QUALITY OF LIFE OF PEOPLE WITH SPINAL CORD INJURY AFTER COMPLETING VOCATIONAL TRAINING

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We the undersigned certify that we have carefully read and recommended to the Faculty of Medicine, University of Dhaka, for the acceptance of this dissertation entitled **"QUALITY OF LIFE OF PEOPLE WITH SPINAL CORD INJURY AFTER COMPLETING VOCATIONAL TRAINING"**

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DECLERATION

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

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Acknowledgement

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Acronyms

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

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Abstract

Purpose: The purpose of the study was to find out the quality of life of people with spinal cord injury who completed vocational training from CRP. *Objectives:* The objectives were to find out the quality of life people with spinal cord injury completing vocational training. To find out about their current health condition. To find out their mental satisfaction level. To identify social status of the participants. To identify the environmental condition of the participants. To find out their mental satisfaction level. *Methodology:*. This study was conducted by using quantitative descriptive analysis. Cross sectional was chosen to conduct this study among 60 participants who were selected according to inclusion criteria. The "WHOQOL-BREF" these two standard structured questionnaires were used to assess the depression and QOL on 60 participants. *Results:* out of 60 participants with SCI were enrolled at various time points who completed vocational training from CRP. Among 60 participants the majority was with age range 25-34 years. Most of the participants about were at the age group 25-34 years. Among the participants 32 were married and 26 participants were unmarried and 2 were divorced. 22 participants lived in urban areas and 38 participants about lived in rural area. The educational level among the participants, 12 participants completed primary level, 20 participants completed SSC level, 6 participants completed HSC level and one participant completed post-graduation level. All of them wear earned by themselves. Within the study population most of the people 98% (n=59) can maintain higher quality of physical health. In this study most of the participants 92% (n=55) explained that they lead higher quality of psychological health. *Conclusion:* This study comprehends about the quality of life of people with SCI towards their workplace. So, finding out of quality of life will help to do further betterment of spinal cord injury people.

Key words: Spinal cord injury; Vocational training; Quality of life

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CHAPTER-I INTRODUCTION

1.1. Background

Spinal cord injury (SCI) is one of the major health problems because still now there is no way to repair the central nervous system (CNS) and restore function. (McDonald et al., 2013).

The consequences of sustaining a spinal cord injury (SCI) can be overwhelming and can impact many areas of one's life. Impairments in bowel and bladder function, mobility and autonomic functions along with secondary conditions such as pressure ulcers and pain are just some of the consequences that can directly impact one's health (McKinley et al., 1999). The impact of SCI on domains such as employment and social participation has also been well documented. Diminishing the negative impact of impairments, promoting full participation in life domains and ultimately increasing the well-being of individuals with a SCI is the goal of clinicians and researchers alike. Indeed, well-being or quality of life has become an important outcome within SCI research(Simpson et al., 2012)

According to WHO,2013 Spinal cord injury (SCI) is one of the medical intricate and life disturbing condition. The mortality rates of this circumstance related to historically, ever nowadays high-earnings nations, and spinal cord injury can be viewed often productive and may be efficaciously overcome the private and social undertaking. This transformation displays desirable clinical practice, this means that that humans can survive, live and enhance after damage (WHO, 2013).

Immediately after injuries, the person is involved with a series of physical, emotional, and social challenges (Neri & Kroll, 2013). Spinal cord injury can affect upper and lower motor sensitive pathways and serious cause of lesion complete or incomplete. Although current progress in primary in healing, rehabilitation and anticipation of complications have improved the prognosis of SCI, however the sequences are still traumatic and disabling (Scivoletto et al., 2004).

In low-income countries the incidence of spinal cord is four times greater than in high-income countries (Hansen et al., 2008). Most of the low-income countries, people with spinal cord injury are discharged home with little access to provisional facilities. Life threatening problems often develop that is nor remarkably. Many of them die after few years of discharge (Michael & Roth, 2012).

Spinal cord injury is a major public health problem in Bangladesh (Razzak et al., 2011). Low incidence, high burden, and life-altering health condition is happening in spinal cord injury. Reducing morbidity and mortality considerable improvements made globally in recent times following spinal cord injury (Burns & O'Connell, 2012).

Neurological recovery and functional outcome is the burning issue for the SCI patients. Most of the SCI patients after injury want to know when he/she can able to walk. Sometimes this is a prime goal of SCI patients throughout of his/her course of the treatment. But neurological recovery depends on the improvement of motor scores and American Spinal Injury Association (ASIA) impairment scale (Kamrunnaher et al., 2018).

In the low-income countries heavy loads carried by most of the people on their heads. Laborers carry a heavy weight as 100kg on their heads repeatedly. In Bangladesh people carry heavy load on the head and suffer cervical spinal cord injury caused by falling. In most cases most of the time poor young man working as porters and farmers, they load farm produce, fertilizer or rice. Spinal cord injury occurs to the new and unskilled carriers, children and exceeds load 50kg is carrying a heavy load on the head by falling (Razzak et al.,2011).

Findings of experimental and clinical studies have confirmed that it improves patient outcomes by preventing the activation of secondary injury mechanisms. However, there is an ongoing controversy regarding the best time for surgical intervention. Some clinical trials are indicative of better motor and neurologic recovery with early surgical decompression compared to late interventions (Yousefifard et al.,2017)

Life expectancy after such an injury is markedly reduced due to complications proportional to the severity of injury or remaining neurologic functions. A number of surgical modalities are available for both traumatic and myelopathic conditions of

cervical spine. Despite having good radiological results, their impact on socioeconomic status of an individual in developing nations is little known(Goel et al., 2018)

It is problematic for people with spinal cord injury and this involvement, hardship is other reasons for spinal cord injury people. Valuable human resources is wasted by exclusion. It estimates the unemployment and underemployment of people with disabilities that impact on economic and represent range 3% to 5% of gross domestic product in low and middle income countries (Buckup, 2009). Specialist need to consider different elements that is multifaceted and give work incapacity tending to recovery is the key segment of work capacity and once in a while word related restoration or work or work environment restoration is alluded (Escorpizo et al., 2010).

Better life satisfaction, higher level of activities and health is related to employment, in patients with spinal cord injury (Scelza et al., 2007). An important rehabilitation of employment for people, including the spinal cord injury and it is positively involved with the combination of life satisfaction, a sense of purpose, mental stimulation, social contact and well-being (Ottomanelli & Lind, 2009).

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

Spinal cord injury (SCI) rehabilitation treatment prehospital immobilization techniques from multiple disciplines that impact the surgical care to rehabilitation procedure. Those with severe spinal cord injury face risk of neurological decay due to spinal cord injury. Long-term rehabilitation from pre-hospital stability, any progress in the spectrum of care, will improve the quality of their life. Careful to identify inconsistencies and unified

progress including this spectrum must definitely provide long-term results for individuals with spinal cord injury (Fehlings et al., 2011).

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

Vocational rehabilitation, which is a multidisciplinary method that aims to bring workers back to the share of profitable employment or employment, usually include special specialization services such as work place for employment, counseling, vocational training and employment opportunities (Escorpizo et al.,2011). Unfortunately, even in high-income countries, vocational rehabilitation and counseling is not always available to the spinal cord injury people, and these services have been made in policy level to meet the requirements (Ottomanelli & Lind, 2009). There is additionally solid confirmation for the spinal cord that the essential factor in coming back to work is the accessibility of employment space administrations gave by professional instructors: particularly pursuit of employment and systems administration; work execution points of interest accessible with powerful quality and shortcoming; work Application Skills; and readiness for work interview (Marini et al., 2008).

Recognized as an important factor for successful re-entry in the employment of the common social support requirements for spinal cord injury (Murphy et al., 2011). Emphasis is given on training in job skills, job preparation advice and job placement services, followed by post-placement support and vocational counselors (Ottomanelli & Lind, 2009). Transitional services are of their nature-intensive and expensive, but

services start as soon as possible and these costs are reduced when combined with other rehabilitation services (Escorpizo et al., 2011).

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

In Bangladesh, a reputed non-governmental institution Center for the Rehabilitation of the Paralysed provides physical, psychological and economic rehabilitation service for patients with spinal cord injury. In South Asia it is one of the largest acute spinal cord injury care providers and annually it admits about 411 patients with spinal cord injury (Centre for the Rehabilitation of the Paralysed. Annual Report: 2014-2015). Individual with spinal cord injury in the community after discharge performs regular follow-up home visits and it emphasizes on the importance of successful reintegration is outreach teams by assessing this reintegration (Center for Rehabilitation of the Paralyzed. (Annual Report: 2013-2014).

1.2. Rationale

SCI is a life-threatening condition which creates so many dysfunctions in an individual's life. It is a common problem of health sector all over the world but the incidence varies from country to country. As mentioned by DeVivo (2012), after analyzing the epidemiological studies through the world, it has been found that the incidence and prevalence of traumatic SCI in United States of America (USA) is more than any other countries in the world. SCI is also a major public health problem in Bangladesh, a majority of people with spinal cord injury are either poor or very poor. In most instances, their households undergo excessive complication as they lose the earnings of the most effective or fundamental incomes member. When an injury has occurred, the person is unable to lead a healthy life. When a person becomes unhealthy compared to the increase in poverty, and it has a huge impact on the economic sector of Bangladesh. Unemployment has a general and complex problem for people claiming spinal cord injury, which is predominantly delicate, that have the effect of both vocational results and durability on the great impact. Most people want to work with spinal cord injuries but they need to provide vocational rehabilitation to help and receive education and help if needed. These sources of support help overcome many obstacles barriers, which can help people with financial and health care, accessibility and organizational sentiment. The work is not only necessary for the people because they can achieve profits and achieve health insurance and various benefits, but it offers the possibility of interaction with others and extends the happiness of brightness and natural existence. There is no cause-effect relationship, however, there is consistent results in analysis that those who use spinal cord injury once to live longer and report higher satisfaction with life and higher health than those who do not seem to be operating. Although people with spinal cord injury will continue active work life and successful career, and have to overcome many barriers compared to their disability. Legal guidelines and vocational training services exist to assist humans with spinal cord injury can improve their quality of life. CRP is the only special spinal cord injury hospital and rehabilitation center in the country and hear therapists use vocational training programs for people affected by the spinal cord injury. If the training inspires people with the spinal cord injury and they find interesting and beneficial life, then more people can participate in vocational activities. After returning to

the community and workplace, the person who can take up this activity in an income-generating activity. There are many studies done on patient and care-giver perceptions in different areas at CRP and community. But there is no research about quality of life of people after completing vocational training from CRP. Through this study focus on activity of workplace the spinal cord injury patients and their experiences of their situation and evaluated what type of problem they faced in their workplace activity & how it helps to improve their quality of life. The researcher will share the information and result with the physiotherapists of vocational unit. So this study may help the therapists to know the improvement of the quality of life in written document. It can be more helpful to establish evidence about workplace.

1.3. Aim of the study

To know about the quality of life of people with spinal cord injury who completed vocational training from CRP.

1.4. Objectives

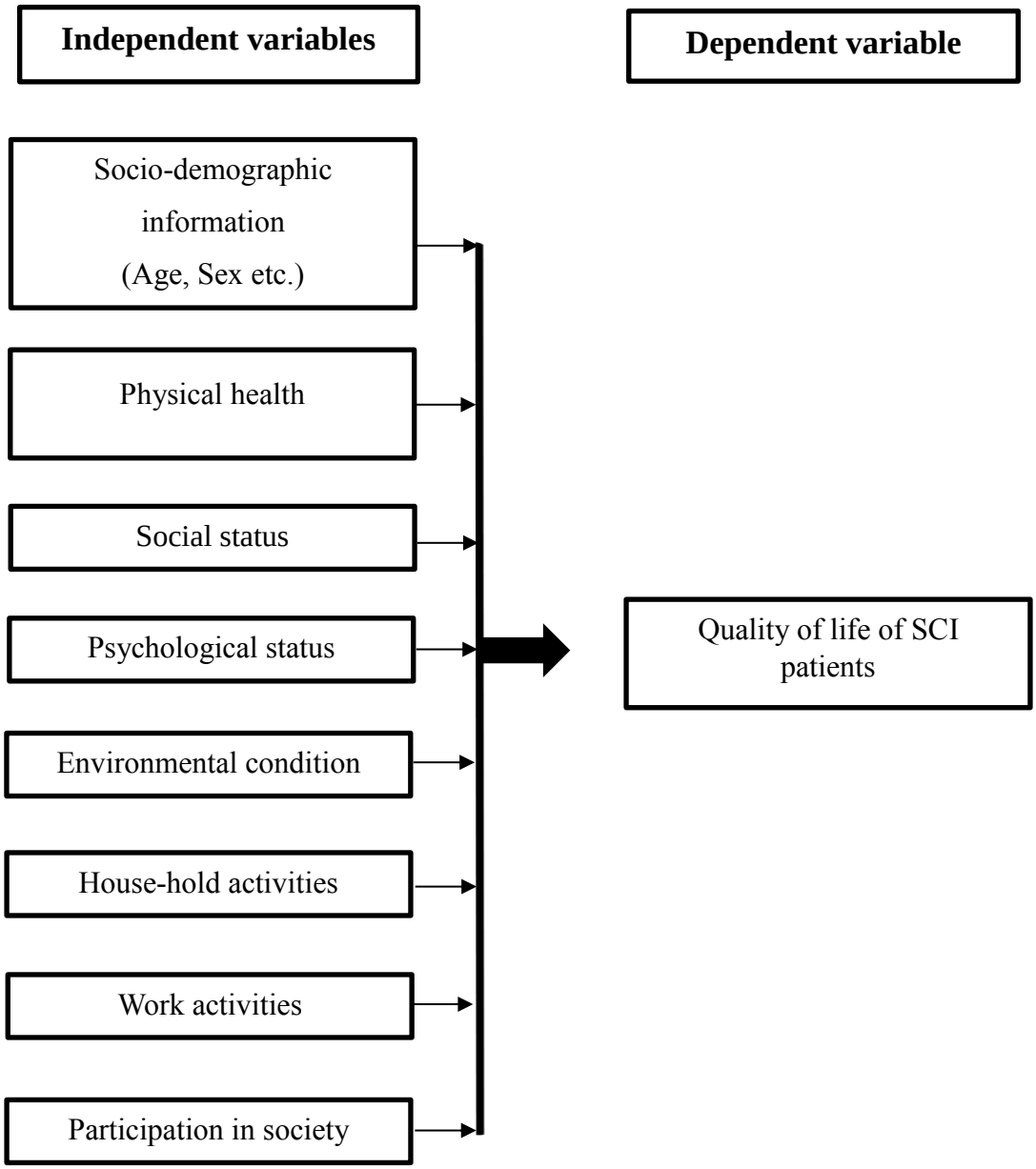
General objective:

- To find out the quality of life of people with spinal cord injury who completed vocational training

Specific objectives

- To find out the sociodemographic status.
- To find out about their current health status.
- To find out their mental satisfaction level.
- To identify social status of the participants.
- To identify the environmental condition of the participants.
- To find out the association between various components of WHOQOL-BREF questionnaires, socio-demographic status and type of SCI patient.

1.4 Conceptual framework



1.5 Operational definition

Spinal cord injury

A spinal cord injury (SCI) is damage to the spinal cord due trauma or pathological change, either temporary or permanent loss of the normal motor, sensory, or autonomic function of the spinal cord.

Vocational training

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

Quality of life

Quality of life is a highly subjective measure of happiness that is an important component of many financial decisions. Factors that play a role in quality of life vary according to personal preferences, but they often include financial security, job satisfaction, family life, health and safety.

Paraplegia

Paralysis of both legs.

Tetraplegia

Paralysis of both legs & both arms, it is also called quadriplegia

CHAPTER-II LITERATURE REVIEW

SCI has a strong effect on life; in fact it is a life changing injury. It leads to a vast change in an individual's lifestyle. The person with SCI most of the times experience limitations in mobility and this affects their participation in Activities of Daily Living (ADL) (Chaves et al. 2014: 1854). Moreover, as the individual has physical limitations, it leads him stressed about life. This stressing condition is created because of the difficulty in life adjustment. SCI mostly happens at youth and middle age which create great problems in the life of the affected individual's previous social and occupational life roles (Babamohammadi 2011: 832). All of these problems create tremendous challenges in not only adapting with physical aspects but also with the living situation, relationships and adjustments (Charlifue 2014: 91). So, in case of these, rehabilitation can promote full inclusion and participation of people with disabilities in the physical and psychosocial environment (Scelza et al. 2017: S71). Rehabilitation of person with SCI focuses on successful community reintegration by overcoming surrounding environmental barriers created by the disability (Forchheimer 2004: 103) and it has been said that access to the environment is important in expecting satisfaction with life for persons with SCI (Richards et al 1999: 1501). A spinal cord injury linked to a wide range of health, which can limit the participation and limitations of activities. An important aspect of SCI's optimal management is to understand the depth and impact of SCI on health and everyday living activities. To gain greater understanding, people's experience of health problems is examined in a gradual way (Lohne, 2009). Spinal cord injury (SCI) is a relatively rare disorder, this effects can be devastating. The injury is usually associated with the negative effect on the health and well-being of the person, as well as the threat of social mobilization and functional independence, social and professional activities, which results in the permanent paralysis of voluntary muscles and loss of sensation below the lesion (Middleton et al., 2007).

Spinal cord injury (SCI) has been described as one on the greater tragedies that can befall humans. Learning of the paralysis, bladder and bowel dysfunction, dependence on others, mobility limitations, and high risks of complications (such as pressure ulcers) that a spinal injury involves, most people who are affected by spinal cord injury cannot bear

this situation, they lead a life of low quality and conclude that they would rather be dead. Many individuals who actually suffer an SCI indeed feel this way, at least initially. Some people with SCI very often decide to commit suicide, and others may do so during a period of depression and despair that is not uncommon after SCI. The suicide rate among individuals with SCI is about five times as high as the population at large and may be underestimated because of the "indirect suicides" achieved by prolonged self-neglect. Nevertheless, most people with SCI eventually "adjust" to their new body and the lifestyle it imposes and state that they would not have wanted to be allowed to die(Dijkers, 2004).

The injury in spinal cord affects conduction of sensory and motor signals across the site(s) of lesion(s), as well as the autonomic nervous system (Kirshblum 2011: 536). Harvey (2008: 3) claimed that, the term "Spinal Cord Injury" is used to refer to neurological damage of the spinal cord following trauma. Besides this, there is also said that, SCI might be caused by any direct or indirect injury to the Spinal Cord and damage to the surroundings bones, tissues or blood vessels. If the Spinal Cord is pulled, pressed sideways or compressed, the direct injury can be caused. The most common cause of SCI is trauma but it might be caused by any pathological process like tumor (Somers: 1). Next most common cause of SCI is fall, followed by acts of violence (primarily gunshot wounds). The proportion of injuries that are due to sports has decreased over time while the proportion of injuries due to falls has increased (National Spinal Cord Injury Statistical Center 2012). Universally males are more likely affected than females. This is most frequently occurs at young adult (18-24y) and the next peak age is 55 to 74 (Burt 2004: 26). The cause, prevalence or the other factors of spinal injury varies from country to country depending on the country's social and economic factors but there are some similarities also.

C_4 injury- tetraplegia, C_6 injury- tetraplegia, T_6 injury- paraplegia, L_1 injury- paraplegia (Thuret et al., 2006). According to literature the spinal cord injury is affected by 2.5 million people worldwide (Thuret et al., 2006).

ASIA first published an international classification of spinal cord injury in 1982, called the International Standards for Neurological and Functional Classification of Spinal Cord

Injury. It is based on the neurological responses, touching and testing each dermatome, pinprick sensations, and ten key muscles on each side of the body (Ditunno et al., 1997).
According to the Adler (2008), some complications such as deep vein thrombosis, decreased vital capacity, osteoporosis, postural hypotension, spasticity and heterotopic ossification. From the practical observation of the CRP researcher, it is found that the most common complications are pressure sore, urinary tract infections, bowel and bladder problems, burning sensation, autonomic dysreflexia, abdominal distension, mental retardation etc. The common complications of tetraplegic patient are complications of the respiratory distress or chest pain. These injuries can be improved any time after injury.
Complication can also develop after the rehabilitation stage and discharge. For the prevention of these complications patient and caregiver education can play an important role. It is found that most of the male patients are cared by their wives in CRP (Adler, 2006). Spinal cord injury person feels better if his wife be always by his side. Along with treatment, partner care can reduce these complications because treatments become more effective despite proper care (Niroshanie & Pinto, 2014).

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

heavy loads. The second most common cause of load on the head (16.0%). In SCI's non-traumatic cases, the most common causes of spinal tuberculosis are found, of which 7.0% were. Another reason was the road traffic accident, the fall of the object back, Guillain Barre Syndrome, and Transverse Mellitus (Razzak et al., 2011).

Knowledge of incidence and prevalence of spinal cord injury (SCI) is important because of their high particular, bio-psychological impact and their high socio-economic consequences, both short-term & long-term. Incidence rates reflect the level of control of SCI and the possible need for improved prevention. On the other hand, prevalence rates have an impact on health care and on social and personal resources (Wyndaele et al., 2016)

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

Estimations of TSCI incidences (Table 1) vary widely, from 13.1 per million12 to 52.2 per million10 within 13 articles reviewed. Among developed countries, the incidence rates of TSCI dropped from52.2 to 13.1 per million people(Chiu et al., 2010).

Among developing countries, the incidence rates ranged from 12.7 to 29.7 per million people. Men consider SCI to be more prone in all countries, although the reported gender ratio varies greatly - 1.73 in 7.55 in China, in Pakistan (Chiu et al., 2010). Among resource-rich countries, most people live in the first year post-injury; however, there is a major deviation in death among resource-rich and resource-poor environments. Only 24 subjects from Sierra Leone survey, 7 people died in initial hospitalization, 8 people (average 17.4 months) were follow-up dead, and 4 were lost in the follow-up. Five were survivors, two were incomplete and injured. A recent study reported a two-fold difference in the highest mortality rates of developing countries (annual death of 17.5 attributable to SCI every million people in Nigeria). A developed country (8 million deaths for SCI 8 years in Canada) (Chiu et al., 2010). Trauma, types of transport, hospital access and resources available for treatment are mainly due to the consequences of the spinal cord injury loss. Prehospital trauma care, for the transport of persons with spinal trauma first aid sites and infrastructure in developing countries is one of the most inadequate (Nguyen et al., 2008). A 10-year study aimed at investigating the life of the people affected by the spinal cord injury has been observed that only 16.4% of the research population has survived for 10 years in Bangladesh, which is Finland (97.9%), Australia (86%), Canada (92%), UK (85%), and United States (80.7%). In addition, this study also found that worse conditions in Bangladesh than other developing countries. The information clearly mentions that there are very bad medical facilities in Bangladesh to promote safe and suitable life after spinal cord injury. Referring to potential possible causes of poor living with spinal cord injury, lack of inadequate acute management and proper social rearrangement (Razzak et al., 2011).

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

Similarly, when the effectiveness and perceived quality of life were found to be related, but quadriplegic and paraplegic persons perceived no difference in the quality of their lives could not be found (Saadat et al., 2010).

As a result of spinal cord injury, there is a significant change in function, so that people can change their lifestyle. Adjustment of disability can be difficult, and spinal cord injury

may be at risk of developing mental disorders such as depression and anxiety (Kennedy et al., 2000). Post-injury is more likely to cause depression, and the expressed stress is shown as a predictor of depression after spinal cord injury (Lequerica et al., 2008).

Spinal cord injuries (SCI) often have psychological consequences, primarily anxiety and depression, which may interfere with rehabilitation possibilities, with adjustment to the impairment and therefore with the possibility of returning to previous familiar social life and work. A research shows that among 100 SCI in- and out-patients who were followed up for a year after their discharge 13% were affected by anxiety and 16% were affected by depression. Some characteristics were significantly associated with a higher risk of developing psychological distress: the presence of severe complications, the lack of autonomy, and low educational level. this data justify the provision of psychological services for SCI patients in the rehabilitation centers; these services should still be available to the patients even after discharge. (Scivoletto et al., 1997)

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

Due to spinal cord injury, which decreases the ability of the profession to return to the results of the extra free time wants to fight with the other activities. The type of retirement that was previously associated with the spinal cord injury could not be possible, so a person may have a deficit pension (Barclay et al., 2011). In a study, it is described that leisure is an important element of person's life with disabilities and it is often related to life satisfaction, self-esteem and depression. Data from this study represent a blow to the satisfaction of retirement on quality of life (Daniel & Manigandan, 2005).

Vocational rehabilitation (VR) programs have a key role to encourage a person back to workplace, health condition plays an important role in bringing the disable person (Glassel et al., 2012). Vocational rehabilitation (VR) is a multi-professional evidence-based method that is provided in various settings, services and activities of different

people while working with health issues, limitations or work restrictions and whose primary goal is optimized work participation (Escorpizo et al., 2011). Vocational rehabilitation focus on identifying and overcoming health, personal or psychology and social or occupational obstacles and work from the point of view should be monitored, vocational rehabilitation activities, various interventions and meaningful occupation by voluntary work, shelter work, supported employment and open employment opportunities (Desiron et al., 2011).

Vocational rehabilitation (VR) services increase the targets to help maintain healthy self-governance and sustainable job opportunities in the community to successfully support disabled people (Bolton et al., 2000).Vocational rehabilitation has given priority to services for disabled people in most states, this priority now exists in the Commonwealth of Virginia. However, the availability, utilization and efficacy of these services are not strong for the spinal cord injury patients (Meade et al., 2006). After the SCI, vocational rehabilitation goals are not only prevention of the disability, but also the community reintegration and better quality of life (Ramkrishnan et al., 2011). Providing effective vocational rehabilitation (VR) services, "Supportive Employment" and inter-agency collaborations "best practices" are available (Fleming et al., 2013). The technology has improved, the life of the people has increased consistently with the SCI and it has increased the expansion of effective vocational services to maximize the economic and community population. Despite this, the employment results decreased. Both program post-spinal cord injury studies have been used as a measure of the initial results of traditional employment rates to come to work in this area investigations (Cotner et al., 2013). Due to different cultural, economic and legislative environments, the employment rate in different country is 25% and 60% (Piccenna et al., 2015). Recent literature about Australia people with spinal cord injury, the employment rate returns to work between 21% to 35% of the average life expectancy and 65% of the average employment participation rate (Johnston & Cameron, 2014). These people mostly live in rural areas, and before their accidents were their primary earners (agricultural laborers, labor, construction workers, drivers, service holders) in their families. Only 18% of students and housewives were among some non-income-generated businesses. Not surprisingly, 84% of the participants did not complete secondary school education; it is understandable

that they will prefer training that does not require high cognitive requirements. It was supported by these researchers that these participants had a high interest in shop management training (which required a lower level of education), and had very little interest in computer and electronics training (which required higher education). It is also found that it was more interested in male participant's new vocational training compared to women. The study results of Yasuda et al show that was related to the gender being returned to work. Most women were interested in coming back to their earlier non-refunded role without taking any new training (Yasuda et al., 2012).

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

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

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

According to CRP annual report: 2012-2013, CRP vocational training institute started in 1999. In October 2003, the institute was affiliated with the Bangladesh Technical Education Board (BTEB). Currently, there are two training centers, one at CRP-Saver and one in the CRP-Ganakbari. Most physically challenged people can take free residential training facilities offered at two centers. The CRP aims to ensure that all graduates of their professional training course move into profitable employment. In our country there are many people living with disabilities. Varieties of patient come into CRP and take treatment according to their needs. After that they returned to community and face great problem with their occupation. As a rehabilitation centre CRP realizes that

problem and from its beginning builds up vocational training centre along with great aims that to make the person skillful so that at least they could do something at their community, earn money and provide support to the family. The types of vocational training provided include electronics, woodwork, metal work, computing, fishing net production, rug making, tailoring, sewing, shop management and teaching. A careful assessment and evaluate the patient's actual need; the social welfare department and vocational training centre under takes follow up visits to each patient. In that case they assess the patient and identify if further training is necessary or not. A more recent development at CRP is the organization's micro –credit scheme. The micro-credit programmed involves providing people with disabilities with small loans to set up businesses once they have completed their vocational training. Only spinal cord injured patients are included in inpatient training and other conditions like polio, amputee, and fracture are under outpatient training system. In these cases, 16 at a time are allowed to take, their educational qualifications need at least class eight and the duration of course is six months. The teacher who is continuing teaching and takes practical class is also a person with spinal cord injured who are continuing learning and get enough mental support. During this course time they do not pay any tuition fee and get stipend and accommodation conveniences. At the end of the course they are evaluated by written and practical examination and who meet the requirements of the course get certificate from this center and back to their own community.

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

SCI's people use crutches or canes, or those using hand-driven or motorized wheelchairs, are less important than healthy living than traveling outside of an assistive device (Jain et al., 2007). Studies have shown that the expected results of higher (37.7%) results compared to work rate among those person with spinal cord injury, where the published literature ranges from 13.8 to 67.0% (Ramkrishnan et al., 2011). The effect of gender on receiving employment showed mixed results. Depending on the type of work, men are more likely to return to competitive (paid) employment, but if women are unnecessary productive role (householder) (Ottomanelli & Lind, 2009).

Another study found that the emphasis on work compared to those of other living areas (family, friends, retirement, and sports) is comparatively better vocational rehabilitation (Marti et al., 2012). The income of the people within the spinal cord depend on the type of employment. Some employments are offered, some house holdings are not affiliated with the activities and some employments require specific work time. Young and Murphy used the definition of employment according to the International Labour Organization for the study of the employment after SCI. The income generated by the SCI is not affected by demographic or injury related effects. Receiving financial compensation is negatively related to income with a larger majority (Ramkrishnan et al., 2011). Additional factors such as low level injuries, therapeutic equipment and the cost of supply, the ability to sit for a long time, impossible to find a suitable job, chronic pain and rehabilitation staff felt the poor attitude of the SCI (Ottomanelli & Lind, 2009).

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

activity level, occupation, spinal cord injury levels, period since SCI, the level of SCI and physical activity levels are the most important factors in determining physical performance among wheelchair-based males after spinal cord injury (Muraki et al., 2000).

SCI survivors are at risk of numerous secondary medical conditions as well as changes in the chances of activity as well as psychological challenges. In many studies there are risks associated with various medical complications, as well as the relationships between SCI and various variables after life-satisfaction, quality of life, mental health, and other outcomes. The effect of the employment situation is often considered as possible predictor of the results (Lidal et al., 2017). There is a positive side to the employment of good community integration among people, including SCI (Meade et al., 2004). In addition, the previous results in the study ensure that the good work of the SCI's people in general for the quality of life and living; however, Schonherr et al. (20015) did not find good life satisfaction among employed participants.

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

Employment rates can be adversely affected by external provocation, such as compensation and availability of government support for post injury employment. For example, an unemployment rate of 80% was found among veterans rehabilitated in a Boston VA facility. However, it should be noted that 63% of the sample reportedly received nonservice-connected VA benefits, which suggests that they could lose benefits if they became employed. In a study by (Siosteen et al) of SCI in Sweden, a 70% employment rate was found, which may be attributable to the extent to which government legislation in Sweden facilitates providing assistance to even those with severe SCIs to

earn an income. Alternatively, compensation for injuries related to SCI may adversely affect employment outcomes. For example, in a study of patients with SCI in Australia, 52% of the sample received entitlements to third-party compensation as the result of their injury, which likely influenced the 26% employment rate reported. Overall, it is difficult to quantify the nature and impact of financial disincentives to employment because of the variability of federal and state benefit systems within the United States, as well as in other countries(Ottomanelli & Lind, 2009)

It has been reported that, among those who return to work, more individuals enter into new occupations than return to preinjury jobs. Although a few studies have indicated that common occupations obtained by individuals with SCI include office, finance, clerical, administrative, technical, and professional jobs it is rare for researchers to report what type of positions are obtained after injury(Ottomanelli & Lind, 2009)

According to the National Spinal Cord Injury Statistical Center (NSCISC), it is estimated that there are 12,000 new cases of spinal cord injury (SCI) every year in the United States. Approximately 60% of cases occurred in people 16 to 30 years of age, corresponding to the developmental periods associated with career development and establishment. Average age at injury was 39.5 years, and more than one half (57.4%) were employed at the time of their injury. Ten years after injury, 32.4% of persons with paraplegia were employed, whereas only 24.2% of those with tetraplegia were employed at that time. Compared with the general population, unemployment rates in the SCI population have been reported in excess of 10-fold. It has been estimated that only 12% of individuals with SCI return to their preinjury jobs. According to polls of unemployed persons with disabilities, 79% report that they want to work, and recent data suggest many persons with SCI who are currently unemployed judge them- selves to be capable of working (3) and express a desire to work (4). Unemployment(Ottomanelli and Lind, 2009)

Dikjers (2005) created a model that conceptualizes individual subjective quality of life as three different inter-related elements an individual's expectations and/or priorities; an individual's subjective evaluations and reactions and an individual's achievements. Accordingly, the model explains that subjective quality of life is shaped by the subjective

evaluations and reactions that one forms through the process of comparing reality to his or her priorities or expectations. A better understanding of consumer priorities can help shape and enrich the process of research priority-setting(Simpson et al., 2012)

After SCI, employment is relatively bigger in relation to life satisfaction, lifestyle related and functional activities, such as people involved in such activities. From unemployment to employment, SCI increases the coordination with people, and if they change work from workless, reduces coordination. After SCI, the employment includes mental emotional stimulation, social contact, motivation feeling and personal growth (Schonherr et al., 2015). The sooner injured person can return to work on some capacities, more likely he or she is both a physical and mental retrieval.

CHAPTER-III METHODOLOGY

3.1 Study Design

The study was conducted through cross sectional study design that represent the whole population of SCI. Levin (2006) stated that Cross-sectional studies are carried out at one time point or over a short period. Cross-sectional study design used for this study because those people were completed vocational training and researcher collected data from them. For this study over a short period of time data was collected of the participants who have completed vocational training after the injury. Data also collected on individual characteristics, including information about the outcome. The sample used in a large cross-sectional study is often taken from the whole population. In this way this study was provided a snapshot of the characteristics associated with it. By this study it was trying to find out any association between ages, sex, educational status, monthly income and occupation.

Through cross sectional study easily associating the results among those of different characteristics. In other hand Quantitative research method helps to use a large number of participants and therefore collect the data objectively through this way data was reduced to numbers for statistical analysis in order to draw conclusion. This study has done through using cross sectional prospective survey under a quantitative study design. Survey methodology was chosen to meet the study aim as an effective way to collect data.

3.2 Study settings

Study was conducted in the real workplace and of the participants in some districts of Bangladesh selected by the researcher purposefully. The researcher observed and interacted with the individual in their own contexts.

3.3 Study population

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

3.4 Sample size

A sample was a smaller group taken from the population. Sometimes the sample size

may be big and sometimes it may be small, depending on the population and the Characteristics of the study. According to the prevalence of

Spinal cord injury, estimated sample size 383.

By following $n = \left\{\frac{z-\frac{\alpha}{2}}{d}\right\}^2 \times pq = \left\{\frac{1.96}{0.05}\right\}^2 \times 0.53 \times 0.47 = 383$

(Where z=1.96, p= 0.53, q= 1-p, d=0.05), (According to Ramkrishnan et al., 2011)

So total sample size will be 383.

60 participants were taken as sample from workplace settings.

3.5 Sampling procedure

After taking permission from the ethical body of BHPI, the investigator had to find out the people with spinal cord injury who lived in community. Those participants had fulfilled inclusion criteria as they are the participants of the study. The investigator had chosen all area of Bangladesh as a study area for collecting data. Researcher has called the participants by mobile phoning and meet with them. The investigator explained every participant about the research aim and objectives. The investigator had taken sampling

from those who willingly participated in this research. The investigator had selected them through purposive sampling that is available in between the days of data collection. Only 30 numbers of participants have found physically and collected data through face to face interview.

A purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is that a researcher do not simply study whoever is available, but use his/her judgment to select a sample that he/she believes based on prior information, will provide the data need. In this type of sampling the sample is statistically representative. Therefore, those people who fulfilled the inclusion criteria, they were the samples of the study and 50 people had selected to participate in the study.

3.6 Inclusion & exclusion criteria:

Inclusion criteria

- Participants those were completed vocational training from Madhab Memorial Vocational Training Institute, CRP, Savar, Dhaka, Bangladesh and continue their work.
- Participants those were use assistive device or orthotics device for mobility.
- Both male and female was selected.
- Subject who were willing to participate.
- Easy to communicate with subject.
- Subject who completed at least 6 months of working.

Exclusion criteria

- Subject who were not willing to participate.
- Subject who had psychological problem.
- Subject who doesn't completed 6 months of working.

3.7 Data collection

3.7.1 Data collection instrument

A structured questionnaire and demographic information chart were used as a data collection instrument. In that time some other necessary materials were used like pen, pencil, and white paper and clip board. Mobile phone also used for data collection from the people who lived different district. The English questionnaires were converted into Bengali to ask the participants during interviews. Researcher must take permission from each volunteer participant by using a written consent form in Bengali.

3.7.2 Data collection tools:

A questionnaire survey was conducted to all the participants, which comprised questions regarding basic information about the patients, assessment of World Health Organization Quality Of Life Questionnaire-BREF (WHOQOL-BREF).

QOL measurement tools was an established tool at SCI-related research; assessing QOL by using the WHOQOL-BREF, which was a 26-item version of the WHOQOL-100 assessment. The WHOQOL-BREF questionnaire was developed in the context of overall rate of QOL and satisfaction. Overall rate of health status. The WHOQOL-BREF contains a total of 26 questions. The WHOQOL-BREF was available in 19 languages. The WHOQOL-BREF should be self-administered if respondents have sufficient reading ability; otherwise, interviewer-assisted or interview-administered forms should be used. Basic information of the patient detailed age, sex, location of participant's home, mobile number, occupation, monthly income was conducted.

3.7.3 Duration of data collection

Data were collected from 24 July 2018 to 10 August 2018. Each participant provided time to collected data. Each interview took approximately 20-30 minutes to complete.

3.7.4 Procedure of data collection

Data were collected directly using questionnaire. Data was collected in two ways, one was face to face conduct and another was by mobile phone for the people who lived different district due distance and shortage of time. At very beginning data collector clarified that the participant had the right to refuse to answer of any question during completing questionnaire. They could withdraw from the study at any time. Researcher also clarified to all participants about the aim of the study. Participants were ensured that any personal information will not be published anywhere. Researcher took permission from each volunteer participant by using a written consent form. After getting consent from the participants, standard questionnaire was used to collect demographic information and patients complain with factors. Questions will be asked according to the Bangla format. During data collection interviewer took the file from CRP Madhab Memorial Vocational Training Institute then collected information on name, age, location of participant's home, mobile number and put this information on the information checklist. Further information was collected after going to participant's workplace. Firstly, interviewer was ensured a quite environment in participant's workplace to avoid distraction and environmental noise. The interviewer explained about the aim of the study. Then a consent from was provided to participants. It was help to maintain the good rapport so that the researcher got the actual information from the participant's. Interview was conducted in Bangla so that participants can easily understand the questions and recorded by recorder of mobile phone. All the data were collected by the selective data collector with the presence of researcher to avoid the errors.

3.7.5 Field test

Prior to collect data the researcher will conduct a field test with three participants. To make a feasible questionnaire is translated into Bengali. This test was performed to determine any difficulties that are exist in the questionnaires as well as the procedure of data collection. This test was also helpful for researcher to check the appropriateness of wording as well as ease of understanding of the questions.

3.8 Data Analysis

Descriptive statistics was used to analyze data. Descriptive statistics refers methods describing a set of results in terms of their most interesting characteristics. Data were analyzed with the software named Statistical Package for the Social Science (SPSS) version 20. The variables were labeled in a list and the researcher established a computer based data definition record file that consist of a list of variables in order. The researcher put the name of the variables in the variable view of SPSS and defined the types, values, decimal, label alignment and measurement level of data. The next step was cleaning new data files to check the inputted data set to ensure that all data had been accurately transcribed from the questionnaire sheet to the SPSS data view. Then the raw data are ready for analysis in SPSS. Data are analyzed by descriptive statistics and calculated as percentages and presented by using table, bar graph, pie charts etc. Microsoft office Excel 2013 is used to decorating the bar graph and pie charts. The result of this survey is consisted of quantitative data. By this survey a lot of information is collected.

To find out the association among the different variables Chi-Square was performed.

Chi-Square (x^2) test

Chi-Square (x^2) test is the most popular discrete data hypothesis testing method. It is a nonparametric test of statistical significance for bivariate tabular analysis with a contingency table. Chi-Square test helps to analyze data come in the form of counts. This test can be applied to nominal or categorical data which can't be analyzed using the ranking technique.

Calculation of Chi-Square

Chi square (x^2) is the sum of the square difference $(O —E)^2$ between observed (O) and the expected (E) data divided expected (E) in all possible data completing by the following equation;

$$\frac{(\text{Observed count} - \text{Expected count})^2}{\text{Expected count}}$$

$$(x^2) = \frac{(O —E)^2}{E}$$

The mathematical notation, the formula looks like this:

$$X^2 = \sum_{i=1}^{k} \frac{(O —E)^2}{E}$$

3.9 Ethical consideration

The research proposal was submitted to the Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI) and approval was taken from the board. Bangladesh Medical Research Council (BMRC) and World Health Organization (WHO) Research also were followed to conduct this study and strictly maintained the confidentiality. Informed consent was used to take permission from all participants. Participant's rights and privileges were ensured. All the participants were informed about the aim and objectives of the study. After that they were interviewed following signing the consent from. The investigator has been ensured the confidentiality of participant's information and shares the information only with the research supervisor.

It was mentioned that the subjects had the rights to withdraw themselves from the research at any times. It was assumed to the participant that his or her name or address would not be used. Participation number and code name were used in the notes and transcripts throughout the study. The information might be published in any normal presentation or seminar or written paper but they would not be identified and these would not cause any harm to them

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CHAPTER-IV: RESULTS

4. Socio demographic information:

The study was conducted on 60 participants of people with spinal cord injury who completed their vocational training. Among them 80% (n=48) were male and 20% (n=12) were female. The age range of the participant was 15 to 64 years. The most vulnerable age group were between 25 to 34 (n=21) age group. Among them 53% participant were married and 44% were unmarried.38 participant lived in rural area and 22 participants lived in urban area. Most of the participant's occupation was mechanic 52%. They earn their livelihood by doing their own mechanical work. 25% participants were businessman, 20% were service holder & only 3% were day laborer. Majority of them earn within the range of 5001 to 10000 taka that was about 48% and very little (n=1) earned more than 20000 takas. Most of the participant's workplace was not more than 500 meters. It was about 86%. Only 2% participant worked in the distance that was more than 5000 meters. Among total number of participants 90% (n=54) were wheelchair bound.8% people used crutch and only 2% (n=1) were independent. Most of the participants 93% (n=56) were paraplegic patient and only 7% (n=4) participants were tetraplegic patient.

Table: 1 Socio demographic information under the study

Variables	Frequency	Valid percent %
Gender		
Male	48	80
Female	12	20
Age		
15 to 24	18	30
25 to 34	21	35
35 to 44	16	26
45 to 54	4	7
55 to 64	1	2
Marital status		
Married	32	53
Unmarried	26	44
Divorce	2	3
Residential area		
Rural	38	63
Urban	22	37
Occupation		
Service holder	12	20
Businessman	15	25
Mechanic	31	52

Laborer	2	3
Monthly income		
1-5000 taka	16	27
5001-10000 taka	29	48
10001-20000	14	23
more than 20000	1	2
Distance of Workplace		
< 500 meters	52	86
501-1000 meter	7	12
1001-5000 meter	1	2
Mobility aids		
No need	1	2
Crutch	5	8
Wheelchair	54	90
Type of injury		
Paraplegic	56	93
Tetraplegic	4	7

4.1Educational background:

Among the participant 20% studied up to primary level. Most of the participant studied up to high school level. Only 2% completed post graduate degree. (Fig: 1)

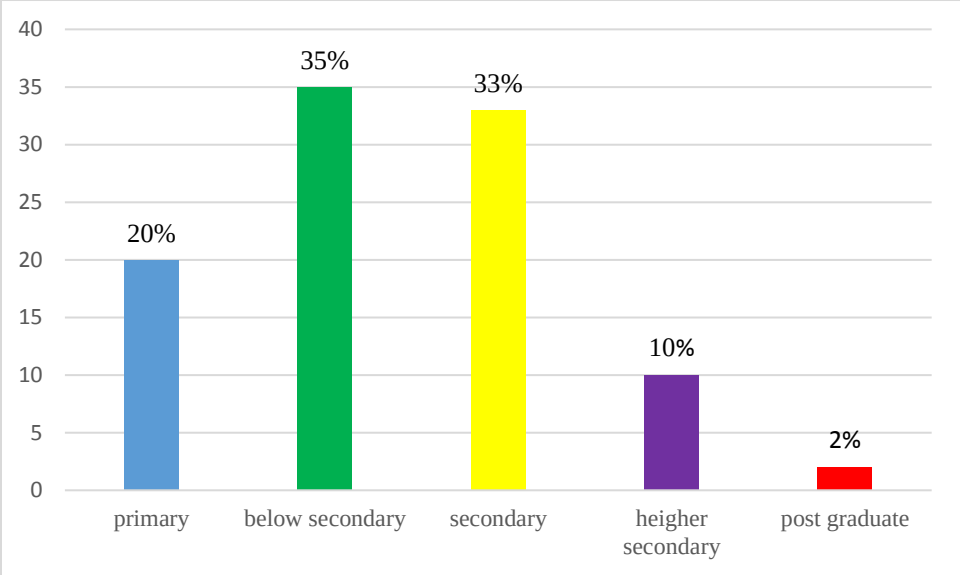

Fig-1: Educational background

4.2 Participant's satisfaction on health:

Of the study population of 60 persons 35% (n=21) were satisfied with their health. Most of the participants 46% (n=28) were neither satisfied nor dissatisfied. Among them only 2% were very satisfied and 2% were very dissatisfied. (Fig:2)

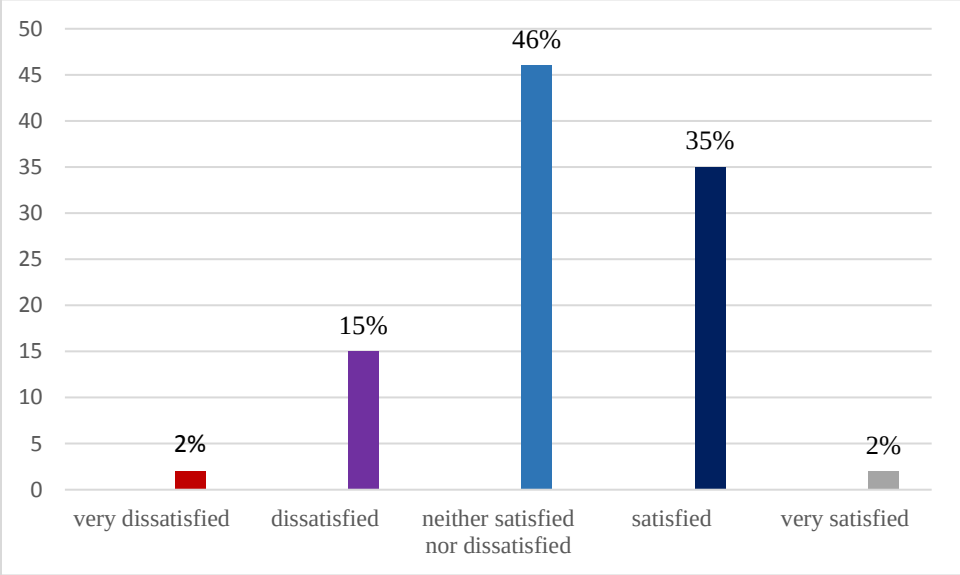

Fig-2: Participants satisfaction on health

4.3 Prevention from work due to pain:

Majority of the population 45% (n=27) off to work a little due to pain. About 38% persons were prevented to go to work a moderate amount. Only 2% population were prevented to continue work in an extreme amount. (Fig : 3)

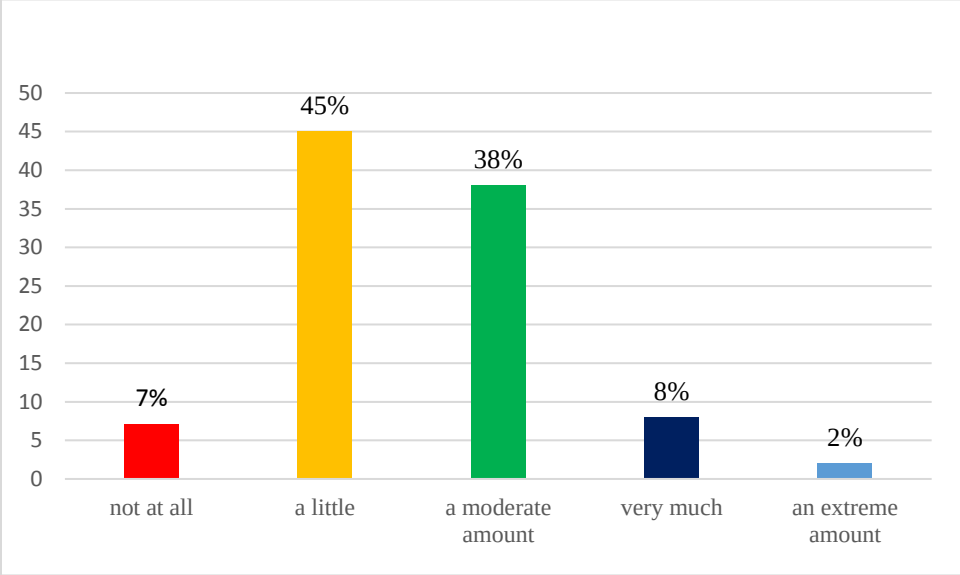

Fig-3: Prevention from work due to pain

4.4 Enjoyment of life:

In terms of enjoyment status majority of the participants 56% (n=34) opinion was that they enjoy their life in a moderate amount, 20% (n=10) enjoy their life very much. Among them 24% (n=14) enjoy their life a little and no one enjoy their life in extreme amount. (Fig: 4)

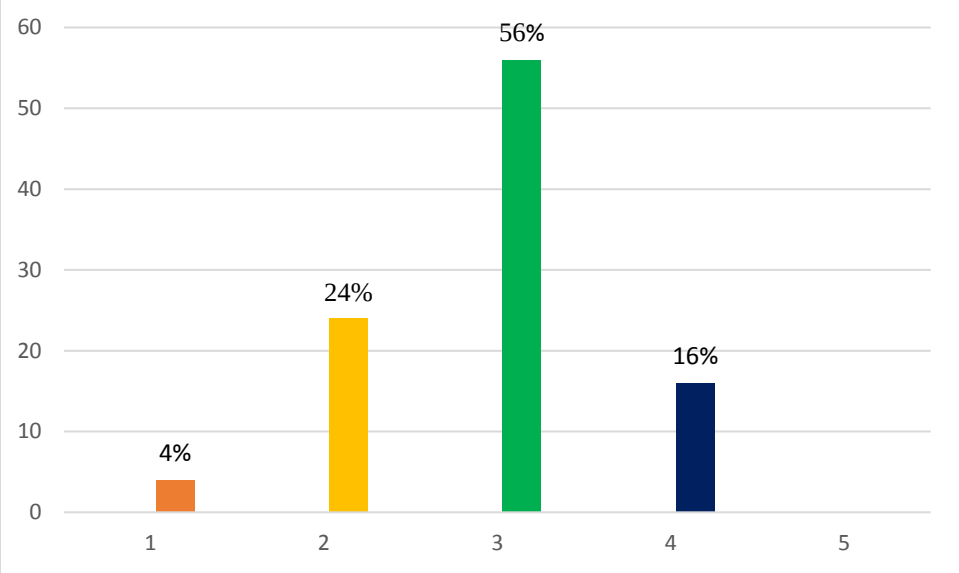

Fig-4: Enjoyment of life

4.5Concentration on work:

Among all the population majority of the people 41% (n=25) stated that they can concentrate their work very much. 7% people told that they can not concentrate at all and another 7% people told that they can concentrate extremely in their work.

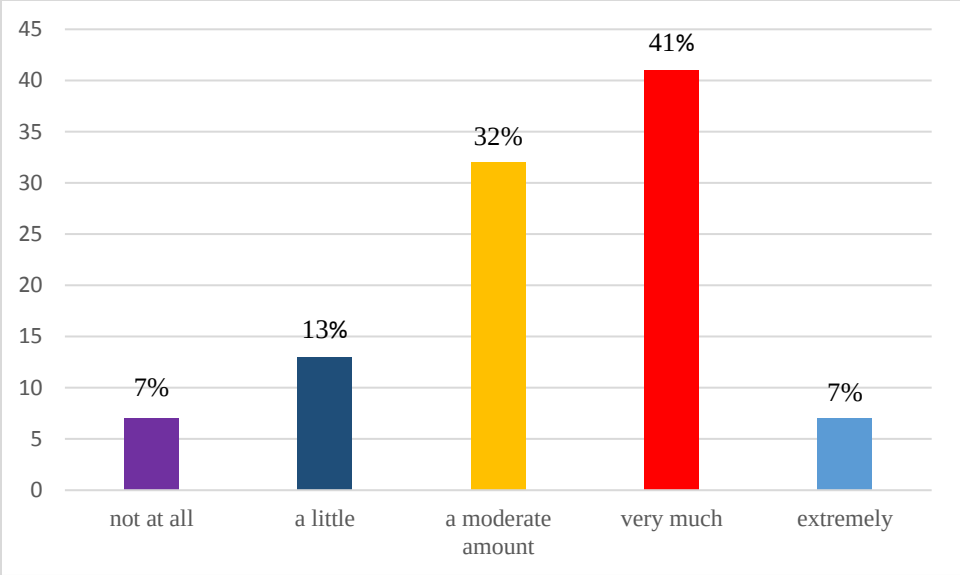

Fig- 5: Concentration on work

4.6 Participants energy for everyday life:

Most of the population 46% (n=28) of the study told that they have good amount of energy to do everyday work. On the other hand 8% (n=5) population get a little amount of energy to do daily work.

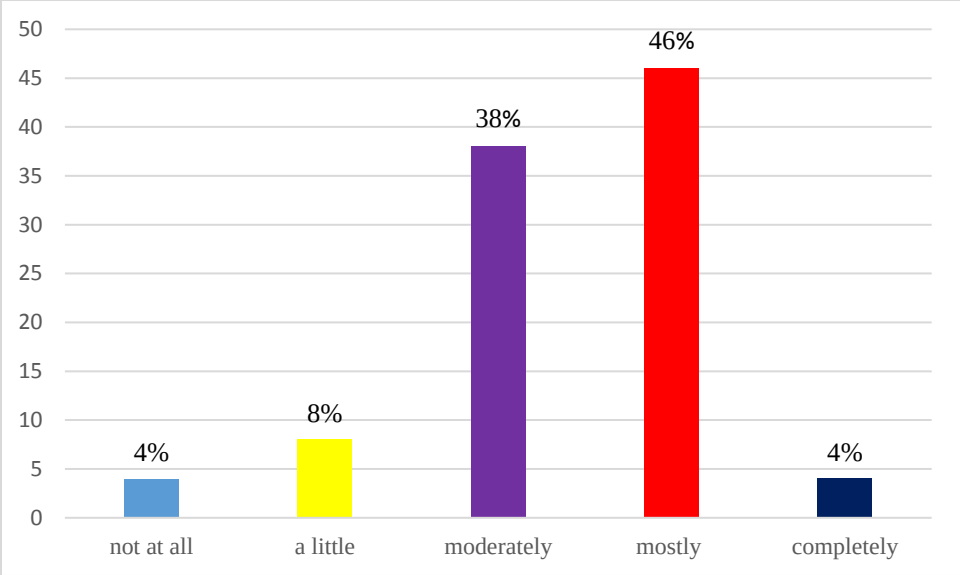

Fig-6: Participants energy for everyday life

4.7 Participants presence of money to meet their needs:

In this study most of the participant 43% (n=26) stated that they have little money according to their needs. Another 40% (n=24) participant told that they have moderate amount of money. Only 2% (n=10) told that they have complete amount of money to fulfil his demand.

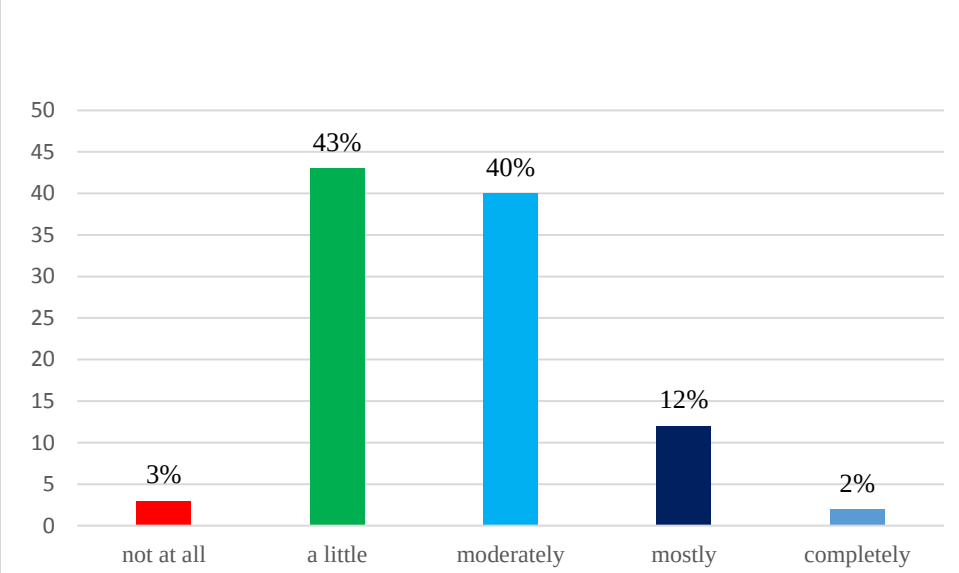

Fig- 7: Participants presence of money to meet their needs

4.8 Participants opportunity for leisure activities:

Majority of the participants 48% (n=29) opinion was that their had moderate amount of opportunity to enjoy their leisure time. 44% (n=26) told that they had a little amount of time. Only 3% (n=3) told that they did not have any time to enjoy their leisure time.

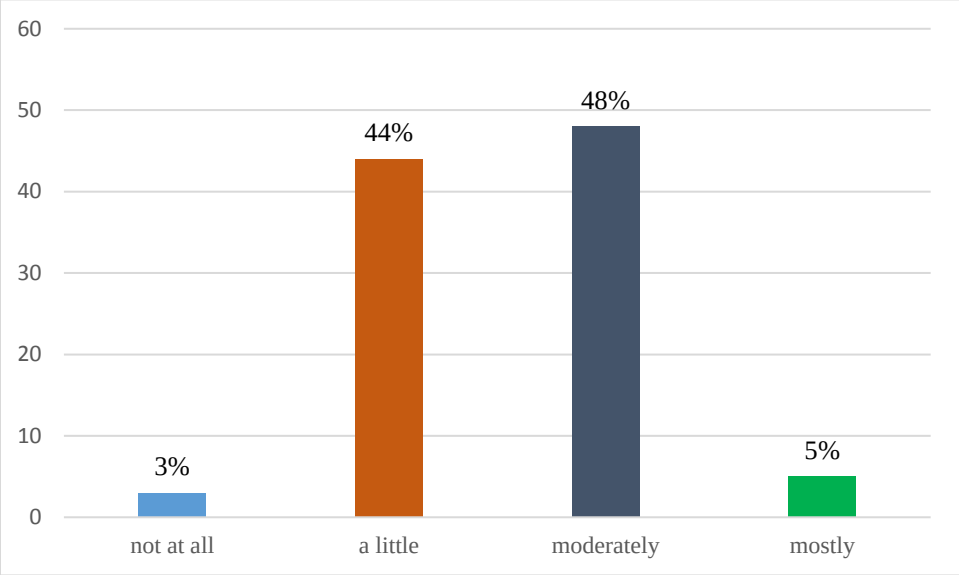

Fig- 8: Participants opportunity for leisure activities

4.9 Participant's satisfaction with the ability to perform daily living activities:

Only 3% (n=2) were very dissatisfied and 45% (n=27) were neither satisfied nor dissatisfied with the ability to perform daily living activities. 32% (n=19) were satisfied with the ability to perform daily living activities.

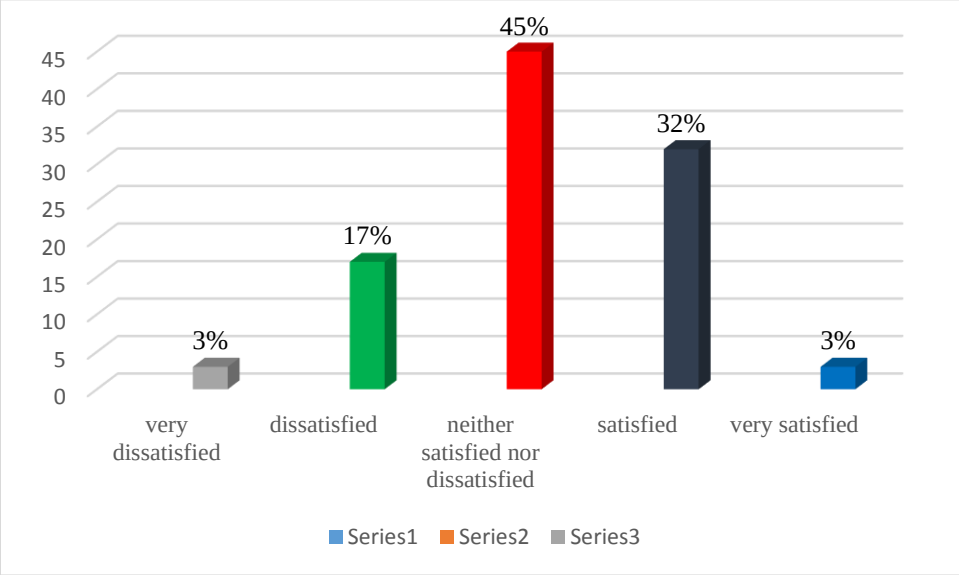

Fig-9: Participant's satisfaction with the ability to perform daily living activities

4.10 Participants own satisfaction:

Among all the participants 70% (n=42) were neither satisfied nor dissatisfied on themselves. 23% (n=14) were satisfied on themselves. Only 2% (n=1) were very dissatisfied on themselves.

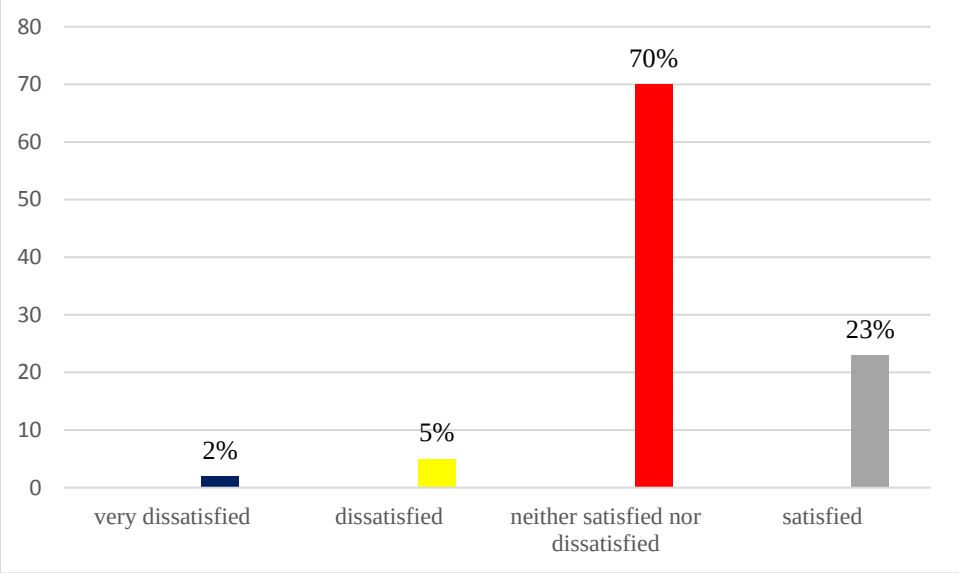

Fig: 10 Participants own satisfaction

4.11 Participant's satisfaction on personal relationship

Most of the participants 55% (n=33) were satisfied on their personal relationship. Second most 31% (n=19) participants were neither satisfied nor dissatisfied and only 8% (n=5) were very satisfied on their personal relation.

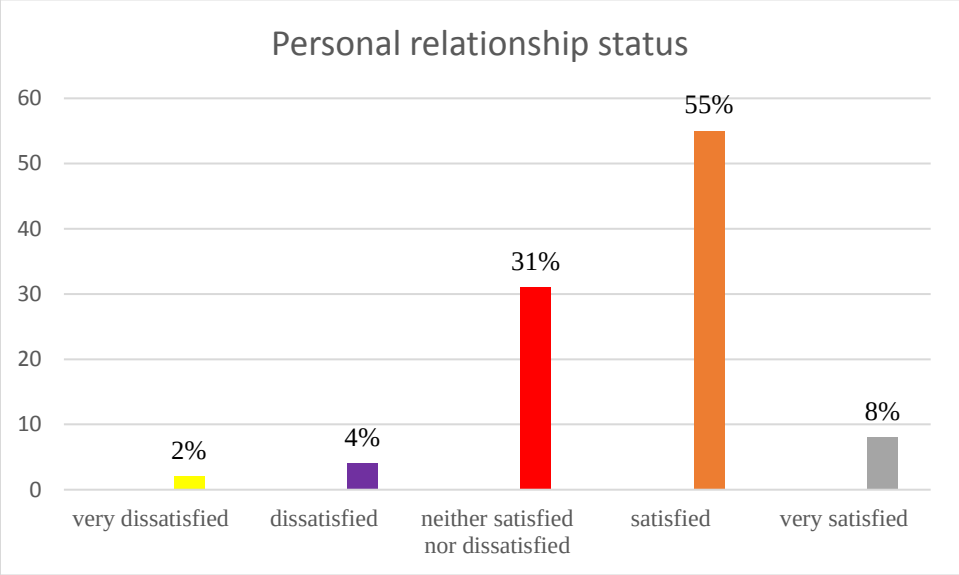

Fig:11 Participant's satisfaction on personal relationship

4.12 Participant's satisfaction by getting supports from their friends:

Most of the participants 43% (n=26) were satisfied on the support from their friends. Only 2% were very satisfied and 3% (n=1) were very dissatisfied on their friends support.

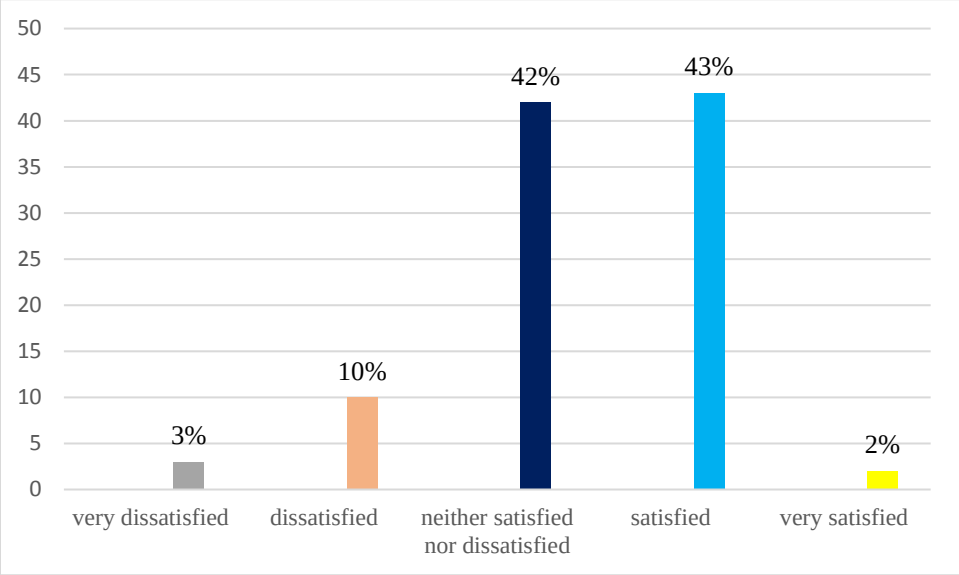

Fig-12: Participants satisfaction by getting supports from their friends

4.13 Satisfaction on the condition of participants living place:

Among all the participants most of the participants 61% (n=37) were satisfied on the condition of their living place. Only 2% (n=1) were very satisfied and other 37% (n= 22) were neither satisfied nor dissatisfied on the condition of their living place.

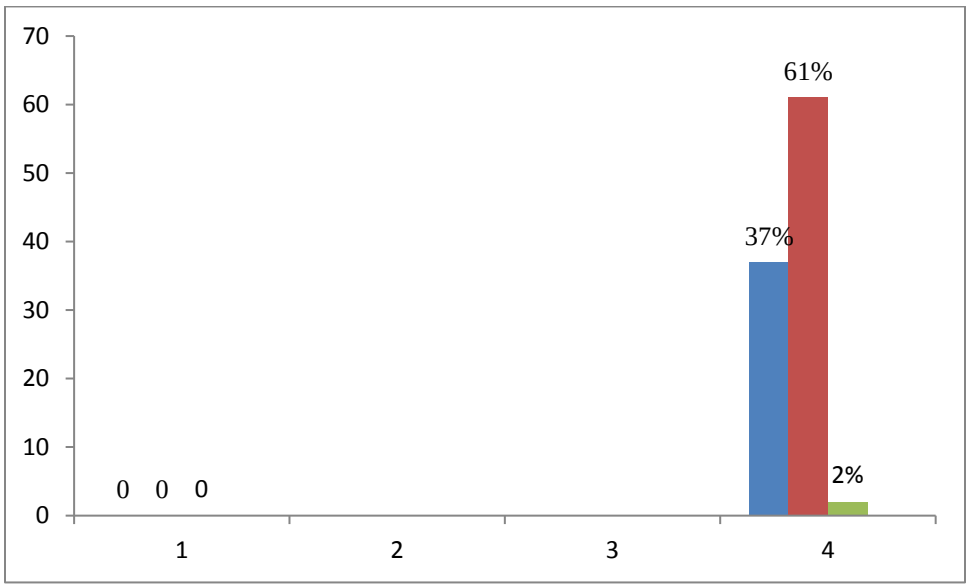

Fig: 13 Satisfaction on the condition of participants living place

4.14 Participants satisfaction on the access of health services:

Only 3% (n=2) participants were very dissatisfied on the access of health. Majority of the participants53% (n=32) were neither satisfied nor dissatisfied and another 22% (n=13) were satisfied and other 22% (n=13) were dissatisfied on the access to health service.

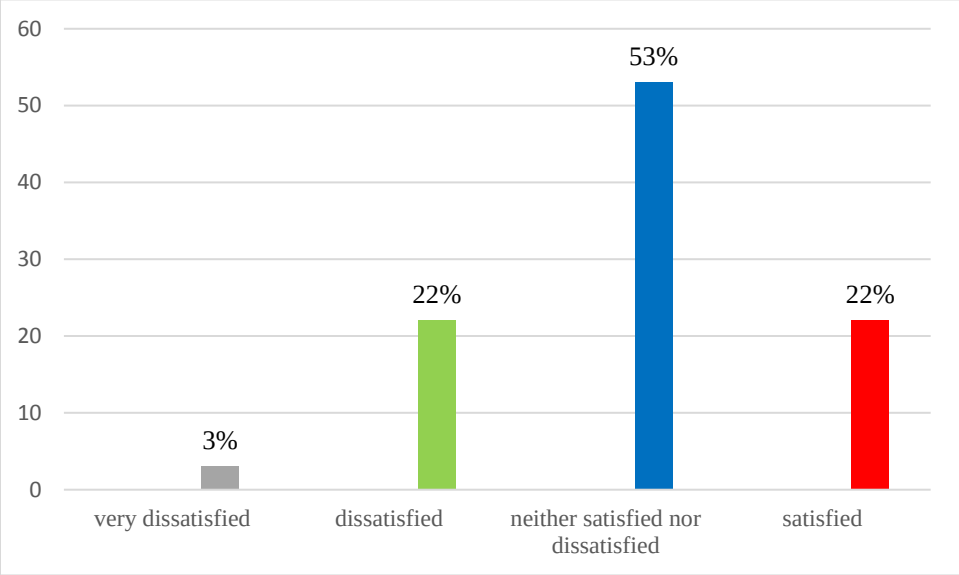

Fig: 14 Participants satisfaction on the access of health services

4.15 Participants satisfaction on transport:

Within the study population most of the participant 38% (n=23) were dissatisfied on transport. Among them 36% (n=22) participant were neither satisfied nor dissatisfied and only 3% (n=2) people were very satisfied on transport.

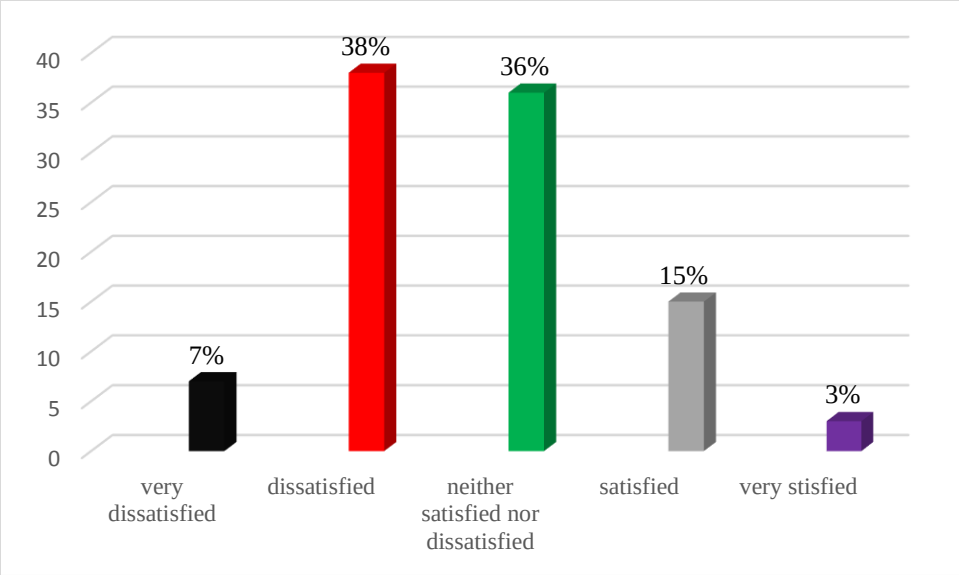

Fig-15: Participants satisfaction on transport

4.16 Participants having negative feelings:

On this study majority of the participant 37% (n=22) had the experience of negative feeling quite often. 22% (n= 13) participants feels it very often and only 9% (n=5) people always thinks about negative feelings.

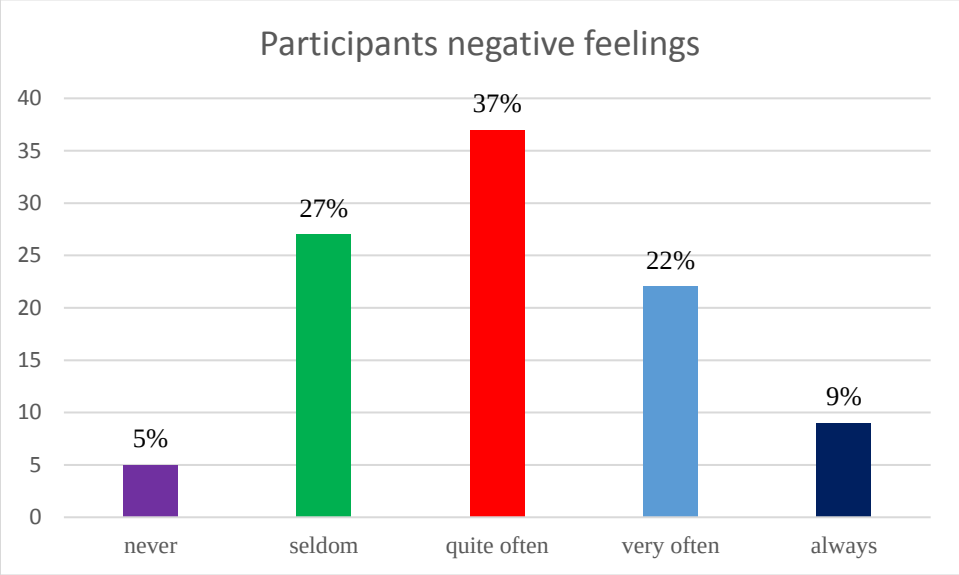

Fig: 16 Participants having negative feelings

4.17 Quality of life of the participant

In this study most of the participants 63% (n=38) explained that they lead neither poor nor good quality of life. Among them 23% (n=14) lead a good quality of life, on the other hand 10% (n=6) lead a poor quality of life. No one lead a very good quality of life and 4% (n=2) lead very poor quality of life.

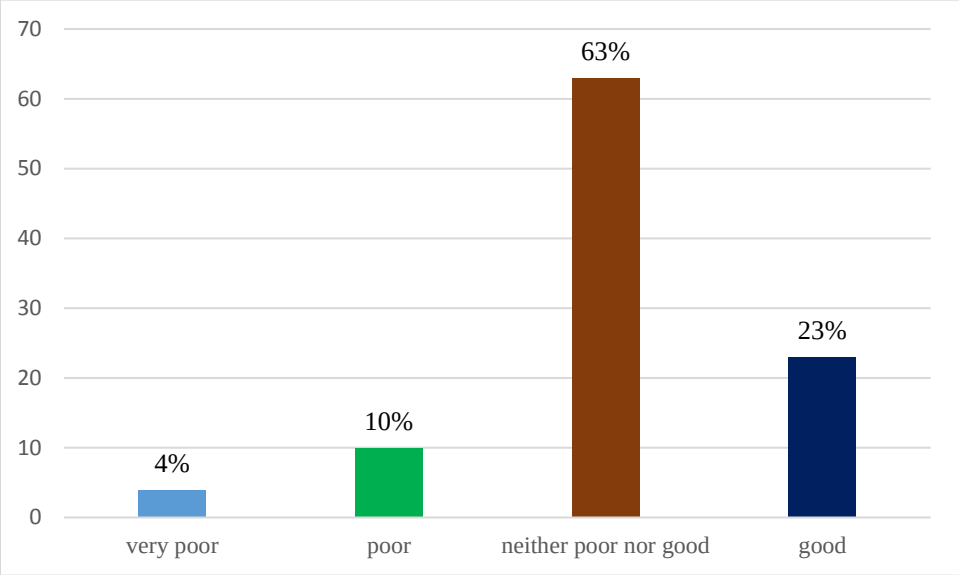

Fig: 17 Quality of life of the participant

4.18 Physical health

Within the study population most of the people 98% (n=59) can maintain higher quality of physical health. Only 2% (n=1) people maintain moderate quality of physical health.

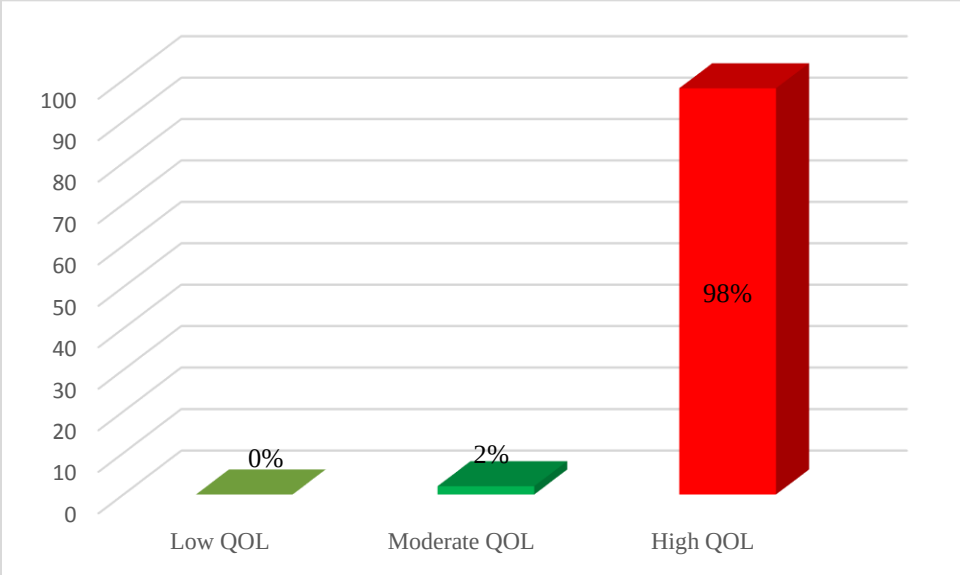

Fig-18: Physical health of the participant

4.19 Psychological health

In this study most of the participants 92% (n=55) explained that they lead higher quality of psychological health. 5% (n=3) people lead moderate quality of psychological health and only 3% (n=2) people lead low quality of psychological health.

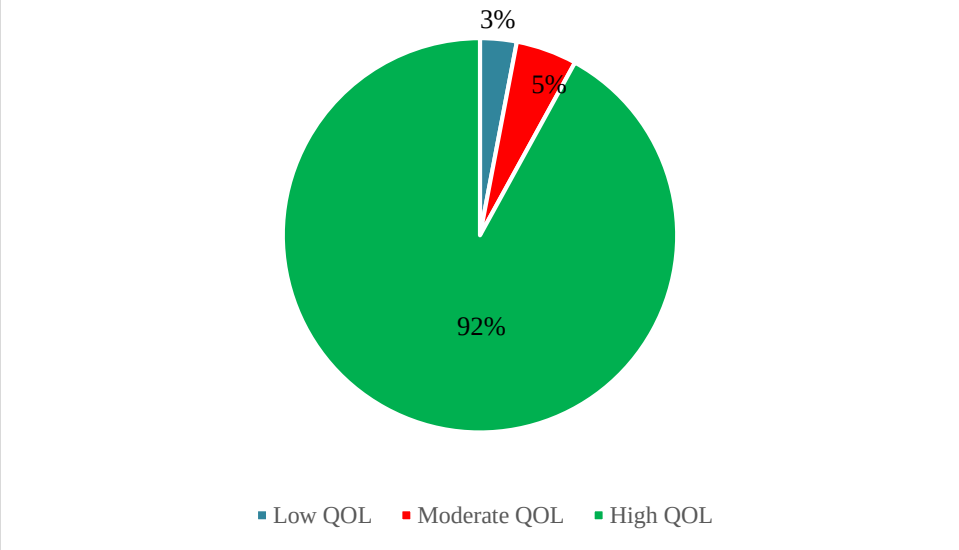

Fig-19: Psychological health of the participant

4.20 Social status

Among all participants most of them 98% (n=59) lead poor quality of social status. And only 2% (n=1) can maintain high quality of social status.

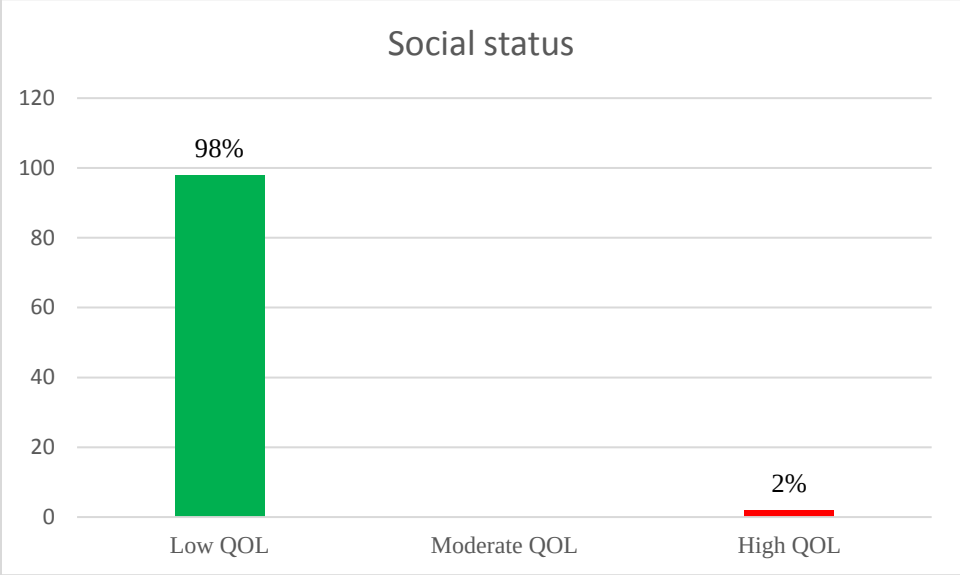

Fig-20: Social status

4.21 Environmental condition

The entire participants 100% (n=60) lead in higher quality of environmental condition

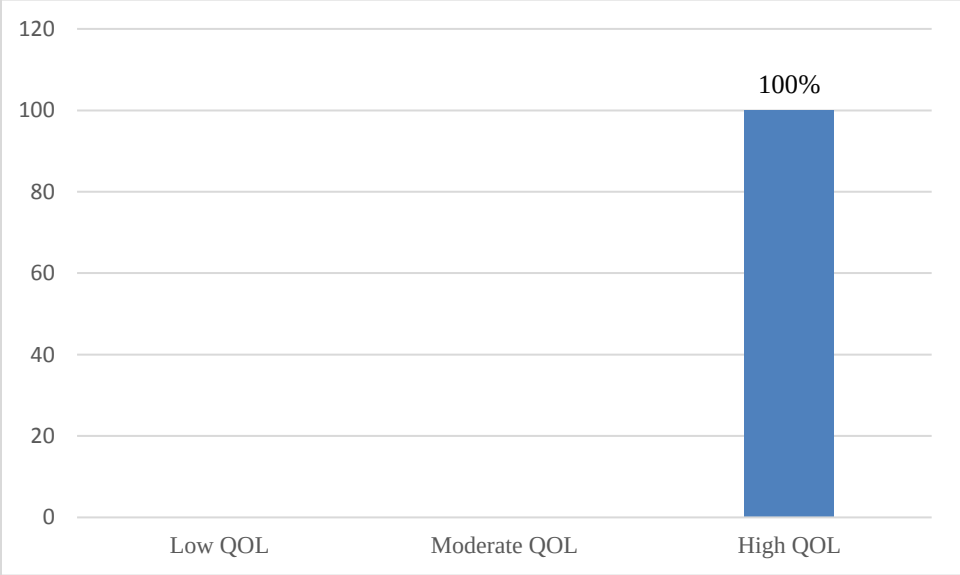

Fig: 21: Environmental condition

Table-2: Distribution of the respondents of association between various components of WHOQOL-BREF questionnaires, socio-demographic status and type of SCI patient.

Association between contents	**Chi-square**	**P value**	**Significance**
1. Occupation and psychological health of the participants.	2.96	0.81	Non-significant
2.Participant's prevention from work due to pain Vs psychological status of the participants.	26.389	0.001	Significant
3. Participant's gender and physical health.	0.254	0.614	Non-significant

4.Participant's monthly income and participants' satisfaction on himself /herself.	16.908	0.05	Significant
5. Participant's marital status and social status.	.89	0.641	Non-significant
6. Participants quality of life and monthly income.	12.68	0.178	Non-significant
7. Participants opportunity to leisure activities and psychological health.	19.807	0 .003	Significant
8.Participants educational status and physical health.	2.034	0.730	Non-significant

9. Social status and psychological health	60.00	0.00	Significant
10. Type of injury and physical health	14.237	0.00	Significant

11. Type of injury and psychological status.	10.276	0.006	Significant
12. Type of injury and social status.	14.237	0.00	Significant

From Table-2.1 the observed Chi-square value was 2.96 and 5% level of significant state chi-square was 1.96 which is more than the observed chi-square value. The result was not significant.so there was no significant association between occupation and psychological health of the participants.

From Table-2.2 the observed Chi-square value was 26.389 and 5% level of significant state chi-square was 1.96 which is less than the observed chi-square value. The result was significant. So there was strong association between participant's prevention from work due to pain and psychological health of the participants.

From Table-2.4 the observed Chi-square value was 16.908 and 5% level of significant state chi-square was 1.96 which is equal to the observed chi-square value. The result was significant. So there is strong association between participant's monthly income and participants' satisfaction on himself/herself

From Table-2.6 the observed Chi-square value was 12.68 and 5% level of significant state chi-square was 1.96 which is more than observed chi-square value. The result was non-significant. So there is no association between Participants quality of life and monthly income.

From Table-31.10 the observed Chi-square value was 14.237 and 5% level of significant state chi-square was 1.96 which is equal to the observed chi-square value. The result was significant. So there is strong association between type of injury and physical health of the participants.

From Table-31.11 the observed Chi-square value was 10.276 and 5% level of significant state chi-square was 1.96 which is equal to the observed chi-square value. The result was significant. So there is strong association between type of injury and psychological health of the participants.

CHAPTER-V: DISCUSSION

This study revealed that SCI affects a significantly higher number of men than women. Here 80% were male and 20% were female people. According to Razzak (2013) found that, among 56 participants 84% were male and 16.0% were female. Anderson et al. (2007) found that among 231 participants male were 63% and female were 37% following SCI. This finding is similar to those of other studies (Guttmann,1947; De Vivo et al,1980; Daverat et al,1989; Frankel et al, 1998; Strauss et al, 2006; Zubia et al, 2008). This difference between men and women with respect to incurred SCI, is due to the fact that men tend to be exposed to work or activities that make them vulnerable to SCI, while women generally do not go out to work and remain indoors.

The age at injury (25-34) showed similarity with other studies regarding SCI (Strauss et al, 2006; O'Connor, 2005; Gregory et al, 1993; Catz et al, 2002). Similarly, Bombardier *et al.* (2004) in their study found among 849 participants 15% was (25-49 years) age group. Most of the participants of the study were at above high school level of education. Men in their most active and productive period of life (20-40 years) were the ones affected by SCI. The increased number of younger SCI victims results in serious economic loss to the family, as well as to the community and country.

In present study found most of the participants earned 5,001 to 10,000 taka per month. Another study of Bangladesh similarly found among 56 participants 32.1% (n=18) were earned more than 6,000 taka per month (Razzak, 2013).

SCI, which may occur suddenly but its effect can be devastating. Razzak (2013) stated that in the perspective of Bangladesh, people live their lives under conditions that make them vulnerable to SCI. SCI affect persons for long-term, as well as it also impacts on persons regular QOL. Similarly, SCI has an impact on quality of life as it become to a high level of disability for long-term, morbidity and mortality (Razzak, 2011). Arango-Lasprilla *et al.* (2013) found that depression is associated with diminished quality of life. In this study found, there were a significant association between depression with quality of life after SCI.

In case of their marital status, about 44% were unmarried, 53% were married and 3% were divorced. Among all of the participants, about 20% have completed primary education where only 35% of the participants have studied below high school level and 33% participants have finished secondary level and 10% participants completed college education. Among the participants 2% participants have completed post-graduation degree. Generally, participant's educational level is poor in fact, educational status does not the result of this study very much. Mostly it is seen that mostly who has poor education background, suffer most according to this study. Most of the participants occupation was mechanic 52%. They earn their livelihood by doing their own mechanical work. 25% participants were businessman, 20% were service holder & only 3% were day laborer. This suggests that vocational training has a significant impact on their livelihood. Spinal cord injury is devastating but vocational training may just add a little bit of hope to remain self-administered. After any accident, most of the survivors lead life with mild or moderate disabilities. This situation cannot make them stop. There is different vocational rehabilitation Centre work with those disable person and make them self-employed. The importance of mobility on physical functioning has been reported in other studies. From this study, the data shows that among 63% participants are rural. And rest of them, or 37% participants are urban. The research showed that most of the patients were village people. The Indian research showed that 53.95% were from rural areas and 40.51% from the urban areas (Chhabra & Arora, 2012).

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

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

In literature shows, person who is employed cannot understand the difficulties with the spine cord injury. However, Transportation becomes the number one barrier.

Transportation was frequently rated as the main cause of unemployment (Fiedler et al., 2002).

In this study population most of the participant 38% (n=23) were dissatisfied on transport. Among them 36% (n=22) participant were neither satisfied nor dissatisfied and only 3% (n=2) people were very satisfied on transport.

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

In this study most of the participants 63% (n=38) explained that they lead neither poor nor good quality of life. Among them 23% (n=14) lead a good quality of life, on the other hand 10% (n=6) lead a poor quality of life. No one lead a very good quality of life and 4% (n=2) lead very poor quality of life.

My study shows that there is strong association between type of injury and physical health of the participant (p= 0.00).

Patient satisfaction with the performance is high and they can participate in more activities of daily living. Improved participation is particularly important since perceived participation is known as a determinant of life satisfaction in people with SCI. (Wangdell., 2018)

In this study most of the participants can maintain a higher quality of physical health. My study shows that there is strong association between type of injury and physical health of the participant (p= 0.00).

This study found close association between Participant's monthly income and participants' satisfaction on himself /herself (p=.05).

This study found association between type of injury with psychological status (P<.006). Shin et al. (2012) found that participants with incomplete SCI (n=18) were less depressed, had more life satisfaction and lesser stress levels. Dryden et al. (2005) found at their study, there were no relationship between level of depression and degree of disability. In this study found severe level of depression at complete tetraplegia injured.

Whereas, SCI with incomplete paraplegia/ tetraplegia injured had no severe level of depression.

Limitations

100% accuracy can not be possible in any research so that some limitation may exist. Regarding this study, there were some limitations or barriers to consider the result of the study. The limitation of this study was small sample size. It was taken only 60 samples. The quality of life of the people with spinal cord injury after completing vocational training could not be measured through small sample size. More samples could not able to collect by random selection because, there were not adequate subjects and study period was short. The one of major limitation was time. To conduct the research project on this topic, time period was limited. As the study period was short so the adequate number of samples could not arrange for the study. Time and resources were limited which have a great deal of impact on the study.

CHAPTER-VI CONCLUSION AND RECOMMENDATION

Conclusion

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

This study comprehends about the quality of life among patients with spinal cord injury who completed vocational training from CRP in terms of health and medical complications, transportation, mobility aid related barriers, accessibility of workplace, disability discrimination, qualifications and working experience and workplace modification including the physical, mental, social and environmental condition. Valid questioner was used for the study. After conducting the study the finding was that, after completing vocational training their quality of life improved but still they were facing some problems. After completing vocational training the participants can lead a good quality of physical, mental and environment health condition. Most of them they lead a poor quality of social status. Most often they become depressed for their current situation who lead a poor quality of life. Inaccessibility of public transport, physical and medical complications barriers hinder them mostly from their all kind of workplace participation whereas lack of inaccessibility in workplace and workplace modification issue are the most experience barrier in the workplace activity. So, if these problems are minimized or overcoming strategies are developed and implicate, these people with spinal cord injury can work in their workplace life successfully. At last we can realize that more vocational training should be run throughout the country to improve the quality of life of people with spinal cord injury.

6.2 Recommendations

The aim of the study was to find out the quality of life of people with spinal cord injury in after completing vocational training. I recommended the following things:

- Should take more samples for generating the result and try to make more valid and reliable.
- Should take more samples for pilot study to establish the accuracy of the questionnaire.
- Should take more time.
- But research would need to be carried out considering proof of hypothesis.
- Further study should be carried out on female participants.

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APPENDIX

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

Ref. CRP-BHPI/IRB/07/18/1210 Date: 21/07/2018

To
Md. Atiar Rahman
B.Sc. in physiotherapy
Session:2013-2014 Student ID:112130195
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject:Approval of the thesis proposal "Quality of life of people with spinal cord injury after completing vocational training" by ethics committee.

Dear Md. Atiar Rahman,

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. The Following documents have been reviewed and approved:

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

The purpose of the study is to determine the quality of life of people with spinal cord injury after completing vocational training. The study involves use of WHO Quality of Life-BREF (WHOQoL-BREF) questionnaire to identify the quality of life of people with spinal cord injury after completing vocational training that may take 20 to 30 minutes to answer the questionnaire and there is no likelihood of any harm to the participants. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 9.30 AM on January 23, 2018 at BHPI.

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

Best regards,

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

সিআরপি চাপাইন, সাভার, ঢাকা-১৩৪৩, বাংলাদেশ, ফোন : ৭৭৪৫৪৬৪-৫, ৭৭৪১৪০৪ ফ্যাক্স : ৭৭৪৫০৬৯
CRP-Chapain, Savar, Dhaka-1343, Tel : 7745464-5, 7741404, Fax : 7745069, E-mail : contact@crp-bangladesh.org, www.crp-bangladesh.org

Permission letter

July 21st, 2018

Assistant Manager,

Rehabilitation Wings,

Centre for the Rehabilitation of the Paralysed(CRP)

Chapain,Savar, Dhaka – 1343.

Through: Head of Physiotherapy department, BHPI.

Subject:Permission to collect data in order to conduct my research project.

Dear Sir,

With due respect and humble submission to state that I amMd. Atiar Rahman, student of 4th professional B.Sc. in physiotherapy at Bangladesh Health Professions Institute(BHPI). According to the course curriculum, I have to conduct a research project for the partial fulfillment to complete of the degree of B.Sc in Physiotherapy.The title of my research project is **"Quality of life of people with spinal cord injury after completing vocational training"** My research project will be conducted under the supervision of Md. Obaidul Haque, Professor& Head of the Physiotherapy Department, BHPI, CRP. I want to collect data for my research project from the community with Spinal Cord Injury Patients. So, I need permission & support for collecting data fromthe community. I would like to assure that anything of my study will not be harmful for theparticipants.

I, therefore, pray & hope that you would be kind enough to grant my application & give me the permission&support for data collection and oblige thereby.

Yours sincerely,

Atiar

Md. Atiar Rahman

4th professional B.Sc. in physiotherapy

Roll-02, Session: 2013-2014

Bangladesh health professions institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343.

Recommended & Forwarded

21-07-18

Prof. Md. Obaidul Haque
Head, Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343

Forwarded to coordinator

21/7/18

Date: 19-07-2018
To,
Head of the Department of Physiotherapy,
Bangladesh Health Professions Institute,
CRP-Chapain, Savar, Dhaka-1343

Subject:**Prayer forseeking permission to collect data for conducting a research project.**

Sir,
With due respect and humble submission, I am Md. Atiar Rahman, student of 4th year B.Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI). In 4thyear we have to do a research project for the partial fulfillment of the requirement for the degree of B.Sc in Physiotherapy. My research project title is, **"QUALITY OF LIFE OF PEOPLE WITH SPINAL CORD INJURY AFTER COMPLETING VOCATIONAL TRAINING"** under the supervision of Md. Obaidul Haque, Professor& Head of the Physiotherapy Department, BHPI. Conducting this research project is partial fulfillment of the requirement for the degree of B.Sc. in Physiotherapy. I want to collect research data for my research project from spinal cord injury patients in the community. So, I need permission for data collection from spinal cord injury patients in the community. I would like to assure that anything of my research project will not be harmful for the participants and department as well.

So, I, therefore, pray and hope that you would be kind enough to grant my application and give me the permission for data collection and oblige thereby.

Yours faithfully,

Atiar

Md. Atiar Rahman
Roll: 02
4th years B.Sc. in Physiotherapy
Session: 2013-2014
Bangladesh Health Professions Institute
(An academic Institution of CRP)
CRP-Chapain, Savar, Dhaka-1343.

Sr. SO, BHPI
Issue a letter
19.07.18
Prof. Md. Obaidul Haque
Head, Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343

CONSENT STATEMENT

Assalamualaikum,

I am Md. Atiar Rahman, student of 4th year BSc. in Physiotherapy program of Bangladesh Health Professions Institute affiliated to University of Dhaka. I am conducting the study for the partial fulfilment of physiotherapy degree. My research study titled **"QUALITY OF LIFE OF PEOPLE WITH SPINAL CORD INJURY AFTER COMPLETING VOCATIONAL TRAINING".** By this I would like to know spinal cord injury patient quality of life. Now I want to ask some personal and workplace related question. This will take approximately 20-30 minutes.

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

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

If you have any query about the study as a participant, you may contact with me or my supervisor professor Md. Obaidul haque at Physiotherapy Department, BHPI, CRP, Savar, Dhaka-1343.

Do you have any questions before I start?

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

Yes ☐ No ☐

Signature of the Participant and date _____

Signature of the Data collector and date _____

Signature of the researcher and date_____

Patient's Identification

Identification Number:

Name of respondents:

Date of interview:

Age:

Sex:

Address:

Consent Taken:

Contract no:

Part – I: Socio Demographic Information

Please give tick (√) mark at the left side box of the best correct answer

Question Number	**Questions/ Information on**	**Response of the participant with coding category**
1.	Sex	☐ Male=1 ☐ Female=2
2.	Marital status	☐ Married =1 ☐ Unmarried=2 ☐ Divorced =3
3.	Educational qualification	☐ Illiterate=1 ☐ Primary=2

		☐ SSC=3 ☐ HSC=4 ☐ Graduation=5 ☐ Masters =6
4.	Occupation	☐ Service holder=1 ☐ Businessman=2 ☐ Housewife=3 ☐ Student=4 ☐ Labor =5
5.	Living area	☐ Urban=1 ☐ Rural=2
6.	Monthly Income	☐ 1 –5000tk=1 ☐ 5001 – 10,000tk=2 ☐ 10.001 – 20,000 tk=3

		☐ ≥20,000=4
7.	Distance of workplace from home	☐ < 500 m ☐ 501-1000m ☐ 1001-5000m
8.	type of mobility aids	☐ No mobility aids ☐ Crutch ☐ Wheel chair
9.	Type of injury	☐ Paraplegic ☐ Tetraplegic

WHOQOL-BREF questionnaires

This questionnaire asks how you feel about your quality of life, health and other areas of your life. Please answer all the questions. If you are unsure about which response to give to a question, please choose the ONE that appears most appropriate. This can often be your first response.

Think about your life in the last four weeks.

		Very poor	Poor	Neither poor nor good	Good	Very good
1.	How would you rate your quality of life?	1	2	3	4	

2		Very Dissatisfied	Dissatisfied	Neither Satisfied nor Dissatisfied	Satisfied	Very Satisfied
	How satisfied are you with your health?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	An extreme amount
3	How much do you feel that pain prevents you from doing what you need to do?	1	2	3	4	5
4	How much do you need medical treatment to function in your daily life?	1	2	3	4	5
5	How much do you enjoy life?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
6	To what extent do you feel life to be meaningful?	1	2	3	4	5
7	How well are you able to concentrate?	1	2	3	4	5
8	How safe do you feel in your daily life?	1	2	3	4	5
9	How healthy is your physical environment?	1	2	3	4	5

		Not at all	A little	Moderately	Mostly	Completely
10	Do you have enough energy for everyday life?	1	2	3	4	5
11	Are you able to accept your bodily appearance?	1	2	3	4	5
12	To what extent do you have enough money to meet your needs?	1	2	3	4	5
13	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

		Very poor	Poor	Neither poor nor good	Good	Very good
15	How well are you able to get around?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16	How satisfied are you with your sleep?	1	2	3	4	5
17	How satisfied are you with your ability to perform daily living activities?	1	2	3	4	5
18	How satisfied are you with your capacity for work?	1	2	3	4	5
19	How satisfied are you with yourself?	1	2	3	4	5
20	How satisfied are you with your personal relationships?	1	2	3	4	5
21	How satisfied are you with your sex life?	1	2	3	4	5
22	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23	How satisfied are you with the conditions of your living place?	1	2	3	4	5

24	How satisfied are you with your access to health services?	1	2	3	4	5
25	How satisfied are you with your transport?	1	2	3	4	5

		Never	Seldom	Quite often	Very often	Always
26	How often do you have negative feelings, such as blue mood, despair, anxiety, depression?	1	2	3	4	5

সম্মতিপত্র

আসসালামুয়ালাইকুম,

আমি মোঃ আতিয়ার রহমান, আমি এই গবেষণা প্রকল্পটি বাংলাদেশ হেলথ প্রফেশনস ইনষ্টিটিউট (বিএইচপিআই)-এ পরিচালনা করছি যা ঢাকা বিশ্ববিদ্যালয়ের অধিনে আমার ৪র্থ বর্ষ বিএসসি ইন ফিজিওথেরাপী কোর্সের অধিভুক্ত । আমার গবেষণার শিরোনাম হল-" মেরুরজ্জুতে আঘাত প্রাপ্ত লোকেদের জীবনমান অনুসন্ধান যারা কারিগরি প্রশিক্ষণ সম্পন্ন করেছে " এর মাধ্যমে আমি মেরুরজ্জুতে আঘাত প্রাপ্ত রোগীদের জীবনমান সমবন্ধে জানতে চাই। আমি এখন আপনাকে কিছু ব্যক্তিগত এবং কর্মস্থল সম্পর্কে আনুষাঙ্গিক কিছু প্রশ্ন করতে চাচ্ছি। এতে আনুমানিক ২০-৩০ মিনিট সময় নিবো।

আমি আপনাকে অবগত করছি যে, এটা আমার অধ্যয়নের অংশ এবং যা অন্য কোন উদ্দেশ্যে ব্যবহৃত হবে না । এই গবেষনায় আপনার অংশগ্রহণ বর্তমান কর্মস্থলে কোন প্রকার প্রভাব ফেলবে না । আপনি যেসব তথ্য প্রদান করবেন তার গোপনীয়তা বজায় থাকবে এবং আপনার প্রতিবেদনের ঘটনা প্রবাহে এটা নিশ্চিত করা হবে যে এই তথ্যের উৎস অপ্রকাশিত থাকবে।

এই অধ্যয়নে আপনার অংশগ্রহণ স্বেচ্ছাপ্রণোদীত এবং আপনি কোনো পারিশ্রমিক পাবেন না এবং যেকোন সময় এই অধ্যয়ন থেকে কোন নেতিবাচক ফলাফল ছাড়াই নিজেকে প্রত্যাহার করতে পারবেন।এছাড়াও কোন নির্দিষ্ট প্রশ্ন অপছন্দ হলে উত্তর না দেয়ার এবং সাক্ষাৎকারের সময় কোন উত্তর না দিতে চাওয়ার অধিকারও আপনার আছে।

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

সাক্ষাৎকার শুরু করার আগে কি আপনার কোন প্রশ্ন আছে ?

সুতরাং আমি আপনার অনুমতিতে এই সাক্ষাৎকার শুরু করতে পারি ?

হ্যাঁ ☐ না ☐

১। অংশগ্রহণকারীর স্বাক্ষর ও তারিখ_____

২। উপাত্ত সংগ্রহকারীর স্বাক্ষর ও তারিখ _____

৩। গবেষকের স্বাক্ষর ও তারিখ_____