

**LIFE SATISFACTION AMONG THE PEOPLE WITH SPINAL
CORD INJURY AT COMMUNITY AFTER COMPLETING
REHABILITATION SERVICES FROM CRP**

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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:

**LIFE SATISFACTION AMONG THE PEOPLE WITH SPINAL
CORD INJURY AT COMMUNITY AFTER COMPLETING
REHABILITATION SERVICES FROM CRP**

Submitted by **Susmita Roy**, for partial fulfillment of the requirements for the degree of Bachelor of Science in Physiotherapy (BSc. in PT).

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Declaration

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

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Acronyms

ADL	Activity of Daily Living
BHPI	Bangladesh Health Professions Institute
BMRC	Bangladesh Medical Research Council
CRP	Centre for the Rehabilitation of the Paralysed
ICU	Intensive Care Unite
IRB	Institutional Review Board
LiSAT-9	Life Satisfaction Questionnaire-9
LS	Life Satisfaction
QoL	Quality of Life
SCI	Spinal Cord Injury
SPSS	Statistical Package for the Social Sciences
TSCI	Traumatic Spinal Cord Injury
WHO	World Health Organization

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Abstract

Purpose: The purpose of the study was to describe the level of life satisfaction of the people with spinal cord injury (SCI) in the community. *Objectives:* To assess and describe life satisfaction of the people with spinal cord injury in the community. *Methodology:* The study design was cross-sectional. Total 52 samples were selected conveniently for this study from Savar those who has completed rehabilitation services at Centre for the Rehabilitation of Paralyzed (CRP), Savar, Dhaka. Data was collected by using of questionnaire (LiSAT-9). Descriptive statistic was used for data analysis which focused through different bar diagrams, pie charts and tables. *Results:* This study showed that, among the respondent participants who were spinal cord injury, the lowest age was 15-20 years and highest age was more than 60 years. The frequencies of SCI among the different age group were: less than 15-20 years were 50% (n=6); 30 and more than 60 years were 3.8% (n=2). As a whole the life satisfaction percentage of Spinal Cord Injury patients among the 52 participants indicated that about 9.6% (n=5) participants had very dissatisfying, whereas 15.4% (n=8) had rather dissatisfying, 30.8% (n=16) participants had rather satisfying, 19.2% (n=10) had satisfying and 1.9% (n=1) at an average had very Satisfying had been found. *Conclusion:* The conclusion from this study that increase life satisfaction were in person with SCI in the long run with vocational status, financial status, ability to self-care, family life was related to high life satisfaction. From the study it can be concluded that due to SCI there have a lot of physical and mental problem such as ability to self-care, contacts with friends, family life, sexual life, partner relationship, leisure situation, financial situation, vocational situation and over all whole life. During staying at CRP most of the participants were satisfied with treatments, get support from the staff moderately, environment was clean moderate amount so environmental level was good. Spinal cord injury is greatly hampering person's life satisfaction and quality of life specially their physical and mental status. So awareness should be increased and take necessary steps to improve their physical and mental health.

1.1 Background

A spinal cord injury (SCI) is a major life event leading to serious physical disabilities and secondary medical problems, which have important consequences for the life satisfaction of the persons involved (Christel et al., 2012). The disease and injury which affect the spinal cord and damage the neurological level one of the most important health problem in Bangladesh, so they carry high rates of morbidity and mortality (Razzak et al., 2011).

Life satisfaction (LS) is believed to serve as a measure of general health and well-being (Dear et al., 2012). LS brings a great deal of influence to bear upon health status in both physical and mental domains (Siahpush et al., 2008). A poor LS is noticed as a general health risk indicator, as it is a predictor of mortality (Koivumaa-Honkanen et al., 2010).

SCI is one of the larger disasters that can happen to a person, often leading to severe physical impairments and psychological distress. A combined model of physical (functional independence and pain) and psychosocial factors (social support and self-efficacy) explained 66% of the variance in life satisfaction. High functional independence, low pain, high everyday social support, and high self-efficacy were significant determinants of a positive course of life satisfaction after discharge from the Rehabilitation centre (Christel et al., 2012). Recent study (Guang-Zhi et al., 2012) suggested that the range of incidence was between 12.06 and 61.6 per million in Asia. In comparison, the European incidence was between 10.4 and 29.7 per million, the incidence in North America ranged from 27.1 to 83 per million, and incidence of SCI in Asia was lower than that in North America.

Life satisfaction is a main issue in the reintegration of patients with SCI. Life satisfaction is usually defined as a quantifiable estimation of happiness or satisfaction with those aspects of life which are important to the specific person. Further, quality is seen as identical with satisfaction and life satisfaction is considered to represent an assessment of life as a whole based on how well special goals match with personal achievements (Budh & Osteraker, 2015).

Life satisfaction is a subjective and general estimation of physical, social and psychological aspects of the current life situation. As a social indicator life satisfaction is used as a measure of the outcome of medical interventions (Chen et al., 2013). Many different instruments or reports have been described for evaluating life satisfaction. Some instruments comprise one single item, for instance a visual analogue scale, while others are constructed as multi-item inventories, usually applying aggregated scores to characterize the level of life satisfaction as perceived by the respondent, but not necessarily mentioning satisfaction explicitly in the items. Such instruments indicate rather than clarify what the authors mean by life satisfaction (Lucke et al., 2014). The first aim of this study is to describe the course of life satisfaction in the period of 1 year after the rehabilitation process. The second aim of the study is to examine which type of SCI, physical or psychosocial characteristics are determinants of life satisfaction after the rehabilitation process, and which of these determinants are associated with changes in life satisfaction (Christel et al., 2012).

Social participation is considered to be one of the most important aims in the rehabilitation of individuals living with spinal cord injury (SCI), and evidence suggests that participation is important to physiological and psychological well-being in both disabled and able-bodied populations (Ostir et al., 2009).

Overall levels of satisfaction with life and psychological wellbeing have been found to be related to engagement and social participation by people with SCI living in the community. Therefore participation in society is of vital importance to rehabilitation outcomes (Christel et al., 2012).

1.2 Rationale

Nowadays Spinal Cord Injury is the most commonly occurring disabling condition in all developing and developed countries in the world. It is also increasing day by day for different reasons in Bangladesh. Injuries that affect the spinal cord and associated physical and psychological damage are important health problems in Bangladesh as they carry high morbidity and mortality rates.

Social support and life satisfaction are important components of quality of life and also important for rehabilitation. In Bangladesh there are only a very few research studies in this area among SCI people. This study will be helpful to measure the life satisfaction of people with SCI in their community.

This data shows that people with SCI have to fight with the rights of having access to the mainstream treatment facility across the country. The rehabilitation program will be unfulfilled without raising awareness among the family and community people about the ability of the person with SCI. Therefore, prevention, proper acute medical treatment and rehabilitation only can increase survival expectation of persons with SCI. Even though Bangladesh is a developing country, accidents are more prominent due to lack of structural development, poor medical facility and lack of awareness among the people about safety precautions during performing any risky job (Rathore et al., 2011).

Research makes a profession strongest. So there is no alternative option to do research as a professional to develop the profession. In our country there is no such study about the life satisfaction of the people with spinal cord injury in the community.

1.3 Research question

What is the level of life satisfaction among the people with spinal cord injury at community after completing rehabilitation services from CRP?

1.4 Aim of the study

The aim of the study was to find out the level of life satisfaction among the people with spinal cord injury after returning to the community.

1.5 Objectives

1.5.1 General objective

To describe the level of life satisfaction among the people with spinal cord injury after returning to the community.

1.5.2 Specific objectives

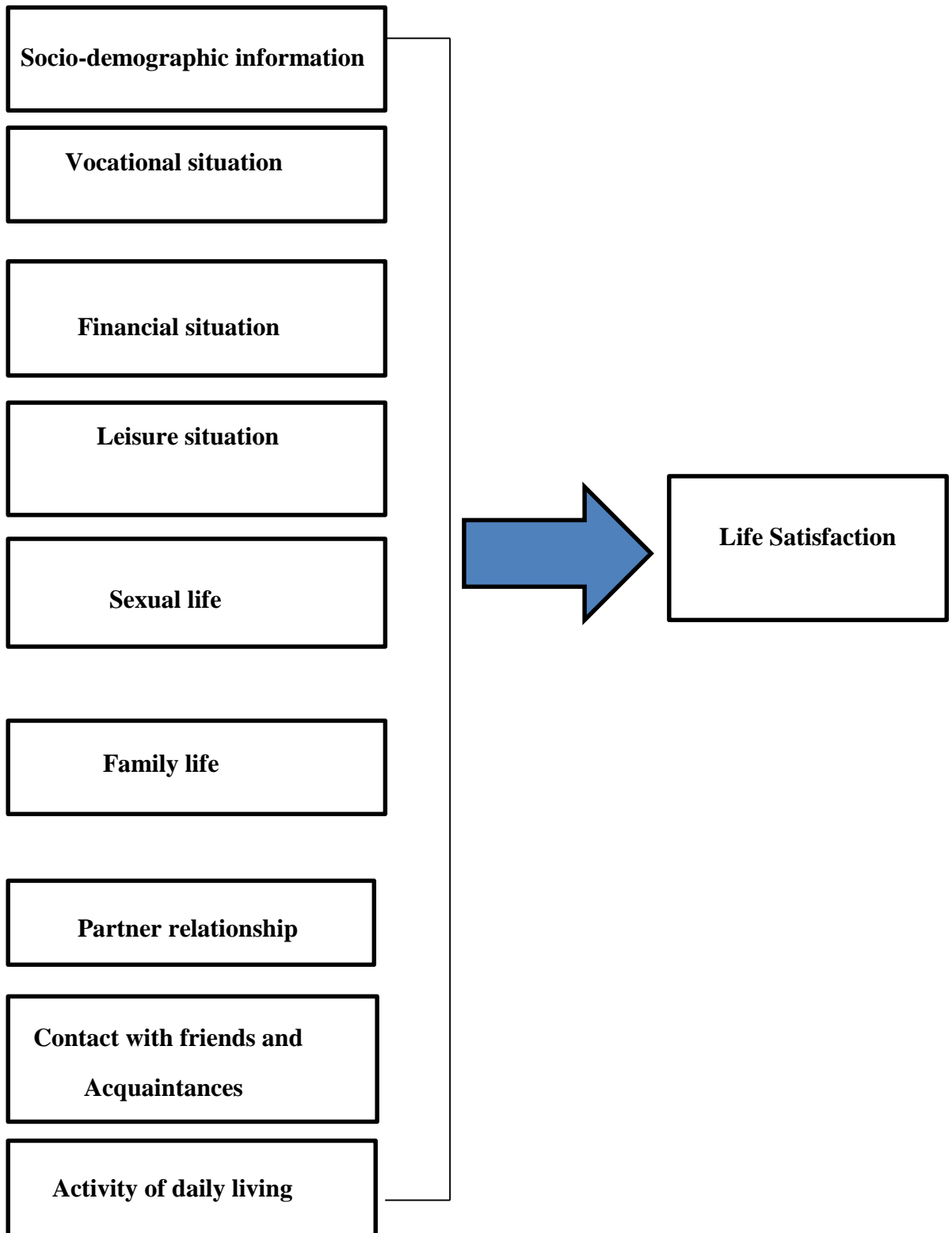
- To gather the socio-demographic information (Age, Sex, Occupation, Marital status etc.)
- To describe the vocational situation.
- To find out the financial situation.
- To identify the leisure situation.
- To know about the contact with friends and acquaintances.
- To determine about the sexual life.
- To find out the ability to manage self-care (dressing, hygiene, transfers etc.)To describe the family life.
- To explain the partner relationship

1.6 List of Variables

Conceptual Framework

Independent variables

Dependent variable



1.6 Operational definition

Spinal Cord Injury

Spinal cord injury (SCI) is an injury to the spinal cord resulting in a change, either temporary or permanent, in the cord's normal motor, sensory, or autonomic functions. Patients with spinal cord injury usually have permanent and often disturbing neurologic deficits and disabilities.

Life Satisfaction

Life satisfaction is defined as a perception of being happy with one's own life and a belief that one's life is on the right track.

Community

A common definition of community is, a group of people with various characteristics who are linked by social bonds, share common perspectives, and or involved in joint actions in geographical locations or settings.

A Spinal cord injury is damage to any part of the spinal cord or nerves at the end of the spinal canal. This frequently causes permanent changes in strength, sensation and other body functions below the site of the injury (Mayo et al 2015). This injury is a medical emergency. Immediate treatment can reduce long-term effects. Treatments may include medicines, braces or traction to stabilize the spine, and surgery. Later treatment usually includes medicines and rehabilitation therapy. Mobility aids and assistive devices may help people with SCI to get around and do some daily tasks. (Mehlsen et al 2013).

Spinal Cord Injury (SCI) has a devastating impact on quality of life as it contributes to a high level of long-term disability, morbidity and mortality, and imposes an economic burden on communities. It is one of the major causes of locomotor disabilities, both in developing and developed countries (Razzak et al., 2011).

The incidence of Traumatic Spinal Cord Injury (TSCI) a recent review reported the worldwide varied between 4-10 and 83 per million per year. About 15–17 cases per million per year over the past decade the age-adjusted incidence rate of TSCI in adults aged 15 years has remained at and older surviving to reach hospital. In currently 11.9 cases per million adults per year is the incidence in Victoria in Australia (Sundararajan et al 2014).

The acute phase ranges from 10 to 25/million inhabitants per year which data is recently published in Europe on the incidence of SCI in survivors. Showing consistent rates between 22 and 25/100 000 inhabitants, in the Nordic countries, two register-based studies have been published (Dahlberg et al., 2015). The retrospective study of Japan showed that the annual incidence of spinal column injuries ranges from 19-88/100,000. 15-50 per million per year is the incidence of spinal cord injury. 480-813 per million is the prevalence of Spinal Cord Injury. In Pakistan exact incidence of these injuries in this region is not known though there are few reports on demographics of spinal injuries (Qureshi et al., 2010).

Patients who have been suffering from spinal cord injury often face life threatening complications so they need appropriate management and specialized rehabilitation. Patients with Spinal Cord Injury often go into different hospitals for the treatment, but these do not always have enough facilities for their treatment. In Bangladesh there is only one non-government organization for the treatment of Spinal Cord Injury. This is the Centre for the Rehabilitation of the Paralyzed. For the last 32 years this centre has conducting a rehabilitation program through which the patients can improve their life style (Islam et al., 2011).

Centre for the Rehabilitation of the Paralyzed (CRP) manages the patients with multi and inters disciplinary approaches which emphasises the development of community based rehabilitation programs. There are sufficient staff that work there and they are supported by short term volunteers from home to abroad (Hoque et al., 2015). This study will help to further enhance our knowledge about Spinal Cord Injury in Bangladesh, and help to develop effective programs and policies. In developing countries, the lack of advanced care in Intensive Care Units (ICU), and accurate and long term management and rehabilitation of Spinal Cord Injury patients, leads to a low survival rate and life expectancy. The holistic treatments for Spinal Cord Injury patients at CRP lead to better survival rates (Islam et al., 2011).

Life satisfaction is the way a person evaluates his or her life and how he or she feels about where it is going in the future. It is a measure of well-being and may be assessed in terms of mood, satisfaction with relations with others and with achieved goals, self-concepts, and self-perceived ability to cope with daily life (Mehlsen et al, 2013).

These people were very satisfied with their life up until the point they were surveyed but knew that the end was near and so were not quite as hopeful for the future. A large factor that was talked about in life satisfaction was intelligence. The experiments talk of how life satisfaction grows as people become older because they become wiser and more knowledgeable, so they begin to see that life will be better as they grow older and understand the important things in life more (Platz et al 2013).

Quality of Life (QoL) has been used as synonymous with 'health status, physical functioning as well as well-being and, often some of these or altogether at a time. QoL also described as a global subjective assessment of well-being that is hierarchically comprised of subjective perceptions in broad spectrum. So Quality of life/life satisfaction is a subjective and general estimation of physical, social and psychological components of the current life situation (Budh et al., 2015).

Pain, depression and anxiety are closely observed and there is increasing in the evidence that psychological disorders such as depression and anxiety often correlated with satisfaction. Another study indicates that a higher proportion of individuals with Spinal Cord Injury are depressed and anxious in comparison with normal persons of a similar background. Depression, anxiety and pain affect physical, psychological and social functioning (Kennedy and Rogers et al 2016).

To improve life satisfaction and outcome, it is important to identify the people who are at risk during early stages of community rehabilitation. However, though previous research suggesting coping strategies to be involved in adjustment to Spinal Cord Injury, quality of life and social participation (Fugl-Meyer et al., 2012). They have little explanation like why one coping strategy may be used in favour of another and there is also disagreement within the literature as the relationship between coping strategies and psychological functioning within the Spinal Cord Injury population, and it also suggested that the use of general coping strategies in research may be inappropriate in case of Spinal Cord Injury populations (Melin et al., 2009).

The determinants of LS in urban China include age, unemployment, income, marriage, and sex (Appleton & Song, 2011). In Jamaica, LS was predicted by age, marital status, and employment (Mehlsen et al., 2013). In Australia, multiple regression analyses showed that gender, age, marital status, employment, education, and owning or purchasing home as the predictors of LS (Dear et al., 2012).

LS has a significant linear decline with age; nonetheless, regression analyses, controlling for numerous demographic and medical characteristics, indicate that the amount of unique variance that can be specifically attributed to age is relatively small (Putzke et al., 2012). In China as well, a very weak association was reported between the LS score and age (Ho et al., 2015). On the other hand United States of America showed that, the years from 30 to 39 were most frequently chosen as the most satisfying decade, followed by the adjoining decades (Mehlsen et al., 2013).

Female participants reported that a better LS than male participants, which does not chime in with the findings of some studies reporting equal LS between the two genders (Fugl-Meyer et al., 2012). Another report showed that, on the general population in Jamaica, where LS was higher in male than women (Mehlsen et al., 2013).

Employment was a significant variable associated with higher rates of LS among the participants in the present study. In France, a qualitative study showed that life satisfaction was composed of proximity to the optimal personal employment level. This finding was common to the young and elderly participants and largely independent of education level (Huebner et al 2014).

In one study, participants did not link education level to their perception of satisfaction with life. On the contrary, in case of Swedish population, education was a predictor of LS (Melin et al., 2013). Similarly, in China and Australia, the tertiary education and education in general were positively correlated with LS (Dear et al., 2012).

Participants were most satisfied with their family life, contact with friends and acquaintances and relationship with their partners. In total, 70% of participants were dissatisfied with their sexual lives (Kennedy et al., 2016).

3.1 Study design

Quantitative research model was used in the form of cross-sectional study design. Descriptive study design is chosen because the aims of the study are to know “Life satisfaction of the peoples with spinal cord injury in the community”. According to Lude (2016) Cross-sectional study is analysis the present situation and carried out at one time point or over a short period. Data can also be collected on individual characteristics including exposure to risk factors, along with information about the outcome. In this way cross sectional studies provide a snapshot of the outcome and characteristics associated with it, at a specific point in time. Usually there is no hypothesis as such, but the aim is to describe a population or a subgroup within the population with respect to an outcome and set risk factors .Cross-sectional studies are sometimes carried out to investigate associations between risk factors and the outcome of interest. They are limited, however, by the fact that they are carried out at one time point and give no indication of the sequence of events whether exposure occurred before, after or during the onset of the disease outcome.

3.2 Study area

People who currently lived in community nearby Savar, Manikganj, Dhamrai.

3.3 Study population

The target population was the people with Spinal Cord Injury who had already completed Rehabilitation from the Centre for the Rehabilitation of the Paralysed or CRP and return to the community.

3.4 Sample size

The study population was the persons with Spinal Cord Injury who has completed the rehabilitation process from Centre for the Rehabilitation of the paralyzed (CRP). Researcher was selected 52 persons conveniently to conduct this study. Here researcher used the formulation of sample size determination: $(n) = z^2.pq/r^2$. The researcher used 95% confidence interval for this study. So the confidence interval $(z) = 1.96$. The researcher used 5% sampling error for this study. So sampling error is $(r) = 0.05$. Researcher does not know the total number of persons with Spinal Cord Injury in the Bangladesh. So the prevalence of Spinal Cord Injury is $(p) = 0.5$ & $(q) = 0.5$. So the total sample was required 384. But researcher was selected 52 numbers of persons (male & female) with Spinal Cord Injury who are receiving treatment from Center for the Rehabilitation of the Paralyzed conveniently to conduct this study due to limited time for this study. The participants were selected based on inclusion criteria & exclusion criteria.

3.5 Sampling procedure

This study was used non-probability sampling throughout the process of participant selection. The convenience sampling method was used in this study. Convenient sampling is a process in which a sample is draw from the subjects conveniently available. The procedure was including all of people with spinal cord injury actually who met the inclusion and exclusion criteria.

3.6 Inclusion criteria

- Persons with spinal cord injury.
- Living in the community.
- Age range 15 to 60 years. (Marcell et al., 2015)
- Both male and female are included.
- Discharge from Centre for the Rehabilitation of the Paralyzed and return to the community.

3.7 Exclusion criteria

- Patient who didn't take rehabilitation.
- Undiagnosed injury.
- Spinal cord injury patient with psychological problem.
- A progressive disease.
- Loss of vision or hearing.

3.8 Data collection

3.8.1 Data collection tools

Socio demographic profile sheet: This questionnaire was developed by researcher included items related to personnel characteristic for collect socio-demographic details of the persons such as name, age, gender, marital status, education, occupation, duration of illness etc.

The Life Satisfaction Questionnaire-9 (Lisat-9): In this study, the Life Satisfaction instrument was LiSat-9. LiSat-9 has used in the population at large (Fugle-Meyer et al., 2012). LiSat-9 is a self-rating life satisfaction instrument consisting of the global item 'life as a whole' and the eight domain-specific items vocational situation, financial situation, leisure situation, contacts with friends, sexual life, activities of daily living (ADL), family life and partnership relationship. These nine different variables are rated on an ordinal scale from 1 to 6 where 1 represents 'very dissatisfying' and 6 'very satisfying'. The instrument is not recommended for use as a sum-score instrument.

Paper, pen, pencil, eraser, sharpener, writing board, information sheet and consent form.

3.8.2 Procedure of data collection

The study has been conducted face to face interview about the level of life satisfaction through a structured questionnaire (LiSAT-9) to collect data from the participants. Face to face interview were needed to develop understanding with the participants for collect accurate data. Firstly, permission was taken from the Head of the Physiotherapy Department to collect data. Then a date and time was fixed with the participant, according to his available time. The study aim and study procedures were explained to participants before collecting data. The participant was given information sheets and consent forms that were explained previously. Participant had opportunity to ask question and they signed the consent form after being satisfied. After completing the questionnaire the participants have signed in the consent form with regards to demographic data. After that, collected demographic information from the participant was completed and the “LiSAT-9” questionnaire also completed through face to face interview in a silent place rather than work place.

3.9 Data analysis

By using descriptive statistic method, data was analyzed through data entry and analysis performed using the Statistical Package for Social Science (SPSS), Inc. version 16, and Microsoft excel spreadsheet, at a descriptive level. Lisat-9 questionnaire and Demographic questionnaire was analyzed. Demographic factors were discussed such as sex, age, occupation, marital status and duration of injury. The Statistical Package for Social Sciences (SPSS) was used to calculate all statistical data.

3.10 Ethical consideration

Researcher was followed the Bangladesh Medical Research Council (BMRC) & World Health Organization (WHO) research guide line. This protocol was submitted to the Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI) and permission was obtained from the board. Confidentiality was maintained for data collection from the individuals.

The ethical consideration was obtained through an informed consent form was provided to the participant which was described detail regarding the research purpose & a clear description of the study the procedure involves in the study and also informing them that if they wish they can withdraw themselves any time from the study. Participant were explained about their role in the study and it was explained that there is no direct benefit from the study but in future, cases like them may will be benefited from it. Participants were also advised that they are free to decline answering any questions during interview. The necessary information had been kept secure place to also ensure confidentiality. They were also assured that it would not cause any harm. Then they signed in the consent form & consent was obtained from each participant.

3.10.1 Informed consent

Written consent (appendix) was given to all participants prior to completion of the questionnaire. The researcher explained to the participants about his or her role in this study and aim and objective of this study. The researcher received a written consent from every participants including signature. So the participant assured that they could understand about the consent from and their participation was on voluntary basic. The participants were informed clearly that their information would be kept confidential. The researcher assured the participants that the study would not be harmful to them. It was explained that there might not a direct benefit from the study for the participants but in the future cases like them might be get benefit from it. The participants had the rights to withdraw consent and discontinue participation at any time without prejudice to present or future care at the spinal cord injury (SCI) unit of CRP. Information from this study was anonymously coded to ensure confidentiality and was not personally identified in any publication containing the result of this study.

4. Sociodemographic level

For this study 52 persons were taken as a sample from Savar, Manikganj, Dhamrai upazilla those who completed rehabilitation services at Center for the Rehabilitation of the Paralysed (CRP). In this study the results which were found have been showed in different bar diagrams, figures and tables.

4.1 Age Group

Among the respondent participants who were spinal cord injury, the lowest age was 15-20 years and highest age was more than 60 years. The frequencies of SCI among the different age group were: less than 15-20 years were 50% (n=6); 30 and more than 60 years were 3.8% (n=2). According to data view, the investigator could say that the frequency of SCI among the participants varied in the age groups (Figure no 1)

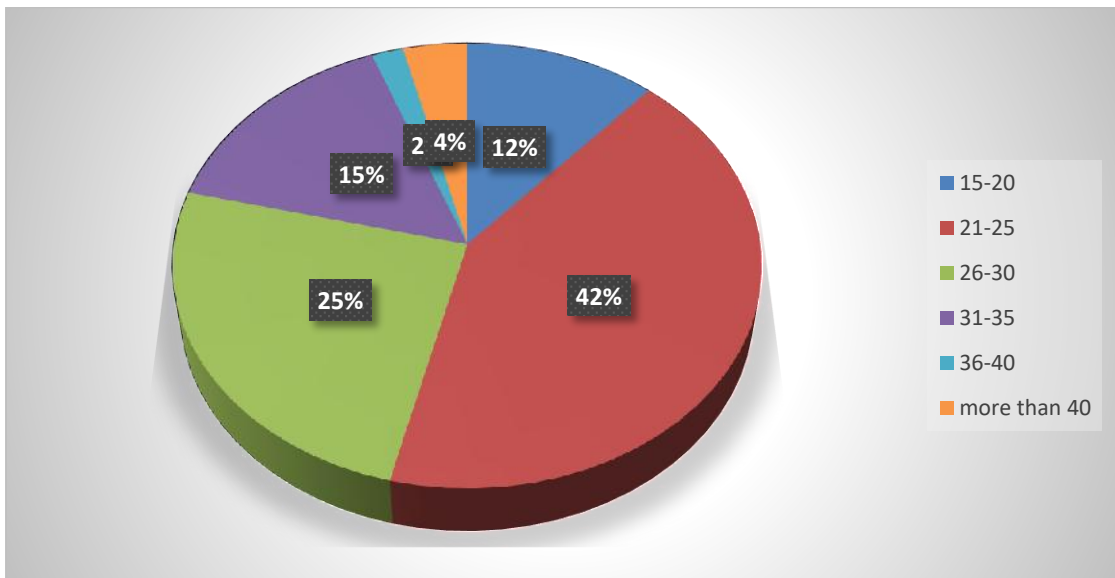


Figure no 1: Age of the participants

4.2 Male & Female ratio

In this study total 52 participants among them 69.2% (n=36) were male and 30.8% (n=16) were female. According to data view, the investigator could say that the frequency of male gender among the participants was highest than female gender. (Figure no 2).

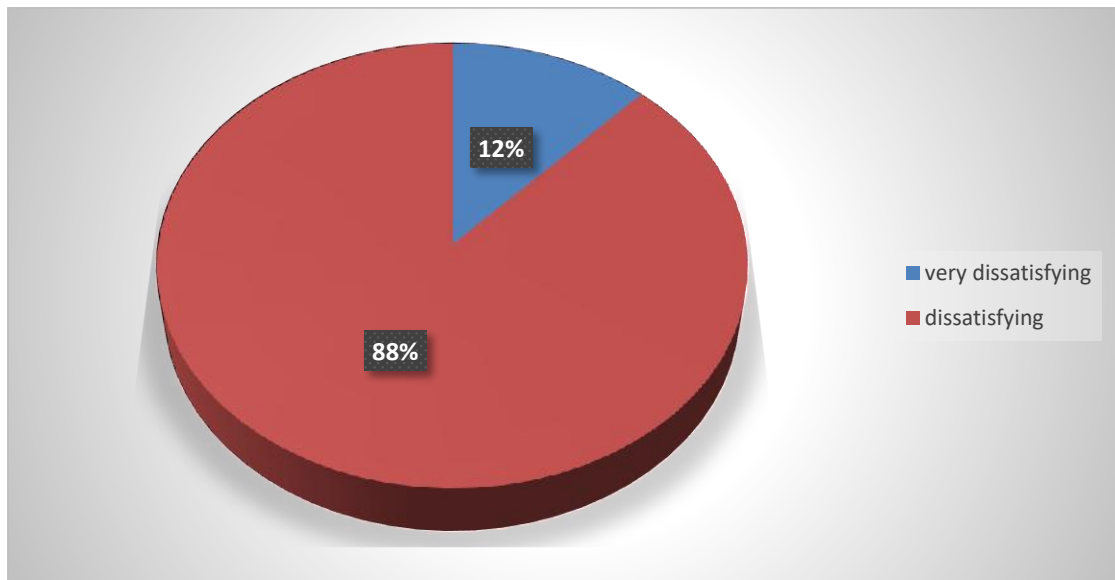


Figure no 2: Male-Female ratio of the participants

4.3 Residential area

In this study total 52 participants among them 48.1% (n=25) were living in the rural area and 51.9% (n=27) were living in the urban area. According to data view, the investigator could say that the frequency of residential area among the participants was highest in rural area than urban area (Figure no 3).

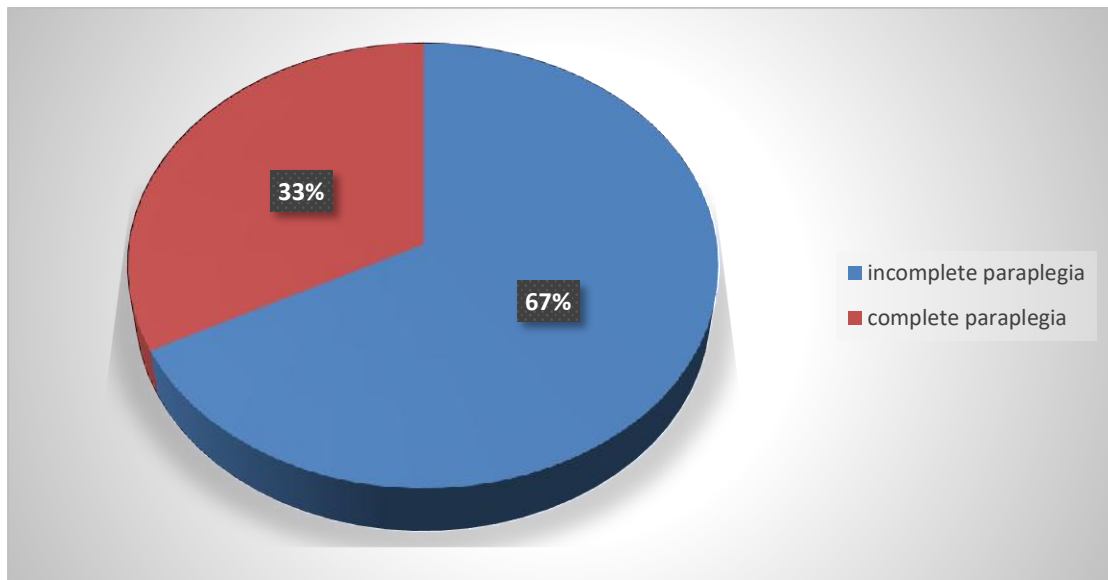


Fig no 3: Residential area of the participants

4.4 Education

Among the 52 participants 3.8% (n=2) participants were illiterate, 26.9% (n=14) participants primary passed, 30.8% (n=16) participants were S.S.C passed, 26.9% (n=14) participants completed H.S.C level, 9.6% (n=5) were undergraduate and 1.9% (n=1) participant was master and above graduated. (Figure no 4)

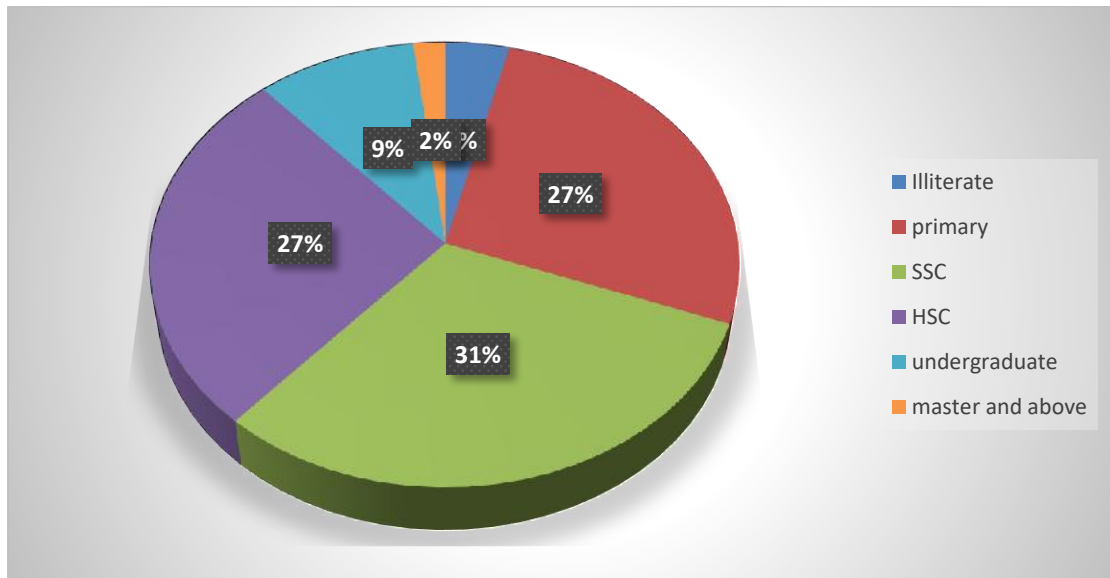


Figure no 4: Educational level of the participants

4.5 Occupation

The study was conducted on 52 participants of SCI patients. Among them 50% (n=26) were unemployed, 7.7% (n=4) were student, 19.2% (n=10) were employed, 9.6% (n=5) were businessman and 11.5% (n=6) were housewife and others were 1.9% (n=1) (figure no 5)

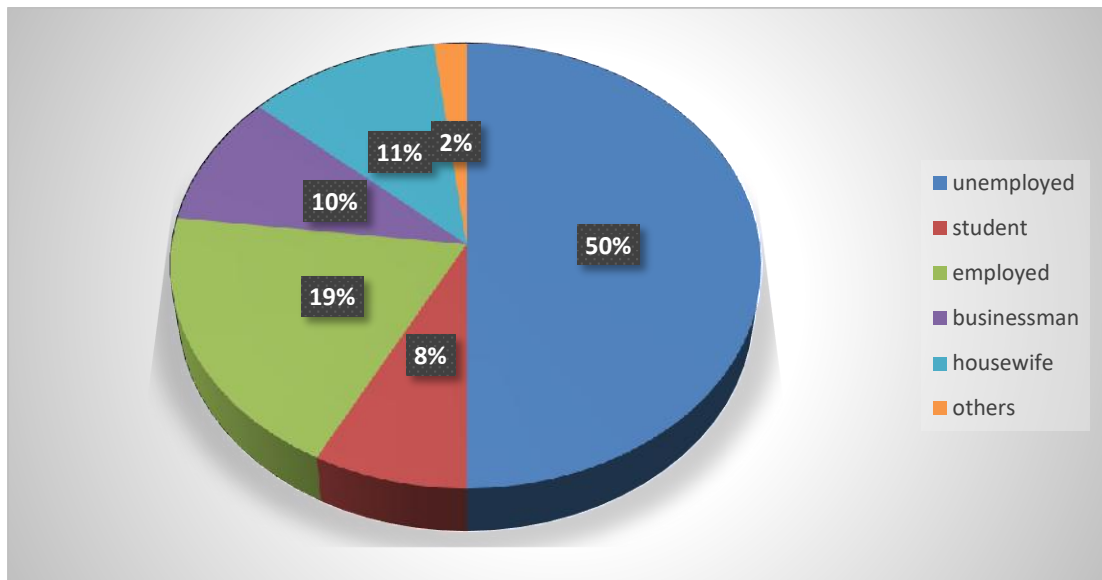


Figure no 5: Occupation of the participants

4.6 Marital status

Among the 52 participants researcher found married person 42.3% (n=22), unmarried 55.8% (29), divorced person 1.9% (n=1). Most frequent status in unmarried that was higher than married and divorced. Most frequent vulnerable group was unmarried person (Figure no 6).

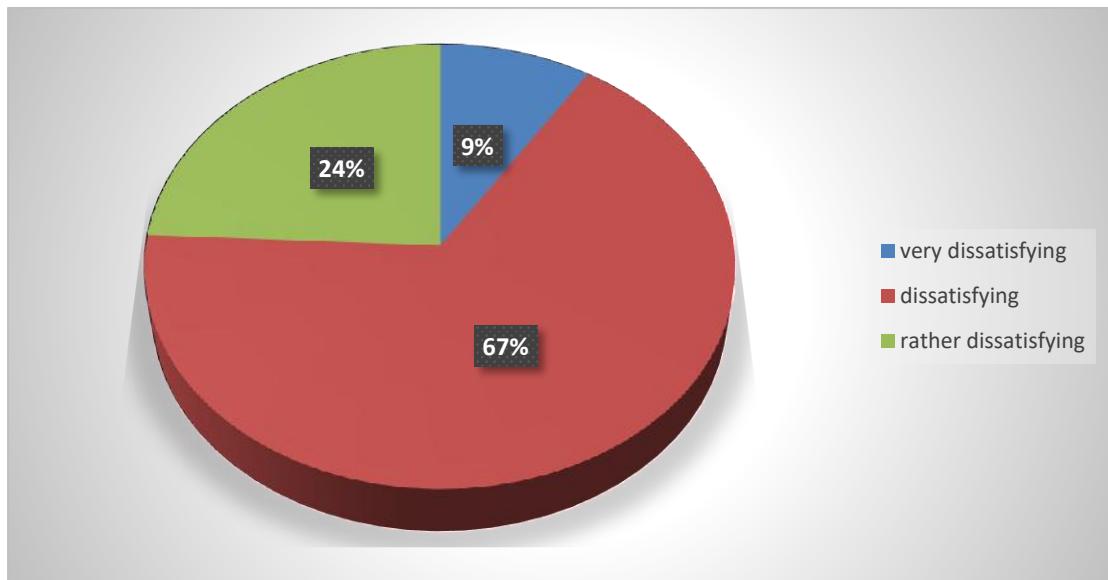


Figure no 6: Marital status of the participants

4.7 Religion

In this study researcher found 84.6% (n=44) Muslim and 8% (n=8) Hindu persons (Figure no 7).

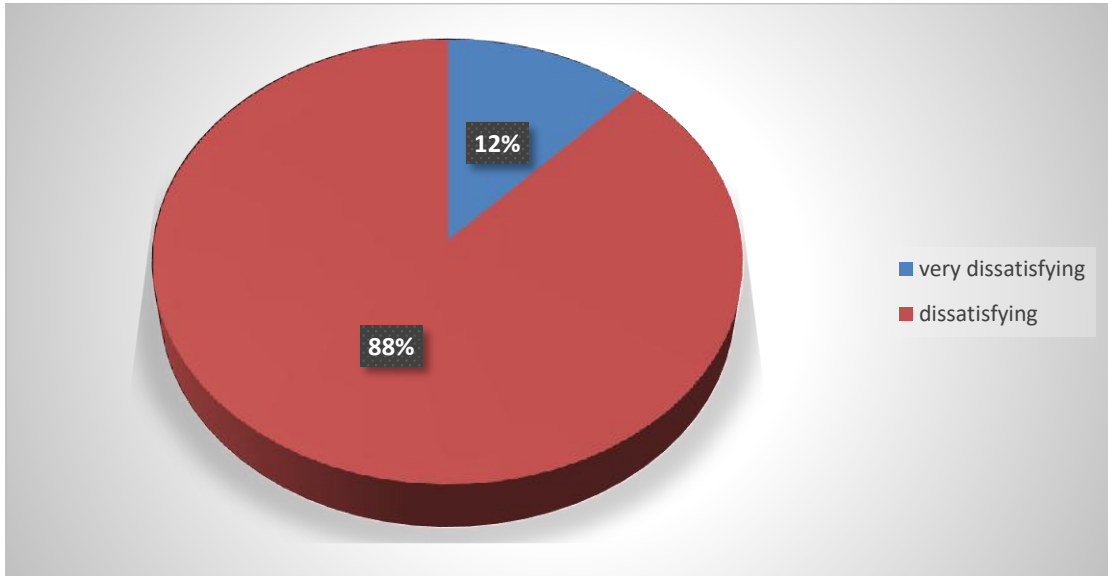


Figure no 7: Religion of the participants

4.8 Family type

Among the 52 participants researcher found 17.3% (n=9) participants came from nuclear family, 30.8% (n=16) came from Small family and 51.9% (n=27) came from extended family (Figure no 8).

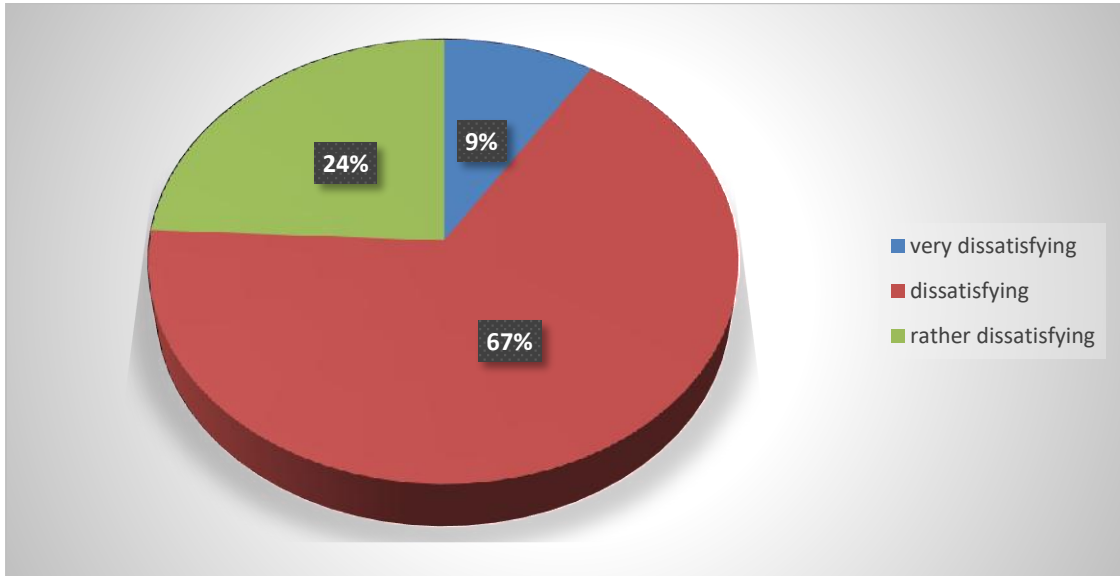


Figure no 8: Type of family of participants

4.9 Monthly income

The researcher found average family income of the participants was 1000-5000 taka 15.4% (n=8), 6000-10000 taka in 48.1% (n=25), 11000-15000 taka in 23.1% (n=12), 16000-20000 taka in 7.7% (n=4) and more than 20000 taka in 5.8% (n=3) (Figure no 9).

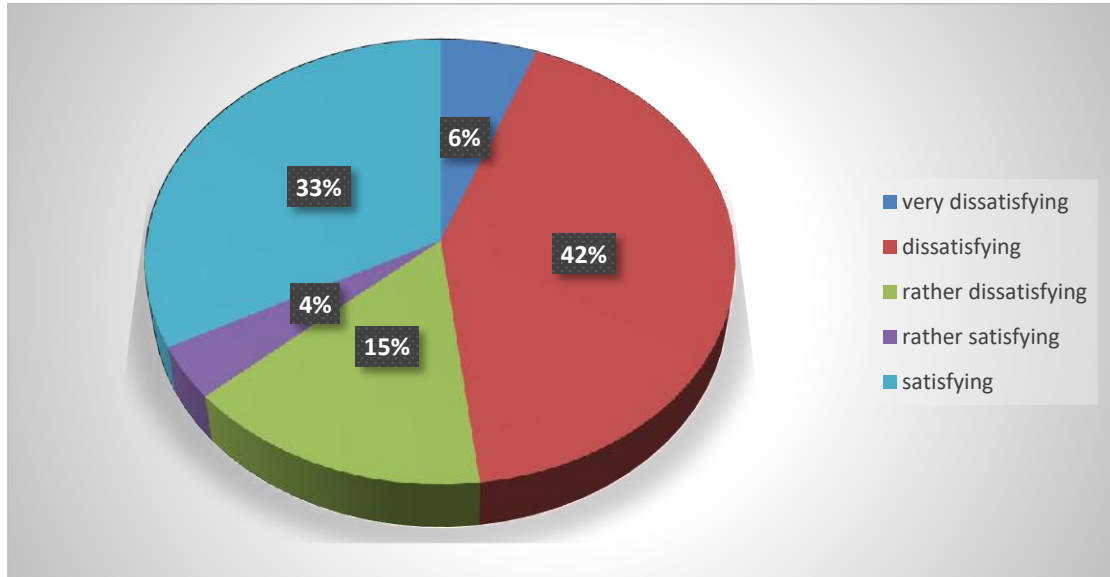


Figure no 9: Monthly family income of the participants

4.10 Type of injury

Among the participants incomplete paraplegia patients were n=33 (63.5%), complete paraplegia patient were n=16 (30.8%) (Figure no 10)

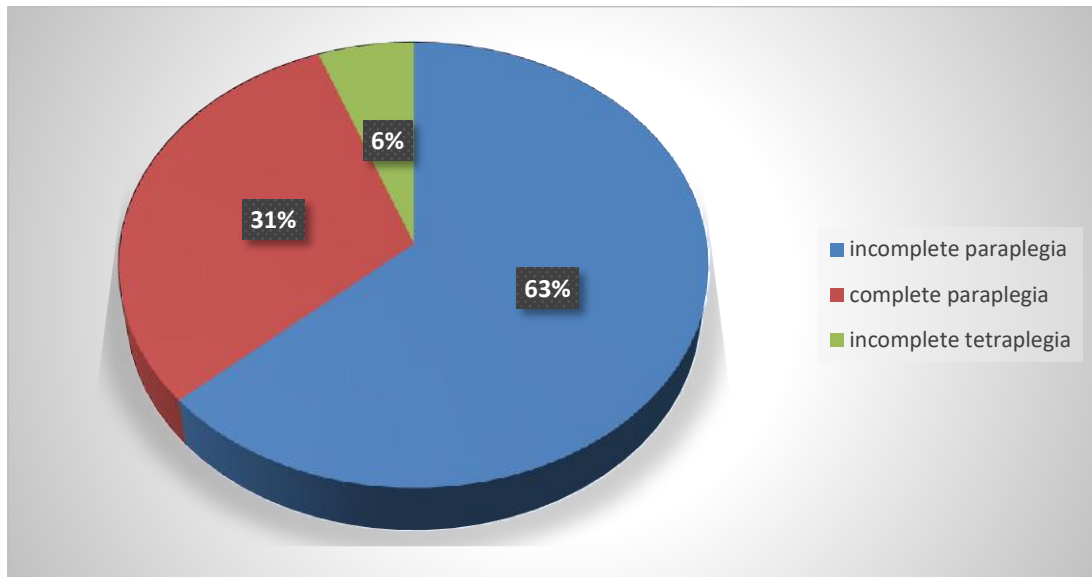


Figure no 10: Type of injury of the participants

4.11 Causes of injury

In this study researcher found the major cause of Spinal Cord Injury was traumatic n=42 (82%) and non-traumatic cause of injury was n=9 (18%) (Figure no 11)

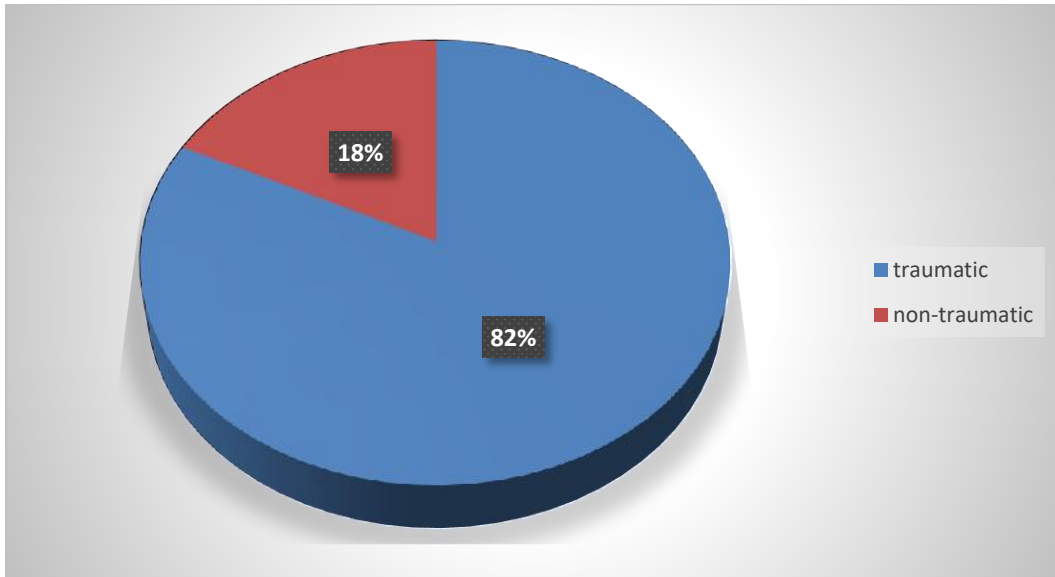


Figure no 11: Causes of injury

4.12 Duration of injury

Among the 52 participants duration of injury were n=29 (57.7%) in 1-5 years and n=23 (42.3%) were in 6-10 years (Figure no 12)

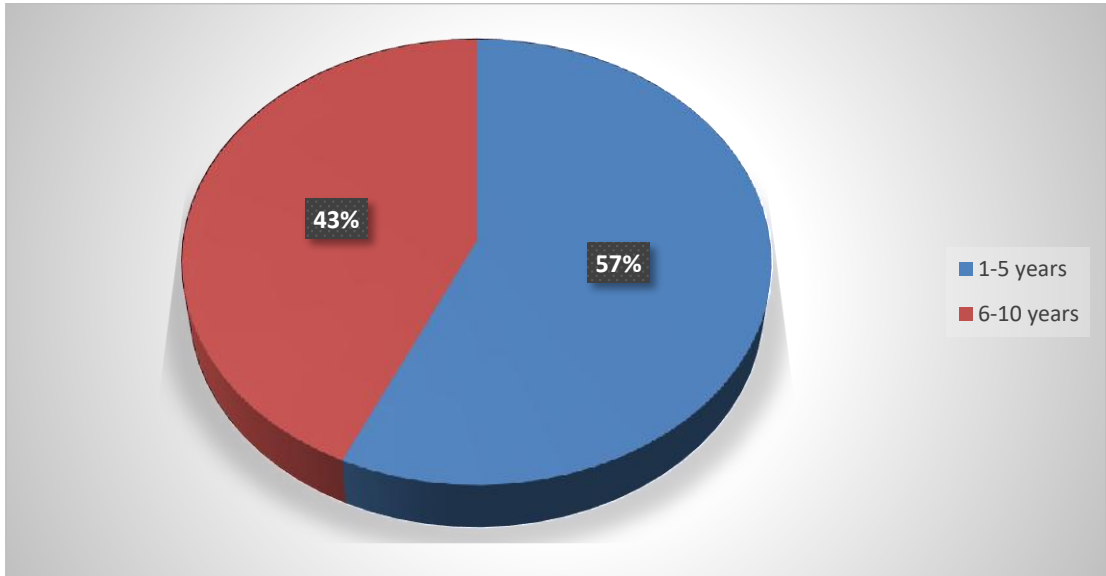


Figure no 12: Duration of injury of the participants

4.13 Life as a whole

As a whole, the satisfactory percentage to the life of people with SCI among the 52 participants, about 9.6% (n=5) participants had very dissatisfying, whereas 15.4% (n=8) had rather dissatisfying, 30.8% (n=16) participants had Rather Satisfying, 19.2% (n=10) had Satisfying and 1.9% (n=1) at an average had Very Satisfying has been found (Figure no 13).

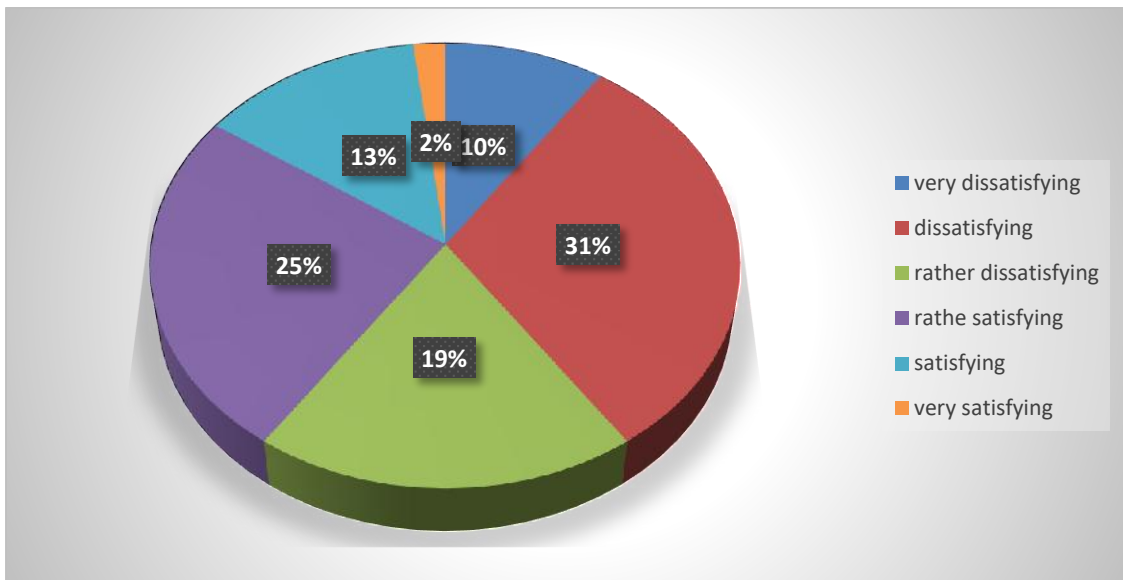


Figure no 13: Participants life as a whole

4.14 Vocational situation among participants

Vocational situations, a relatively occupational term closely related to the life of people with SCI. In this study it has been found that about 13.5% (n=7) participants had dissatisfying, whereas 9.6% (n=5) had rather dissatisfying, 11.5% (n=6) participants had Rather Satisfying, 53.8% (n=28) had Satisfying and 5.8% (n=3) at an average had Very Satisfying (Figure no 14)

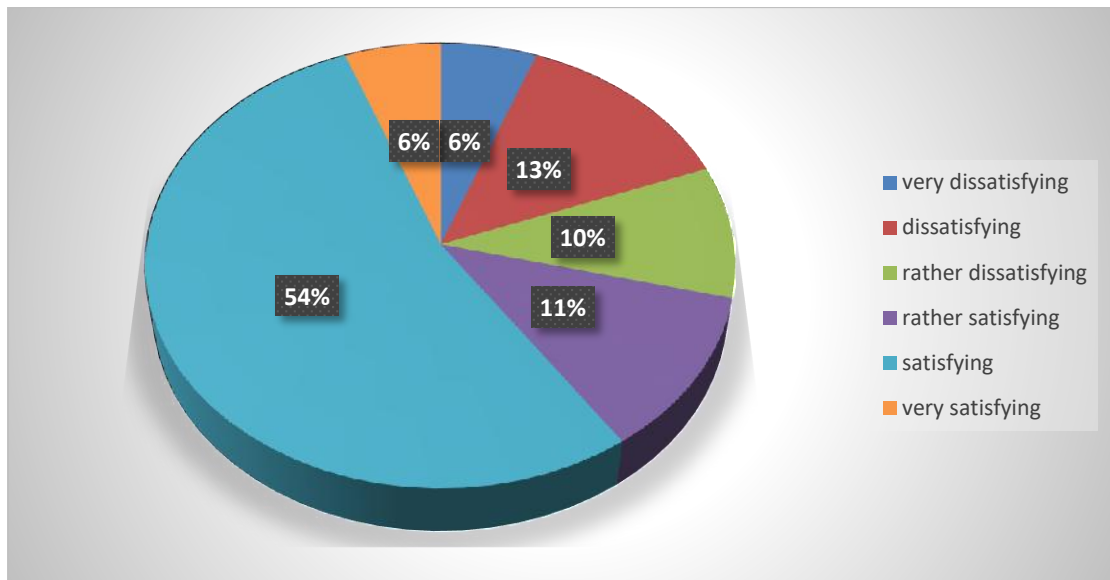


Figure no 14: Vocational situation among participants

4.15 Financial situation

Financial situation is a very important component and strongly associated to the satisfaction of life which varies in accordance with this study at a range where 21.2% (n=11) participants had very dissatisfying, 23.1% (n=12) had dissatisfying, 19.2% (n=10) had rather dissatisfying, 15.4% (n=8) had rather satisfying, 19.2% (n=10) had satisfying and 1.9% (n=1) had very satisfying (Figure no 15)

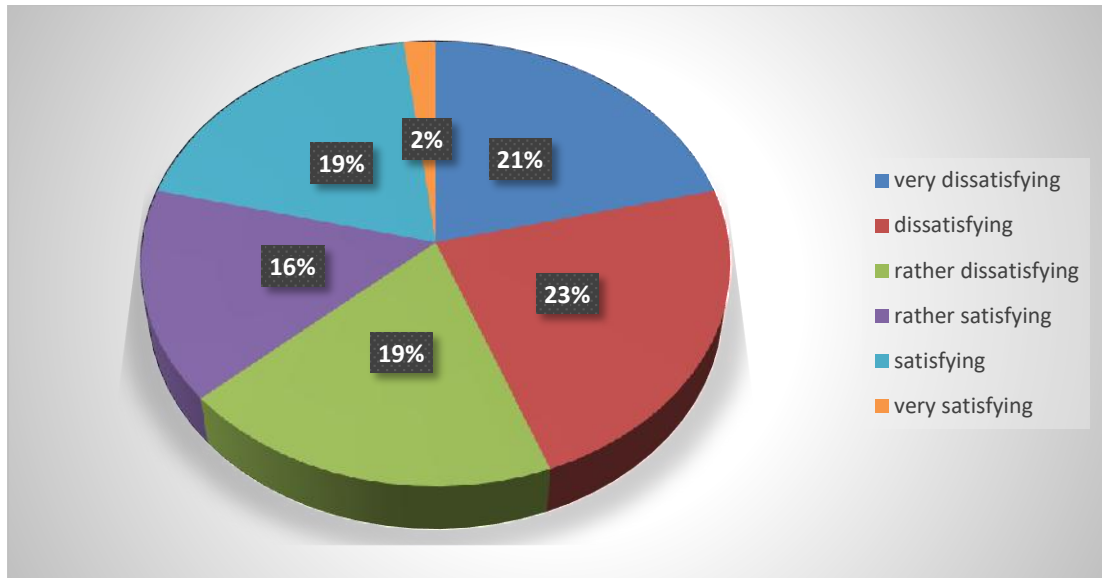


Figure no 15: Financial situation of the participants

4.16 Leisure situation

Among the 52 participants with SCI about 3.8% (n=2) participants had very dissatisfying, 36.5% (n=19) had dissatisfying, 6% (n=4) had Rather dissatisfying, 21% (n=8) had rather satisfying, 33% (n=18) had satisfying and 4% (n=1) had very satisfying perceptions to their leisure situation (Figure no16).

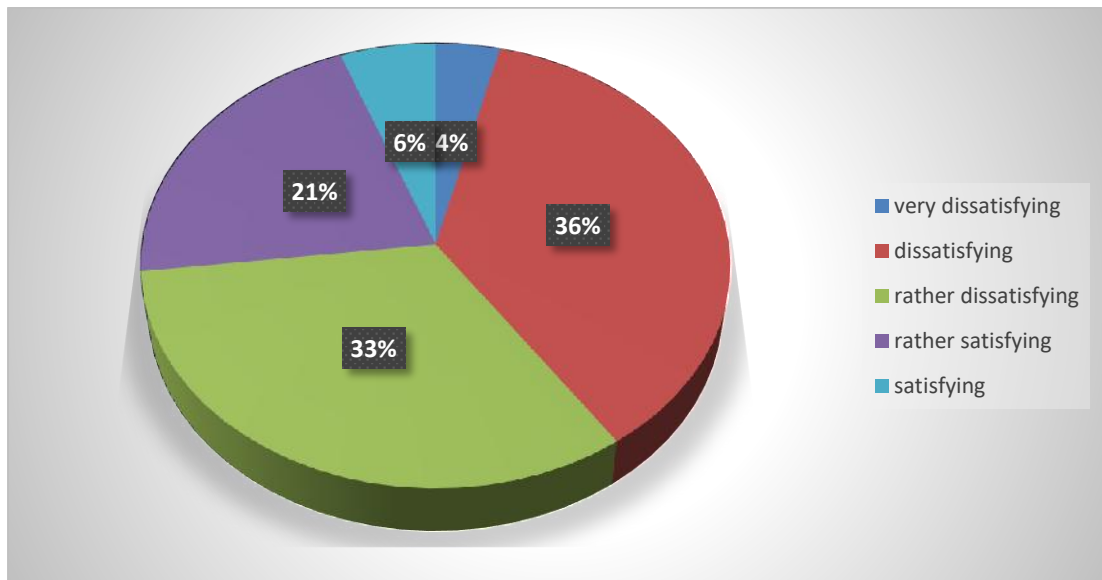


Figure no16: Leisure situation of the participants

4.17 Contact with friends

In this study it has been found that about 21.2% (n=11) participants had dissatisfying, 1.9% (n=1) had Rather dissatisfying, 21.2% (n=11) had rather satisfying, 11% (n=11) had satisfying and 3.8% (n=2) had very satisfying perceptions in contact with friends and acquaintances. (Figure no 17)

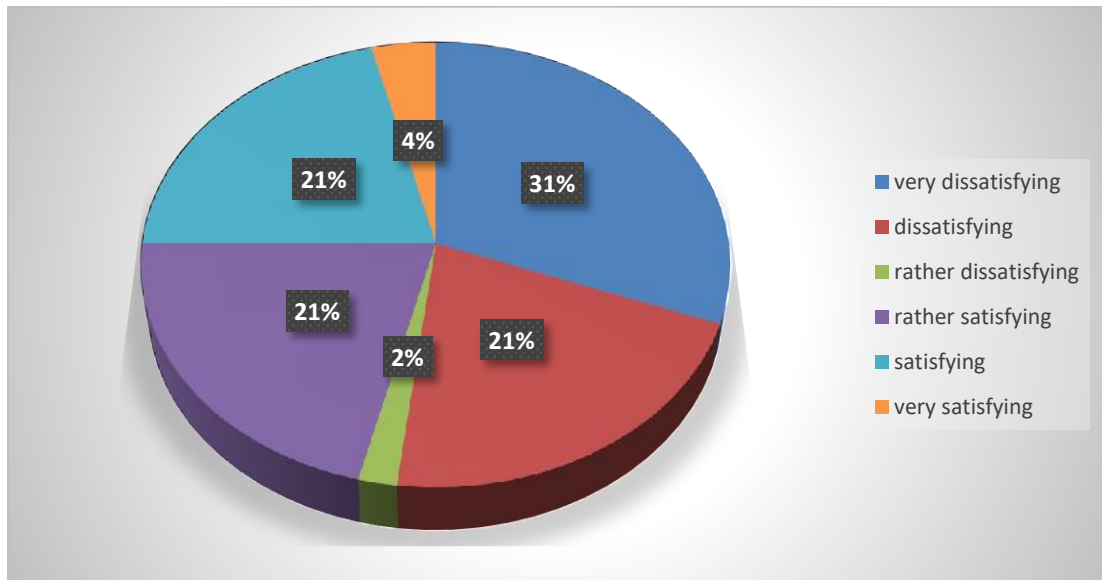


Figure no 17: Contact with friends of the participants

4.18 Sexual life

Among the 52 participants with SCI about 17.3% (n=9) participants had very dissatisfying, 38.5% (n=20) had dissatisfying, 9.6% (n=5) had rather satisfying, 25% (n=13) had satisfying in their sexual life. (Figure no 18)

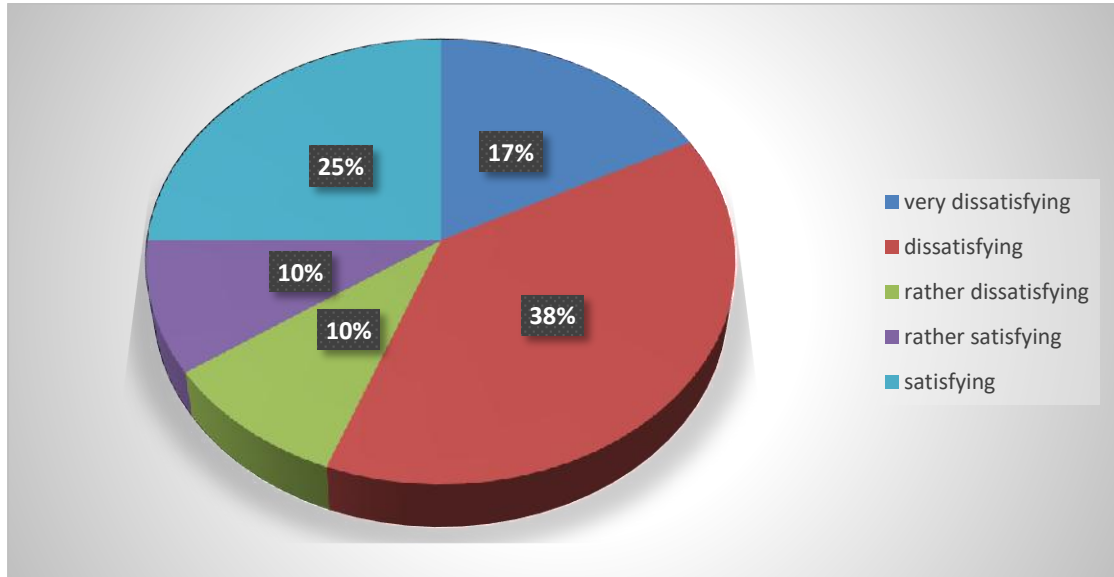


Figure no 18: Sexual life of the participants

4.19 Ability to self-care

In this study it has been found that about 15.4% (n=8) had rather dissatisfying, 15% (n=18) had rather satisfying, 73% (n=22) had satisfying in ability to self-care. (Figure no 19)

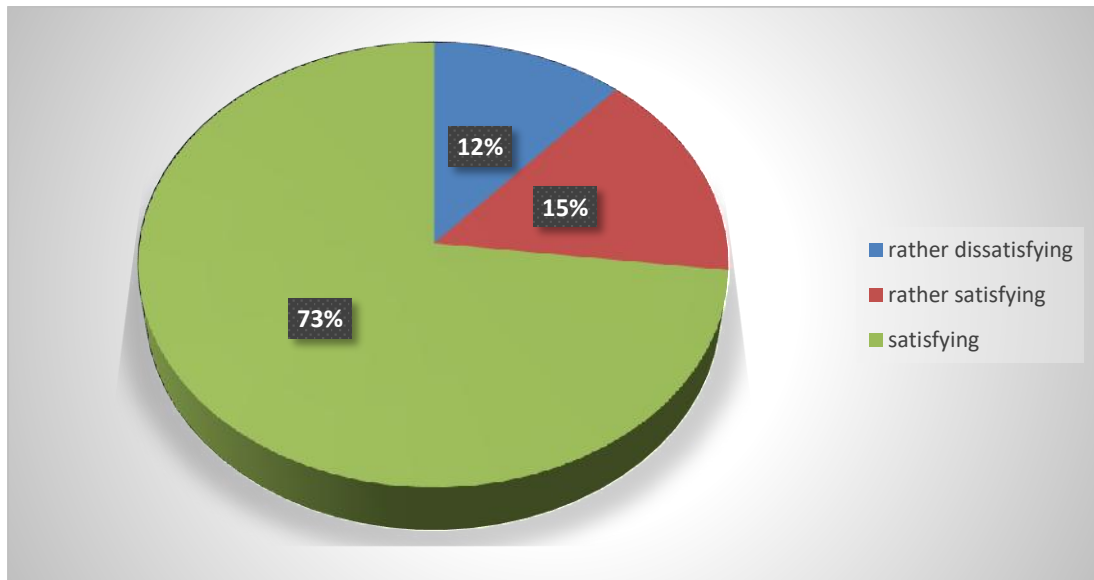


Figure no 19: Ability to self-care of the participants

4.20 Family life

Among the 52 participants with SCI about 3.8% (n=2) participants had very dissatisfying, 9.6% (n=5) had rather dissatisfying, 53.8% (n=28) had satisfying, 3.8% (n=2) had very satisfying perceptions in their family life (Figure no 20)

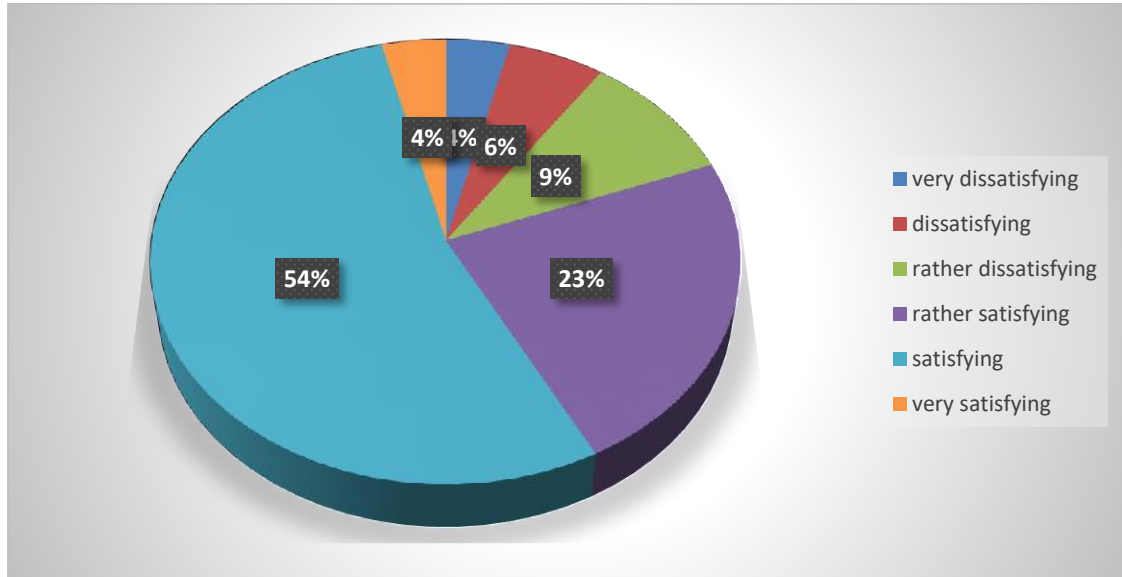


Figure no 20: Family life of the participants

4.21 Partner relationship

Among the 52 participants with SCI about 5.8% (n=3) participants had very dissatisfying, 42.3% (n=22) had dissatisfying, 15.4% (n=8) had Rather dissatisfying, 3.8% (n=2) had rather satisfying, 32.7% (n=17) had satisfying perceptions to their Partner relationship (Figure no 21).

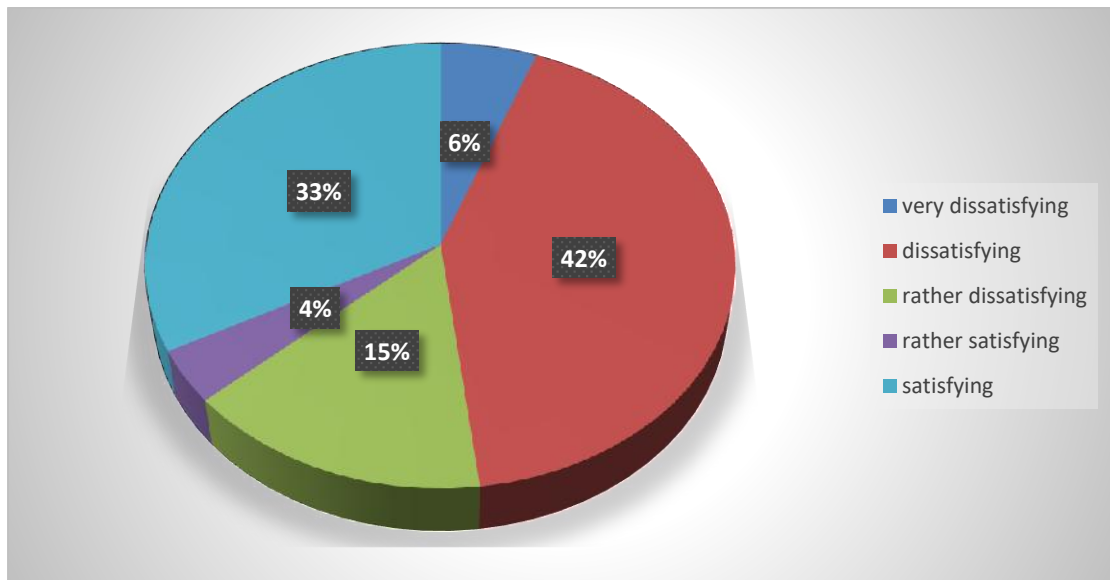


Figure no 21: Participants partner relationship

Calculation of Chi-Square

Chi square (χ^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;

(Observed count – Expected count) ²/Expected count

$$\chi^2 = \sum (O - E)^2 / E$$

The mathematical notation, the formula looks like this:

$$\chi^2 = \sum_{k, i=1} (O - E)^2 / E$$

Distribution of the respondents of association between various components of life satisfaction and socio-demographic questionnaire.

Association between contents	Chi-square	P value	Significance
age of the participant and whole life of the participant.	38.628	.04	Significant
age of the participant and self-care of the participant.	8.795	.05	Significant
age of the participant and leisure situation of the participant.	25.452	.18	Non-significant
age of the participant and vocational situation of the participant.	25.515	.03	Significant
age of the participant and financial situation of the participant.	25.590	.43	Non-significant
age of the participant and sexual life of the participant.	19.656	.48	Non-significant
type of injury of the participant and whole life of the participant.	4.961	.89	Non-significant
type of injury of the participant and self-care of the participant.	3.878	.42	Non-significant

type of injury of the participant and leisure situation of the participant.	7.387	.49	Non-significant
type of injury of the participant and vocational situation of the participant.	12.331	.26	Non-significant
type of injury and financial situation of the participant.	5.125	.88	Non-significant
gender of the participant and whole life of the participant.	2.314	.80	Non-significant
gender of the participant and self-care of the participant.	4.695	.04	Significant
gender of the participant and leisure situation of the participant.	5.051	.24	Non-significant
gender of the participant and vocational situation of the participant.	6.799	.03	Significant
gender of the participant and financial situation of the participant.	7.947	.15	Non-significant

A cross sectional study was used to find out the level of LS of the people with SCI in the community. The aim of the study was to assess the level of LS of the SCI persons those who completed rehabilitation process at CRP and living in the community at Savar. The study was based on data gathered from spinal cord injury unit, rehabilitation wing unit and community at different districts in Bangladesh. In this study 52 participants were taken who had both paraplegic and tetraplegic spinal cord injury where approximately 83% male and 17% female. In epidemiological study it was found that in South East country male, female ratio was 4.3:1 and 31-45 years age groups were more frequently affected (Nwankwo & Uche, 2013). North America the main cause of TSCI were motor vehicle accident then fall from height (Mothe & Tator, 2013). According to Nwankwo & Uche (2013) In Southeast country like Nigeria, the most frequent cause of spinal cord injury was motor vehicle accident around 55% and falls around 23%. In this study the most common cause was fall from height about 58% then road traffic accident approximately 29%. In India fall from height was most common cause of trauma about 44%, followed by motor vehicle accidents 37% (Singh et al., 2008).

The study showed that most of the participants were businessman that is around 35.7% while unemployed, student, employed, housewife were 33.3%, 14.3%, 9.5%, 7.1% respectively. In Nigeria it was found that students and businessman 20% were mostly suffered from SCI (Nwankwo & Uche, 2013). In India the marital status showed that about 57% were married and 44% were unmarried (Tasiemski et al., 2013). This study found that most of the participants were unmarried about 52.4% and some were married about 42.9% and very few were divorced about 4.8%.

Out of 52 respondents approximately about 4.8% (n=2) participants had dissatisfying, 7.1% (n=3) had rather dissatisfying, 23.8% (n=10) participants had Rather Satisfying, 59.5% (n=25) had Satisfying and around 4.8% (n=2) had Very Satisfying.

The determinants of LS in the studied area includes age, employment, financial status and self-care ability where as in urban Chaina the determinants includes age, unemployment, income, marriage and sex (Appleton & Song, 2011) and in Jamaica, the LS predicted by age, marital status and employment (Mehlsen et al., 2013).

In another study conducted in Paris, multivariate analyses demonstrated a significant relationship between LS and marital status and family relations (Iwatsubo et al., 2011). In a sample of Zimbabweans, the independent determinants of LS were comprised of receiving adequate respect from children and satisfaction with financial circumstances (Appleton & Song, 2011) whereas in this study it has been found that there is a significant relationship in between age and LS.

In Australia, multiple regression analyses showed gender, age, marital status, employment, education, and owning or purchasing home as the predictors of LS (Dear et al., 2012).

In contrast to our findings through this study as age significantly predict the LS which was declined in another study that, age did not independently predict LS (Mehlsen et al., 2013) and in sharp contrast to the findings of a study into the general population in the Netherlands, where satisfaction with life in general was believed to be affected by age (Post et al., 2009). As maintained by another study, LS has a significant linear decline with age (Putzke et al., 2012), whereas in China as well, a very weak association was reported between the LS score and age (Ho et al., 2015).

Among the general population in the United States of America, the years from 30 to 39 were most frequently chosen as the most satisfying decade, followed by the adjoining decades (Mehlsen et al., 2013), which was also revealed through this study that the very satisfying groups present within age 30 or more.

In other study it has been found that, female participants reported a better LS than male subjects, which does not chime in with the findings of some studies reporting equal LS between the two genders (O'Dea et al., 2009) or the report on the general population in Jamaica, where LS was lower among women (Mehlsen et al., 2013) and some investigators believe that what affects LS is the gender role, rather than gender per se (Seybolt and Wagner, 2013), whereas through this study it was found that female participants reported better LS than the male.

The married couples had a higher rate of LS than did the ones who were not married, which is concordant with the results of a study into the general population in the Netherlands (Koivumaa-Honkanen et al., 2010), and in this study it was found that married couples were present in satisfying group relatively more than other groups.

In this study, participants did not link education level to their perception of satisfaction with life. By contrast, for the Swedish general population education was a predictor of LS (Melin et al., 2013). Similarly, in China and Australia tertiary education and

education in general, respectively, were positively correlated with LS (Dear et al., 2012).

Employment was a significant variable associated with higher rates of LS among the participants in the present study. In France, a qualitative study showed that life satisfaction was a major predictive to the LS in relation with employment and this finding was common to the young and elderly participants (Reed et al 2015).

In other study showed that individuals will react strongly to unemployment and may subsequently back towards the baseline levels of LS and on an average, individuals may not completely return to their former levels of satisfaction with life, even after they are re-employed where people who have experienced unemployment in the past do not tend to react any less negatively to a new bout of unemployment than do people who have not been previously unemployed (Lucas et al., 2014).

Limitations

There were a number of limitations and barriers in this research project which had affect the accuracy of the study, these are as follow:

First of all, time of the study was very short which had a great deal of impact on the study. If enough time was available knowledge on the thesis could be extended.

The samples were collected only from the selected community of Savar and the sample size was too small, so the result of the study could not be generalized to the whole population of SCI in Bangladesh.

This study has provided for the first time data on the LS of the people with SCI in Bangladesh. No research has been done before on this topic. So there was little evidence to support the result of this project in the context in Bangladesh.

A convenience sampling was used that was not reflecting the wider population under study. LS was identified by a questionnaire, and the validity and reliability of this method may be questionable. However, a questionnaire might be the only feasible method of assessing in large populations.

The research project was done by an undergraduate student and it was first research project for his. So the researcher had limited experience with techniques and strategies in terms of the practical aspects of research. As it was the first survey of the researcher so might be there were some mistakes that overlooked by the supervisor and the honorable teacher.

6.1 Conclusion

There are many events that affect a person's lifestyle, Life satisfaction and quality of life; spinal cord injury is one of them. It is very common in developing country like Bangladesh. The aim of the study was to assess the level of Life satisfaction of the people with spinal cord injury patients. In this study among 52 participants about 83% was male and 17% was female so male was more vulnerable than female. Most of the participants came from rural areas and low educational level. From the study it can be concluded that due to SCI there have a lot of physical and mental problem such as ability to self-care, contacts with friends, family life, sexual life, partner relationship, leisure situation, financial situation, vocational situation and over all whole life. During staying at CRP most of the participants were satisfied with treatments, get support from the staff moderately, environment was clean moderate amount so environmental level was good. Spinal cord injury is greatly hampering person's life satisfaction and quality of life specially their physical and mental status. So awareness should be increased and take necessary steps to improve their physical and mental health.

6.2 Recommendations

The aim of the study was to assess the LS of the people with SCI in the community. Though the study had some limitations but investigator identified some further step that might be taken for the better accomplishment of further research. The main recommendations would be as follow:

- In future the random sampling technique would be chosen in order to enabling the power of generalization of that type of situation.
- The duration of the study was short, so in future wider time would be taken for conducting the study.
- Investigator use only 52 participants as the sample of this study, in future the sample size would be more.
- The ratio of complete and incomplete participants were not equal, in case of further the equality of the complete and incomplete participant should be maintained for the accuracy of the result.
- In this study, the investigator took the SCI person only from the only one selected area of Savar as a sample for the study. So for further study investigator strongly recommended to include the SCI person from all over the Bangladesh to ensure the generalize ability of this study.

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বাংলাদেশ হেল্থ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
Bangladesh Health Professions Institute (BHPI)

(The Academic Institute of CRP)

Ref.

CRP-BHPI/IRB/07/18/1211

Date: 21/07/2018

To,
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BHPI, CRP, Savar, Dhaka-1343, Bangladesh.

Subject: Approval of the thesis proposal “Life satisfaction among people with spinal cord injury after returning to the community” by ethics committee.

Dear Susmita Roy,
Congratulations.

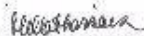
The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above mentioned dissertation, with yourself, as the Principal investigator. The following documents have been reviewed and approved:

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 measure the life satisfaction among people with spinal cord injury after returning to the community. The study involves use of Life Satisfaction Questionnaire (LISAT-9) to explore result 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 11 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

Date: 17-07-2018

To,
Head of the Department of Physiotherapy,
Bangladesh Health Professions Institute,
CRP-Chapain, Savar, Dhaka-1343

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

Sir,

With due respect and humble submission I am Susmita Roy, student of 4th year B.Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI). In 4th year 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, "LIFE SATISFACTION AMONG PEOPLE WITH SPINAL CORD INJURY AFTER RETURNING TO THE COMMUNITY" 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,

Susmita

Susmita Roy
Roll: 12
4th years B.Sc. in Physiotherapy
Session: 2013-2014
Bangladesh Health Professions Institute
(An academic Institution of CRP)
CRP-Chapain, Savar, Dhaka-1343.

SI. S/O, BHPI
Issue a letter
9/17/07/18
Prof. Md. Obaidul Haque
Head, Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343



বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)

(The Academic Institute of CRP)

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

BHPI-Mirpur Campus, Plot-A/5, Block-A, Section-14, Mirpur, Dhaka-1206. Tel: 8000178, 8053662-3, Fax: 8053661

CRP-BHPI/07/18/6921

Date : 22.07.2018

To
Susmita Roy
4th year B.Sc in Physiotherapy
Session: 2013-2014.

Subject: Data Collection.

Dear Susmita Roy,

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

Your research title is " Life satisfaction among people with spinal cord injury after returning to the community.."

Prof. Md. ObaidulHaque
Vice- Principal
BHPI, CRP.

Permission letter

July 21st, 2018

Assistant Manager,

Rehabilitation Wings,

Centre for the Rehabilitation of the Paralyzed(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 am Susmita Roy, 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 "Life satisfaction among people with spinal cord injury after returning to the community". 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 from the community. I would like to assure that anything of my study will not be harmful for the participants.

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,

Susmita

Susmita Roy

4th professional B.Sc. in physiotherapy

Roll-12, Session: 2013-2014

Bangladesh health professions institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343.

Recommended & Forwarded
22/07/18
Prof. Md. Obaidul Haque
Head, Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Savar, Dhaka-1343

Forwarded to VTI, coordinator +
CRP depart.
21/7/18
SALIMTAHMAN
Assistant Manager
Rehabilitation Wing
CRP - Chapain, Savar, Dhaka-1343

CONSENT STATEMENT

Assalamualaikum/Nomoskar,

I am Susmita Roy, 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 **“Life Satisfaction Among the People With Spinal Cord Injury at Community After Completing Rehabilitation Services From CRP.”** By this I would like to know spinal cord injury patient’s life satisfaction. 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 honorarium will not be provided for this purpose. 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, Head of Physiotherapy Department & Vice Principal, 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 _____

Socio-demographic Questionnaire

Name- _____ ID no- _____

Age- _____ Date- _____

Gender- M / F

Address-

Vill..... Post.....

PS..... Dist.....

Mobile no- _____

Education- _____

Occupation-

Unemployed..... Business.....

Student..... Housewife.....

Employed..... Others.....

Religion-

Islam..... Hinduism..... Others.....

Marital status-

Unmarried..... Married..... Divorced.....

Widowed.....

Family size- Nuclear..... Small..... Extended.....

Monthly family income- _____

Type of injury-

Incomplete paraplegia..... Incomplete tetraplegia.....

Complete paraplegia..... Complete tetraplegia.....

Cause of injury-

Traumatic.....

Non-traumatic..... Duration of injury- _____

Life-Satisfaction Questionnaire-9 (LISAT-9)

Patient Name: _____

Date: _____

How satisfactory are these different aspects of your life? Indicate the number which best suits your situation:

1 = Very dissatisfying	4 = Rather satisfying
2 = Dissatisfying	5 = Satisfying
3 = Rather dissatisfying	6 = Very satisfying

Score: (1-6)

Life as a whole is _____

My vocational situation is _____

My financial situation is _____

My leisure situation is _____

My contacts with friends and acquaintances are _____

My sexual life is _____

My ability to manage my self-care (dressing, hygiene, transfers, etc.) is _____

My family life is _____

My partnership relation is _____

Sum: _____

Patient signature

Date

প্রশ্নাবলী

নাম-	পরিচয় নং-
বয়স-	তারিখ-
লিঙ্গ- পুরুষ / মহিলা	
ঠিকানা- গ্রাম.....	পোস্ট.....
থানা.....	জেলা.....
মোবাইল নং-	
শিক্ষাগত যোগ্যতা-	
পেশা- বেকার.....	ব্যাবসায়ী.....
ছাত্র/ছাত্রী.....	গৃহিনী.....
চাকুরিজীবী.....	
ধর্ম- ইসলাম.....	হিন্দু.....
বৈবাহিক অবস্থা-	
অবিবাহিত.....	বিবাহিত.....
তালাকপ্রাপ্ত.....	পতিহীনা.....
পরিবারের আকার- একক.....	ছোট.....
পরিবারের মাসিক আয়-	যৌথ.....
ইনজুরির ধরন-	
অসম্পূর্ণ প্যারাপ্লেজিয়া.....	অসম্পূর্ণ টেট্রাপ্লেজিয়া.....
সম্পূর্ণ প্যারাপ্লেজিয়া.....	সম্পূর্ণ টেট্রাপ্লেজিয়া.....
ইনজুরির কারণ- আঘাতজনিত.....	অ-আঘাতজনিত.....
ইনজুরির সময়কাল-	বছর

জীবন সন্তুষ্টি প্রশ্নাবলী

রোগীর নাম: _____

তারিখ: _____

কেমন সন্তোষজনক আপনার জীবনের এই বিভিন্ন দিক? আপনার উপযুক্ত অবস্থা অনুযায়ী নম্বর সূচিত করুন:

১ = অত্যন্ত অসন্তুষ্ট	৪ = সামান্য সন্তুষ্ট
২ = অসন্তুষ্ট	৫ = সন্তুষ্ট
৩ = সামান্য অসন্তুষ্ট	৬ = অত্যন্ত সন্তুষ্ট

মান: (১-৬)

একটি সম্পূর্ণ জীবন হিসাবে _____

আমার বৃত্তিমূলক/পেশাগত অবস্থা _____

আমার আর্থিক অবস্থা _____

আমার অবসর অবস্থা _____

বন্ধু এবং পরিচিতদের সঙ্গে আমার যোগাযোগ _____

আমার যৌন জীবন _____

আমার নিজের যত্ন (ড্রেসিং, স্বাস্থ্য, স্থানান্তর, ইত্যাদি) পরিচালনা করার ক্ষমতা _____

আমার পরিবার জীবন _____

আমার সঙ্গী সম্পর্ক _____

সমষ্টি: _____

রোগীর স্বাক্ষর

তারিখ

