theme 4.3:** Increased working hour at employment generates more challenges.

Category 4: Challenges related to employment after Spinal cord injury. Theme under this category is-

- **Theme 4.4:** All the participants face different type of challenges in their employment after SCI**.**

Category 5: Ways to overcome challenges in employment after spinal cord injury. Theme under this category is-

- **Theme 4.5:** All the participants think about different ways to overcome the challenges in employment.

Participant	Employment status before SCI	Employment status after SCI	Average employment hour
1	Govt. service (Notice server)	Non Govt. service (Advocacy member)	Four hours
2	Business	Business	Ten hours
3	Van puller	Agricultural work (Looks after cows and cultivates vegetables)	Eight hours
4	Business	Business	Twelve to thirteen hours
5	Service in abroad (Pipe fittings)	Agricultural work (Looks after cows and cultivates paddy, sugarcane)	Six to eight hours

Table: Preinjury, post injury employment status and average working hour of participants after SCI.

1. 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 (Kurtaran et al. 2009, p.711-712). 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 five participants three participants return to their previous employment. Other two participants could not return to their previous job. They joined to new jobs. Pre injury

employment status is a factor that that has impact on returning to work after SCI. Those were employed before SCI are more likely to return to work.

4.1 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.

2. 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, p.183).) Engaging the persons with SCI in suitable jobs is the prime goal of rehabilitation.

4.2 Employment is changed after SCI

Out of five participants of the study three participants have changed their employment after SCI. Participant-1 did a govt. job before SCI at Bangladesh Secretariate. Basically due to transport and accessibility problem he could not continue his job there after SCI and joined to a new job.

Participant-3 was a van puller before SCI. 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 as pulling the van requires hard labour. Following SCI now he is going on with agricultural work. As the bread winner of his family he has to do sometimes a bit heavy work. He mentions that still he feels pain, fatigue and eye problem when perform a bit heavy work. Participant-5 stated that he worked in abroad before SCI. Due to SCI he did not take any risk to go back abroad as he is the only male member of his family. After SCI he is now going on with agricultural work.

After SCI people have to face numerous types of challenges in their employment including physical, environmental, social, educational, 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.

3. Average working hour in employment after spinal cord injury.

Job modification is often indispensible for successful reintegration of the person with SCI. Reduction of time pressure in employment play an important role in employment of the persons with SCI. Prolonged working hour in employment may create secondary complications also.

4.3 Increased working hour at employment generates more challenges.

Participants-3 and participant-5 mentioned that when they work hard or work for a long time they feel pain and discomfort in their spine. Participant-2 notified that due to working a long time of almost 10 hour in each day often he has to suffer from pressure ulcer. Reduced and flexible working hour, barrier free access and transportation help to better participation in employment of the persons with SCI (Schonherr et al. 2004, p.183).

Following injury the ability of the persons with SCI to function often reduces. They face very much difficulty to work for a long time and suffer from pressure ulcer, weakness, vision problem and so on. Working along with load causes not only secondary medical complications but also it is a threat for deteriorating physical condition after SCI. Due to earn money participants of this study sometimes perform over work and really increased working hour generates more challenges in employment of these participants.

4. Challenges related to employment after Spinal cord injury.

Most of the participants of the study talked about the financial crisis as a challenge for their employment. Participant-2 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. In spite of being injured he

has to earn the bread for his family. He added that often he has to go to the market and work for a long time to earn more for his family which sometimes causes more sufferings.

Participant-2 further mentioned that he needs a ramp very much. Due to absence of ramp he faces many challenges. He said that two of his daughters are continuing their studies in school. They need money for their study. Being the only earning member of his family he has been facing financial challenges. Due to financial crisis he can not built any ramp in his home which is very much essential for him.

Participant-3 and participant-5 mentioned that due to becoming the only earning member of family they started to work earlier after SCI for earning the bread for their family though the doctor recommended more time to take rest after SCI. Both of them think that they would have better recovery if took the rest as recommended by doctor.

Participant-4 told that he had to join to his business before the recommended resting period for his poor financial condition. During the discharge from CRP the doctor recommended rest for two years of him and advised not to work hard. But because of his poor financial condition he stared to work regularly and complained about pain and discomfort.

Majority of the participants mentioned physical limitation as a challenge for their employment. Participant-1 revealed that due to paralysis of the hands and feet he faces difficulty to use these in functional as well as in job activities. Due to this limitation he also faces difficulty to move from one place to another by propelling wheel chair.

Participant-2 stated that due to physical limitation he encounters difficulty to transfer from wheelchair to shop and shop to wheelchair (Schonherr et al. 2004, p.178). He stated that he faces difficulty to use his hands and fingers to grip something and to propel wheelchair. He often has to go outside to bring the commodities for his shop from the local market along with his family members for support. He further added that when he goes to sell the commodities to the customers, often he faces difficulty to sell those by his own. He has to call upon the people on street to help him to give the commodities to the customers. He mentioned as being disable, sometimes there is scarcity of supplies in the shop as he has to face difficulty to visit the local market frequently. For that often he can’t meet the demand of the customers and get less benefitted.

Participant-4 pointed out that due to having more problems in right arm and right leg he faces difficulty to move on and to grip objects. He further added that when he goes to grip something, he feels difficulty due to poor strength and balance.

Most of the participants mention pain as a common challenge for their employment. Participant-2 and participant-4 indicated pain in their spine. They complained that pain increase with activity performance in the employment. Participants-3 and participant-5 were involved in agricultural work. Both of them complained about neck pain and back pain. Often they have to bear load on head which create neck pain.

Among five participants of the study four participants mentioned 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 and participant-2 mentioned pressure ulcer as a significant challenge for employment. Participant-2 added that due to pressure ulcer he has to lie on a long trolley and face difficulty to move. 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 re hospitalization, loss of employability are commonly caused by secondary complication. The pressure ulcer, deep venous thrombosis, spasticity, heterotrophic ossification etc are the common complications. Tetraplegia is a common risk factor of secondary medical complication.

Among five participants two use wheelchair. Both of them talked about the common issue of ramp. Participant-1 mentioned that due to absence of ramp he faces difficulty to move on the workplace. He further added that the mosque of CRP is going to be increased. The authority

decided for not building any ramp there. According to him it would be impossible for persons like him to reach there. Moreover he mentioned that CRP is an organization where accessibility is ensured for all and that is why many disable people are working there with less difficulty.

Participant-2 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.

Social support is a key issue for ensuring the employment after SCI. Among five participants of the study two participants use wheel chair. Both of them 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.

4.4 All the participants face different type of challenges in their employment after SCI.

Coding	P1	P2	P3	P4	P5	Total
Financial crisis	√	√		√	√	**4**
Physical limitation		√	√	√	√	**4**
Pain		√	√	√	√	**4**
Less balance and strength	√	√	√		√	**4**
Weakness		√	√	√	√	**4**
Difficulty to move on	√	√		√		**3**
Poor coordination in hand	√	√		√		**3**
Difficulty to bear load on head	√	√				**2**
Absence of ramp	√	√				**2**
Lack of social support	√	√				**2**
Negative attitude of society	√	√				**2**

Table: Challenges related to employment.

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, p.149-151)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.

5. 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 five participants four 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 01 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-2 and participant-5 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-3 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-1 notified that at present the Govt. of Bangladesh is very much active on working with the disable people. He sayed, "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.

5.5 All the participants think about different ways to overcome the challenges in employment.

Coding	**P-1**	**P-2**	**P-3**	**P-4**	**P-5**	**Total**
Physical exercise	√	√	√	√	√	**5**
Financial solvency		√	√	√	√	**4**
Medical and health services	√		√		√	**3**
Taking medicine		√	√		√	**3**
Positive attitude towards disable people	√	√				**2**
Following Govt. policy	√				√	**2**
Building ramp	√	√				**2**
Widening the doors(Accessibility)	√	√				**2**
Taking adequate rest			√	√		**2**

Table: Ways to overcome challenges in employment.

Bangladesh is a developing country. Overcoming these challenges would not be possible from the context of Bangladesh over night. But the researcher has the same opinion about overcoming challenges from employment with participants of the study. Good policy from government,

positive attitude of society can help overcoming challenges from employment. Medical and health care services along with accessible workplace can help the persons with SCI in their employment to overcome challenges (Targett et al. 2005, p.151).

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.

Chapter 5 Conclusion

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

Conclusion

This study provides an exploration of challenges experienced by the tetraplegia in their employment. After SCI people are still going on with their employment with various challenges. Some participants of the study have changed their pre injury employment due to having some limitations. After SCI they are also in employment but different than previous. Some participants work more than 8 hours each day on an average and some work less than that. Those works for more time each day face more challenges in their employment. Pain, weakness, pressure sore are commonly complained by the participants after working for a long time. The more is the length of post injury employment, the more is the risk of facing new challenges due to explorations in diversities of employment. Those were employed before SCI, they are more likely to have job after SCI. 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.

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Note: Referencing is executed according to Harvard Referencing style 2011.

APPENDIX - I (a)

Application for research proposal approval

13th August 2012

The Course Coordinator,

Department of Occupational Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343

Subject: Prayer for seeking permission to conduct the research project.

Sir,

With due respect I state that I am a regular student of 4th year of Occupational Therapy Dept. of Bangladesh Health Professions Institute (BHPI). I have submitted a research project according to the course module and I am interested to conduct the study of the project. The title of my project is "Challenges related to employment experienced by the persons with tetraplegia". The aim of the study is to explore the challenges experienced by the persons with tetraplegia in their employment in Bangladeshi context. The study will be conducted with voluntary participation of the participants and taking their consent by a consent form mentioning the aim, significance and procedure of the study. Now I am interested to start this project.

I, therefore, pray and hope that you would be kind enough to review the proposal and allow me to conduct the study, if it satisfies you considering all the ethical issues.

Thanking you

Aynul Ashekin
13.08.2012

Aynul Ashekin

4th year, B. Sc in Occupational Therapy

Bangladesh Health professions Institute

Approved By	Signature
Mohammad Mosayed Ullah Research Supervisor & Course Coordinator Dept. of Occupational Therapy Bangladesh Health Professions Institute CRP, Savar, Dhaka-1343	this project can be approved. 18/08/2012

Appendix-I (b)

Permission letter

23 September, 2012

The Head of Rehabilitation Department

Centre for the Rehabilitation of the Paralysed (CRP)

Savar, Dhaka-1343

Subject: Prayer for seeking permission to visit the community for data collection and conducting the research project.

Sir,

With due respect I state that I am a regular student of 4th year of Occupational Therapy Dept. of Bangladesh Health Professions Institute (BHPI). I have submitted a research project according to the course module and I am interested to conduct the study of the project. The title of my project is "Challenges related to employment experienced by the persons with tetraplegia". The aim of the study is to explore the challenges experienced by the persons with tetraplegia in their post injury employment in different contexts of Bangladesh. The study will need 5-8 participants from different communities to be completed. For conducting the study I need to collect data from the people with tetraplegia through visiting their community. I have collected the name and addresses of some probable participants of the research project who are already involved in employment.

In the circumstances stated above, I pray and hope that you would be kind enough to allow me to conduct the study as early as possible and oblige thereby.

Thanking you
Aynul Ashekin
23-09-2012
Aynul Ashekin

4th year B.Sc. in Occupational Therapy

Bangladesh Health Professions Institute

CRP, Savar, Dhaka-1343

Dear Head, Rehab Dept. sir,
I have gone through his proposal. You are requested to assist him as per organizational policy.
23/09/2012

Comments
May consider his application for the interest of planned study to be carried out by Mr. Aynul
26-09-2012 Head of Rehab.

Mohammad Mosayed Ullah
Course Coordinator & Lecturer
Occupational Therapy
Dhaka-1343

Appendix-II (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 থকবোনা। 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 প্রশ্নের 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 নামঃ

অংশগ্রহনকারীর স্বাক্ষরঃ

টিপ সইঃ

Appendix-II (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-III (a)

তথ্য পত্র

আমি আইনূল আশেকীন, বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট, সি.আর.পি সাভার এর বি.এসসি ইন অনুপেশনাল থেরাপী কোর্সের চতুর্থ বর্ষে অধ্যয়নরত আছি। বি.এস.সি ডিগ্রী সম্পন্ন করার জন্য এই কোর্সের চতুর্থ বর্ষে একটি গবেষনা করা বাধ্যতামূলক। আমি আপনাকে এই গবেষণায় অংশগ্রহণের জন্য আমন্ত্রণ জানাচ্ছি। গবেষণাটি হল "টেট্রাপে-জিক (Tetraplegia) ব্যক্তিরা তাদের কাজের ক্ষেত্রে কি কি চ্যালেঞ্জ এর মুখোমুখি হয়"। আইনূল আশেকীন কর্তৃক পরিচালিত গবেষণাটি হবে অংশগ্রহণকারী ব্যক্তিদের প্রকৃত কর্মস্থল ও বাড়ির পরিবেশে। এই গবেষণার উদ্দেশ্য হল টেট্রাপে-জিক ব্যক্তিরা বাংলাদেশী পরিবেশে কাজের ক্ষেত্রে যে সকল চ্যালেঞ্জ এর মুখোমুখি হয় সেই চ্যালেঞ্জগুলো সম্পর্কে জানা।

এই গবেষণায় আপনার অংশগ্রহণ 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 বাধাগ্রস্থ করছে। যেটি আপনার এবং অন্যান্য মের"জ্জুতে আঘাত প্রাপ্ত ব্যক্তির জন্য প্রয়োজনীয়। এই গবেষণাটি আপনাকে তুলনামূলকভাবে কম সময়ে কাজের ক্ষেত্রে চ্যালেঞ্জগুলো সম্পর্কে অবহিত করতে সাহায্য করবে। এছাড়াও আপনি পূর্ব প্রস্তুতি স্বরূপ কিছু পদক্ষেপ ও এ সকল চ্যালেঞ্জগুলো কমানোর ক্ষেত্রে বিশেষজ্ঞদের কাছ থেকে পরামর্শ নিতে পারবেন। 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।

আইনূল আশেকীন

বি.এসসি ইন অকুপেশনাল থেরাপী, চতুর্থ বর্ষ

মোবাইল ঃ ০১৯১৪-৯৩৬৫৫৬

ই-মেইল- aynulashekin_ot@yahoo.com

Appendix-III (b)

Consent form

I am Aynul Ashekin, involved in the B. Sc. in Occupational Therapy course of Bangladesh Health Professions Institute (BHPI), CRP, Savar. At present, I am going on my study of final year, under the Dept. of Occupational Therapy. 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 "Challenges related to employment experienced by the persons with tetraplegia". The study will be conducted by Aynul Ashekin at the real workplace and home environment of the participants. The aim of the study is to explore the challenges experienced by the persons with tetraplegia in their employment 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 challenges which affect the employment, which is essential for you as well as others of SCI with tetraplegia. This will help to be informed about the common challenges related to employment earlier. Besides, you can pre-determinedly take some steps and receive consultancy from appropriate professionals minimizing these challenges.

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.

Aynul Ashekin

Student of B. Sc. in Occupational Therapy

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

E-mail: aynulashekin_ot@yahoo.com

Cell Phone: 01914936556

Appendix-IV (a)

প্রশ্নপত্র

১. মেরুজ্জুতে আঘাত পাওয়ার আগে কি আপনি কোন কাজ করতেন? হ্যাঁ/না, যদি হ্যাঁ হয় তবে কি কাজ করতেন?

২. আপনি এখন কি কাজ করেন?

৩. আপনি প্রতিদিন গড়ে কতক্ষণ সময় কাজ করেন?

৪. মেরুজ্জুতে আঘাত পাওয়ার পর কাজ করার ক্ষেত্রে কি আপনাকে কোন চ্যালেঞ্জএর মুখোমুখি হতে হয়? হ্যাঁ/না, যদি হ্যাঁ হয় তবে কি কি চ্যালেঞ্জএর মুখোমুখি হতে হয়?

৫. আপনার কি মনে হয় যে এই চ্যালেঞ্জগুলো কোনভাবে উত্তরণ করা সম্ভব? হ্যাঁ/না, যদি হ্যাঁ হয় তবে কিভাবে সম্ভব বলে আপনি মনে করেন?

Appendix-IV (b)

Questionnaire

1. Did you do any job before Spinal Cord Injury? Yes/No. If yes what was your job?

2. What employment are you doing after Spinal Cord Injury?

3. How long times have you to work each day on an average?

4. Do you have to face any challenge in your workplace? Yes/No. If yes what type of challenge?

5. Do you think these challenges could be overcome? Yes/No If yes how?

Appendix-IV (c)

Observation Checklist

Findings	P1	P2	P3	P4	P5	Total
Inaccessible work environment	√	√				**2**
Weakness	√	√	√	√	√	**5**
Oedema	√	√				**2**
Pressure sore	√	√				**2**