Person with Spinal Cord Injury after Institutional Rehabilitation: Duration and Associated Factors of Return to First Job

By

Shammo Karmoker

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Bachelor of Science in Occupational Therapy

Bangladesh Health Professions Institute (BHPI)

Faculty of Medicine

University of Dhaka

Thesis completed by:

Shammo Karmoker
4th year, B.Sc. in Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
Centre for the Rehabilitation of the Paralysed (CRP)
Chapain, Savar, Dhaka: 1343

……...……
Signature

Supervisor's name, designation and signature:

Md. Julker Nayan
Associate Professor
Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
Centre for the Rehabilitation of the Paralysed (CRP)
Chapain, Savar, Dhaka: 1343

……...
Signature

Head of the department's name, designation and signature:

Sk. Moniruzzaman
Assistant Professor & Head
Department of Occupational Therapy
Bangladesh Health Professions Institute (BHPI)
Centre for the Rehabilitation of the Paralysed (CRP)
Chapain, Savar, Dhaka: 1343

…….
Signature

Statement of authorship

Except where it 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 seminar. No other person's work has been used without due acknowledgment in the main text of the thesis. This thesis has not been submitted for the award of any other degree 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, the research supervisor will be highly concerned, and it will be duly acknowledged as an undergraduate thesis.

Shammo Karmoker

4th year, B.Sc. in Occupational Therapy

Bangladesh Health Professions Institute (BHPI)

Centre for the Rehabilitation of the Paralysed (CRP)

Chapain, Savar, Dhaka: 1343

……

Signature

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List of Abbreviations

BBS: Bangladesh Bureau of Statistics

CBR: Community Based Rehabilitation

CRP: Centre for Rehabilitation of Paralysed

RTW: Return to Work

SCI: Spinal Cord Injury

SWD: Social Welfare Department

WHO: World Health Organization

Abstract

Background: Spinal Cord Injury is a disorder that has a vast impact on every aspect of life. In Bangladesh, person with spinal cord injuries health status, quality of life and socioeconomic situation is relatively low which affect the employment. The impact of a job is not only to be self-sufficient but also a source of personal growth, mental adjustment, financial capability and better health. Employment for SCI person is a renowned issue but few studies have measured the average time of return to the first job. Moreover, there is a paucity of evidence in low and middle income countries.

Aim: The study aimed to identify the average time to return to the first job after discharge and its associated factors.

Methods and materials: A cross-sectional method was used in the study. Seventy-three persons with SCI were selected. They met the inclusion criteria of having a minimum of 1 year of work experience after the rehabilitation and age between 18 to 60 years. A self-developed questionnaire was used to interview through telephone. Descriptive statistics was followed by SPSS version 25.

Result: The median time was 12 (SD± 18. 9) months and maximum of 74 months. It found the association of three associated factors for early employment. Being main income earner of a family, return to pre job and completion of higher years of education cause early return to the employment.

Conclusion: According to the findings, therapists should consider the pre-job while planning rehabilitation for early employment. Employment advocacy must begin during the early stages of rehabilitation. Additional research is needed to identify the further association between setting realistic goal and early employment advocacy for first entry into employment.

Keywords: Employment, Rehabilitation, Spinal Cord injuries, Return to Job

CHAPTER I: Introduction

1.1 Background

Spinal Cord Injury (SCI) refers to any damage to any part of the spinal cord or spinal canal which causes permanent changes in strength, sensation, and other body functions below the site of the injury. In Bangladesh the number of people with disability is 1.41%, which means there is a total of 101, 585 people with disabilities (BBS, 2017). From these people, the incidence of SCI is between 20 to 40 per million. The causes of SCI in Bangladesh are falling from height (45.4%), road traffic accidents (25.9%), fall of objects overhead or back (17.8%) among them 51.9% are paraplegic and d 42.6% are tetraplegic (Rahman et al., 2017). Return to work after rehabilitation is one of the main goals of rehabilitation (JS Krause et al., 2009). Hossain et al (2019) conducted research and found that in Bangladesh after discharge from the hospital about 91% of families which have SCI persons live below the poverty line. Before the injury, 74% of people were the main income earners for their families, and 50% were the only source of income for their families. People's median (IQR) monthly income before the injury was US$106 (US$60–US$180) per person and family members' income was US$30 (US$19–US$48) per person. After the injury, the median income (IQR) of each family member dropped to US$0 (US $0–US$18). At one point in life after completing rehabilitation if these patients cannot engage in wage income activity they are considered as a burden for the family (Rahman et al., 2018). The per capita income in Bangladesh is $1,316 (According to the Bangladesh Bureau of statistics). If the Person with SCI was the only income generated member for a family and remain unemployed after injury it will be tougher for the family. So, it can easily help to predict that if any SCI person remains unemployed after rehabilitation it will be a burden for the family.

Return to work has the impact of work disability on the injured worker's well-being (R. Wasik et al., 2007). There have already been many published researches which measured the percentage of return to work of person with SCI in different regions of the world. Leiulfsrud et al (2020) stated in a study the employment rate after onset of SCI is 55% for Switzerland, 56.5% for Denmark, 51% for the Netherlands, and only 48% for Norway. M.W. Post et al (2020) measured the employment rate of persons with SCI all over the world was 38%. M. S. Hossain et al (2019) found that the employment rate in Bangladesh is 66%. The reasons for these variations are different methodology, different sample sizes, different demographic status etc (JS Krause et al., 2009). Though many studies have measured the employment rate across the world, very few studies have measured the average time of return to the first job after the onset of SCI and its associated factors. Some studies measured the average time to return to the first job after the onset of SCI and associated factors but the method, study population, region and geographic region were different. There is a paucity of information in Bangladesh that measured the average time entering the first job after the onset of SCI and its causative factors. In Bangladesh, persons with SCI face many challenges in performing their job in the community. These include i) pain and weakness on different affected sides of the body ii) roads when travelling to and from home to work iii) seasonal poor road conditions to reach the main road from house iv) Financial problems and v) negative comments from both people in the general community and people with Spinal Cord Injuries (S. Sultana & M. J. Nayan, 2017). The causative factors will be age, gender, cause, the severity of the injury, financial support, early retirement benefits, working time per week, return to the same job, adapted technical aid, mobility aid, ability to sit, education, pain, workspace environment and vocational training (Ramakrishnan et al, 2011).

1.2 Justification of the Study

In 1959 first the importance of employment for a person with spinal cord injury was raised and that created a new dimension of treatment for the persons (Guttmann, 1959). Later on, it is regularly identified as an effective factor, not for just economic stability but also different other aspects like social integration, social acceptance, life satisfaction etc (Trenaman et al., 2015). The International Classification of Functioning also described the importance of employment. Employment was defined as engaging in all aspects of work such as occupation, profession or other forms of employment, business, work for payment or where payment is not provided, self-employed or full or part-time employment (Playford, 2015).

Already different countries of the world are now quite serious about the importance of employment for the person with spinal cord injury especially in wage income activity. So that many studies had been published about the world employment for a person with spinal cord injury. But very few measured the average time to return to the first job after the discharge. Globally the exact time required for the first job has not been identified as there is a scarcity of literature about it (Ramakrishnan et al., 2011).

In Bangladesh, different studies identified the employment rate of person with SCI and found relatively high employment rate than many other developed countries but the time needed for the first job was not identified till now. So, it was not possible for the therapist of Bangladesh to identify the exact time needed for the post job. Besides, no research did not identify the related factors for the early engagement in the post job after the community integration. The occupational therapists were used to make decisions about the post-work for the person with spinal cord injury rallying on their previous experience. As the research identified the fast track for returning into wage

income activity after the injury it will help our therapist to plan not only based on the experience but also evidence.

This research improved the competency of our Occupational therapy department as the therapist can decide the more realistic goal for the person with spinal cord injury for early return in the post job. This will also open a new dimension of information for the person with spinal cord injury and will return early in post job.

1.3 Operational Definition

1.3.1 Spinal Cord Injury

Spinal cord injury is the traumatic or non-traumatic injury of the spinal cord. It is a condition of medical complexity which is life-disrupting. It is the damage of the spinal cord or spinal nerves which runs from the cervical region to the cauda equina. The injury can be divided into two, complete injury and incomplete injury. It causes permanent changes in strength, sensory and other body function below the injury level. The injury occurs when the bone in the back or the ligaments break and injured the spinal cord by narrowing the spinal canal. Spinal cord injury can be traumatic or non-traumatic (Kretzer, 2016). But the prevalence of non-traumatic SCI in Bangladesh is relatively high and to cause of it is fall from the height, road traffic accident, fall of object overhead or neck, bull attach, physical assault etc (Rahman et al., 2018).

1.3.2 Employment

According to the International Labour Organization (ILO), An employed person is a person whose age is 15 or older and who has worked at least one hour during a week for pay or profit. It also included the persons who have the job from which they are absent for some reason (vacation, sick leave, maternity leave, etc.). Employees, self-employed individuals, and family members are all protected. Illegal labourers are also included in this category. Persons who declare having a job but are absent are classified as employed if they are absent due to annual leave, maternity/paternity leave, working time arrangement, job-related training, short-time working (or technically unemployed), strike, bad weather of any duration, sick leave of one year or less, parental leave, or other unpaid leave (Employment according to the international labor organization ILO definition). According to the Bangladesh Labor Act 2006, "worker" refers to any person, including an apprentice, employed in any establishment or industry, either directly or through a contractor, to perform any skilled, unqualified, manual, technical, commercial promotional, or clerical hire or reward work, whether the terms of employment are expressed or implied, but does not include a person primarily engaged in managerial or clerical work (*Workplace deaths in Bangladesh in 2013: Including information on recent amendments to the Bangladesh labour act 2006*, 2014).

CHAPTER II: Literature Review

2.1 Employment rate across World

Employment is one of the main indicators to measure the success of a rehabilitation and community integration service among people with disabilities, including spinal cord injury (SCI). Employment among SCI over the world varies from country to country. M.W. Post et al (2020) conducted a cross-sectional study in 22 countries with a total of 9875 participants found that the overall employment rate across the world is 38% ranging from 10.3% to 61.4% the highest is in Europe 51% and the lowest rate is in North America 30%. Ottomaneli & Lind (2009) conducted a systemic review of 579 studies from the year 1978 to 2008 and found that the average rate of employment after SCI was 35% and the rate varied from 3% to 80%. There was a significant variation of employment rate because the studies used different types of definitions of the employment rate. Another significant cause is compensation and availability of government support for post-injury employment. In Germany, 67% of people with SCI receive financial support based on their state of health because of a reduction in earning capacity (Sturm et al., 2020). As a result, many developed countries show low employment rates because of the dependency on governmental support. Geographical factors also play an important factor for this variation. In Bangladesh Nayan et al (2016) conducted a cross-sectional survey with 110 participants found that the employment rate of SCI is 56.4%. Among them, 37.3% were engaged in self-business. Hossain et al (2015) conducted a cohort study with 283 population in Bangladesh which aim was to identify psychological and socioeconomic status, complications, and quality of life in people with spinal cord injuries (SCI) after discharge found that 85% population were in the employment prior to injury while 47% were working after injury. The employment

rate is relatively high because on the inclusion criteria students are considered as employed. On the other hand, the Centre for rehabilitation of the Paralysed (CRP) is the only specialized hospital in Bangladesh that ensure rehabilitation of person with SCI, and some significant amount of compensation for employment is given so there is a tendency for the SCI persons to engage self-employed activity after community reintegration.

2.2 Return to First Job after Rehabilitation

Ramakrishnan et al (2011) conducted a cross-sectional study in Malaysia with 61 participants who were engaged in any wage income activity for a minimum of two years after rehabilitation found that the average time to return to their first job is 4.9 years ranging from 3 months to 20 years. The majority (64.4%) of the population were self-employed. A cross-sectional study was conducted with 259 participants whose inclusion criteria was the same as the upper mentioned study found that in America an average of 4.8 years had needed since SCI onset to their first post-work and the time of full-time post-injury job was 6.3 years (Krause, 2003). In another cross-sectional survey with a participant of 1134, JS Krause et al (2009) found the average time of first full-time job for the full sample was 4.1 years (¼ 3.8). Where the inclusion criteria were participants must engage in any post job for at least 1 year. J Bloom et al (2018) on a systemic review of 102 studies stated that only 5% of studies measure the average time take to return to work and only 3% measured the years to return the first job. So, this small quantity of research doesn't suggest the overall required time to first job.

2.3 Factor Associated Early entry in Job/work

Education is one of the most influencing factors play a role to return to work. There is a strong association between education and labor force participation (JS Krause et al, 2010). K Ramakrishnan et al (2011) stated that having fewer years in education was associated with a longer time to return to work. Compared with SCI person who had not completed high school, persons with at least a high school certificate or associate degree need 1.5 years less to the first job and those who have bachelor's degree (or higher) averaged need 3.0 less years to first job (JS Krause et al, 2009). Sturm et al (2020) conducted a cross-sectional study over 1479 participants whose aim was to identify barriers of post-work found a positive association between education and employment. The higher the level of education the higher the employment rate.

Sturm et al (2020) identified the employment rate among men and women. At the time of the survey, the overall employment rate among the participants was 42.5% among them 43.9% of men were in work, but only 38.9% of women. JS Krause et al (2009) found men took an average of 2.6 years less than women to return to the job. K Ramakrishnan et al (2011) conducted a cross-sectional study in Malaysia with 84 participants whose aim was to determine the employment outcome and impact of various demographic factors also stated that men were more engaged in employment than women. A. S. Leiulfsrud et al (2020) in their cross-sectional study conducted in Denmark, Netherland, Switzerland, and Norway with 1055 participants identified employment levels after injury were similar for men and women in each of the four nations, but Dutch women had significantly lower scores on predicted employment than Dutchmen.

To return to post job being older at the time of injury is associated with RTW and it causes a longer time to engage post work. It is negatively correlated with years to the first job (K Ramakrishnan et al, 2011). Within the age group of 18 -30 years 44.3% were engaged in the post job, the highest rate 49.1% was found on 31-40 years and the lowest rate was 35.6% in the age group of 51-65 years (Sturm et al, 2020).

RTW into pre-employment was associated and it took almost 3 years earlier than those who did not have this opportunity (K Ramakrishnan et al, 2011). If there is no opportunity to return into pre-employment the interval of time to work after SCI may be considerably longer. It was found that it took 5.0 years shorter intervals to time to work compared with those who returned to a different company or who did not work pre-injury (JS Krause et al, 2009). A cohort study of 243 participants stated that 45.7% of participants returned their pre-employment after rehabilitation and 32.9% returned to new employment (B. Trezzini et al, 2018). In Bangladesh participants who came from the urban area are more interested to remain in their previous job rather than participants from rural areas (M S Hossain et al, 2019).

M S Hossain et al (2019) found that 54% of participants in Bangladesh were in employment and among them 65% before the study was main income earner but after 6 years of the injury only 34% were main income earners. 47% belong to the lower-income family. Across the world, 74% of the SCI survivor were the main income earner and after injury, 91% of family members were living below the extreme poverty line of US$37.50 per person per month (M.W. Post et al, 2020).

In Bangladesh, 97% of participants who used wheelchairs indicated that they experienced limitations in activity. 53% of participants who used wheelchairs at discharge reported that their SCI had created “severe” or “extreme” family problems

and stress on their family's finances, respectively (M S Hossain et al, 2019). One of the strongest variables is the ability to drive a modified vehicle and it has a positive association. After injury majority (79.5%) who were able to drive were in occupation compared with only 32.5% of those who were not able to (K Ramakrishnan et al, 2011). Tsai et al (2014) on a study with 2986 participants which aim was to identify the association between assistive mobility devices and social participation, found modified vehicle or driving on a wheelchair is positively associated with employment.

Paraplegic SCI returned more in working (60%) compared with the person with tetraplegia (K Ramakrishnan et al, 2011). Sturm et al (2020) stated that among the participants who were engaged in post job tetraplegic SCI (62.5%) were engaged in without paid employment but in paraplegia the rate is 54.8%. One of the reasons is inability to sit without support is correlated with a strikingly high rate of unemployment.

Ottomaneli & Lind (2009) stated that 25% of individual reported transportation and social security as a main barrier to employment. Having reliable transportation, especially being able to drive oneself has been identified in numerous studies as one factor related to return to work. Sturm et al (2020) stated that more than one-fifth (22.7%) of participants reported workplace environment was not barrier-free therefore it has a significant association with employment.

CHAPTER III: Methodology

3.1 Study Questions Aim, Objectives

3.1.1 Research Questions

How long does a person with spinal cord injury (SCI) take to return to their first job after completing rehabilitation from CRP and what are the factors related to it?

3.1.2 Aim and Objectives

Aim:

To identify the average time to return to the first job of a person with spinal cord injury after rehabilitation in Bangladesh and identify the factors related to it.

Objectives:

a. To determine the average time to participate in their first job after the rehabilitation

b. To determine the factors to early return on their first job

3.2 Study Design

An observational quantitative cross-sectional study was conducted for the research. A cross-sectional study is observational research that analyzes data of variables collected at one given point in time across a sample population. This type is used to find the prevalence rate and association between the variables (M Stelia, 2016). The research identified the average time to return and analyzed the correlations between independent variables and the dependent variables. The main outcome variable is “time to return to the first job” and the independent variables are gender, type of injury, age, years in education, marital status, age at injury, ability to sit, pre-employer, working hour, main income earner, pain, financial aid, assistive device, accessibility, road condition and vocational training. The researcher analyzed the data of one given time. As this type of method fit in the study the researcher selected the cross-sectional study method**.**

3.3 Study Setting and period

The student researcher collected the list of patients discharged from CRP from 2015 to 2016. The student researcher then identified the potential participants who had met the inclusion criteria. The student researcher then called every potential participant who had given their consent they were interviewed by phone. The study was conducted from April 2021 to February 2022.

3.4 Study Participants

3.4.1 Study Population

The researcher collected data from the social welfare department of the years 2015 to 2016 who have discharged from the CRP. The researcher selected these years because a cross-sectional study done in Malaysia found that the average years of SCI patients to participate in their first job after discharge is 4.9 years (K Ramakrishnan et. al. 2011). Another study found that the average year is 3.9 years (JS Krause et al. 2009). As the predictive years needed to return first job was moreover 4-5 years so the researcher collected 5 years previous data.

3.4.2 Sampling Technique

Purposive sampling technique was selected to identify the participants. Purposive sampling (also known as judgment, selective or subjective sampling) is a sampling technique in which the researcher relies on his or her own judgment when choosing members of the population to participate in the study. Purposive sampling is a non-probability sampling method and it occurs when elements selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money (Palinkas et al, 2013). In this method, the researcher required to have prior knowledge about the purpose of the study so that s/he can properly choose the eligible participants.

3.4.3 Sample Size

In any survey, the design of the study includes a broad research sample to generalize the analysis to the selected population. The larger sample represents the entire population, so it is critical that the sample is representative of the population (Bordens & Abbott, 2002). While a larger sample is more likely to be taken. In Bangladesh the prevalence and the exact number of populations of person with spinal cord is not identified. In the below sample size calculation is mentioned for unknown prevalence rate and population number.

Where,

Percentage of population, P= 0.037

Prevalence, q= 1-P= 1-0.037 = 0.96

Confidence level, Z= 1.96 at 95% (Standard value)

Degree of accuracy, d = 0.05

Required sample size, n=?

Here, the confidence interval is (z) = 1.96 and the sampling error (r) = 0.05 precise number of persons with spinal cord injury was unknown as well as prevalence of was assumed p=0.5, where q= 0.5 (1-p) and then the sample size (n) it was stand for:

n= (1.96)2

x0.5x0.5

(0.05)2

= 0.9604/0.0025

=384.16

The investigation aimed to focus his study by 384 samples following the calculation above initially. But the study was as a part of educational research, there was some time and cost limitation. So, number of samples were 73 maintaining the inclusion and exclusion criteria.

3.4.4 Inclusion and exclusion criteria

a. Inclusion Criteria:

1. Employed at least 6 months after discharge
2. Age range 18-60 years
3. Completed in-patient rehabilitation. From CRP
4. Both traumatic and non-traumatic SCI

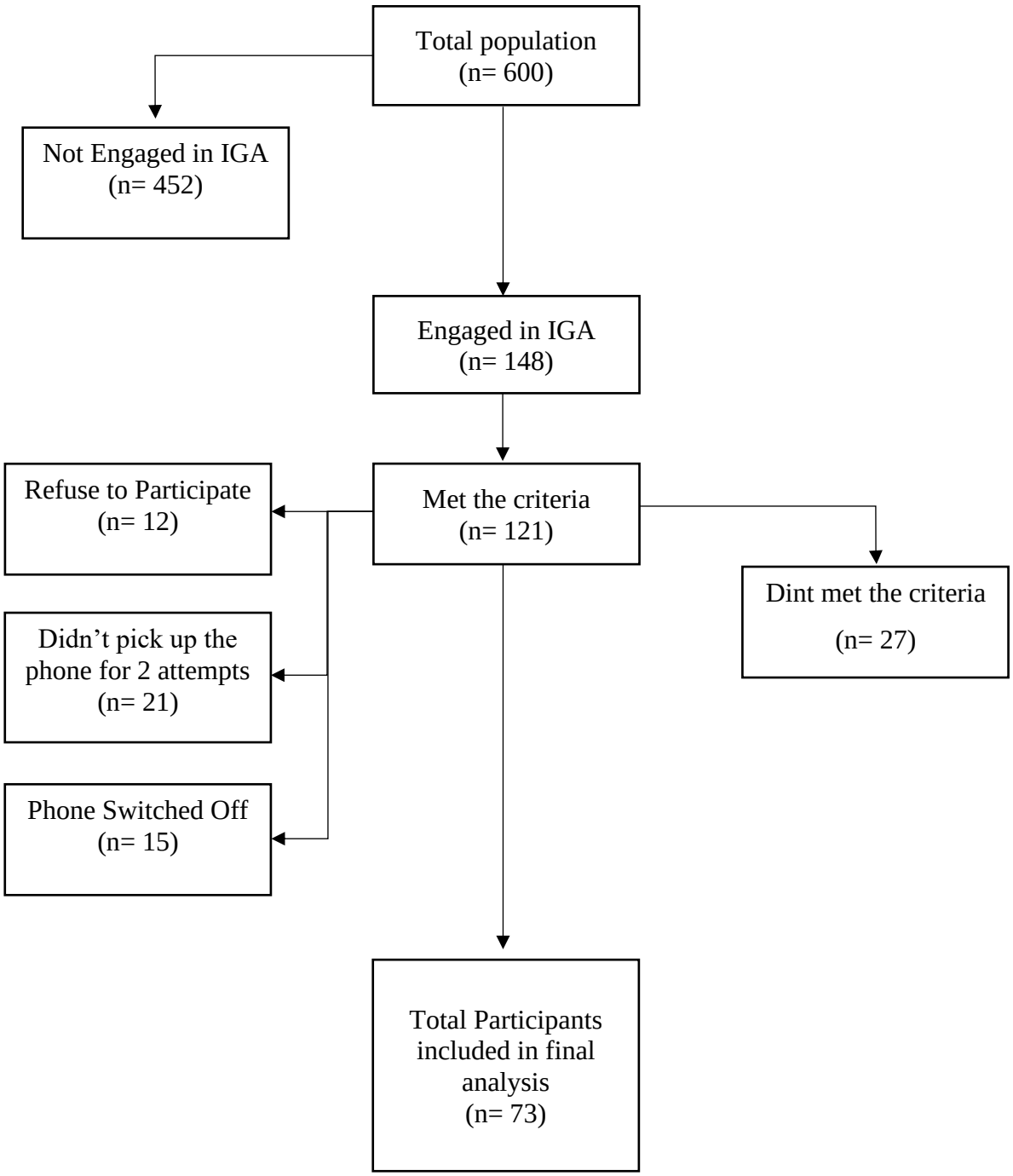
b. Exclusion *Criteria:*

1. Patients who have been diagnosed brain injury or mental illness along with SCI as recorded on the CRP database.

3.4.5 Participant Recruitment Process

The researcher went to the Social Welfare Department of CRP where all the records of the patients are kept. From there the researcher collected the list of SCI persons about those who were discharged from CRP from 2015 to 2016. The researcher collected all their socio-demographic data and their present state of income generative activity (IGA). Total 600 patients were discharged in that 2 years and according to present information (home visiting), 148 people with SCI are in IGA. Among them 27 people could not meet the inclusion and exclusion criteria, 12 people refused to participate, 21 persons could not pick up the phone for 2 attempts and 15 person's phones were switched off. 73 persons with SCI were tele-phone interviewed for the study. The figure shows the flow of the participants of the research.

Figure 1: Flow chart of participants



3.5 Ethical considerations

The researcher proposed the study to the Institutional Ethical Review Board by giving a presentation through the Department of OT, BHPI. The board critically appraised the study on the basis of research proposal and presentation. After receiving the clearance (CRP/BHPI/ IRB/ 11/ 2021/533 attached on appendix page 41) from the board, the student researcher continued the further process.

3.5.1 Informed Consent

Before conducting the data collection, the student researcher read out the information sheet where the title of the study, aim and objectives of the study mentioned clearly. After understanding the purpose of the study, the populations had full freedom to make the decision if they wanted to participate or not. After confirming it the researcher again read out the consent form where ethical consideration, confirmation was described. After hearing and understanding everything, the participants gave their consent. Those who rejected their participation in the study the student researcher thanked them for giving their time.

3.5.2 Unequal Relationship

The student researcher did not know those participants personally. He selected the participants according to inclusion and exclusion criteria. So equal relationship was ensured.

3.5.3 Risk and beneficence

No therapeutic intervention was provided or no activity had been done that will adversely affect the participant. The researcher conducted telephone interview with the populations. As the interview session was conducted over the phone, the participants did not need to come anywhere. As now it is a pandemic situation, participants easily

participated in the study by staying there home.

3.6 Data Collection

3.6.1 Data Collection Method

The study followed the telephone survey method. The researcher conducted the telephone survey because SCI people all over the country were potential participants. On the other hand, the pandemic situation is a factor for selecting the telephone survey method. About 10 to 15 minutes were needed to interview per participant.

3.6.2 Data Collection Tool

The researcher developed a survey questionnaire for conducting the interview. The questionnaire was developed on the research conducted in the USA and Malaysia. The interview was formal, and all of the questions were close-ended. The main outcome variable was the “time to return to the first job after discharge”. The associated factors were age, ability to sit, pre-employer, working hour, main income earner, pain, financial aid, assistive device, accessibility, road condition, and vocational training etc.

3.7 Data Management and Analysis

SPSS version 25 software was used to analyze the data. Mann-Whitney U test and Spearman’s correlation was used to identify the association between the independent variables and outcome variables. Mann- Whitney U test was used to compare the variance of median of the variables. It was conducted to identify the association between a quantitative and a qualitative variable with 2 level (dichotomous independent variables for example return to pre job, sex). Spearman’s correlations were used with metric independent variables (for example, age, years of education). The nonparametric counterpart of the Pearson product-moment correlation is Spearman's rank-order

correlation. The intensity and direction of relationship between two ranking variables is measured by Spearman's correlation coefficient *p* usually abbreviated as rs. (*Spearman's Rank-Order Correlation - A Guide to When to Use It, What It Does and What the Assumptions Are.*, 2018). The *P* value of 0.05 was considered significant.

3.8 Quality Control and Quality Assurance

All data was done accurately under the supervision of the respective supervisor and followed all the instructions. Before selecting the study methodology, it was ensured that it may fulfill the study purpose. Prior to collecting the final data, a pilot survey was conducted with 5 participants to adjust the questionnaire as it was a self-developed questionnaire. There were some significant changes that were needed to use the questionnaire properly. On the pilot survey the main variable time to return into first job was into years but most of the participants answered the required time into months as they did not need year. So, the researcher adjusts the variables from years to months. After adjusting the questionnaire investigator started the final data collection.

CHAPTER IV: Results

The result chapter includes an overview of participants characteristics, average required time to return to first job after the injury, associated factors to early return to job and employment characteristics. From a total of 121 person who had met the criteria, 73 participated in the telephone survey with a rate of 60% (Approx.) The data were analyzed from the cross-sectional survey response.

4.1 Participants Characteristics

The median age of the participants at the time of the study was 38 years (SD± 9.942) and the median age during injury was 31 years (SD± 10.220). In terms of injury types, 72.6% (n=53) were paraplegic, and 27.4% (n=20) were tetraplegic. The majority of the participants 93.2% (n= 68) were male whereas only 6.8% (n=5) were female. On the distribution of marriage, 80.8% (n= 59) were married and 19.2% (n=14) were unmarried.

Table 1: Sociodemographic characteristics of the participants

Variable	Category	Frequency	Percentage
Gender	Male	68	93.2
	Female	5	100.0
Education	Illiterate	17	23.3
	Primary	18	24.7
	Secondary	24	32.9
	Higher	7	9.6
	Graduation	5	6.8
	Post-Graduation	2	2.7
Marital Status	Unmarried	14	19.2
	Married	59	80.8
Injury	Traumatic SCI	70	95.9
	Nontraumatic SCI	3	4.1
Types	Paraplegia	53	72.6
	Tetraplegia	20	27.4
Living Area	Urban	26	35.6
	Rural	47	64.4
Road Type	Pitch	15	20.5
	Brick	28	38.4
	Muddy	30	41.1
Main Income Earner	No	31	42.5
	Yes	42	57.5

4.2 Time to return to the first job

The median of the time to return to the first job was 12 (SD± 18. 992) months ranging from no required time from the discharge to 74 months. Those who had returned into post-injury income generative activity among them majority of population 71.2% (n=52) engaged in business activity, 19.2% (n=14) in wage income activity, 8.2% (n=6) were a farmer and only 1.4% (n=1) was labor.

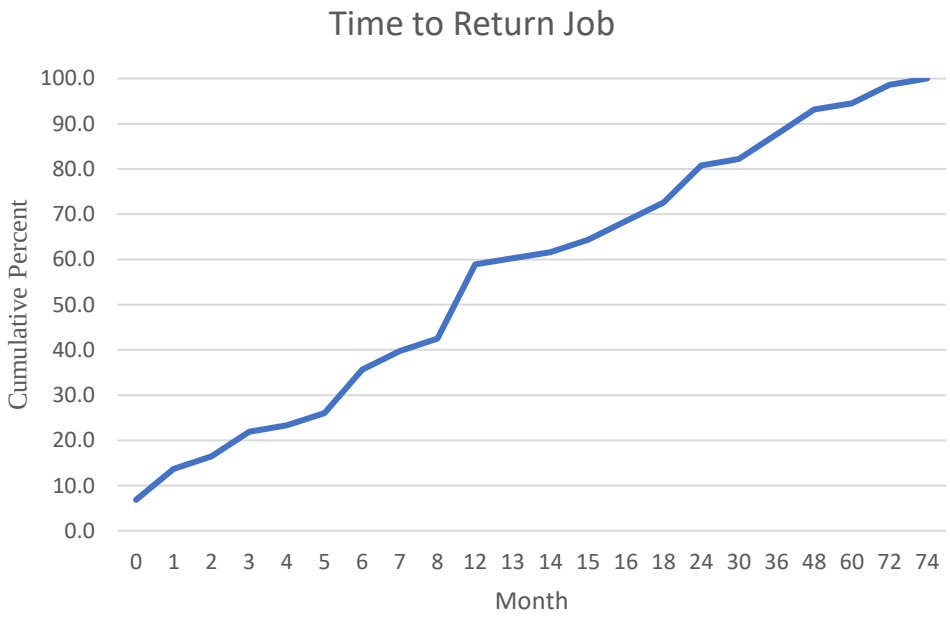


Figure 2: Distribution of participants to return to first job

The Pie chart represent the present income state of the participants on the base of their employment.

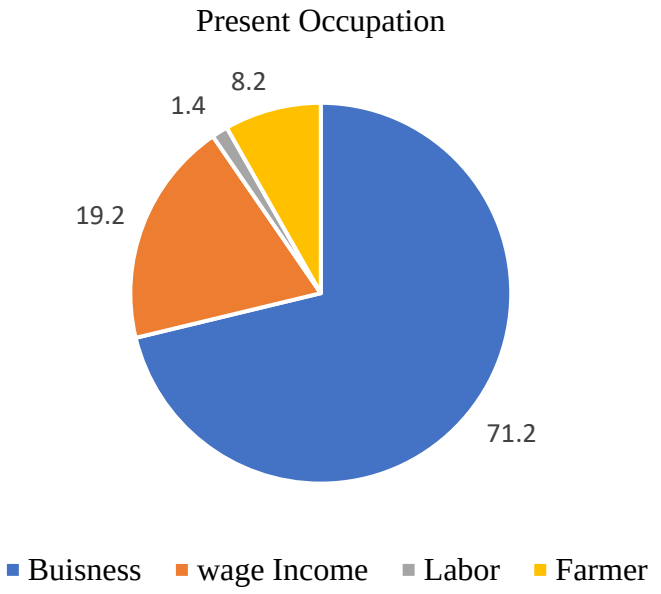


Figure 3: Comparative job status of the participants

4.3 Factors associated with time to return to the first job

Mann Whitney U test showed statistically significant different mean rank on the variables of return to pre job and becoming the main income earner before the injury. Table 2 shows the difference of mean rank of different dependent variables on the contrast with the main variable (time to RTW). In the spearman rank correlation two continuous variables, years of education before injury and monthly income were negatively correlated with the main outcome variable (r -.822, *P*.00 and *r* -.349, *P* .003 respectively).

Table 2: Difference of the mean of time to return to work rank on the contrast of different dependent variables.

Variables	Category	Time to RTW (month) Mean Rank	*P* value
Type of injury	Paraplegia	38.27	.402
	Tetraplegia	33.63	
Living area	Rural	39.71	.140
	Urban	32.10	
Return to Pre Job	**No**	**43.11**	**.000**
	Yes	**16.88**	
Main Income Earner	**No**	**42.98**	**.038**
	Yes	**32.58**	
Pain During Work	No	33.38	.420
	Yes	38.10	
Donation	No	33.38	.107
	Yes	41.39	
Assistive Device	No	33.43	.344
	Yes	38.54	
Vocational Training	No	34.82	.373
	Yes	39.24	

Table 3: Correlation of the continuous factors with the time to return to work.

Variables	r value	P value
Age	-.069	.563
Years of Education	**-.882**	**.000****
Duration of hospitalization	-.092	.439
Monthly Income	**-.349**	**.003****

4.4 Summary of employment characteristics

All the participants who were engaged in income generative activity during the study were in full time employment. 21.9% (n=19) returned in previous skill at previous office, 1.4% (n=1) to new office with previous skill, 11% (n=8) returned into new skill at previous office and majority of participant 65.8% (n=48) returned into new office with new skill.

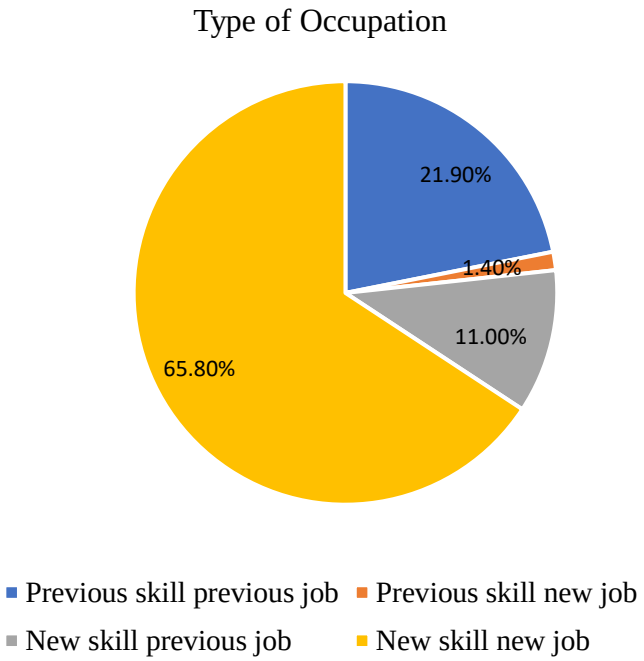


Figure 4: Distribution of Present Occupation

Majority of participant (76.7 %, n=56) returned into new job and other 23.3 % (n=17) returned into their pre job. There were more participants (n=42) as the main income earner (57.5%). The mean income of the participants was 10,570 taka and the mean family income of the participants was 13,572 taka per month.

19.2% participants worked less than 4 hours in a day were, less than 6 hours were 15.1% (n=11), greater than 6 hours were 20.5% (n=15) and more than 8 hours were 45.2% (n=33). The bar chart is showing the distribution of working time in hour of the participants.

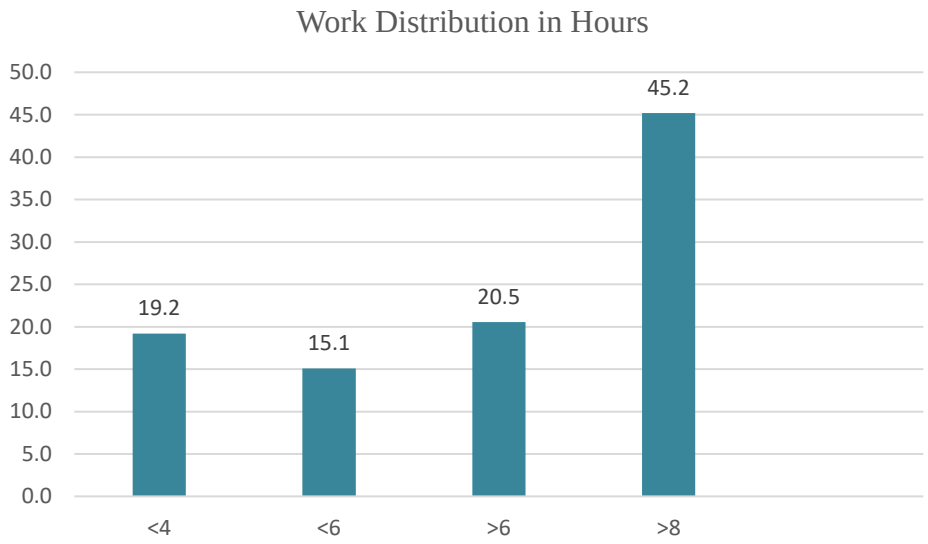


Figure 5: Daily working hours of the participants in Job

CHAPTER V: Discussion

This study shows a big difference from other studies of developed country. There are some important differences. The study found out the average time to return fist job is 1 year whereas on a recent study of Krause et al (2009) found out for America the time is 4.1 years. On previous study Krause et al (2003) found the time to return in first job was 4.8 years and the time needed for full time employment was 6.3 years. In this study we did not investigate time for full time employment but most of the participants were in full time employment. In another study which was done in Malaysia, a country in south Asian region, K Ramakrishnan et al (2011) found the time was 4.9 years. Though there are many dissimilarities between Bangladesh and other studies of developed countries, it was not unpredicted. There is an association between time to return to post job and being the main income earner of the family. Those who were the main income earner required less time to return to post job. In this study majority of the participants (57.5%) were the main income earner before the injury. Hossain et al (2019) also found that majority of the participants (74%) were the main income earner before the injury in Bangladesh. It facilitates the participants of our study to early return in the post job. On a recent study M.W. Post et al (2020) conducted a cross-sectional study among 22 countries found that the overall employment rate across the world is 38% ranging from 10.3% to 61.4% the highest is in Europe 51% and the lowest rate is in North America 30%. Ottomaneli & Lind (2009) found that the average rate of employment after SCI was 35% and the rate varied from 3% to 80%. But surprisingly Hossain et al (2019) conducted a cross-sectional study among 260 participants in Bangladesh found the employment rate is 66% though the poverty rate after the injury was 65%. Another study in Bangladesh found the employment rate is 56.4% (Nayan et al.,2016).

Compared to many developed countries the employment rate is high. In the study, most of the participants were self-employed after their discharge. 71.2 (n=52) percent engaged in business activity, 19.2 (n=14) percent in wage income activity, 8.2 (n=6) percent were farmer and only 1.4 (n=1) percent were labor. Nayan et al (2016) found that 37.3% returned in self-business activity and the rate is very high than other developed countries whereas JS Krause (2003) found that in America 19% returned in self-employed activity. In the study, all of the participants were from the Centre for Rehabilitation of the Paralysed (CRP) as it is the only specialized hospital in Bangladesh for spinal cord injury. In which Social Welfare Department (SWD) and Community Based Rehabilitation Department (CBR) provide financial and social supports to reintegrate these patients into the community. In this study, 45.2% (n=33) of the participants received financial support from the CRP to start a business as a result most of the participants returned to business activity after the injury. This might be the cause of early return into wage income activity after the discharge. Though there are some conflicting facts. In Germany, 67% of people with SCI receive financial support/compensation based on their state of health because of a reduction in earning capacity and among them, 22% of SCI people felt they don't need any job (Sturm et al, 2020). So, the compensation or financial aid may sometimes be a negative factor for returning to the job in some circumstances but in Bangladesh it was totally vice versa.

In the study some fast track had been identified to return to work and they are level of education, become the main earner before the injury and return to pre job with same skill. Higher the education level the time is lesser and return to pre job required less time to return. The median of time return to work for illiterate participants were 16 months whereas for post HSC pass participants it was 12 months and for graduate participants it was 0 month. This finding is quite similar with other studies. K.

Ramakrishnan et al (2011) Discovered that shorter years of education are associated with longer time of returning to work. Compared to SCI, those who do not have a high school diploma, and at least those who have a high school or associate degree, take less than 1.5 years to get their first job. Also, those with a bachelor's degree (or higher) the time is about 3.0 years shorter. Sturm el at (2020) identified post-work barriers and found a positive link between level of education and employment. The higher the education level, the higher the employment rate.

Our study found the association between time to return to work and return to pre job. The median of the time to return of the participants who were returned to their pre job with same skill was 3 months whereas those who return into the new job was 12.50 months. Most of the other studies also identified the association. RTW for pre-injury employers into pre-employment was linked, and those who did not have this chance took almost three years longer time (K Ramakrishnan et al, 2011). If there is no way to return to pre-employment, the time it takes to return to work following SCI may be much longer. In a study, it was discovered that individuals who returned to the same work compared with the person who did not return to prior work took 5.0 years less time to return to work (JS Krause et al, 2009). In a cohort study of 243 participants, it was discovered that 45.7 percent returned to their previous job following rehabilitation and 32.9 percent found new work (B. Trezzini et al, 2018).

In this study 93.2% (n= 68) were male and only 6.8% (n= 5) were female. The participation of females is alarming. From 2015 to 2016, very few numbers of females engaged in wage income activity those who were discharged from CRP. One of the causes may be the incident rate of SCI in men is higher than in females especially in the South Asia region (Nayan et al 2016). Hossain et al (2019) also found that the

female incidence rate in Bangladesh is 11%. Another reason maybe it works as a negative factor for participating in wage income activity (K Ramakrishnan et al 2011, JS Krause et al 2009 & Sturm el at 2020). As the total female participants are very small in size there is the chance that the correlation level among gender and RTW is not significant.

K Ramakrishnan et al (2011) & Js Krause et al (2010) found that age is significantly correlated with the time to return to the first job. Those who had elder age need more time to return to fist job. Alongside younger aged population need less time to return. The reason may be diverse. MP Jensen et al (2013) conducted a scoping review with studies between the year 1986 to 2011 to identify the relationship between age and secondary health conditions and identified many findings. They found different complicated secondary health conditions and they are pain, bowel and bladder regulation problems, muscle spasm, fatigue, esophageal symptom, cardiovascular disease, diabetes, respiratory complication, bone mineral density loss, infection etc. All these complication's frequency is higher in the old-aged population. These factors cause delays to involve in the wage income activity after the community integration. But in our study spearman significance level of the age with the time to return the first job is -0.068 which is not significant. The mean age of the participants was 39.62 which is relatively higher. In 2019 Hossain et all found that the mean age of the SCI population is around 30 whereas in our study it is much higher than that so there was a possibility that most of the participants of our study are aged so that it might be a reason we didn't find the significant correlation between age and the main variable.

Js Krause et al (2010) found ethnicity and gender were not scientifically correlated with time to return to job but found association between ethnicity and gender with first full-

time job. Nor ethnicity or full-time employment was measured in the study. The reason behind it was the inclusive criteria was to exclude people who didn't engage in wage income activity during the study. Ethnicity is not considered because all the participants of the study were Bangladeshi, so no other ethnic group of the participants was there to analyze for the research.

In Js Krause et al (2010) study, injury severity was classified as ambulatory (neurological level C1-C4), non-ambulatory (neurological level C5-C8), and non-cervical/non-ambulatory. But in our study, it was not included because the survey is conducted through mobile phone, and it was not possible to collect all the patient files to identify the injury severity. So, the researcher thought it would not be wise to include severity and collect the subjective data from the participants.

There were different other factors that were included like the ability to sit, duration of hospitalizing, pain, assistive device, accessibility, environment, etc. (World Health Organization & International Spinal Cord Society, 2013). But none of these factors are significantly correlated in our study as all the *P* values were below 0.5. The reason behind it may be various but one of the reasons might be for our study design. On this, we used cross-sectional study for betterment of the study, but some factors may need other study design to measure the actual correlation like physiological factors (mental readiness, satisfaction, etc.)

CHAPTER VI: Conclusion

6.1 Strength and limitation

Investigatingng the average time to return into first job after the institutional rehabilitation is a unique idea in Bangladesh as there was no published study on the topic. It will help the therapist to improve the competency by setting the realistic goal for early return. As all the patients who were discharged from the year 2015 to 2016 and engage in the income generative activity so the result represents the original phenomena of Bangladesh. On the other hand, all the participants were from different parts of all over Bangladesh which presented variation in socio-demographic hostories. Along with the strengths, the study has some limitation too. The interview was conducted through mobile phone as it was not possible to travel all over the country to collect the primary data. So, all the answers were subjective. The sample size is relatively small it may also influence the result as it was not possible to collect data from more people due to time limitations. There was a relatively very small sample size of female participants which restricted their status. If the male and female participants ratio was relatively equal it may generate more specific results. Another limitation is participants could not provide the actual result on some of the questions like actual duration of hospitilazion, specific time to return to the first job as they did not provide the actual date. All the data were collected from the participants who had been discharged from CRP, but it can be predicted that there are other people with SCI who did not receive treatment from the CRP.

6.2 Practice Implication

During conducting the study, researcher found that the average times to return in the first job after community integration and factors to identify the fast track. There were total of 73 participants in the study. It is relatively small participants to represent the population.

- It is recommended for further research that the number of participants should be increased to represent the national average time to return the first job of the person with spinal cord injury.

- The researcher used purposive sampling to ensure the participants. For that reason, there is a possibility that some of the potential participants may excluded from the study. This information was collected by the secondary data of social welfare department of CRP as there is no other specialized spinal cord injury hospital in Bangladesh. There is a possibility that many of the potential participants are excluded from the study. In future research, this issue should be considered and should use primary data. Simple random controlled sampling is highly suggested for further research.

- Telephone survey method was used to collect data from the community as a result all of the answers was subjective. Some Participants were not sure about their age, duration of hospitalization, injury severity etc. So that it might influence the findings of the research. For further research face to face survey method is appreciated.

- Investigator used cross-sectional method to understand the phenomenon and developed a questionnaire as a result there is a chance some of the important

factors might be excluded. Further qualitative study is recommended to explore the depth.

- Cohort study is recommended to explore how the factors exactly associated the early return to the first job after the rehabilitation.

6.3 Conclusion

Spinal cord injury is a serious health disease which may leads to death but it is preventable and survivable. Spinal cord injury causes not only health disabling issues but also many societal impairments. For good quality of life, it just not only needs good medical and rehabilitation support but also a supportive inclusive society. There is no exact information about the number of spinal cord injured persons in Bangladesh but it is hypothesized that the rate would not be very small as every year about 300 to 350 hundred patients admit. One of the most influencing factors of good quality of life for the person with spinal cord injury is employment. It does not help the person not only to be self-sufficient but also work as a source of personal growth, mental adjustment, social integration, financial capability, and better health. There are many factors behind it and they are gender, ethnicity, age, severity, education, preinjury, financial independence, secondary health conditions, psychological component, accessibility, etc. In this research, we find out the two fast tracks for early return of job. One of these is modifiable and another is nonmodifiable. We found the return to pre-job work as an influencing factor for early return to employment. Another factor level of education work as a nonmodifiable factor. The therapist should consider the modifiable factors for the patients to early return to employment for the betterment. The treatment should be focus on the pre-job of the patients and engage in pre-job with or without modification. For these, it may require much more advocacy to engage these large

number of populations in their previous job. The front liner should be the health professionals as they have knowledge to spread the awareness. But it is not possible by only the health professionals. The government should come forward for these people with spinal cord injuries. There is no governmental financial fund for these disabling issues and not enough governmental or private job opportunities due to lack of awareness, inaccessibility etc. So, these considerable points might be the first step to come forward for governmental support.

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APPENDICES

Appendix A: Ethical Approval

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
Bangladesh Health Professions Institute (BHPI)
(The Academic Institute of CRP)

BANGLADESH HEALTH PROFESSIONS INSTITUTE

Ref: CRP/BHPI/IRB/11/2021/533

Date: 18/11/2021

Shammo Karmoker
4th Year B.Sc. in Occupational Therapy
Session: 2016-17
BHPI, CRP, Savar, Dhaka- 1343, Bangladesh

Subject: Approval of the research project proposal**"People with Spinal Cord Injury after institutional rehabilitation: duration and associated factors of return to the first job"** by ethics committee.

Dear Shammo Karmoker,
Congratulations.
The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above-mentioned dissertation, with yourself, as the principal investigator and Md. Julker Nayan as thesis supervisor. The Following documents have been reviewed and approved:

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

The purpose of the study is to identify the required time and associated factors of return to the first job of people with Spinal Cord Injury after rehabilitation.Should there any interpretation, typo, spelling and grammatical mistakes in the title, it is the responsibilities of the investigator. Since the study involves questionnaire that takes maximum 15 to 20minutes and have no likelihood of any harm to the participants, the members of the Ethics Committee approved the study to be conducted in the presented form at the meeting held at 9:15 AM on 15th September, at BHPI 29th IRB Meeting.

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

Best regards,

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

CRP-Chapain, Savar, Dhaka-1343, Tel : 7745464-5, 7741404
E-mail : principal-bhpi@crp-bangladesh.org, Web: bhpi.edu.bd, www.crp-bangladesh.org

Appendix B: Information sheet and consent form [English Version]

Title: Return to work of person with spinal cord injury (SCI) in Bangladesh: the average time to first work and factors related to it.

Investigator: Shammo Karmoker, Student of B.sc in occupational therapy 4th year, Bangladesh Health Professions Institute (BHPI), CRP- Savar, Dhaka- 1343

Information Sheet

Introduction

I am Shammo karmoker, to finish the curriculum I have to conduct a research. You are going to have details information about the study purpose, data collection process, ethical issues. You do not have to decide today whether or not you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research. If this consent form contains some words that you do not understand, please ask me to stop. I will take time to explain.

Background and Purpose of the study

Every person with spinal cord injury who have completed rehabilitation process and engaged wage income activity after the injury minimum 6 months is a potential participant on this study. As you have fulfilled the requirement you are also a potential participant. The purpose of the study is to find the average years needed to engage any wage income activity and its factor. As return to job is one of the most important goal for rehabilitation so it important to know. You will be best suited to

Voluntary Participation

The choice that you make will have no effect on your job or on any work-related evaluation or reports. You can change your mind at any time of the data collection process even throughout the study period. You have also right to refuse your participation even if you agreed earlier.

Right to Refuse or Withdraw

I will give you an opportunity at the end of the interview to review your remarks, and you can ask to modify or remove portions of those, if you do not agree with my notes or if I did not understand you correctly.

Risks and benefits

We are asking to share some personal and confidential information, and you may feel uncomfortable talking about some of the topics. You do not need to answer any question or take part in the discussion/ interview/survey if you don't wish to do so, and that is also okay. You do not have to give us any reason for not responding to any question, or for refusing to take part in the interview.

Confidentiality

Information about you will not be shared to anyone outside of the research team. The information that we collect from this research project will be kept private. Any information about you will have a number on it instead of your name. Only the researchers will know what your number is and we will lock that information up with a lock and key. It will not be shared with or given to anyone except Dr. Kamal Ahmed, study supervisor.

S**haring the Results**

Nothing that you tell us today will be shared with anybody outside the research team, and nothing will be attributed to you by name. The knowledge that we get from this research will be shared with you before it is made widely available to the public. Each participant will receive a summary of the results. There will also be small presentation and these will be announced. Following the presentations, we will publish the results so that other interested people may learn from the research.

Consent form

This research is part of the Occupational Therapy course, and the name of the student researcher is Shammo Karmoker. He is a Bangladesh Health Professions Institute student in B. Sc. in occupational therapy in 4th year student. The study is entitled as "Return to work of person with spinal cord injury (SCI) in Bangladesh: the average time to first work and factors related to it.".

In this study, I am …… a participant, and I have been clearly informed about the purpose of the study. I have worked minimum 6 months after my rehabilitation. I have the right to refuse participation at any time and any stage of the research. I will not be bound to answer to anybody. I understand that there will be no harm and benefit for participation in the study at present or future. I am also informed that all the information collected from me used in this study would be kept safe and maintain confidentiality. The student researcher and the supervisor will be eligible to access the data to publish the research result. My name and address will not be published anywhere in this study.

Signature/Fingerprint of the Participant: Date:

Signature of the Student researcher: Date:

অংশগ্রহণকারীদের তথ্য ও সম্মতি পত্র

গবেষণার বিষয়ঃ "মেরুরজ্জুতে আঘাত প্রাপ্ত ব্যাক্তির রিহ্যাবিলিটেশন প্রক্রিয়া শেষে প্রথম আর্থিক কর্মকাণ্ডে জড়িত হওার প্রয়োজনীয় সময় এবং এর প্রভাবক।"

গবেষকঃ সাম্য কর্মকার, বি এস সি ইন অকুপেশনাল থেরাপি, বাংলাদেশ হেলথ প্রফেসন্স ইন্সিটিউট, সাভার, ঢাকা- ১৩৪৩।

ভুমিকাঃ

আমি সাম্য কর্মকার বি এস সি ইন অকুপেশনাল থেরাপি বিভাগের চতুর্থ বর্ষের ছাত্র। শিক্ষাকার্যক্রমটি সম্পন্ন করার লক্ষ্যে একটি গবেষণা প্রকল্প পরিচালনা করা বাধ্যতামূলক। এই অংশগ্রহণকারী তথ্য পত্রের মাধ্যমে গবেষণা প্রকল্পের উদ্দেশ্য, উপাত্ত সংগ্রহের প্রণালী ও গবেষণাটি সাথে সংশ্লিষ্ট নৈতিক বিষয় কিভাবে রক্ষিত হবে তা বিস্তারিত ভাবে আপনার কাছে উপস্থাপন করা হবে। যদি এই গবেশনায় অংশগ্রহণ করতে ইচ্ছুক থাকেন, সেক্ষেত্রে গবেষণার সাথে সম্পৃক্ত বিষয় সম্পর্কে স্বচ্ছ ধারণা থাকলে, সিদ্ধান্তগ্রহণ সহজতর হবে। অবশ্য এখনি আপনার অংশগ্রহণ আমাদের নিশ্চিত করতে হবে না। যেকোনো সিদ্ধান্ত গ্রহণের পূর্বে, যদি চান তাহলে আপনার আত্মীয় স্বজন, বন্ধু অথবা আস্থাভাজন যে কার সাথে এই ব্যাপারে আলচনা করে নিতে পারেন। অপরপক্ষে অংশগ্রহনকারী তথ্য পত্রটি পড়ে, যদি কন বিসয় বস্তু বুঝতে সমস্যা হয় অথবা যদি কোন কিছু সম্পর্কে আর বেশি জানার প্রয়োজন হয়, তবে নির্দ্বিধায় প্রশ্ন করতে পারেন।

গবেষণার প্রেক্ষাপট ও উদ্দেশ্যঃ

এই গবেষণাটি সকল মেরুরজ্জুতে আঘাতপ্রাপ্ত রোগী যারা পূনর্বাসনের পরে অর্থনৈতিক কাজে জড়িত ছিলেন বা আছেন তাদের অন্তর্ভুক্ত হবার জন্য আমন্ত্রণ জানানো হবে । এর অংশ হিসেবে আপনাকেও উক্ত গবেষণা প্রকল্পের অংশগ্রহণের জন্য আমন্ত্রণ জানানো হল কারণ আপনি জানেন যে পুনর্বাসন চিকিৎসার পর একটি রোগীর অর্থনৈতিক কাজে জড়িত হওয়া কত প্রয়োজন। যদি তা সম্ভব না হয়ে থাকে সেই ক্ষেত্রে রোগীটি তার পরিবারের কাছে বোঝা হয়ে থাকে এর মাধ্যমে সেই ব্যক্তির জীবনী তার কাছে মূল্যহীন হয়ে পড়ে। পূনর্বাসনের পর আপনার আবার অর্থনৈতিক কাজে জড়িত হতে কত সময় লেগেছে এবং এর প্রভাব এর সম্পর্কে সকল তথ্য আমাদের অজানা।

এখন গবেষণাকর্মটি তে অংশগ্রহণ এর সাথে সম্পৃক্ত বিষয় সমূহ কিসে সম্পর্কে জানা যাক।

আপনার থেকে অনুমতি পত্রের স্বাক্ষর নির্ভার আগে এই অংশগ্রহণকারী তথ্য পত্রের মাধ্যমে গবেষণা প্রকল্পটির পরিচালনা করার তথ্য সমূহ বিস্তারিত ভাবে আপনার কাছে উপস্থাপন করা হবে। যদি স্বাক্ষর জ্ঞান সম্পন্ন না হওয়া বা অন্য কোনো কারণে স্বাক্ষর প্রদানের ব্যর্থ হন সেক্ষেত্রে আপনার কাছ থেকে একজন সাক্ষীর উপস্থিতিতে বৃদ্ধাঙ্গুলির ছাপ সম্মতিপত্র নেওয়া হবে। আপনি অংশগ্রহণ নিশ্চিত করলে আপনার সংরক্ষণের জন্য সম্মতিপত্রটির একটি অনুলিপি দিয়ে দেওয়া হবে। পরবর্তীতে গবেষক কর্তৃক গঠিত তথ্য-উপাত্ত সংগ্রহের একটি দলের প্রতিনিধি আপনার কাছে যাবে আপনার থেকে চেয়ে নেওয়া যে কোন একটি নির্দিষ্ট সময়ে একটি প্রশ্ন পত্রের মাধ্যমে তথ্য সংগ্রহ করা হবে। এই গবেষণা প্রকল্পের আপনার অংশগ্রহণ

ঐচ্ছিক। যদি আপনি সম্মতি প্রদান না করেন তবে আপনাকে অংশগ্রহণ করতে হবে না। আপনি সম্মতি প্রদান করা সত্ত্বেও যেকোন সময় গবেষকদের কোনো ব্যাখ্যা প্রদান করা ছাড়াই নিজের অংশগ্রহণ প্রত্যাহার করতে পারেন। গবেষণা প্রকল্পটিকে অংশগ্রহণ করা কিংবা না করা অথবা পরবর্তীতে অংশগ্রহণ প্রত্যাহার করার সিদ্ধান্তের সাথে আপনার সিআরবিতে অবস্থানকালীন চিকিৎসা, চিকিৎসকদের সাথে সম্পর্ক, আন্তঃপেশাজীবী সমন্বিত দলের সাথে আপনার সম্পর্ক অথবা সিআরবি সহযোগী প্রতিষ্ঠানের সাথে সম্পর্ক কোন ভাবে প্রভাবিত হবে না

অংশগ্রহণ এর সুবিধা ও ঝুঁকিসমূহ কি?

গবেষণা প্রকল্পটিকে অংশগ্রহণের জন্য আপনি সরাসরি কোন সুবিধা পাবেন না এই তথ্য পরবর্তীতে আন্তঃপেশাজীবীদের সমন্বিত কার্যক্রমকে আরো শক্তিশালী করতে সাহায্য করবে। এই গবেষণায় অংশ গ্রহণে কোনো ধরনের বাড়তি ঝুঁকি, বিপত্তি অথবা অস্বস্তি নেই বলে আশা করা যাচ্ছে।

তথ্যের গোপনীয়তাকে কি নিশ্চিত থাকবে?

এই সম্মতি পত্রের স্বাক্ষর করার মধ্য দিয়ে আপনি এই গবেষণা প্রকল্পের অধ্যায়নরত গবেষণা কর্মীকে আপনার ব্যক্তিগত তথ্য সংগ্রহ ও ব্যবহার করার অনুমতি দিয়েছেন। এই গবেষণা প্রকল্পের জন্য সংগৃহীত যেকোনো তথ্য যা আপনাকে শনাক্ত করতে পারে তা গোপনীয় থাকবে। আপনার সম্পর্কে সংগৃহীত তথ্য সমূহ সাংকেতিক উপায় উল্লেখ থাকবে। শুধুমাত্র এর সাথে সরাসরি সংশ্লিষ্ট গবেষক ও তাঁর তত্ত্বাবধায়ক এই তথ্যসমূহের প্রবেশাধিকার পাবেন। সাংকেতিক উপায়ে চিহ্নিত উপাত্তসমূহ পরবর্তীতে উপাত্ত বিশ্লেষণের কাজে ব্যবহৃত হবে।

প্রত্যাশা করা যাচ্ছে যে এই গবেষণা প্রকল্পের ফলাফল বিভিন্ন ফোরামে প্রকাশিত এবং উপস্থাপিত হবে। যেকোনো কারণে প্রকাশনা ও উপস্থাপনার ক্ষেত্রে তথ্যসমূহ এমন ভাবে সরবরাহ করা হবে যেন আপনার সম্মতি ছাড়া আপনাকে কোনোভাবেই সনাক্ত করা না যায়। তথ্য-উপাত্ত প্রাথমিকভাবে কাগজপত্রে সংগ্রহ করা হবে।

সম্মতিপত্র

গবেষক সাম্য কর্মকার বাংলাদেশ হেলথ প্রফেশন্স ইন্সিটিউট বি এইচ পি আই এর অধীনে পরিচালিত বি এস সি ইন অকুপেশনাল থেরাপি কোর্সের চূড়ান্ত বর্ষের ছাত্র। তাঁর গবেষণা স্নাতক অধ্যায়ের একটি অংশ এবং গবেষণার বিষয় " মেরুরজ্জুতে আঘাত প্রাপ্ত ব্যাক্তির রিহ্যাবিলিটেশন/ পুনর্বাসন প্রক্রিয়া শেষে প্রথম আর্থিক কর্মকাণ্ডে জড়িত হওয়ার প্রয়োজনীয় সময় এবং এর প্রভাবক।"

আমি ..... উক্ত গবেষণা কার্যক্রমের একজন অংশগ্রহণকারী এবং গবেষণার লক্ষ ও উদ্দেশ্য সম্পর্কে পরিস্কারভাবে অবগত আছি। আমার রিহ্যাবিলিটেশন/ পুনর্বাসন প্রক্রিয়া শেষে অন্তত ৬ মাস টাকা আয় করার জন্য কাজ করেছি। আমি স্বতঃস্ফূর্ত ভাবে গবেষনায় অংশগ্রহনে সম্মতি আছি এবং গবেষণা চলাকালীন সময়ে যে কোন অবস্থায় আমার অংশগ্রহন প্রত্যাহার করার অধিকার রাখি।

গবেষক তাঁর গবেষণার সকল তথ্য ও নথিপত্রের গোপনীয়তা বজায় রাখবে ও ব্যাক্তিগতভাবে আমাকে চিহ্নিত করার অধিকার রাখে না। শিক্ষার উদ্দেশ্য ব্যাতিত অন্য কোথাও তথ্য ও নথিপত্রের গোপনীয়তা প্রকাশ করবে না। লিখিতি সকল উপকরণ নিরাপদ গোপনীয় স্থানে রাখবে এবং গবেষক ও গবেষণার তত্ত্বাবধায়ক ব্যাতিত তৃতীয় কেউ তথ্য ও নথিপত্র দেখার অধিকার রাখে না।

আমি উপরক্ত সকল বিসয়ে সম্মকভাবে অবগত আছি এবং স্বতঃস্ফূর্ত ভাবে আগ্রহি হয়ে স্বাক্ষর প্রদান করলাম।

স্বাক্ষর
অংশগ্রহণকারীঃ .....
.....
তারিক ...../...../ ২০২১

গবেষকঃ

তারিক ...../...../ ২০২১

Appendix C: Questionnaire

Serial No: ……. Date: ……

Name: ……

Age: ……

Sex: ☐ Male ☐ Female ☐ Transgender

Education: ☐ Uneducated ☐ Primary ☐ Higher ☐ Graduation

Marital Status: ☐ Married ☐ Unmarried ☐ Divorce

Diagnosis: ☐ Traumatic SCI ☐ Non- Traumatic SCI

Type: ☐ Paraplegia ☐ Tetraplegia

Severity: Complete Injury Incomplete Injury

Do you have the ability to sit independently? ☐ Yes ☐ No

Date Of Injury: ……/……/……

Injury age: ……

Date of Discharge: ……/……/……

Location: ☐ Urban ☐ Semi-Urban ☐ Rural

Did you engage in any wage income activity before the injury? ☐ Yes ☐ No

What type of occupation? (If yes) ……

Do you engage in any wage income activity after the injury? ☐ Yes ☐ No

What type of Occupation? (If yes) ……

After rehabilitation how many times did you take to return first job? ……. (Months/ Years)

After rehabilitation what type of occupation did you engage?

☐ Same skill/ Same office ☐ Same office different skill/ Work

☐ Same skill new organization ☐ New skill/ Job

How many hours do you work in a day? < 2 Hours < 4 Hours < 6 Hours > 8 Hours

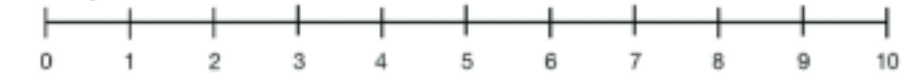
Do you the main income earner for your family? ☐ Yes ☐ No

What is your income in a month? ……

What is your family income in a month? ……

Do you feel pain while working? ☐ Yes ☐ No

Level of pain:



No pain NRS Worst possible pain

Did you get any financial aid/ compensation after the SCI? ☐Yes ☐No

From where?

☐Governmental support ☐ Non-governmental Organization

☐ Personal Donation ☐ Bank Loan ☐Others

Do you use any mobility Aid? ☐ Yes ☐No

What type of mobility aid do you use?

☐Wheelchair ☐ Walking Frame ☐Crutch

☐ Canes ☐ Adapted Shoe ☐Others

Is your workplace accessible? ☐ Yes ☐ No

What is the type of road from your home to office?

☐ Pitched Road ☐ Brick Road ☐Muddy Road

Did you take any vocational training after SCI? ☐Yes ☐No

What type of training? .....

ক্রমিক নং : ..... তারিখ: .....

১। নাম : .....

২। বয়স: .....

৩। লিঙ্গ: .....

৪। শিক্ষাগত যোগ্যতা: ☐ নিরক্ষর [১] ☐ প্রাথমিক শিক্ষা [২] ☐ মাধ্যমিক শিক্ষা [৩]
☐ উচ্চমাধ্যমিক [৪] ☐ স্নাতক [৫] ☐ স্নাতকোত্তর [৬]

৫। বৈবাহিক অবস্থা: ☐ বিবাহিত[১] ☐ অবিবাহিত[২] ☐ ডিভোর্স[৩] ☐ বিধবা [৪] ☐ বিপত্নীক[৫] ☐ পৃথক [৬]

৬। রোগের নাম: ☐ দুর্ঘটনা জনিত মেরুরজ্জুতে আঘাত [১] ☐ সংক্রমণ জনিত মেরুরজ্জুতে আঘাত [২]

৭। রোগের ধরন: ☐ প্যারাপ্লেজিয়া [১] ☐ টেট্রাপ্লেজিয়া [২]

৮। রোগের প্রবলতা: ☐ সম্পূর্ণ আঘাত [১] ☐ অসম্পূর্ণ আঘাত [২]

৯। আপনার কি স্বাধীনভাবে বসে থাকার সক্ষমতা আছে? ☐ হ্যাঁ ☐ না

১০। আঘাতের তারিখ: ...../...../.....

১১। আঘাতে সময় আপনার বয়স কত ছিল? .....

১২। হাসপাতাল থেকে খারিজের তারিখ: ...../...../.....

১৩। আপনার বাসস্থানের পরিবেশ কেমন? ☐ শহুরে [১] ☐ অর্ধ শহুরে[২] ☐ গ্রামীণ [৩]

১৪। আঘাতের পূর্বে জীবন ধারনের জন্য টাকা আয় করার কোনো কাজে আপনি জড়িত ছিলেন? ☐ হ্যা ☐ না

১৫। কি ধরণের (পেশা)কাজে জড়িত ছিলেন? .....

১৬। পুনর্বাসনের পর টাকা আয় করার জন্যে আপনি কোনো কাজে জড়িত ছিলেন?/ আছেন? ☐ হ্যাঁ ☐ না

১৭। কি ধরণের (পেশা) কাজে জড়িত ছিলেন/ আছেন? .....

১৮। পুনর্বাসনের পর জীবন ধারনের জন্য আপনি কোন অর্থনৈতিক কাজে জড়িত হতে আপনার কত মাস সময় লেগেছে? ..... মাস/ বছর

১৯। পুনর্বাসনের পর জীবন ধারনের জন্য টাকা আয় করার কোন ধরণের কাজে জড়িত?

☐ পূর্বের কর্মক্ষেত্রে পূর্বের দক্ষতা সম্পন্ন কাজ [১] ☐ নতুন কর্মক্ষেত্রে পূর্বের দক্ষতা সম্পন্ন কাজ [৩]

☐ পূর্বের কর্মক্ষেত্রে নতুন দক্ষতা সম্পন্ন কাজ [২] ☐ নতুন কর্মক্ষেত্রে নতুন দক্ষতা সম্পন্ন কাজ [৪]

২০। আপনি এক দিনে কত ঘণ্টা সময় অর্থনৈতিক কর্মকাণ্ডের সাথে জড়িত থাকেন?

☐ <৪ ঘণ্টা ☐ < ৬ ঘণ্টা ☐ < ৬ ঘণ্টা ☐ > ৮ ঘণ্টা

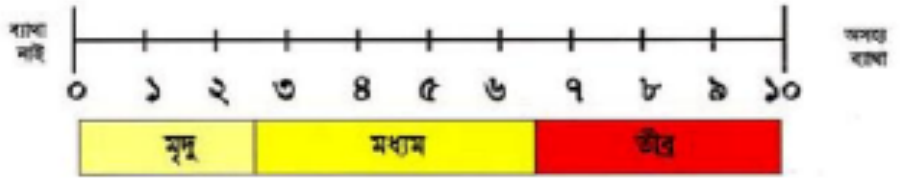
২১। আপনি কি আপনার পরিবারের প্রধান আয়ের লোক? ☐ হ্যাঁ ☐ না

২২। আপনার মাসিক আয় কতো টাকা? .....

২৩। আপনার পরিবারের মাসিক আয় কতো টাকা? .....

২৪। আপনি টাকা আয় করার কাজ করার সময় কোনো ধরণের ব্যাথা অনুভব করেন? ☐ হ্যাঁ ☐ না

২৫। আপনার ব্যাথার পরিমান কত?



২৬। আপনি কি আঘাতের পর কোন ধরণের আর্থিক সাহায্য পেয়েছেন? ☐ হ্যাঁ ☐ না

২৭। কোথা থেকে পেয়েছে? ☐ সরকারি অনুদান [১] ☐ বেসরকারি অনুদান [২] ☐ ব্যক্তিগত অনুদান [৩]
☐ ব্যাংক লোন [৪] ☐ অন্যান্য [৫]

২৮। আপনি চলাচলের জন্য কি কোন সহায়ক ব্যবহার করেন? ☐ হ্যাঁ ☐ না

২৯। আপনি চলাচলের জন্য কোন ধরণের সহায়ক ব্যাবহার করেন?
☐ হুইলচেয়ার [১] ☐ ক্যান [২] ☐ ওয়াকিং ফ্রেম [৩]
এ ☐ এডাপ্টেড জুতা [৪] ☐ ক্রাচ [৫] ☐ অন্যান্য [৬]

৩০। আপনার কর্মক্ষেত্র কি আপনার জন্য প্রবেশগম্য? ☐ হ্যাঁ ☐ না

৩১। আপনার বাসা থেকে কর্মক্ষেত্রের পথ কিরুপ? ☐ পিচের পথ [১] ☐ ইটের পথ [২] ☐ মাটির পথ [৩]

৩২। আপনি কি কোন ভকেসনাল ট্রেনিং নিয়েছেন? ☐ হ্যাঁ ☐ না

৩৩। কোন ধরণের ভকেসনাল ট্রেনিং নিয়েছেন? .....