Faculty of Medicine

University of Dhaka

QUALITY OF LIFE AND PSYCHOSOCIAL ADAPTATION OF LOWER LIMB AMPUTEE PATIENT

MD. Mohinul Islam Bhuiyan Bappy

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

DU Roll No: 1128

Registration No: 8650

Session: 2017-2018

BHPI, CRP, Savar, Dhaka

Bangladesh Health Professions Institute (BHPI)

Department of Physiotherapy

CRP, Savar, Dhaka-1343

Bangladesh

July, 2023

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 AND PSYCHOSOCIAL ADAPTATION OF LOWER LIMB AMPUTEE PATIENT

Submitted by **MD. Mohinul Islam Bhuiyan Bappy,** for the partial fulfilment of the requirement for the degree of Bachelor of Science in Physiotherapy (B.Sc. PT).

……..
Nadia Afrin Urme
Lecturer,
Department of Physiotherapy
BHPI, CRP, Savar, Dhaka
Supervisor

…….
Sajal kumar Das

Head of the department
Department of Physiotherapy
BHPI, CRP, Savar, Dhaka

……
Professor Md. Obaidul Haque
Vice Principal
BHPI, CRP, Savar, Dhaka

…….

Dr. Mohammad Anwar Hossain

Associate Professor, Department of Physiotherapy, BHPI
Senior Consultant &Head, Department of Physiotherapy
CRP, Savar, Dhaka

…….

Asma Islam

Assistant Professor
Department of Physiotherapy
BHPI, CRP, Savar, Dhaka

Declaration

I declare that this is my own work and has not been previously submitted for assignment; and it does not contain unreffered material copied from any other source. I am aware about plagiarism, if it is shown that the material has been plagiarized, or I have otherwise attempted to obtain an unfair advantage for myself or others, I understand that I may face sanction in accordance with the policies and procedures of the Institute. A mark of zero may be awarded and the rewarded and the reason for that mark will be recorded on my file.

Name of the Student: **Date:**

Acknowledgement

First, I would like to express my gratitude to the almighty Allah. When I started the study, I didn't know whether I could complete it or not, but I believed my fortune favors the brave. So, I was determined to try my best to make it successful and I am most grateful to almighty Allah

After that I must go to my family who inspired me always and provide necessary support. I am immensely grateful to **Mohammad Anwar Hossain**, Senior consultant & head of Physiotherapy Department, CRP, Savar, Dhaka for his guidance, cordial cooperation, support and encouragement during the entire period of the study. I would like to express my deepest gratitude to my honorable teacher **Md. Shofiqul Islam**, Associate professor and head of the Physiotherapy department, BHPI, CRP. I also show my respect to **Muhammad Millat Hossain** Sir, who helped me in taking IRB approval for this study. I also want to show my gratitude to our vice principal **Prof. Md. Obaidul Haque** Sir and **Ehsanur Rahman Sir**, Associate Professor, Department of Physiotherapy, BHPI, CRP.

I would like to reimburse my special appreciation all of respondents of my research project who supported me through smooth conversation during data collection. My special thanks to **Noor Jahan Shapla**, Clinical Physiotherapist, Department of Prosthetics and Orthotics and **Waliul Islam**, Clinical Physiotherapist, Department of Prosthetics and Orthotics, CRP for their kind contribution. I would also like to give special thanks to BHPI librarian **Mrs. Mohosina** to her heartily help and library assistant **Mr. Anis** for their positive help during the project study.

Finally, I would like to state my highest gratitude to my research supervisor **Nadia Afrin Urme**, Lecturer, Department of Physiotherapy of BHPI for his guidance, support and suggestion in every single step of my research.

Acronym

BHPI: Bangladesh Health Professions Institute

BMRC: Bangladesh Medical Research Centre

CRP: Centre for the Rehabilitation of the Paralyzed

CVD: Cardiovascular Disease

HRQOL: Health-Related Quality of Life

IRB: Institutional Review Board

LLA: Lower Limb Amputation

PTSD: Post-traumatic stress disorder

PVD: Peripheral vascular disease

QoL: Quality of Life

SPSS: Statistical Package for Social Science

WHO: World Health Organization

WHOQOL: World health organization Quality of Life

TAPES-R: Trinity Amputation and Prosthetics

Experience Scale

Contents

List of Figure

List of Table

Abstract

The study identifies the quality of life and psychosocial adaptation of lower limb amputee patient. This study describes and presents an initial analysis of a quality-of-life—based model of psychosocial adaptation. It also finds out the demographic factors (age, sex, income, diagnosis) contributing Physical and Psychological level of satisfaction among the participants. This study examines the contribution of demographic/amputation-related variables and coping strategies to the prediction of psychosocial adaptation in veterans with acquired Lower limb amputation The study was conducted through descriptive study design among 103 participants with the range of age 18-55 years. The World Health Organization (WHO) has developed a quality of life instrument, the WHOQOL, which captures many subjective aspects of quality of life. It has been adopted in the United State of America, Netherlands, Poland, Bangladesh, Thailand, India, Australia, Japan, Croatia, Zimbabwe and many other countries. WHOQOLBREF and Demographic questionnaire was analysis and discussed about the demographic factors such as age, gender, occupation marital status etc. WHOQOLBREF questionnaire was also discussed about Physical and Psychological level of satisfaction of quality of life. In WHOQOL- BREF, there are 26 questions. The scale grade has distributed into 1-5 (Very poor- very good) with overall quality of life and level of mental satisfaction. TAPES- R questionnaire factor analysis showed that the questionnaire's items (included in the analysis) can be divided into three distinct dimensions as was originally suggested. The distribution of the items within the three dimensions is comparable with the original questionnaire. All three parts of TAPES-R showed high reliability. This study comprehends about the quality of life and psychosocial adaptation of patient with amputation. So, finding out of quality of life and psychosocial adaptation will help to do further betterment of patient with lower limb amputation

Key words: Quality of life, Psychosocial adaptation, WHOQOL- BREF, TAPES-R, Amputation, Prosthesis, Lower limb prosthesis

CHAPTER-I: INTRODUCTION

1.1 Background

Amputation comes from the Latin amputare, which means "to cut away," and is formed from ambi- ("about", "around") and putare ("to prune"). The Latin word has never been documented in a medical setting, instead being reserved for criminal punishment. The English word "amputation" was first used in surgery in the 17th century, possibly in Peter Lowe's A discourse of the Whole Art of Chirurgerie (published in either 1597 or 1612); his work was based on 16th-century French texts, and early English writers also used the words "extirpation" (16th-century French texts tended to use extirper), "disarticulation," and "dismemberment" (from the Old French desmembrer and a more common term before the 17th century for limb loss or removal), or simply "cutting" ", but by the end of the 17th century "amputation" had come to dominate as the accepted medical term (kennedy et .,2004).

Upper limb amputations were less prevalent than amputations. The trans-tibial region was the most often used site for amputation among those lower limbs. This may be because surgeons often amputate limbs as distally as feasible to maximize functional activity because the distal region of a limb is typically more susceptible to injury. However, trans-femoral amputation was most frequently used in situations of amputation brought on by cancer. Thus, it may be inferred that lower limb amputation affects people's quality of life, which is strongly correlated with mobility, as well as their involvement in valued activities, perceptions of their bodies, and ability to walk. Lower activities of daily life scores and a lower degree of social interaction are linked to reduced walking ability with a prosthesis. Low daily exercise levels and low levels of social interaction are linked to a reduction in walking ability when using a prosthesis (Pooja & Sangeeta, 2013).

In order to gauge the prevalence of lower limb amputation in ten various countries around the world, the Global Lower Extremity Amputation Study followed a set process. For instance, the frequency of first major amputations in males varied from 2.8 instances per 100,000 people in Madrid, Spain, to 43.9 cases per 100,000 people in the Navajo community of the United States per year. It was determined that variations in the prevalence of diabetes and peripheral vascular disease (PVD) were principally

responsible for the notable discrepancies between regions. Amputation of the lower limb accounts for 65% of all occurrences of amputation now occurring in the U.S., making it substantially more common than amputation of the upper limb (Ziegler-Graham et al., 2008).

Bangladesh is a 160 million strong low-and middle-income nation. Except for a research published in 1997 that examined six years' worth of data from one area and estimated the incidence rate to be 75 per 100,000 people (Aftabuddin et al., 1997), the incidence rate of lower limb amputation in Bangladesh remains mainly unknown. According to the authors, limb ischemia caused these occurrences in 80% of the cases. A variety of variables have been recognized as contributing to an increase in road accidents resulting in amputations, including a high rate of urbanization, established motorized transportation options, and bad road conditions (Chalya et al., 2012).

The World Health Organization defines quality of life as an individual's view of their own life in relation to their own objectives, expectations, standards, and interests, as well as the culture and value systems in which they live. The term "quality of life" refers to an individual's physical, mental, and social health, as well as his or her financial independence, i.e. level of independence, and personal attitude toward key societal change (Wan et al., 2011).

Mobility and daily living are important components of Health-Related Quality of Life (HRQOL). As a result, decreased mobility may have a higher negative impact on HRQOL than any other condition. The therapeutic effects of a prosthetic device should not be predicated solely on functional recovery, but should also be based on the satisfaction of a new and highly relevant benchmark element, namely "quality of life (QOL)" (Schofield et al., 2006). Another important aspect of amputee health is psychological well-being. People who have had a lower limb amputation endure worry, despair, and dissatisfaction as a result of the amputation. These psychological responses are strongly related to age and marital status. There is no relationship between amputation degree, manner of ambulation, and amputation sign (Murray et al., 2010).

Amputation of a lower limb is a physical, emotional, and social hardship for the patient, their family, and the services that attempt to help them. Lower limb amputees have been

demonstrated to be impaired in terms of mobility, return to work, body image, pain, quality of life, and anxiety and depression. The current study is concerned with psychological adjustment. A range of characteristics have been investigated as potential predictors of patient adjustment outcome. The majority of the research has been cross- sectional, yielding ambiguous results in terms of the impact of demographic characteristics such as age, gender, level, and cause of amputation (Unwin et al., 2009).

The Trinity Amputation and Prosthetic Experiences Scales (TAPES) has been developed to assess the quality of life of lower limb amputees in terms of prosthetic adjustment, constraints, prosthesis satisfaction, and feeling uncomfortable. It has a high level of face, concept, and predictive validity. For the remainder of the week, phantom pain severity assessments fluctuate between minor to horrific (Kacperek et al., 2009)

The goal of this study is to investigate the role of coping strategies in the prediction of psychosocial adjustment in a relatively large sample of individuals with acquired lower limb amputations using a coping assessment whose structural integrity has been validated for this sample. Furthermore, the coping assessment was not limited to the subject of phantom pain; rather, respondents were asked to think of a difficulty related to their amputation, giving priority to issues that were personally meaningful to the respondents (Kacperek et al., 2009)

1.2 Justification

Amputees suffer greatly after any disaster, particularly from post-traumatic stress disorder and job discontent. The researcher is interested in learning about the quality of life and psychosocial adaption of people who have lower limb prostheses in this study. The outcome could provide us with assurances about our quality of life and level of happiness after utilizing a lower limb prosthetic.

However, the researcher believes that there are still limitations and, in general, poor quality of life and psychosocial adaption in any unpredictable natural or man-made disaster. The researcher is curious about their daily life, wellness, and community satisfaction after amputation and psychological trauma. In this instance, most amputees experience despair and discontent since they are unable to return to work and are also influenced by other factors such as joblessness, family load, and societal barriers.

However, it should be noted that the survivors did not receive the support they deserved during this crisis moment. People who have lower limb prostheses continue to struggle in daily life, hence it is critical to evaluate their quality of life and psychological adaption. It might be raising awareness for any future dangerous incidence and projecting its impact. It may be beneficial to take preventative measures for prosthesis users. As a result, the researcher wishes to learn about their physical, psychological, social, and environmental quality of life independently in order to determine the state of their lives following this heinous crime.

1.3 Research question

What is the status of quality of life of and psychosocial adaptation of lower limb amputee patients?

1.4 Aim of the study:

The aim of the study is to see quality of life and psychosocial adaptation of lower limb amputee patients

1.5 Objectives

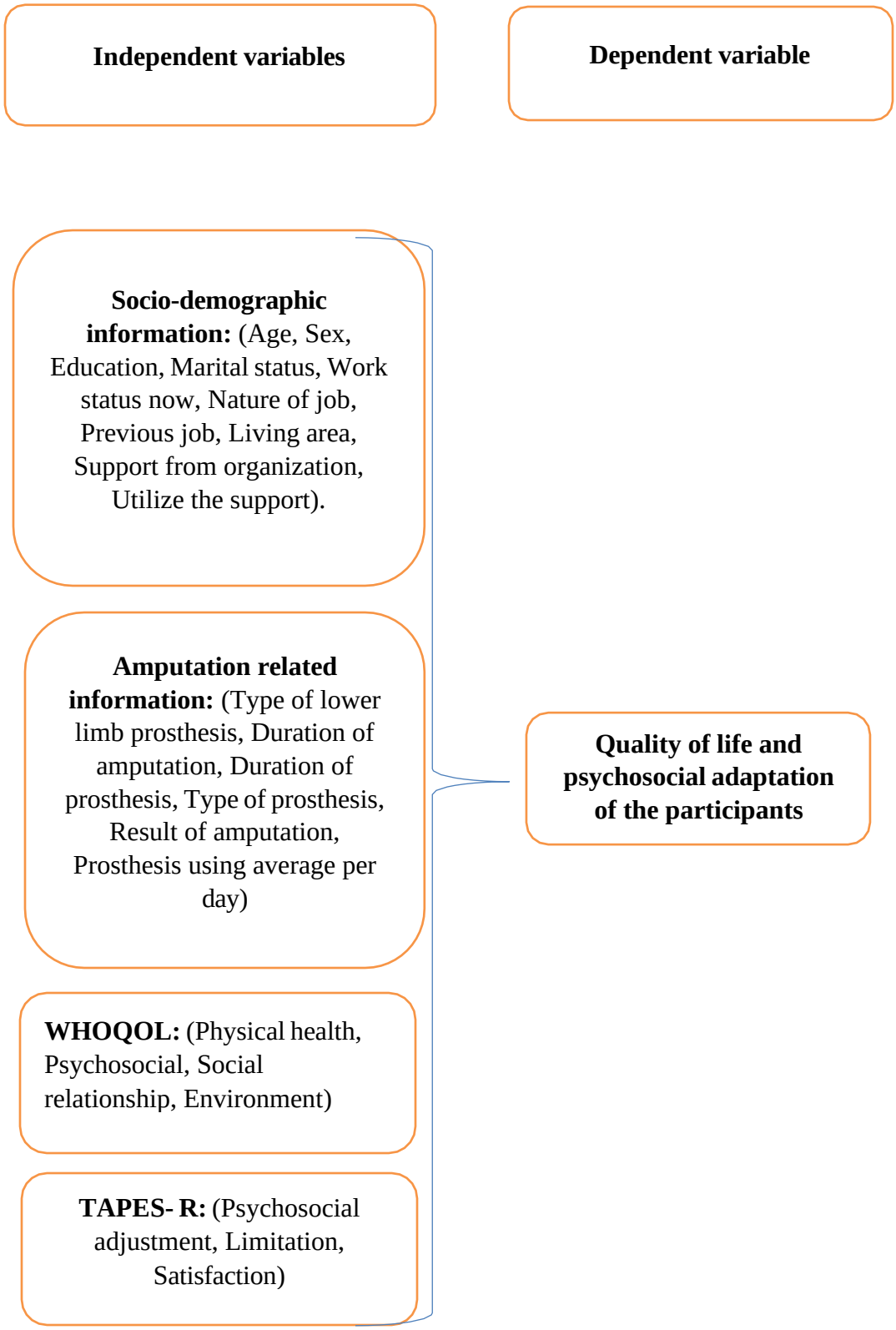
1.5.1 General objective

To find out the association of quality of life and psychosocial adaptation of lower limb amputee patients

1.5.2 Specific objectives

- To evaluate the socio-demographic (age, gender, occupation, educational status) information of the participants.
- To evaluate the amputation related information of the participants.
- Association between type of prosthesis and quality of life.
- Association between type of prosthesis and psychosocial adaptation
- Association between quality of life and psychosocial adaptation

1.6 List of variables



1.7 Operational definition

Amputation

An amputation is the exclusion of a limb or other limb outgrowth of the body. Amputation is defined as the surgical or spontaneous partial or complete removal of a limb or projecting body part covered by skin and is one of the most common developed disabilities.

Disarticulation

Disarticulation is the separation of two bones at their joint, either traumatically by way of injury or by a surgeon during arthroplasty or amputation.

Lower limb amputation

Lower-limb amputation is the removal of a part or multiple parts of the lower limb. Though there is some discrepancy in literature regarding exact distal boundaries, it is generally accepted that “major” amputations include those which are at or proximal to the ankle

Trans-femoral

Across or through the femur.

Trans-tibial

An amputation of the lower leg between the ankle and knee.

Knee disarticulation

Through-knee amputation. Hip disarticulation Hip disarticulation is the surgical removal of the entire lower limb by transection through the hip joint

Quality of life

The general well-being of the population in individuals and societies. The World Health Organization (WHO) defines QOL as "an individual's perception of their position in life in the context of the culture and value systems in which they live and about their goals, expectations, standards, and concerns". Standard indicators of the quality of life include wealth, employment, the environment, physical and mental health, education, recreation and leisure time, social belonging, religious beliefs, safety, security and freedom. QOL has a wide range of contexts, including the fields of international development, healthcare, politics, and employment.

Psychosocial adaptation

Psychosocial adaptation is defined as the process of putting oneself harmony with the changing circumstances of life so as to enhance or sense of wellbeing and longtime survivorship.

CHAPTER – II LITERATURE REVIEW

Amputation can be done at various levels of functionality. A single limb may be amputated (unilateral), both upper and lower limbs may be amputated (bilateral), or both upper and lower limbs may be amputated (multiple). One or more toes, a portion of the foot, the ankle, the knee, the hip, the trans-femoral (above the knee), the trans-tibial (below the knee), and the hemi-pelviotomy (removal of half of the pelvis) are all examples of lower limb amputation. Disarticulation is the term used to describe the amputation of a body part through a joint. The removal of one or more fingers, wrist disarticulation, below-elbow amputation, elbow disarticulation, above-elbow amputation, shoulder disarticulation, and forequarter amputation are all examples of upper limb amputation. The leading factor leading to amputation in high income countries is dis vascularity (Ziegler-Graham et al., 2008).

Long-term impairment is brought on by lower limb amputation, a prevalent chronic health issue. Nearly every element of a person's life is significantly impacted by lower limb amputation. Many clinical trials and academic studies on function and health-related quality of life after amputation have been conducted, and they have produced a wide range of findings. Medical co-morbidities, the degree of amputation after surgery, cognition, age, premorbid level of function, individual coping style, level of social support, environmental factors, and financial resources are just a few of the interactive factors that significantly influence the functional outcome (Asano et al., 2008).

35,306 LLA procedures were carried out in Australia between July 1, 2007, and June 30, 2012. These procedures were performed below the ankle in nearly three-quarters of the cases. More over 40% of all LLA were toe amputations, making them the most frequent level. In comparison to transtibial and transfemoral amputations, partial foot amputations (excluding the toe level) were twice as common. Over 60s made about two thirds of the population undergoing LLA. A tiny percentage of people under the age of 35 were affected by LLA, which affected adults between the ages of 35 and 60. Males underwent two-thirds of all LLA procedures. People with type 2 Diabetes Mellitus accounted for half of all LLA cases. national rate of occurrence The crude IR-LLA across the time

series of this analysis was 32.4 per 100,000 people. Males had an age-adjusted IR-LLA that was twice as high as that of females (19.9 per 100,000 population; 95%CI 19.5-20.2) (40.3 per 100,000 population; 95%CI 39.8-40.8) (Dillon et al., 2017).

In this area, there has been a lot of international study and writing. Numerous locations throughout the world have carried out follow-up research and epidemiology investigations. The Global Lower Extremity Amputation (LEA) Study Group is one large exertion looking at the epidemiology of lower limb amputations around the globe. Other researchers have undertaken a number of other investigations. This review was done since it is challenging for South African physiotherapists to access the literature (Hennis et al.,2010).

Therefore, a prosthesis can be any shape or size in order to provide something that is not naturally present. Lung prostheses are the subject of this thesis. The 'addition' that the prosthesis gives is for an absent arm or leg, or part of these, and is utilized by people who are missing one or more limb areas. The effective fitting of the prosthetic device and usage of the prosthesis to achieve functional mobility are the two primary goals of prosthesis after lower-limb amputation. Improved mobility, self-care, perceived quality of life, and employment success have all been related to increased prosthesis use, which in turn has been linked to higher levels of function and independence (Schaffalitzky et al., 2011).

After an amputation, a person's rehabilitation status and quality of life may be impacted by a variety of factors, including as pain, decreased functional abilities, psychological adjustment, implications on employment and occupations, and burden on families and society. LLA sufferers find it challenging to live independently in their community due to these traits. Patients with LLA must meet certain preconditions in order to be eligible for rehabilitation, including not being ambulatory (bedridden), having a mental illness, being older than 60, or having another disease. But despite these problems and their infrequent use of their prosthesis, some people prefer to exercise on their own (Mac Neill et al., 2008).

Additionally, studies have shown that 13–35% of patients post-amputation experience depression symptoms (Atherton & Robertson, 2006). According to studies (Singh et al.,

2009), depression is particularly risky in the first two years after an amputation, but some have noticed that the risk can last for up to 10 years. Additionally, it has been discovered that the experience of depression in limb absence is associated with other detrimental psychosocial outcomes, such as increased general anxiety (Atherton & Robertson, 2006), body image anxiety, feelings of vulnerability and low self-esteem, phantom limb pain and neuroticism (Badura-Brzoza et al., 2006), general pain, lower levels of perceived health and social support (Ikram et al., 2014), greater self-awareness of impairment (Asano et al., 2008).

In recent years, it has become clear that measuring quality of life is crucial for assessing the quality of medical care. The term "health-related quality of life" (HRQOL) refers to a person's assessment of their place in life in relation to their objectives, expectations, standards, and worries as well as the culture and value systems in which they live. It is a broad notion that is intricately influenced by a person's physical and mental well-being, level of independence, and relationship to important aspects of their environment, as well as their social connections (Vahedi, 2010).

The WHOQOL project, which measures quality of life, was started in 1991. It evaluates a person's perceptions in relation to their culture, value systems, and individual aspirations, norms, and issues. The WHOQOL instruments were jointly created at a variety of centers around the world and have undergone extensive field testing. In the health industry, the scale is being used quickly. The 26 measures that make up the WHOQOL-BREF instrument measure the general areas of physical health, psychological health, social interactions, and environment. Large research projects or clinical trials may find it more easy to use the WHOQOLBREF, a condensed form of the original instrument. On a scale from 0 to 100, survivors rated their quality using the WHOQOL-100. A higher score indicated a higher quality of life (Vahedi, 2010).

According to WHO (2014), the WHOQOL assessments are useful when a patient's disease prognosis calls for only partial recovery or remission and when treatment 17 is more palliative than curative. Therefore, the WHOQOL assessments will make it possible to gather comprehensive quality of life information on a specific population, aiding in the understanding of diseases and the creation of treatment options. International

epidemiological studies made possible by tools like the WHOQOL-BREF and the WHOQOL-100 will allow for the conduct of multi-center quality of life research and the comparison of outcomes at other sites. Such research offers significant advantages, enabling rehabilitation and other relevant factors (Vahedi, 2010).

As an outcome metric for evaluating the effectiveness of treatment and the standard of care, quality of life has been promoted. As a multidimensional notion that encompasses both emotional and cognitive judgments about a person's happiness, life satisfaction, and general well-being, QoL is best evaluated by the individual. As a result, it is necessary to evaluate a wide range of factors while evaluating QoL. Due to its complexity, evaluating QoL as a whole might be difficult. In addition, the QoL assessment tool should not be too short, as this would not effectively capture the essence of QoL, nor should it be too long, as this would make administration time-consuming (Horne & Neil, 2009).

As an outcome metric for evaluating the effectiveness of treatment and the standard of care, quality of life has been promoted. As a multidimensional notion that encompasses both emotional and cognitive judgments about a person's happiness, life satisfaction, and general well-being, QoL is best evaluated by the individual. As a result, it is necessary to evaluate a wide range of factors while evaluating QoL. Due to its complexity, evaluating QoL as a whole might be difficult. In addition, the QoL assessment tool should not be too short, as this would not effectively capture the essence of QoL, nor should it be too long, as this would make administration time-consuming (Desmond et al., 2008)

Depression is a commonly employed indicator of psychological amputation adaptation. Some patients have claimed that depression caused them to wear their prosthesis less frequently and to be less mobile in the days and weeks following their amputation. Depression has also been linked to longer periods of activity restriction, an increase in emotions of vulnerability, and lower self-rated health in those with long-term amputations (Horgan et al., 2004)

The three Activity Restriction subscales represent various contexts in which limitations on interests or activities may be seen. Simple functional tasks like "walking 100 yards" are covered on the Functional Restriction subscale. Athletic Restriction is the restriction of activities requiring more vigorous physical exertion, such as running for a bus or

participating in sports and recreation. Social Restriction, the last aspect of activity restriction, covers restrictions on social activities including "visiting friends" and "pursuing hobbies." The four questions on the Activity Restriction subscales are rated on a three-point scale that ranges from "limited a lot" (2) to "not limited at all" (0), and the results are added up to provide a score between 0 and 8. Greater limitation is indicated by higher scores (Gallgher et al., 2008)

According to research specifically addressing the role of coping strategies in post-amputation adjustment, active/task-oriented coping strategies like problem solving and believing one has control over one's disability are helpful for promoting positive psychosocial adjustment (e.g. Dunn, 1996; Livneh et al., 1999). While passive, emotion-focused techniques like cognitive disengagement, catastrophizing, and wishful thinking have been linked to subpar psychosocial outcomes (Hill, Niven, & Knussen, 1995; Livneh et al., 1999), active techniques like these have been shown to be ineffective.

However, there is little research on how coping and psychosocial adjustment to amputation, a unique illness, are related, and there are a number of methodological problems that restrict the generalizability of these studies' findings. First, the sample sizes used in current studies are relatively small. (Gallagher & MacLachlan, 1999; Livneh et al., 1999; Sjo¨dahl, Gard, & Jarnlo, 2004).

CHAPTER – III METHODOLOGY

The purpose of this thesis was to assess the quality of life and psychosocial adaption of lower limb amputee patients. The STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) standards for cross-sectional studies were used to identify the association. The STROBE standards aim to give a readily available checklist to ensure a clear understanding of what was planned and carried out in a cross- sectional study (Cuschieri, 2019).

3.1 Study design

The cross-sectional study was chosen as the method of study and was considered to be an appropriate design to determine the objectives.

3.2 Study site and study area

The researcher collected data from the Prosthetics and Orthotics unit of CRP, Savar and Mirpur, Dhaka, Bangladesh.

3.3 Study Population

Patients with lower limb amputees who came to the CRP Prosthetics and Orthotics department for treatment were included in the study.

3.4 Methods of sample

3.4.1 Sampling Technique:

The researcher chose a purposive selection method to select the sample from the population.

3.4.2 Sample size calculation:

A sample is a group of people chosen from a population to participate in a study (Hicks, 2009). A sample is a small portion of a population. Depending on the population and the characteristics of the study, the sample size may be large or small (Hopkins, 2017).

$$n = \frac{z^2 pq}{d^2}$$

$$= \frac{(1.96)^2 \times 0.205 \times (1-0.795)}{(0.05)^2}$$

$$= \frac{3.8416 \times 0.2016}{(0.05)^2}$$

$$= 310$$

(Hannan, 2016)

Where,

n = Sample size

z= linked to 95% confidence interval (use 1.96)

p = expected prevalence, 0.205 (Korovessis et al., 2012)

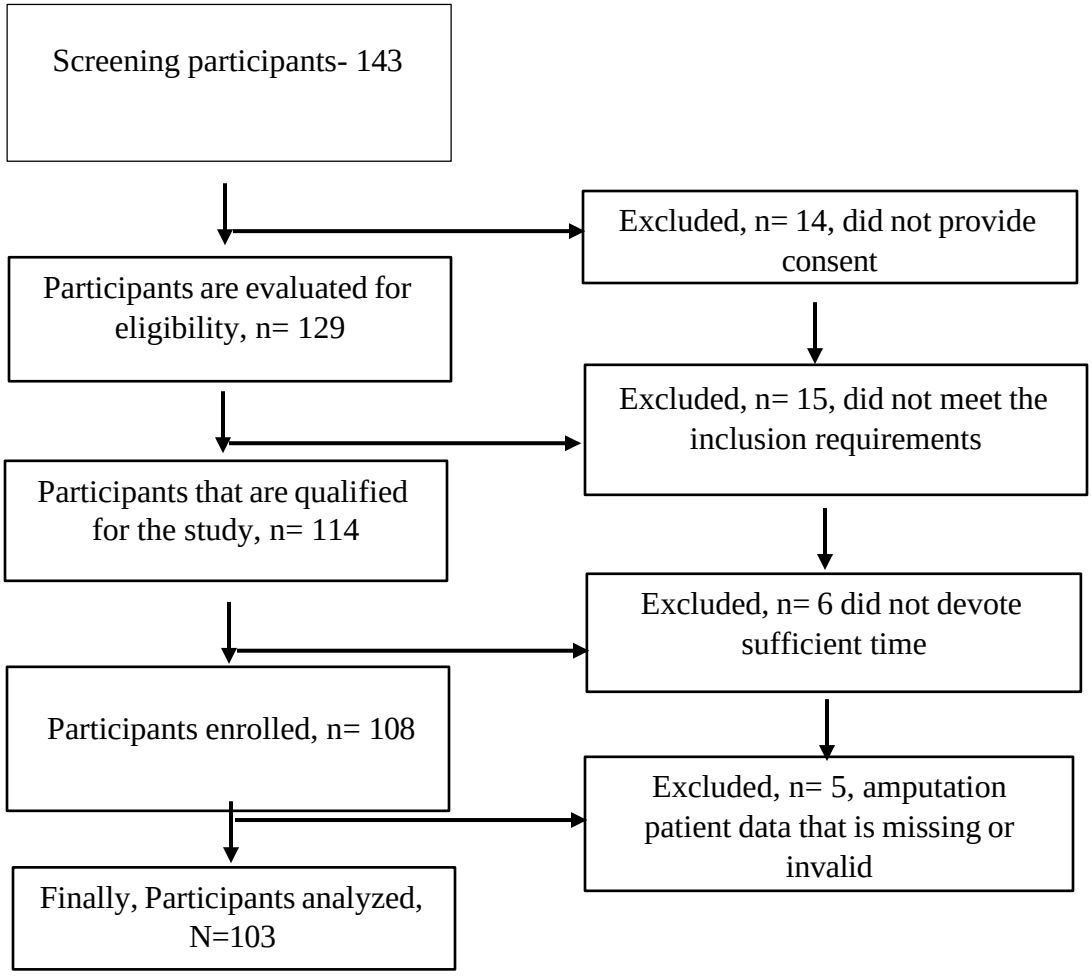
q = 1- p (expected non-prevalence)

d = margin of error at 5% (standard value of 0.05)

.

This study's sample size is assessed to be 310. Because this study is part of an academic research effort, and there are time constraints, obtaining a larger number of samples is difficult. Researchers tested 143 patients between May 2023 and July 2023. 14 patients were eliminated because they did not consent to the recording of their information. Then, 129 participants were evaluated for eligibility. 15 of them were excluded because they did not meet the inclusion requirements. There were 114 participants that were eligible for this study, however six of them did not allow adequate time for data collection. The

study eventually enrolled 108 participants, with 5 being eliminated due to missing or invalid accelerometry data. Finally, 103 people were studied for this study.



3.5 Selection Criteria

Inclusion criteria:

- Patients with lower limb amputation.
- Both unilateral and bilateral.
- Age above 18 years.
- Participants in this study were those who were motivated and willing to offer their consent.

- Patient who has not been diagnosed with any mental or emotional disorders or conditions that cause impairment

Exclusion criteria:

- Individuals suffering from serious illnesses such as cancer or neurological issues.
- Age below 18 years.
- A clear refusal to participate in the study, or any condition that makes doing the interview impossible, such as illness, a conflict with personal duties, or an inconvenient time.

3.6 Method of data collection

3.6.1 Data collection and outcome measurement tool:

Patient's personal Information and Amputation related information: Name, age, gender, occupation, level of education, employment position, marital status, level of amputation and type of amputation etc.

- **Quality of life:** Measured by WHO-QOL BREF Questionnaire (WHO-QOL BREF). Findings from the World Health Organization Quality of Life BREF (WHO-QOL-BREF) indicate client's perception of the quality of environment as adequate (Environment =35). In WHOQOL- BREF, there are 26 questions. The scale grade has distributed into 1-5 (Very poor- very good) with overall quality of life and level of mental satisfaction. Client additionally can report overall satisfaction with health as Poor and overall QOL as Good. The average of all domain scores yielded a 54.75 indicating moderate QOL perception (Szabo, 1996).

- **Psychosocial adaptation:** Measured by TAPES- R questionnaire which is divided into three distinct dimensions as was originally suggested. The distribution of the items within the three dimensions is comparable with the original questionnaire. All three parts of TAPES-R showed high reliability; where Cronbach's α were .892, .894, and .873 respectively (Massawa et al. 2019).

- In that time some other necessary materials are used like pen, pencil, white paper, clip board, eraser, file, notebook and laptop

3.6.2 Data collection procedure:

The researcher took permission from Prosthetics and Orthotics unit of CRP, Savar and Mirpur, Dhaka, Bangladesh. Researcher did a face-to-face interview and asked questions during the interview from questionnaire.

3.7 Data collection period:

Data was collected from July 2023 to June, 2023. Data was collected carefully and maintain the confidentiality of the data. Each participant provided particular time to collect data.

3.8 Data analysis procedure:

The statistical package for social science (SPSS) Version 20 was used to evaluate the data. A complete and adaptable statistical analysis and data management tool is SPSS. The majority of the graphs and charts was produced by using Microsoft Excel 22 worksheet. Then descriptive and inferential statistics was used to analyze the data. In the descriptive section, the mean and standard deviation were used to present the central tendency and the measure of dispersion for parametric data. The categorical data was displayed as frequency and proportional % using several visualization tools, including pie charts and bar graphs.

3.9 Statistical test:

3.9.1 Determination of the nature of data

- Based on the data type, normality test, and standard technique, the variables were identified as nominal, ordinal, interval, and ratio data and their parametric or non-parametric qualities were assessed (Hicks, 1999).

Data category

Table-1: Socio demographic:

Variable	Descriptions	Data type	Data distribution
Age (Mean ± SD)		Ratio	Parametric
Gender	1. Male 2. Female	Ordinal	Non-parametric
Education Status	1. Illiterate 2. Home education 3. Primary 4. High school 5. Higher secondary 6. Undergraduate 7. Post graduate degree	Ordinal	Non-parametric
Marital status	1. Single 2. Married 3. Divorce 4. Widow	Nominal	Non-parametric
Job now	Service holder Student Farmer Businessman Others	Nominal	Non-parametric
Nature of job	1. physical effort 2. mental effort	Nominal	Non-parametric
Job before amputation	Service holder Student Farmer Businessman Others	Nominal	Non-parametric

Living area	1. Urban 2. Rural	Nominal	Non-parametric
Types of support from govt, NGO or others	1. Money 2. Shelter 3. Cattle 4. Accessories 5. Vehicle 6. Land 7. Others 8. No support	Nominal	Non-parametric
Utilized the support	1. Yes 2. No	Nominal	Non-parametric

Table-2: Amputation related:

Variable	**Descriptions**	**Data type**	**Data distribution**
Type of prosthesis	1. Below-Knee 2. Through-Knee 3. Above-Knee 4. Others	Nominal	Non-parametric
Cause of amputation	1. Peripheral Vascular Disorder 2. Diabetes 3. Cancer 4. Accident 5. Other	Nominal	Non-parametric
Duration of amputation (Mean ± SD)		Ratio	Parametric
Duration of prosthesis (Mean ± SD)		Ratio	Parametric

Use the prosthesis in an average per day (Mean ± SD)		Ratio	Parametric

Overall quality of life	1. Very poor 2. Poor 3. Neither poor norgood 4.Good 5.Very good	Ordinal	Non-parametric
Physical health	1. Not at all 2. A little 3. A moderate amount 4. Very much 5. Extremely	Ordinal	Non-parametric
Psychosocial	1. Never 2. Seldom 3. Quite often 4. Very often 5. Always	Ordinal	Non-parametric
Social relationship	1. Very dissatisfied 2. Dissatisfied 3. Neither satisfied or dissatisfied 4.Satisfied 5. Very satisfied	Ordinal	Non-parametric
Environment	1. Not at all 2. A little 3. Moderate 4. Mostly 5. Completely	Ordinal	Non-parametric
Psychosocial adaptation	1.Strongly disagree 2. Disagree 3. Agree 4. Strongly agree	Ordinal	Non-parametric

Limitation	1. Yes, limiteda lot 2. limiteda lot 3. Not limitedat all	Ordinal	Non-parametric
Satisfaction	1. Not satisfied 2. satisfied 3. Very satisfied	Ordinal	Non-parametric

3.10 Informed consent:

The study's aims and objectives were initially explained to the subjects verbally in a descriptive manner. The subject was given the consent form, and it was confirmed that they fully understood it. The study's participants were free to leave at any moment. The confidentiality of the participants' names and addresses was guaranteed. The individual wouldn't suffer any negative effects, the researcher assured them. No information has been disclosed to anyone in order to maintain the confidentiality of the participants' information. The study's researcher was always available to address any additional inquiries.

3.11 Ethical consideration:

The researcher adhered to the guidelines set forth by the WHO and the Bangladesh Medical Research Council (BMRC). The BHPI physiotherapy department received a research proposal for approval (CRP/BHPI/IRB/03/2023/712), which was approved by the faculty and received initial approval from the supervisor and the course coordinator before the study could be carried out. According to the regulations, the study protocol was submitted to BHPI for approval by the Institutional review board (IRB). To conduct the study, approval was obtained from the department head of physiotherapy, the person in charge of the CRP department, and a respected supervisor. Before beginning the interviews, a participant's verbal consent was obtained by explaining the study's goals, its anonymity, their right to decline any question, their right to withdraw from the study at

any time, and other matters included in the consent form. No participants were identified for any purpose related to the study; just the data were used. The only person with access to the data was the researcher, who kept it in a safe location. After learning the academic and clinical guidelines for conducting the study, including what should be done and what should not, the researcher was qualified to conduct the study. All participant rights were protected, and the researcher was obligated to respond to any participant questions about the study.

CHAPTER-IV: RESULTS

Descriptive statistics:

Table-3: Sociodemographic characteristic:

Variable	Mean ± SD	Frequency	Percentage (%)
Age	31.5 ± 8.783		
Gender			
1Male		62	60.19
2. Female		41	39.81
Education Status			
Illiterate		0	0
Home education		8	7.8
Primary		19	18.4
High school		49	47.6
Higher secondary		21	20.4
Undergraduate		6	5.8
Post graduate degree		0	0
Marital status			
Single		28	27.2
Married		69	67
Divorce		4	3.9
Widow		2	1.9
Job now			
Service holder		22	21.4
Student		13	12.6
Farmer		17	16.5
Businessman		16	15.5

Others		35	34
Nature of job			
physical effort		56	54.4
mental effort		47	45.6
Job before amputation			
Service holder		58	56.30
Student		32	31.10
Farmer		3	2.90
Businessman		6	5.80
Others		4	3.90
Living area			
Urban		61	59.2
Rural		42	40.8
Type of support			
Money		40	38.8
Shelter		6	5.8
Cattle		0	0
Accessories		26	25.2
Vehicle		1	1
Land		0	0
Others		8	7.8
No support		22	21.4
Utilized the support			
Yes		81	78.6
2. No		22	21.4

shows that among 103 participants, most of the participants were male 60.19% rather than female 39.81%. It also shows there were 62 males and only 41females.

About 7.77% of the participants or 8 complete their home education and 18.45% of the participants or 19 participants have completed primary education where 47.57% of the participants or 49 participants have finished their high school education and 20.39% or 21 participants have completed higher secondary education. Among the participants 5.83 % or 6 participants have completed graduation degree.

Among 103 participants single 27.18% or 28 participants and 66.99% or 69 participants were married. Divorce 3.88% or 4 participants and widow 1.94% or 2 participants.

Among all the participants 56.30% or 58 participants were service holder, student 31.10% or 32 participants. On the other hand, 2.90% or 3 participants were farmer. And 5.80% or 6 participants were businessman. While 3.90% or 4 participants were others.

Among all the participants 26.20% or 27 participants were service holder, student 10.70% or 11 participants. On the other hand, 14.60% or 15 participants were farmer and 19.40% or 20 participants were businessman. While 29.10% or 30 participants were others.

In this study, 59.22% of the participants or 61 participants were living area were urban on the other hand 40.78% of the participants or 42 participants living area were rural.

In this study, 78.06% of the participants or 81 participants utilize the support meaningfully. On the other hand, 21.4% of the participants or 22 participants not utilize the support meaningfully.

Amputation related characteristic:

Type of prosthesis

In this study, 74.6% of the participants or 75 participants were below knee prosthesis on the other hand 24.72% of the participants or 25 participants were above knee prosthesis and 0.97% of the participants or 1 were others.

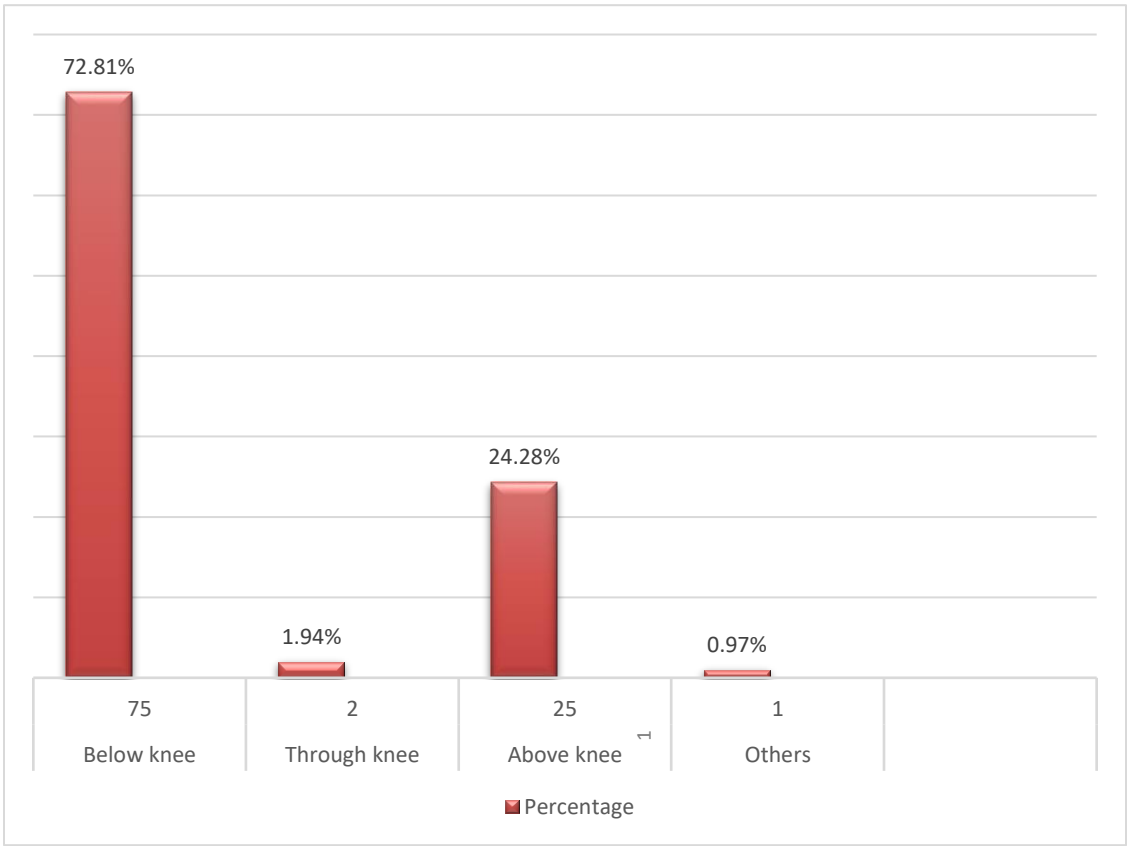


Figure 4.1

Result of amputation

In this study, 58.25% of the participants or 60 participants were accident on the other hand 27.18.% of the participants or 28 participants were others and 2.91% of the participants or were diabetes.

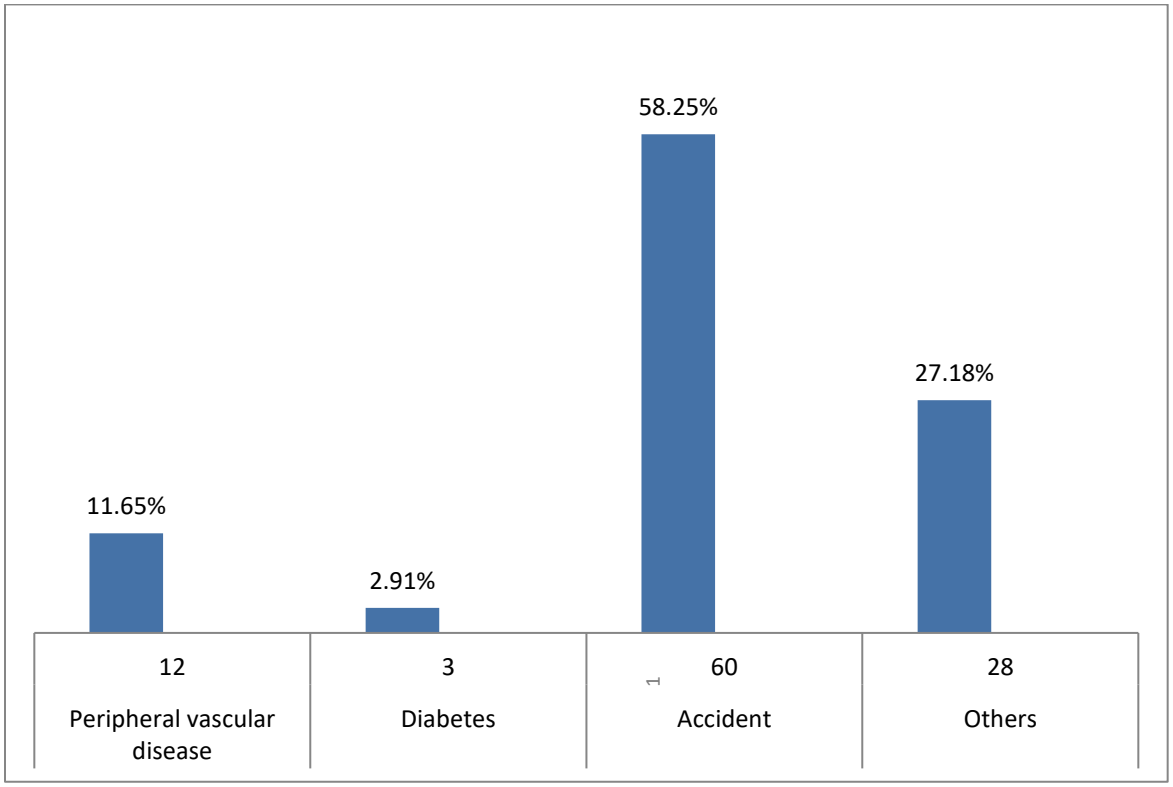


Figure 4.2

Table-4: Amputation related variable:

Variable	Mean ± SD
Duration of amputation	24.48 ± 24.012
Duration of prosthesis	4.56 ± 4.089
Use the prosthesis in an average per day	11.04 ± 2.169

Among 103 participants 24.012 standard deviation and Mean 24.48 duration of amputation.

Among 103 participants 4.089 standard deviation and Mean 4.56duration of Prosthesis.

Among 103 participants 2.169 standard deviation and Mean 11.04 of Use the prosthesis in an average per day.

Quality of life:

Table-5: Facets and domain mode / mean values (n=103)

Category	Averaged Domain Scores	Corrected Scores #
Domain I: Physical Health	25.26	61.6
Domain II: Psychological	22.0	66.6
Domain III: Social relationship	10.6	63.4
Domain IV: Environment	28.2	63.0

All four domains reflected positive impacts on quality of life with domain 2 (psychological) obtaining the highest score with a mean of 66.6. Domain 1 (physical health) acquired the least score among all the domains with a transformed mean score of 61.6.

Physical health domain:

Physical health domain scoring shows that 44.67% (n=46) participants have the high QOL, 54.37% (n=56) participants have the normal and 0.97 (n=1) participants have the low Quality of life in the spectrum of physical conditions. Because 1 of them scored below 45, another 56 scored between 45 to 65 and the rest of participants scored above 65.

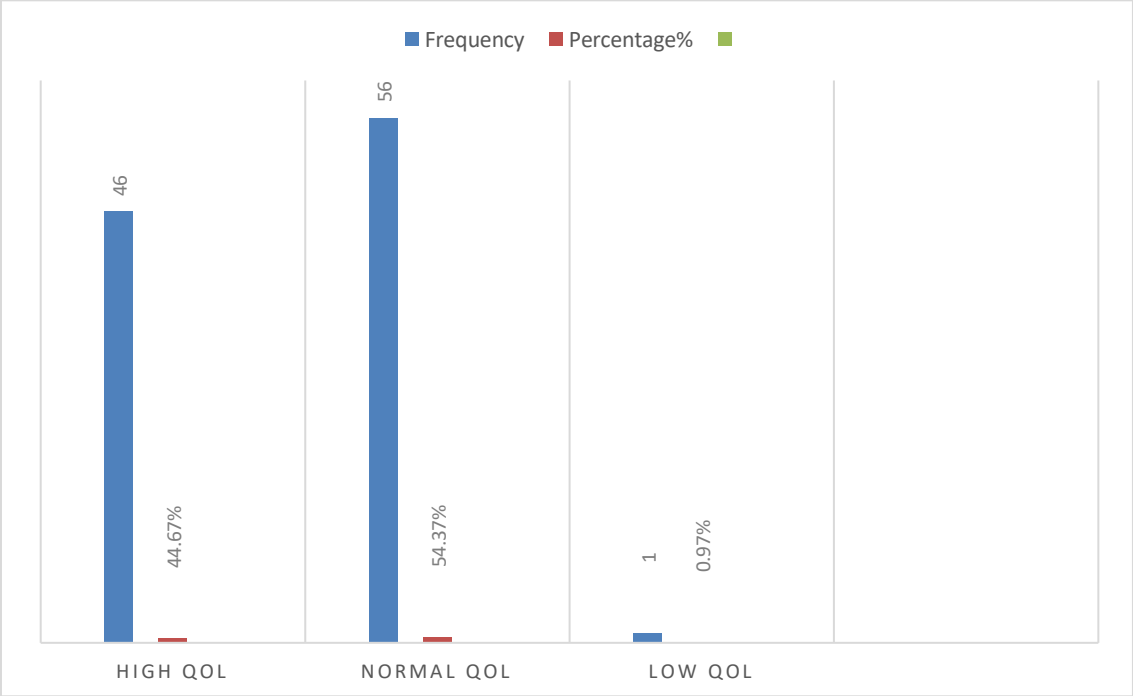


Figure 4.3

Psychological health domain:

Among all participants 18.44% have the high quality of life and 72.81% have the normal quality of life in the consideration of psychological health.

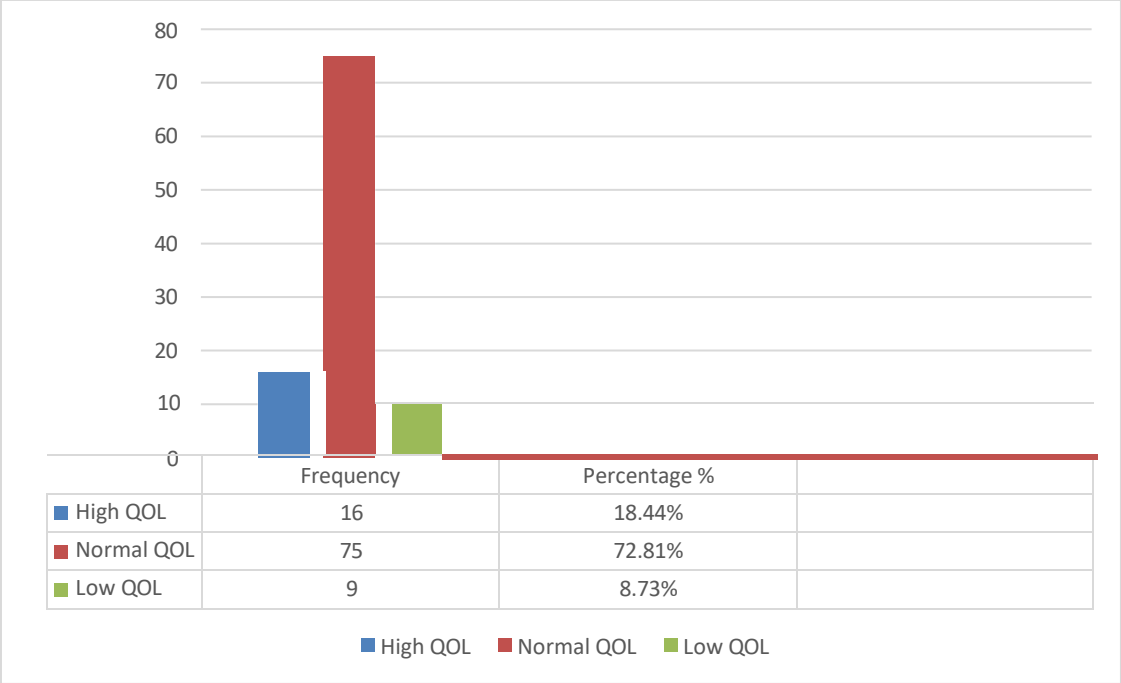
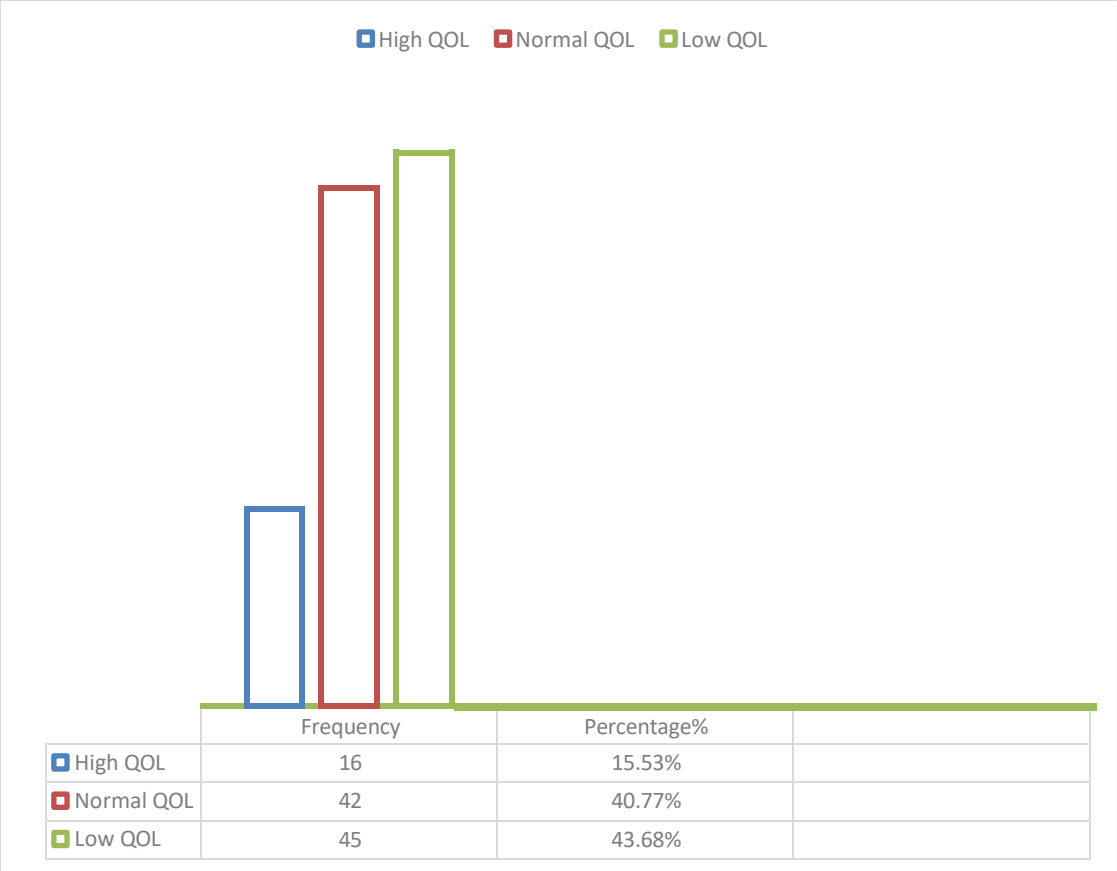


Figure 4.4

Social relationship domain:

According to the analysis, shows that the social health is very devastating for those participants that 45 persons of them leading low quality of life, 42 have normal and only 16 has high quality of life.



	Frequency	Percentage%	
High QOL	16	15.53%	
Normal QOL	42	40.77%	
Low QOL	45	43.68%	

Figure 4.5

Environmental health domain:

It seems that among 103 participants high quality of life belongs to 80 persons and the 23 have normal quality of life in Environmental Health Domain. As according to WHOQOL-BREF scoring below 45 is low Quality of life, scoring from 45 to 65 is normal quality of life and scoring more than 65 is high quality of life.

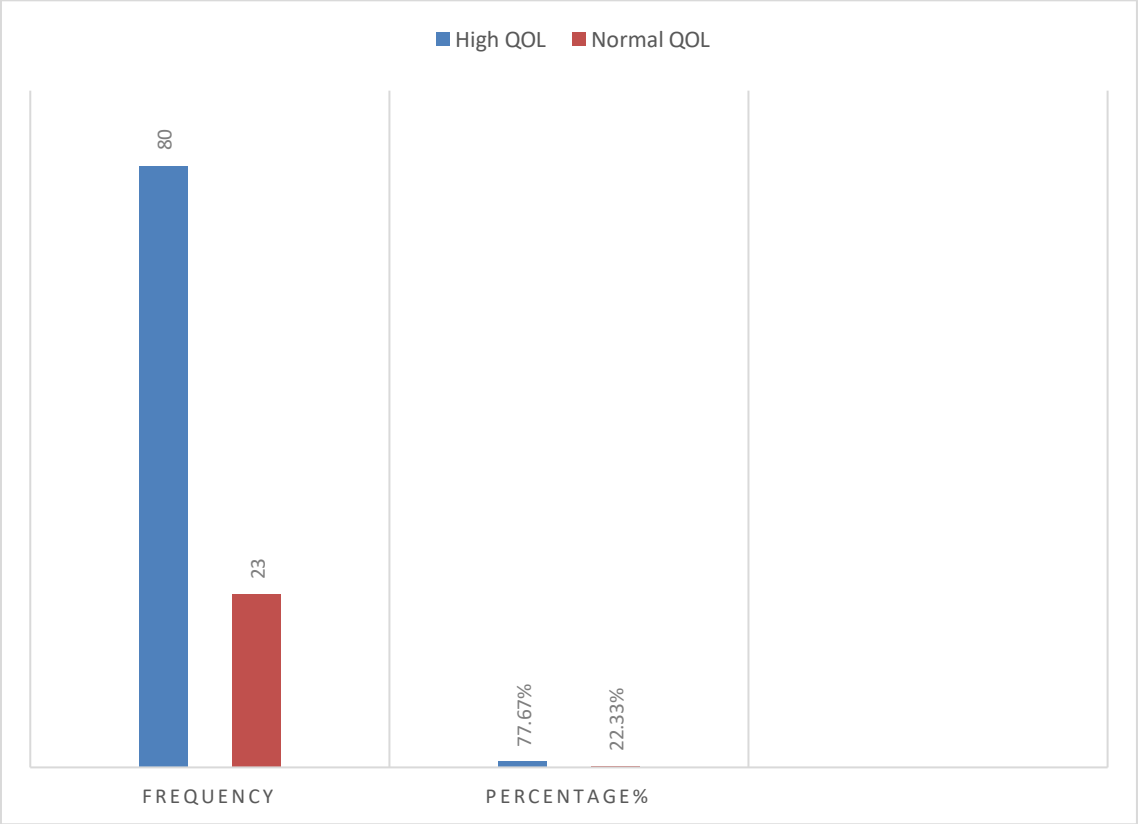


Figure 4.6

Table-6: Association between lower limb prosthesis and quality of life:

The Chi-Square Test performed between lower limb and Physical health. The Chi squire value was 133.124 and P value was <0.001. Significant association was observed between lower limb prosthesis and quality of life (P<0.018). The Chi-Square Test performed between lower limb and Psychosocial. The Chi squire value was 42.737 and P value was 0.028. Significant association was not observed between lower limb prosthesis and quality of life (P<0.028). The Chi-Square Test performed between lower limb and Environment. The Chi squire value was 20.358 and P value was 0.159. Significant association was not observed between lower limb prosthesis and quality of life (P<0.159). The Chi-Square Test performed between lower limb and social relationship. The Chi squire value was 31.757 and P value was 0.133. Significant association was not observed between lower limb prosthesis and quality of life (P<0.133).

Variable	Chi- square	P value	Significance
Physical health	133.124	<0.001	Significance**
Psychosocial	42.737	0.028	Significance*
Environment	20.358	0.159	Non-Significance
Social relationship	31.757	0.133	Non-Significance

*≤0.05; **≤0.01 ; ***≤0.001 ;

Psychosocial adaptation

Table-7: Psychosocial adjustment:

Psychosocial adjustment	**Mean ± SD**
General adjustment	16.33 ± 1.141
Social adjustment	16.49 ± 1.170
Adjustment to limitation	16.33 ± 1.465

Standard deviation 1.141 and Mean 16.33 of Aesthetic Satisfaction. Standard deviation 1.170 and Mean 16.49 of Functional Satisfaction and Standard deviation 2.260 and Mean 16.89 of Global Satisfaction

Table-8: Limitation:

Limitation	**Mean ± SD**
Activity restriction	7.82 ± 0.937
Functional restriction	8.24 ± 0.985
Social restriction	3.88 ± 0.690

Standard deviation 0.937 and Mean 7.82 of Activity restriction. Standard deviation 0.985 and Mean 8.24 of Functional restriction and Standard deviation 0.690 and Mean 3.88 of social.

Table-9: Satisfaction:

Satisfaction	Mean ± SD
Aesthetic Satisfaction	8.17 ± 1.401
Functional Satisfaction	8.72 ± 1.106
Global Satisfaction	16.89 ± 2.260

Standard deviation 1.401 and Mean 8.17 of Aesthetic Satisfaction. Standard deviation 1.106 and Mean 8.72 of Functional Satisfaction and Standard deviation 2.260 and Mean 16.89 of Global Satisfaction.

Table-10: Overall Psychosocial adaptation

Variable	Mean ± SD
Psychosocial adjustment	49.20 ± 3.008
Limitation	19.93 ± 2.139
Satisfaction	19.86 ± 2.271

Psychosocial adjustment

High frequency 21.4% of 22 participants score 49, low frequency 0.97% of 1 participant score 38, 39. Standard deviation 3.008 and Mean 49.20 which means psychosocial adaptation very good.

Limitation

High frequency 19.4% of 20 participants score 19,21; low frequency 1.9% of 2 participants score 16. Standard deviation 2.139 and Mean 19.93, which moderate limitation trapped amputee patients.

Satisfaction

High frequency 19.2% of 15 participants, low frequency 1.9% of 2 participant score 11, 12, 13. Standard deviation 2.271 and Mean 16.86, where satisfaction moderately good.

Table-11: Association between lower limb prosthesis and psychosocial adaptation:

The Chi-Square Test performed between lower limb and Psychosocial adaptation. The Chi squire value was 22.820 and P value was 0.957. Significant association was observed between (P<0.957). The Chi-Square Test performed between lower limb and Limitation. The Chi squire value was 31.058 and P value was 0.152. Significant association was observed between (P<0.152). The Chi-Square Test performed between lower limb and Satisfaction. The Chi squire value was 48.057 and P value was 0.020. Significant association was observed between (P<0.020).

Variable	Chi- square	P value	Significance
Psychosocial adjustment	22.820	0.957	Non-Significance
Limitation	31.058	0.152	Non-Significance
Satisfaction	48.057	0.020	Significance*

*≤0.05; **≤0.01 ; ***≤0.001 ;

Table-12: Association between Quality of life and psychosocial adaptation:

Table-12.1: Association between Physical health and psychosocial adaptation:

The Chi-Square Test performed between physical health and Psychosocial adaptation. The Chi-squire value was 138.256 and P value was 0.337. No Significant association was observed between (P<0.957). The Chi-Square Test performed between physical health and Limitation. The Chi-squire value was 106.580 and P value was 0.87. No Significant association was observed between (P<0.87). The Chi-Square Test performed between physical health and Satisfaction. The Chi squire value was 174.835 and P value was <0.001. Significant association was observed between (P<0.001).

	Variable	**Chi- square**	**P value**	**Significance**
Physical health	Psychosocial adaptation	138.256	0.337	Non-Significance
	Limitation	106.580	0.87	Non-Significance
	Satisfaction	174.835	<0.001	Significance***

*≤0.05; **≤0.01;
***≤0.001;

Table-12.2: Association between Psychosocial and psychosocial adjustment

The Chi-Square Test performed between psychosocial and Psychosocial adaptation. The Chi squire value was 166.113 and P value was <0.001. Significant association was observed between (P<0.001). The Chi-Square Test performed between psychosocial and Limitation. The Chi squire value was 77.368 and P value was 0.311. No Significant association was observed between (P<0.311). The Chi-Square Test performed between psychosocial and Satisfaction. The Chi squire value was 136.159 and P value was 0.001. Significant association was observed between(P<0.001)

	Variable	Chi- square	P value	Significance
Psychosocial	Psychosocial adaptation	166.113	<0.001	Significance***
	Limitation	77.368	0.311	Non-Significance
	Satisfaction	136.159	0.001	Significance***

*≤0.05; **≤0.01 ;
***≤0.001 ;

Table-12.3: Association between social relationship and psychosocial adaptation:

The Chi-Square Test performed between social relationship and Psychosocial adaptation. The Chi-squire value was 68.820 and P value was 0.204. No Significant association was observed between (P<0.204). The Chi-Square Test performed between social relationship and Limitation. The Chi-squire value was 60.674 and P value was 0.019. Significant association was observed between (P<0.019). The Chi-Square Test performed between social relationship and Satisfaction. The Chi-squire value was 69.799 and P value was 0.034. Significant association was observed between (P<0.034).

	Variable	Chi- square	P value	Significance
Social relationship	Psychosocial adaptation	68.820	0.204	Non-Significance
	Limitation	60.674	0.019	Significance**
	Satisfaction	69.799	0.034	Significance*

*≤0.05; **≤0.01 ;
***≤0.001 ;

Table-12.4: Association between social relationship and psychosocial adaptation:

The Chi-Square Test performed between social relationship and Psychosocial adaptation. The Chi-squire value was 114.452 and P value was 0.960. No Significant association was observed between (P<0.960). The Chi-Square Test performed between social relationship and Limitation. The Chi squire value was 89.756 and P value was 0.019. Significant association was observed between (P<0.019). The Chi-Square Test performed between social relationship and Satisfaction. The Chi-squire value was 129.418 and P value was <0.001. Significant association was observed between (P<0.001).

	Variable	**Chi- square**	**P value**	**Significance**
Environment	Psychosocial adaptation	114.452	0.096	Non-Significance
	Limitation	89.756	0.019	Significance**
	Satisfaction	129.418	<0.001	Significance***

*≤0.05; **≤0.01 ;
***≤0.001 ;

The Quality of Life (QoL) of individuals with amputation in developed countries have been investigated and reported in literature, but there is a paucity of information on the QoL of people living with amputation in developing countries like India. This study therefore designed to investigate the QoL of subjects with transtibial amputation among Indian population Methods: Thirty subjects aged between 18-54 years were selected for the study. The objectives of the study were to find out psychological adjustments, activity restriction, satisfaction in transtibial and transfemoral amputees by using TAPES-R questionnaire.

Findings from the World Health Organization Quality of Life Bref (WHO-QOL-BREF) indicate Patients perception of the quality of environment; with slightly reduced satisfaction with physical health. Of most concern is the report of poor psychological health and lack of quality social relationships. Patients additionally reported overall satisfaction with health as Poor and overall QOL as Good. The average of all domain scores indicating moderate QOL perception.

The results for Psychosocial scale show that adjustment. The overall result shows that the activity restriction is majorly affected, followed by psychological adjustments which was moderately good and Satisfaction with the prosthesis is also moderately good and there was not too much limitation: The amputee individuals are coping psychologically with the event but are restricting themselves from more demanding activities.

CHAPTER - V DISCUSSION

People with lower limb amputation had inferior QoL as compared to the general population. This finding has been documented by various other studies and shows that amputation is a major life event potentially affecting QoL many years after the event. In this study, use of a prosthesis and comorbidities were found to be the most important factors influencing the physical health component of QoL. A similar higher prevalence of amputation among males has been observed in other studies. The unemployed status of male members can have a direct impact on the family's income and living standards, since in India the male is traditionally the primary earning member of the family. (Chandra et al., 2010).

The effect of amputation on the social and psychological well-being of patients has been established. How-ever, the experiences and needs of amputees for the process of adjustment varies among individuals and cultures. This study explores the quality of life and psychosocial adaptation of lower limb amputation. Methods: Thirteen patients with lower limb amputation were recruited from a large rehabilitation center in CRP for participation in interviews. A focus group discussion with 103 amputees was followed by individual, semi structured interviews with 103 amputees (which included 1 from the focus group) between and March 2023- July 2023. Results: Patients' needs and reactions prior to and after amputation were controlled by the surrounding support system. Hopelessness and physical health, and family and community support all contributed to shape the overall patient experience, including psychological and physical adjustment. Facilitating the re-integration of patients with lower limb amputation patients into their communities, as well as providing the required support system, is crucial to ensure a healthy adjustment process for amputees.

Even in our country males are the main earning member of the family. This might explain the important role of employment status in determining QoL in amputees, as unemployment may be distressing for an individual and potentially affect his mental functioning, as observed in this study. Among all of lower limb prosthesis users, about 103 participants, most of the participants were. 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. In a similar study with 100 participants with limb prosthesis in Pakistan, 18 participants had primary education, 33 participants had middle class education according to their country, 20 participants had secondary education, 8 participants had intermediate education, 10 participants had their graduation and only 2 participants had post- graduation degree (Malik et al., 2013).

This population-based cross-sectional survey identified the elements that are to blame in Bangladesh for lower limb amputation. The study's goal was to discover the primary causes of lower limb amputations. The vast majority of people the age range was 21-30 years and mean of 31.5. In the mid-twenties A survey conducted by Amponsah et al. in the twentieth century discovered that 31.6% (n=140) of the population the age bracket 25-30 years of age.

Among all the participants Data shows that among 103 participants, most of the participants were male 60.3% rather than female 39.7%. It also shows there were 62 males and only 41 females. On the other hand, Age of the participants were start from 18 years. Maximum age 54. High frequency 8.7% of 9 participants of 23 years of age. About 7.8% of the participants or 8 complete their home education and 18.4% of the participants or 19 participants have completed primary education where 47.6% of the participants or 49 participants have finished their high school education and 20.4% or 21 participants have completed higher secondary education. Among the participants 5.8 % or 6 participants have completed graduation degree. Work status now among all the participants 26.2% or 27 participants were service holder, 10.7% or 11 participants student. On the other hand, 14.6% or 15 participants farmer. And 19.4% or 20 participants businessman. While 29.1% or 30 participants in others job. But before amputation 38.5% or 30 participants were involved at other activities. In this study, 2.6% of the participants or 2 participant was unemployed (unable to work) and government employee before amputation, 56.3% of the participants or 58 participants were service holder, 31.1% of the participants or 31 participants were student, 3 participant or 2.9% of the participants was farmer, 3.9% of the participants or 4 participants were others job (Malik et al., 2013).

In this study, 72.8%% of the participants or 75 participants were using below knee

prosthesis on the other hand 1.9% of the participants or 2 participants were using through knee prosthesis. In this study, 24.3% of the participants or 25 participants were above knee prosthesis on the other hand, 0.97% of the participants or 1 were through knee and others. A study from Canada showed, patients who required a reamputation most commonly underwent a below-knee amputation (61%). An above-knee amputation was performed in 22% and a foot amputation in 14% of reamputation patients (Kayssi et al., 2016). From these studies it indicates that in most of the cases among lower extremities amputation transtibial amputation occurs mostly.

According to a study conducted in Canada, amputations were most commonly advised following hospitalization for diabetes complications (81%), cardiovascular disease (6%), or cancer (3%) (Kayssi et al., 2016). In my study, I discovered that 2.1% of amputations are caused by post-operative problems, while 6.2% are caused by infection. Amputations due to burns account for 3.1% of all amputations. Electric current is responsible for 3.1% of amputations. In my analysis, 6.2% of amputations occurred as a result of a work-related accident, 1% as a result of punishment, and 1% as a result of an animal bite. Furthermore, there are no amputations among the 97 participants as a result of a bomb blast, shooting, shelling, or mine burst. According to another study, the most common causes of lower limb amputation are falls from great heights (3.9%), cancer (3.3%), and other illnesses such as burns, gunshot attacks, and electric shock (2.4%). A study conducted in Norway discovered three distinct etiologic groups: diabetic amputees (DA): 74 (34%), non-diabetic peripheral vascular disease amputees (PVDA): 113 (53%), and "other conditions": 28 (13%). Diabetes was discovered in 5% of amputees during their hospitalization (Wits & Rnningen 2001). According to a Rwandan study, the leading cause of amputation is gangrene (43.9%), followed by malignancy (29%), burns (2.8%), diabetic foot (1.9%), peripheral vascular disease (0.9%), and trauma (13.1%) (Murwanashyaka et al.,2013).

The causes and severity of amputation vary by country depending on degree of industrialization, mode of transportation, social and economic circumstances, and health care system (Pooja 2013). Here in my study among 103 participants 11.7% amputation occur due to vascular diseases, 2.9% amputation occur due to diabetes, 3.1% amputation occur due to cancer. 1% amputation occur due to diabetic trauma. Among 97 participants 58.3% amputation occur due to trauma, 54.6% amputation occur due to road traffic accident. Another study in Bangladesh shows that RTA occurs in 58.7% population,

peripheral vascular disease 7.5%, infection 6.3%, congenital disease 5.4%, diabetes 5.1% (Hassan et al., 2019). Stated that traumatic amputation was higher in developing countries whereas amputation due to vascular diseases was more frequent in developed countries (Sansam et al. 2009).. The fact that road traffic accidents are the leading 39 cause of lower limb amputation as reported in this study is supported by other studies conducted in India (Pooja 2013) and Nigeria (Obalum & Okeke).

Using a prosthesis was found to affect the physical health component more positively than the mental health component of QoL. From this study, the data shows that among 30 participants' 18 participants or 60% participants are urban. And rest of them, 12 participants or 40% participants are rural. In a similar study in Pakistan, among 100 participants 62 participants were rural and 38 participants were from urban community. (Malik et al., 2013). In this study, 30% of the participants or 9 participants were using trans-femoral prosthesis on the other hand 70% of the participants or 21 participants were using transtibial prosthesis.

Total 103 participants, high frequency 20.5% of 16 participants, low frequency 1.3% of 1 participant. Standard deviation 2.602 and Mean 24.82 which moderately good physical health and psychosocial high frequency 26.9% of 21 participants, low frequency 1.3% of 1 participant. Standard deviation 2.163 and Mean 19.71which moderately good. High frequency 34.6% of 27 participants, low frequency 1.3% of 1 participant. Standard deviation 1.305 and Mean 8.90 which lack of quality social relationship. High frequency 26.9% of 21 participants, low frequency 2.6% of 2 participants. Standard deviation 2.227 and Mean 29.95 which moderately good for environment.

Psychosocial adaptation measure where high frequency 21.4% of 22 participants score 49, low frequency 0.97% of 1 participant score 38 and 39. Standard deviation 3.008 and Mean 49.20 which means psychosocial adaptation very good. Limitation measure where high frequency High frequency 19.4% of 20 participants score 19 and 21, low frequency 1.9% of 2 participants score 16. Standard deviation 2.139 and Mean 19.93 which moderate limitation trapped amputee patients. High frequency of satisfaction 19.2% of 15 participants, low frequency 1.3% of 1 participant. Standard deviation 2.271 and Mean 16.86, where satisfaction moderate.

CHAPTER–V I CONCLUSION AND RECOMMENDATION

Amputation is a sad and even fatal event in a person's life. This propels a man into new and hard stages of his life. Amputation is a sad and even fatal event in a person's life. This propels a man into new and hard stages of his life. It is one of the primary causes of impaired daily life activities and a socioeconomic burden. An early prosthesis is a viable choice for assisting amputees with independence and making them most capable of doing daily activities. Quality of life, physical satisfaction, mental satisfaction level, and the relationship between prosthesis type and quality of life can all be measured. The satisfaction of patients with an amputated lower limb with their prosthesis was positive across several parameters, including the appearance of the prosthesis, weight, wearing, limb condition, and environmental aspect. Although amputation is one of the most significant problems a person may face, it is possible to return to a healthy, happy, and productive life even after a prosthesis is completed. The measurement of quality of life is insufficient to characterize the situation for people who use a prosthetic limb. Lower limb amputation is a physical, emotional, and psychological hardship for the patient, their family, and the services that attempt to help them. Lower limb amputees reported neither good nor poor quality of life, which is generally close to poor. The primary findings of this study were the importance of work status and the usage of assistive equipment in predicting QoL, as well as the importance of health satisfaction, mental contentment, negative feelings, and overall quality of life. The true quality of life is thoroughly measured in this study; nevertheless, the inner and day-to-day situations are not evident in this study. Because of its complex nature, assessing QoL in its whole is difficult. It cannot adequately capture the heart of quality of life in such a short amount of time. This study provides an overview of participants' quality of life and psychological adaptability. The study can help to determine prosthesis satisfaction and the development needs of prosthetic devices to improve the quality of life and psychosocial adaptation of people who have had lower limb amputations.

Recommendation:

The findings could be generalized, if QOL and psychosocial adaptation could assess again further and follow-up it until five to ten years. The results also suggest that the physical impairments in different QOL and psychosocial adaptation dimensions are not universal. And there is less research about amputation along with quality of life and psychosocial adaptation with lower limb amputee patients. However, most of the findings highlight the impact of any further disaster. More research in this area is required for patient improvement. The use and satisfaction with prosthesis device can show us the users' demand and the development of prosthesis in. The study could spread out some message for further preparatory action plans. It could help to take further necessary steps in recovery and rehabilitation activities for ensuring sustainability.

REFERENCES

- Kohler, F., Cieza, A., Stucki, G., Geertzen, J., Burger, H., Dillon, M.P., Schiappacasse, C., Esquenazi, A., Kistenberg, R.S., and Kostanjsek, N., (2009). Developing Core Sets for persons following amputation based on the International Classification of Functioning, Disability and Health as a way to specify functioning. Prosthetics and orthotics international, 33(2):117-129.
- Wan, C., Tu, X., Messing, S., Li, X., Yang, Z., Zhao, X., Gao, L., Yang, Y., Pan, J., and Zhou, Z., (2011). Development and validation of the general module of the system of quality of life instruments for chronic diseases and its comparison with SF-36. Journal of Pain and Symptom Management, 42(1):93-104.
- Asano, M., Rushton, P., Miller, W.C., and Deathe, B.A., (2008). Predictors of quality of life among individuals who have a lower limb amputation. Prosthetics and Orthotics International, 32(2):231 243.
- Murray, C.D., (2013). 'Don't you talk to your prosthetist?' Communicational problems in the prescription of artificial limbs. Disability and Rehabilitation, 35(6):513-521.
- Pooja, G.D., and Sangeeta, L., (2013). Prevalence and aetiology of amputation in Kolkata, India: A retrospective analysis. Hong Kong Physiotherapy Journal, 31(1):36-40.
- Mac Neill, H.L., Devlin, M., Pauley, T., and Yudin, A., (2008).Long-term outcomes and survival of patients with bilateral transtibial amputations after rehabilitation. American journal of physical medicine and rehabilitation, 87(3):189-96
- Cuschieri, S 2019, 'The STROBE guidelines', *Saudi journal of anaesthesia*, vol. *13,* Suppl 1, p.S31.
- Ziegler-Graham, K., MacKenzie, E.J., Ephraim, P.L., Travison, T.G., and Brookmeyer, R., (2008). Estimating the prevalence of limb loss in the United States: 2005 to 2050. Archives of Physical Medicine and Rehabilitation, 89(3): 422-429.

- Setia, MS 2016, "Methodology series module 3: Cross-sectional studies", Indian journal of dermatology, vol. 61, no. 3 :261.
- Rai, N & Thapa, B 2015 "A study on purposive sampling method in research", *Kathmandu: Kathmandu School of Law, 5.*
- Campbell, S, Greenwood, M, Prior, S, Shearer, T, Walkem, K, Young, S, Bywaters, D & Walker, K 2020, "Purposive sampling: complex or simple Research case examples" Journal *of research in Nursing*, vol. *25, no.* 8, pp.652-661.
- Kenneth, N. R. (2005). Sample design for education survey research. Institut, UNESCO International Planning for Educational.
- Hopkins, W.G., 2017. Estimating sample size for magnitude-based inferences. Sportscience, 21: 1-4
- Hicks, C.M., 2009. Research Methods for Clinical Therapists E-Book: Applied Project Design and Analysis. Elsevier Health Sciences.
- Hannan, J.M.A., (2016). Medical and Pharmaceutical statistics. 2nd edition. Dhaka: AFI publication.
- Condie E, Scott H, Treweek S (2006). Lower limb prosthetic outcome measures: a review of the literature 1995 to 2005. Journal of Prosthetics and Orthotics 18:1S:13-45 DH 2000: The NHS Plan. A summary.
- World Health Organization (1996) WHO-BREF: Introduction, administration, scoring and generic version of the assessment. 1996. Geneva: WHO. http://www.who.int/mental_health/media/en/76.pdf Accessed 9 August 2017.
- Apidechkul T. Comparison of quality of life and mental health among elderly people in rural and suburban areas, Thailand. Southeast Asian J Trop Med Public Health. 2011;42:1282–92.
- Carta MG, Aguglia E, Caraci F, Dell'Osso L, Di Sciascio G, Drago F, et al. Quality of life and urban/rural living: preliminary results of a community survey in Italy. Clin Pract Epidemiol Ment Health. 2012;8:169–74.
- Bonomi AE, Patrick DL, Bushnell DM, Martin M. Validation of the United States' version of the world health. Organization quality of life (WHOQOL) instrument. J Clin Epidemiol. 2000;53:1–12

- Maas J, Verheij RA, Groenewegen PP, de Vries S, Spreeuwenberg P. Green space, urbanity, and health: how strong is the relation? J Epidemiol Community Health. 2006;60:587–92.
- Van den Berg AE, Maas J, Verheij RA, Groenewegen PP. Green space as a buffer between stressful life events and health. Soc Sci Med. 2010;70:1203–10.
- Carta MG, Hardoy MC, Pilu A, Sorba M, Floris AL, Mannu FA, et al. Improving physical quality of life with group physical activity in the adjunctive treatment of major depressive disorder. Clin Pract Epidemiol Ment Health. 2008;4:1
- Jacka FN, Kremer PJ, Berk M, de Silva-Sanigorski AM, Moodie M, Leslie ER, et al. A prospective study of diet quality and mental health in adolescents. PLoS One. 2011;6:e24805.
- Taylor G. Change in mental health after smoking cessation: systematic review and meta-analysis. BMJ. 2014;348:g1151.
- Ng SL. Subjective residential environment and its implications for quality of life among university students in Hong Kong. Soc Indic Res. 2005;71:467–89.
- Leung KF, Wong WW, Tay MSM, Chu MML, Ng SSW. Development and validation of the interview version of the Hong Kong Chinese WHOQOL-BREF. Qual Life Res. 2005;14:1413–9.
- Jetté M, Sidney K, Blümchen G. Metabolic equivalents (METS) in exercise testing, exercise prescription, and evaluation of functional capacity. Clin Cardinol. 1990;13:555–65.
- Skevington SM, Lotfy M, O'Connell KA. The World Health Organization's WHOQOL-BREF quality of life assessment: psychometric properties and results of the international field trial. A report from the WHOQOL group. Qual Life Res. 2004;13:299–310.
- Kok BE, Coffey KA, Cohn MA, Catalino LI, Vacharkulksemsuk T, Algoe SB, et al. How positive emotions build physical health: perceived positive social connections account for the upward spiral between positive emotions and vagal tone. Psychol Sci. 2013;24:1123–32.

- Groenewegen PP, van den Berg AE, de Vries S, Verheij RA. Vitamin G: effects of green space on health, well-being, and social safety. BMC Public Health. 2006;6:149.
- Fuhrer R, Stansfeld SA, Chemali J, Shipley MJ. Gender, social relations and mental health: prospective findings from an occupational cohort (Whitehall II study). Soc Sci Med. 1999;48:77–87.
- Berry HL, Bowen K. Climate change and mental health: a causal pathways framework. Int J Public Health. 2010;55:123–32.
- Honold J, Beyer R, Lakes T, van der Meer E. Multiple environment burdens and neighborhood- related health of city residents. J Environ Psychol. 2012;32:305–17.
- De Vries S, van Dillen SME, Groenewegen PP, Spreeuwenberg P. Streetscape greenery and health: stress, social cohesion and physical activity as mediators. Soc Sci Med. 2013;94:26–33
- Wang X, Auchincloss AH, Barber S, Mayne SL, Griswold ME, Sims M, Diez Roux AV. Neighborhood social environment as risk factors to health behavior among African Americans: the Jackson heart study. Health Place. 2017;45:199–207.
- Latkin CA, Kennedy RD, Davey-Rothwell MA, Tseng TY, Czaplicki L, Baddela A, Edwards C, Chander G, Moran MB, Knowlton AR. The relationship between neighborhood disorder and barriers to cessation in a sample of impoverished inner- city smokers in Baltimore- Maryland, United States. Nicotine Tob Res. 2017:1–6.
- Mayne SL, Auchincloss AH, Moore KA, Michael YL, Tabb LP, Echeverria SE, et al. Cross-sectional and longitudinal associations of neighborhood social environment and smoking behavior: the multiethnic study of atherosclerosis. J Epidemiol Commun H. 2017;71:396–403.
- Miles R. Neighborhood disorder and smoking: findings of a European urban survey. Soc Sci Med. 2006;63:2464–75.
- Humpel N, Owen N, Leslie E. Environmental factors associated with adults' participation in physical activity. Am J Prev Med. 2002;22:188–99.

- Buder I, Zick C, Waitzman N. Health-related quality of life associated with physical activity: new estimates by gender and race and ethnicity. World Medical and Health Policy. 2016;8:409–20.
- Kirchengast S, Haslinger B. Gender differences in health-related quality of life among healthy aged and old-aged Australians: cross-sectional analysis. Gend Med. 2008;5(3):270–8.
- Philips DR, Siu O, Yeh AGO, Cheng KHC. The impacts of dwelling conditions on older persons' psychological well-being in Hong Kong: the mediating role of residential satisfaction. Soc Sci Med. 2005;60:2785–97.
- Bonsaksen T. Exploring gender differences in quality of life. Mental Health Rev J. 2012;17(1):39–49.
- Gallagher, P., & MacLachlan, M. (2000). Development and psychometric evaluation of the Trinity Amputation and Prosthesis Experience Scales (TAPES). *Rehabilitation Psychology, 45*(2), 130-154.
- Gallagher, P., Maclachlan, M., P, A. G., & Trinity, M. M. T. (2004). The Trinity Amputation and Prosthesis Experience Scales and Quality of Life in People With Lower-Limb Amputation, *85*(May). https://doi.org/10.1016/j.apmr.2003.07.009
- Aftabuddin M, Islam N, Jafar MA, Haque I. The status of lower-limb amputation in Bangladesh: a 6-year review. Surg Today. 1997;27(2):130-4. doi: 10.1007/BF02385901. PMID: 9017989.
- Reem Massarweh, Lecturer department of orthotics & prosthetics, school of rehabilitation science, university of Jordan. Vol. 30, No.1, 2019; doi 10.5463/DCID.v30i1.718
- Hicks, C and Hennessy, D (1999) Evidence-based educational commissioning and policy making: a case for the prospective use of a psychometric approach in defining the role and preparation of the nurse practitioner in Australia. Collegian 6 (3) 29 – 34
- Fraenkel, R. J., & Wallen, E. N. (2000). How to design and evaluate research in education (4th ed.). San Francisco: McGraw-Hill.

- Bergner, M., Bobbitt, R.A., Carter, W.B. et al. (1981). The Sickness Impact Profile: Development and final revision of a health status measure. Medical Care, 19, 787-805.
- Fallowfield, L. (1990). The Quality of Life: The Missing Measurement in Health Care. Souvenir Press.
- Hunt, S.M., McKenna, S.P. and McEwan, J. (1989). The Nottingham Health Profile. Users Manual. Revised edition.
- Kuyken, W., Orley, J., Hudelson, P. and Sartorius, N. (1994). Quality of life assessment across cultures. International Journal of Mental Health, 23 (2), 5-27.
- Olweny, C. L. M. (1992). Quality of life in developing countries. Journal of Palliative Care, 8, 25-30.
- Sartorius, N. and Helmchen, H. (1981). Aims and implementation of multi- centre studies. Modern Problems of Pharmacopsychiatry, 16, 1-8.
- Sartorius, N. and Kuyken, W. (1994). Translation of health status instruments. In J. Orley and W. Kuyken (Eds). Quality of Life Assessment: International Perspectives. Heidelberg: Springer Verlag.
- Szabo, S. (1996). The World Health Organisation Quality of Life (WHOQOL) Assessment Instrument. In Quality of Life and Pharmaeconomics in Clinical Trials (2nd edition, Edited by Spilker B.). Lippincott-Raven Publishers, Philadelphia, New York.
- The WHOQOL Group. The World Health Organization Quality of Life assessment (WHOQOL): position paper from the World Health Organization. Soc. Sci. Med., 41, 1403, 1995.
- Ware, J. E., Snow, K., K., Kosinski, M. and Gandek, B. (1993). SF-36 Health Survey: Manual and Interpretation Guide. New England Medical Center, MA, USA.
- World Bank. (1993). World Development Report: Investing in Health. New York: Oxford University Press.
- World Health Organization. (1991). World Health Statistics Annual. Geneva: WHO.

- The WHOQOL Group. (1994a). Development of the WHOQOL: Rationale and current status. International Journal of Mental Health, 23 (3), 24-56.
- The WHOQOL Group. (1994b). The development of the World Health Organization quality of life assessment instrument
- (the WHOQOL). In J. Orley and W. Kuyken (Eds) Quality of Life Assessment: International Perspectives. Heidelberg: Springer Verlag.
- The WHOQOL Group. (In preparation). The World Health Organisation Quality of Life Assessment (WHOQOL): Development and General Psychometric Properties.
- Pooja, G. D., & Sangeeta, L. (2013). Prevalence and aetiology of amputation in Kolkata, India: A retrospective analysis. Hong Kong Physiotherapy Journal, 31(1):36-40.
- Obalum, D. C., & Okeke, G. C. E. (2009). Lower limb amputations at a Nigerian private tertiary hospital. West African journal of medicine, 28(1).
- Sansam, K., Neumann, V., O'Connor, R., & Bhakta, B. (2009). Predicting walking ability following lower limb amputation: a systematic review of the literature. Journal of rehabilitation medicine, 41(8):593-603.
- Kayssi, A., de Mestral, C., Forbes, T. L., & Roche-Nagle, G. (2016). A Canadian population-based description of the indications for lower-extremity amputations and outcomes. Canadian Journal of Surgery, 59(2):99.

APPENDIX

Information sheet (English)

Research study tittle: Quality of life and psychosocial adaptation of lower limb amputee patients.

Objective of the study:

1. This study is being conducted to find out quality of life and psychosocial adaptation of lower limb amputee patients.

Participants of the study: Patients with lower limb amputation are invite to participate in this research study.

Data collection procedure: If you participate in this study, you will be asked to some personal and other related information regarding lower limb amputation by using a questionnaire. This will take approximately 20-25 minutes of your time.

Benefits of participations: Participants will have the opportunity to reflect on, share and more aware of their thoughts and feelings about quality of life and psychosocial adaptation. Additionally, your participation and better statements are likely to help us find the answer to the research questions and in future study it may benefitted to the researcher.

Risks of participations: We do not foresee any risk or discomfort from your participation in the study.

Economic benefits: You will not be given any money or gifts to take part in this research.

Confidentiality: All information provided by you will be treated as confidential it will ensure that the source of information remains secret. Also, your name will not appear anywhere and no one except me will know about your specific answers.

Voluntary participation: Yours participation in this study is voluntary, so you may choose to participate or not. Your decision will not to volunteer will not influence the

treatment you may be receiving either now or in the future. If you do not wish to continue, you have the right to withdraw from the study, without penalty, at any time.

Who to contact: If you have any query, you may ask me now or later, even after thstudy has started. If you wish to ask questions later, you may contact any of the following:

Researcher:

MD. Mohinul Islam Bhuiyan Bappy

4th Professional BSc in Physiotherapy

Bangladesh Health Professions Institute (BHPI)

Contact no: 01865511854

E-mail: mohinulislam777@gmail.com

0r,

My research supervisor:

Nadia Afrin Urme

Lecturer, Department of Physiotherapy

Bangladesh Health Professions Institute (BHPI), CRP, Savar, Dhaka- 1343.

E-mail: afrinnadia4127@yahoo.com

Consent certificate

A) Participant or witness:

1. Did you understand the information sheet?

yes/no

2. Do you have anything else to know?

yes/no

(If yes, ...)

3. Do you understand that you will not benefit financially from this research?

yes/no

4. Are you allowed to ask questions?

yes/no

5. Do you consent to your information being recorded?

yes/no

6. Have you got enough time to decide?

yes/no

7. Are you consenting to participate in this study?

yes/no

Name of Participant _____

Signature of Participant _____Date _____

If participant is Illiterate

Name of literate witness _____

Thumb print of participant 

Signature of literate witness _____Date _____

B) Researcher:

I explained the above study precisely to the participant and she indicated his willingness to participate in the study.

Name of Researcher _____

Signature of Researcher _____ Date _____

তথ্য পত্র (বাংলা)

গববষণা অধ্যয়বের শিবরাোম: নিম্ন অঙ্গনিচ্ছেদ ররোগীচ্ছদর জীিচ্ছির গুণমোি এিং মচ্ছোসোমোজজক অনিচ্ছhোজি।

অধ্যয়বের উবেিয: নিম্ন অঙ্গপ্রত্যঙ্গহীি ররোগীচ্ছদর জীিিhোত্রোর মোি এিং মচ্ছোসোমোজজক অনিচ্ছhোজি খুঁচ্ছজ রির করোর জিয এই গচ্ছিষণোটি পনরচোনিত্ হচ্ছে। **অধ্যয়বের অাংিগ্রহণকারীরা:** নিম্ন অঙ্গনিচ্ছেদ সহ ররোগীচ্ছদর এই গচ্ছিষণো গচ্ছিষণোয় অংশগ্রহচ্ছণর জিয আমন্ত্রণ জোিোচ্ছো হয়।

ডেটা সাংগ্রবহর পদ্ধশত: অধ্যয়চ্ছির অংশগ্রহণকোরীরো: নিম্ন অঙ্গনিচ্ছেদ সহ ররোগীচ্ছদর এই গচ্ছিষণো গচ্ছিষণোয় অংশগ্রহচ্ছণর জিয আমন্ত্রণ জোিোচ্ছো হয়।

অাংিগ্রহবণর সুশবধ্া: অংশগ্রহণকোরীচ্ছদর জীিচ্ছির গুণমোি এিং মচ্ছোসোমোজজক অনিচ্ছhোজি সম্পচ্ছকে ত্োচ্ছদর নচন্তোিোিিো এিং অি িূ নত্গুনি প্রনত্ফনিত্ করোর, রশয়োর করোর এিং আরও সচ্ছচত্ি হওয়োর সচ্ছhোগ থোকচ্ছি। উপরন্তু, আপোর অংশগ্রহণ এিং আরও িোি নিূনত্গুনি আমোচ্ছদর গচ্ছিষণো প্রচ্ছের উত্তর খুঁচ্ছজ রপচ্ছত্ সোহোhয করচ্ছি এিং িনিষযচ্ছত্ গচ্ছিষণোয় এটি গচ্ছিষচ্ছকর জিয উপকৃ ত্ হচ্ছত্ পোচ্ছর।

অাংিগ্রহবণর ঝুঁশক: অধ্যয়চ্ছি আপোর অংশগ্রহণ রথচ্ছক আমরো রকোচ্ছো ঝ নক িো অস্বজির পূিোেিোস নদই িো।

অথ্নেশতক সুশবধ্া: এই গচ্ছিষণোয় অংশ রিওয়োর জিয আপোচ্ছক রকোচ্ছো অথ েিো উপহোর রদওয়ো হচ্ছি িো।

ডগাপেীয়তা: আপোর দ্বোরো প্রদত্ত সমি থ্য রগোপীয় নহসোচ্ছি নিচ্ছিনচত্ হচ্ছি এটি নিজিত্ করচ্ছি রh ত্চ্ছথযর উৎস রগোপি থোকচ্ছি। এছোড়োও, আপোর িোম রকোথোও প্রদনশত্ে হচ্ছি িো এিং আনম ছোড়ো রকউ আপোর নিনদেষ্ট উত্তর সম্পচ্ছকে জোিচ্ছি িো।

ডেচ্ছায় অাংিগ্রহণ: এই গচ্ছিষণোয় আপোর অংশগ্রহণ রস্বোচ্ছসী, ত্োই আপনি অংশগ্রহণ িো িো করো রিচ্ছছ নিচ্ছত্ পোচ্ছরি। আপোর রস্বোচ্ছসিক িো হওয়োর নসদ্ধোন্ত আপনি এখি িো িনিষযচ্ছত্ রh নচনকত্্সো গ্রহণ করচ্ছছি ত্ো প্রোনিত্ করচ্ছি িো। আপনি hনদ চোনিচ্ছয় রhচ্ছত্ িো চোি, ত্োহচ্ছি আপোর অধ্যয়ি রথচ্ছক প্রত্যোহোর করোর অনধ্কোর আচ্ছছ, জনরমোিো ছোড়োই, রhচ্ছকোচ্ছো সময়।

কার সাবথ্ ডdাগাবdাগ করববে: আপোর hনদ রকোচ্ছো প্রে থোচ্ছক, আপনি আমোচ্ছক এখি িো পচ্ছর জজজ্ঞোসো করচ্ছত্ পোচ্ছরি, এমিনক অধ্যয়ি শুরু হওয়োর পচ্ছরও। আপনি hনদ পচ্ছর প্রে জজজ্ঞোসো করচ্ছত্ চোি, ত্োহচ্ছি আপনি নিম্ননিনখত্ রhচ্ছকোিও সোচ্ছথ রhোগোচ্ছhোগ করচ্ছত্ পোচ্ছরি.

গববষক:

৪থ েিছর নিএসনস নফজজওচ্ছথরোনপচ্ছত্
িোংিোচ্ছদশ রহিথ প্রচ্ছফশন্স হিনিটিউি (নিএইচনপআই)
রhোগোচ্ছhোচ্ছগর িম্বর: 01865511854
ই-রমহি: mohinulislam777@gmail.com
0r,

আমার গববষণা সুপারভাইজার:

িোনদয়ো আফনরি উরচ্ছম
প্রিোষক, নফজজওচ্ছথরোনপ নিিোগ
িোংিোচ্ছদশ রহিথ প্রচ্ছফশন্স হিনিটিউি (নিএইচনপআই), নসআরনপ, সোিোর, ঢোকো- 1343। ই-রমহি: afrinnadia4127@yahoo.com

সম্মশত প্রিাংসা পত্র

১. আপনি নক প্থযপত্রটি িঝ চ্ছত্ রপচ্ছরচ্ছছি?

হযা/ুঁ ি্যা

২.আপোর আর নকছু জোি্যার আচ্ছছ নক ?

হযা/ুঁ ি্যা

(হযা/ুঁ হচ্ছি

……

……)

৩. আপনি নক িঝ চ্ছত্ রপচ্ছরচ্ছছি আপনি এ গচ্ছিষণো রথচ্ছক আনথকোচ্ছি উপকৃ ত্ হচ্ছিি ি্যা।

হযা/ুঁ ি্যা

৪ আপনি নক প্রে করোর অিম নত্ নদচ্ছেি?

হযা/ুঁ ি্যা

৫. আপনি নক আপোর প্থযগুচ্ছো ররকর্্যে করোর অিম নত্ নদচ্ছেি?

হযা/ুঁ ি্যা

৬. নসদ্ধোন্ত রিয়োর জিয hচ্ছথষ্ট সময় রপচ্ছয়চ্ছছি নক?

হযা/ুঁ ি্যা

৭. আপনি এই গচ্ছিষণোয় অংশগ্রহচ্ছণর সম্মনত্ প্রদোণ করচ্ছছি নক?

হযা/ুঁ ি্যা

অংশগ্রহণকোরীর ি্যোম

অংশগ্রহণকোরীর স্বোক্ষর ত্্যোনরখ

অংশগ্রহণকোরী hনদ নিরক্ষর হয় নশনক্ষত্

সোক্ষীর ি্যোম

অংশগ্রহণকোরীর থোম্ব নপ্রন্ট

সোক্ষীর স্বোক্ষর ত্্যোনরখ খ)

গচ্ছিষক:

আনম অংশগ্রহণকোরীচ্ছক উপচ্ছরোক্ত অধ্যয়িটি স নিনদেষ্টোচ্ছি ি্যোখযো কচ্ছরনছ এিং নত্নি অধ্যয়চ্ছি অংশগ্রহচ্ছণর জিয ত্্যোর ইুে কত্্যোর ইনঙ্গত্ নদচ্ছয়চ্ছছি।

গচ্ছিষচ্ছকর ি্যোম

গচ্ছিষক স্বোক্ষর

Title: Quality of Life and Psychosocial Adaptation of Lower Limb amputee patients

Questionnaire (English):

This questionnaire is prepared to measure, quality of life and psychosocial adaptation ofLower Limb amputee patients

Name of Respondent: **Date:**

ID no: **Time:**

Address: **Contact number (if any):**

Part- 01: Socio-demographic information

[Use tick (√) to mark the correct answer]

	Questions	**Response**
1	Sex	1. Male 2. Female
2	Age	
3	Education Status	1. Illiterate 2. Home education 3. Primary 4. High school 5. Higher secondary 6. Undergraduate 7. Post graduate degree
4	Marital status	1. Single 2. Married 3. Divorce 4. Widow

5	Which one of this list best describes your main work status now?	1.Government employee 2.Non-government employee 3. Self-employed 4. Non-paid 5. Retired 6.Unemployed (able to work) 7.Unemployed (unable to
		work) 8. Others
6	What is the nature of your work/job now?	1. Mostly involve physical effort 2. Mostly involve mental effort
7	Which one of this list best describes your work before amputation	1. Government employee 2.Non-government employee 3. Self-employed 4.Non-paid 5. Retired 6.Unemployed (able to work) 7.Unemployed (unable to work) 8. Others
8	Living area	1.Urban 2.Rural
9	What type of support has got from Govt. or non-govt. organization?	1. Money 2. Shelter 3. Cattle 4. Accessories 5. Vehicle 6. Land 7. Others 8. No support
10	Have you utilized the support meaningfully?	1. Yes 2. No

Part-02:

Amputation related information

[Use tick (√) to mark the correct answer]

	Question	**Response**
11	Type of lower limb prosthesis?	1. Trans-femoral 2. Trans-tibial
12	How long ago did you have your amputation?	
13	How long have you had prosthesis?	
14	What type of prosthesis do you have?	1. Below-Knee 2. Through-Knee 3. Above-Knee 4. Others
15	What was your amputation a result of?	1. Peripheral Vascular Disorder 2. Diabetes 3. Cancer 4. Accident 5. Other
16	How many hours do you use the prosthesis in an average per day?	

Part-03:

World Health Organization Quality of Life (WHOQOL-BREF)

WHOQOL-BREF:

This questionnaire asks how you feel about your quality of life, health, or 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. Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life in the last two weeks. For example, thinking about the last two weeks, a question might ask: Please read each question, assess your feelings, and tick (√) the number on the scale that gives the best answer for you for each question.

	Question	Very poor	Poor	Neither poor nor good	Good	Very good
17	How would you rate your quality of life?	1	2	3	4	5
	Question	Very poor	Poor	Neither poor nor good	Good	Very good
18	How satisfied are you with your health?	1	2	3	4	5
The following questions ask about how much you have experienced certain things in the last four weeks						
	Question	Not at all	A little	A moderate amount	Very much	Extremely
19	To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
20	How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
21	How much do you enjoy life?	1	2	3	4	5
22	To what extent do	1	2	3	4	5

	you feel your life to be meaningful?					
23	How well are you able to concentrate?	1	2	3	4	5
24	How safe do you feel in your daily life?	1	2	3	4	5
25	How healthy is your physical environment?	1	2	3	4	5
The following questions ask about how completely you experience or were able to do certain things in the last four weeks.						
	Question	Not at all	A little	Moderately	Mostly	Completely
26	Do you have enough energy for everyday life?	1	2	3	4	5
27	Are you able to accept your bodily appearance?	1	2	3	4	5
28	Have you enough money to meet your needs?	1	2	3	4	5
29	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
30	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5
	Question	Very poor	Poor	Neither poor nor good	Good	Very good
31	How well are you able to get around?	1	2	3	4	5
	Question	Very dissatisfied	Dissatisfied	Neither satisfied or dissatisfied	Satisfied	Very satisfied
32	How satisfied are you with you sleep?	1	2	3	4	5
33	How satisfied are you with your ability to perform	1	2	3	4	5

	your daily living activities?					
34	How satisfied are you with your capacity for work?	1	2	3	4	5
35	How satisfied are you with yourself?	1	2	3	4	5
36	How satisfied are you with your personal relationships?	1	2	3	4	5
37	How satisfied are you with your sex life?	1	2	3	4	5
38	How satisfied are you with the support you get from your friends?	1	2	3	4	5
39	How satisfied are you with the conditions of your living place?	1	2	3	4	5
40	How satisfied are you with your access to health services?	1	2	3	4	5
41	How satisfied are you with your transport?	1	2	3	4	5
The following question refers to how often you have felt or experienced certain things in the last four weeks						
	Question	Never	Seldom	Quite often	Very often	Always
42	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	2	3	4	5

Part-04:

Psychosocial adaptation by TAPES - R

This is a questionnaire designed to investigate different aspects of having a prosthesis. There are no right or wrong answers. Please answer every item as honestly as you can. For each question, please tick (√) clearly inside one box.

	Psychosocial adjustment	**Strongly disagree**	**Disagree**	**Agree**	**Strongly agree**
43	I have adjusted to having a Prosthesis	1	2	3	4
44	As time goes by, I accept my prosthesis more	1	2	3	4
45	I feel that I have dealt successfully with this trauma in my life	1	2	3	4
46	Although I have a prosthesis, my life is full	1	2	3	4
47	I have gotten used to wearing a prosthesis	1	2	3	4
48	I don't care if somebody looks at my prosthesis	1	2	3	4
49	I don't it easy to talk about my prosthesis	1	2	3	4
50	I don't mind people asking about my prosthesis	1	2	3	4
51	I find it easy to talk about my limb loss in conversation	1	2	3	4
52	I don't care if somebody notices that I am limping	1	2	3	4
53	A prosthesis interferes with the ability to do my work	1	2	3	4
54	Having a prosthesis makes me more dependent on others than I would like to be	1	2	3	4
55	Having a prosthesis limits the kind of work that I can do	1	2	3	4

56	Being an amputee means that I can't do what I want to do	1	2	3	4
57	Having a prosthesis limits the amount of work that I can do	1	2	3	4

	Limitation	**Yes, limited a lot**	**limited a little**	**Not limited at all**
58	vigorous activities, such as running, lifting heavy objects, participating in strenuous sports	1	2	3
59	climbing several flights of stairs	1	2	3
60	Running for a bus	1	2	3
61	sport and recreation	1	2	3
62	climbing one flight of stairs	1	2	3
63	walking more than a mile	1	2	3
64	walking half a mile	1	2	3
65	walking 100 meters	1	2	3
66	working on hobbies	1	2	3
67	going to work	1	2	3
	Satisfaction	**Not satisfied**	**Satisfied**	**Very satisfied**
68	Color	1	2	3
69	Shape	1	2	3
70	Appearance	1	2	3
71	Weight	1	2	3
72	Usefulness	1	2	3
73	Reliability	1	2	3
74	Fit	1	2	3
75	Comfort	1	2	3

Please tick the box (0-10) that best describes how satisfied you are with your prosthesis:

Not at all satisfied Very satisfied

1	2	3	4	5	6	7	8	9	10

শিরোনাম: নিম্ন অঙ্গবিচ্ছেদ রোগীদের জীবনযাত্রার গুণমান এবং মনোসামাজিক অভিযোজন

প্রশ্নপত্র (বাংলা):

এই প্রশ্নপত্রটি নিম্ন অঙ্গবিচ্ছেদ রোগীদের জীবনযাত্রার মান এবং মনোসামাজিক অভিযোজন পরিমাপ করার জন্য প্রস্তুত করা হয়েছে।

উত্তরদাতার নাম: **তারিখ:**

আইডি নং: **সময়:**

ঠিকানা: **যোগাযোগ নম্বর (যদি থাকে):**

Part- 01: সামাজিক-জনসংখ্যা সংক্রান্ত তথ্য

[সঠিক উত্তর চিহ্নিত করতে টিক (□) ব্যবহার করুন]

	প্রশ্ন	প্রতিক্রিয়া
1	লিঙ্গ	1. পুরুষ 2. মহিলা
2	বয়স	
3	শিক্ষার অবস্থা	1. নিরক্ষর 2. গৃহশিক্ষা 3. প্রাথমিক 4. উচ্চ বিদ্যালয় 5. উচ্চ মাধ্যমিক 6. স্নাতক 7. স্নাতকোত্তর ডিগ্রি
4	বৈবাহিক অবস্থা	1. একক 2. বিবাহিত 3. তালাক 4. বিধবা

5	এই তালিকার মধ্যে কোনটি এখন আপনার প্রধান কাজের অবস্থাকে সবচেয়ে ভালোভাবে বর্ণনা করে?	1.সরকারি কর্মচারী 2.বেসরকারী কর্মচারী 3. স্ব-নিযুক্ত 4. অ-পেইড 5. অবসরপ্রাপ্ত 6. বেকার (কাজ করতে সক্ষম) 7. বেকার (কাজ করতে অক্ষম)

		8. অন্যান্য
6	এখন আপনার কাজ/চাকরীর প্রকৃতি কেমন?	1.বেশিরভাগই শারীরিক প্রচেষ্টা জড়িত 2.বেশিরভাগই মানসিক প্রচেষ্টা জড়িত
7	এই তালিকার মধ্যে কোনটি অঙ্গচ্ছেদের আগে আপনার কাজকে সবচেয়ে ভালোভাবে বর্ণনা করে?	1. সরকারি কর্মচারী 2.বেসরকারী কর্মচারী 3. স্ব-নিযুক্ত 4.অ-পেইড 5. অবসরপ্রাপ্ত 6. বেকার (কাজ করতে সক্ষম) 7. বেকার (কাজ করতে অক্ষম) 8. অন্যরা
8	থাকার এলাকা	1.শহুরে 2.গ্রামণ
9	সরকারের কাছ থেকে কী ধরনের সহায়তা পেয়েছে? বা বেসরকারি সংগঠন?	1. টাকা 2. আশ্রয় 3. গবাদি পশু 4. আনুষাঙ্গিক 5. যানবাহন 6. জমি 7. অন্যান্য 8. কোন সমর্থন নেই
10	আপনি অর্থপূর্ণ সমর্থন ব্যবহার করেছেন?	1. হ্যাঁ 2.না

Part-02:

অঙ্গচ্ছেদ সংক্রান্ত তথ্য
[সঠিক উত্তর চিহ্নিত করতে টিক (□) ব্যবহার করুন]

	প্রশ্ন	**প্রতিক্রিয়া**
11	নিম্ন অঙ্গ প্রস্থেসিস প্রকার?	1. ট্রান্স-ফেমোরাল 2. ট্রান্স-টিবিয়াল
12	কতদিন আগে আপনি আপনার অঙ্গচ্ছেদ করেছেন?	
13	আপনি কতদিন ধরে প্রস্থেসিস করেছেন?	
14	আপনার কি ধরনের প্রস্থেসিস আছে?	1. হাঁটুর নিচে 2. হাঁটুর মাধ্যমে 3. উপরে-হাঁটু 4. অন্যান্য
15	আপনার অঙ্গচ্ছেদ একটি ফলাফল কি ছিল?	1. পেরিফেরাল ভাস্কুলার 2. ডিসঅর্ডার 2. ডায়াবেটিস 3. ক্যান্সার 4. দুর্ঘটনা 5. অন্যান্য
16	আপনি প্রতিদিন গড়ে কত ঘন্টা প্রস্থেসিস ব্যবহার করেন?	

Part-3:

World Health Organization Quality of Life (WHOQOL-BREF)

WHOQOL-BREF:

এই প্রশ্নাবলী জিজ্ঞাসা করে যে আপনি আপনার জীবনযাত্রার মান, স্বাস্থ্য বা আপনার জীবনের অন্যান্য ক্ষেত্র সম্পর্কে কেমন অনুভব করেন। সব প্রশ্নের উত্তর দয়া করে. কোন প্রশ্নের কোন উত্তর দিতে হবে সে সম্পর্কে আপনি যদি অনিশ্চিত হন, তাহলে অনুগ্রহ করে সবচেয়ে উপযুক্ত মনে হয় এমন একটি বেছে নিন। এটি প্রায়শই আপনার প্রথম প্রতিক্রিয়া হতে পারে। আপনার মান, আশা, আনন্দ এবং উদ্বেগ মনে রাখবেন. আমরা জিজ্ঞাসা করি যে আপনি গত দুই সপ্তাহে আপনার জীবন সম্পর্কে ভাবছেন। উদাহরণস্বরূপ, গত দুই সপ্তাহের কথা চিন্তা করে, একটি প্রশ্ন জিজ্ঞাসা করতে পারে: অনুগ্রহ করে প্রতিটি প্রশ্ন পড়ুন, আপনার অনুভূতি মূল্যায়ন করুন এবং প্রতিটি প্রশ্নের জন্য আপনার জন্য সেরা উত্তর দেয় এমন স্কেলে নম্বরটিতে টিক (□) টিক দিন।

	প্রশ্ন	খুব খারাপ	খারাপ	গরীব খুব খারাপ	ভালো	খুব ভালো
17	কিভাবে আপনি আপনার মান রেট জীবন?	1	2	3	4	5
	প্রশ্ন	খুব খারাপ	খারাপ	খারাপ না ভালো	ভালো	খুব ভালো
18	আপনি আপনার জীবনের মানকে কীভাবে মূল্যায়ন করবেন?	1	2	3	4	5
নিম্নলিখিত প্রশ্নগুলি জিজ্ঞাসা করে যে আপনি গত চার সপ্তাহে কতটা কিছু অভিজ্ঞতা পেয়েছেন						
	প্রশ্ন	একদমই নয়	সামান্য	একটি মাঝারি পরিমাণ	খুব	অত্যন্ত
19	আপনি কতটা অনুভব করেন যে শারীরিক ব্যথা আপনাকে বাধা দেয় আপনার যা করা দরকার তা করছেন?	1	2	3	4	5

20	আপনার দৈনন্দিন জীবনে কাজ করার জন্য আপনার কতটা চিকিৎসার প্রয়োজন?	1	2	3	4	5
21	আপনি জীবন কতটা উপভোগ করেন?	1	2	3	4	5
22	আপনি আপনার জীবন কতটা অনুভব করেন অর্থবহ হতে?	1	2	3	4	5
23	আপনি কতটা ভালোভাবে মনোনিবেশ করতে পারবেন?	1	2	3	4	5
24	আপনি আপনার দৈনন্দিন জীবনে কতটা নিরাপদ বোধ করেন?	1	2	3	4	5
25	আপনার শারীরিক পরিবেশ কতটা স্বাস্থ্যকর?	1	2	3	4	5

নিম্নলিখিত প্রশ্নগুলি আপনি গত চার সপ্তাহে কতটা সম্পূর্ণভাবে অনুভব করেছেন বা নির্দিষ্ট কিছু করতে সক্ষম হয়েছেন সে সম্পর্কে জিজ্ঞাসা করে।

	প্রশ্ন	একদমই না	একটু	পারিমতভাবে	আধকাংশ ক্ষেত্রে	সম্পূর্ণরূপে
26	আপনার দৈনন্দিন জীবনের জন্য যথেষ্ট শক্তি আছে?	1	2	3	4	5
27	আপনি আপনার শারীরিক চেহারা গ্রহণ করতে সক্ষম?	1	2	3	4	5
28	আপনার প্রয়োজন মেটাতে যথেষ্ট টাকা আছে?	1	2	3	4	5

29	আপনি কিভাবে উপলব্ধ তথ্য যে আপনি আপনার দৈনন্দিন জীবনে প্রয়োজন?	1	2	3	4	5
30	আপনি অবসর কার্যক্রমের জন্য কতটা সুযোগ পান?	1	2	3	4	5
	Question	খুব খারাপ	খারাপ	না খারাপ, না ভালো	ভালো	খুব ভালো
31	আপনি চারপাশে পেতে সক্ষম কতটা ভাল?	1	2	3	4	5
	প্রশ্ন	খুব অসন্তুষ্ট	অসন্তুষ্ট	সন্তুষ্ট বা অসন্তুষ্ট নয়	সন্তুষ্ট	খুব সন্তুষ্ট
32	আপনি আপনার ঘুম নিয়ে কতটা সন্তুষ্ট?	1	2	3	4	5
33	আপনার পারফর্ম করার ক্ষমতা নিয়ে আপনি কতটা সন্তুষ্ট?	1	2	3	4	5
34	কতটা সন্তুষ্ট আপনি আপনার সঙ্গে কাজের ক্ষমতা নিয়ে?	1	2	3	4	5
35	কতটা সন্তুষ্ট আপনি নিজের সাথে?	1	2	3	4	5
36	কতটা সন্তুষ্ট আপনি আপনার সঙ্গে ব্যক্তিগত সম্পর্ক?	1	2	3	4	5
37	কতটা সন্তুষ্ট আপনি আপনার লিঙ্গের সাথে জীবন?	1	2	3	4	5
38	কতটা সন্তুষ্ট আপনি সঙ্গে সমর্থন আপনি পাবেন আপনার বন্ধুদের কাছ	1	2	3	4	5

	থেকে?					
39	কতটা সন্তুষ্ট আপনি সঙ্গে আপনার শর্ত বাসস্থান?	1	2	3	4	5
40	কতটা সন্তুষ্ট আপনি আপনার সঙ্গে স্বাস্থ্য অ্যাক্সেস সেবা?	1	2	3	4	5
41	কতটা সন্তুষ্ট তোমার সাথে পরিবহণ?	1	2	3	4	5
	প্রশ্ন	কখনো	খুব কমই	প্রায়শই	প্রায়ই	সর্বদা
42	মাঝেমধ্যে কখন তুমি নেতিবাচক আছে অনুভূতি যেমন বাজে মনোভাব, হতাশা, উদ্বেগ, বিষণ্নতা?	1	2	3	4	5

Part-04:

Psychosocial adaptation by TAPES – R

এটি একটি প্রশ্নাবলী যা একটি কৃত্রিম অঙ্গ থাকার বিভিন্ন দিক তদন্ত করার জন্য ডিজাইন করা হয়েছে। এর কোনো সঠিক অথবা ভুল উত্তর নেই. আপনি যতটা সম্ভব সৎভাবে প্রতিটি আইটেম উত্তর করুন. প্রতিটি প্রশ্নের জন্য, অনুগ্রহ করে একটি বাক্সের ভিতরে পরিষ্কারভাবে (□) টিক দিন।

	মনস্তাত্ত্বিক সমন্বয়	**দৃঢ়ভাবে একমত নন**	**একমত নই**	**একমত**	**দৃঢ়ভাবে একমত**
43	আমি একটি থাকার সমন্বয় করেছি কৃত্রিম অঙ্গ	1	2	3	4
44	সময় যত গড়াচ্ছে, আমি আমার কৃত্রিম কৃত্রিমতা আরো গ্রহণ করি	1	2	3	4
45	আমি মনে করি যে আমি এটির সাথে সফলভাবে মোকাবিলা করেছি আমার জীবনে ট্রমা	1	2	3	4
46	যদিও আমি একটি প্রস্থেসিস, আমার জীবন পূর্ণ	1	2	3	4
47	আমি একটি প্রস্থেসিস পরা অভ্যস্ত হয়েছে	1	2	3	4
48	কেউ আমার প্রস্থেসিসের দিকে তাকিয়ে থাকলে তাতে আমার কিছু যায় আসে না	1	2	3	4
49	আমার প্রস্থেসিস সম্পর্কে কথা বলা সহজ নয়	1	2	3	4
50	লোকেরা আমার প্রস্থেসিস সম্পর্কে জিজ্ঞাসা করলে আমি আপত্তি করি না	1	2	3	4
51	কথোপকথনে আমার অঙ্গ-প্রত্যঙ্গের ক্ষতির কথা বলা সহজ মনে হয়	1	2	3	4
52	কেউ খেয়াল করলে আমি পাত্তা দিই না	1	2	3	4
53	একটি প্রস্থেসিস আমার কাজ করার ক্ষমতাতে হস্তক্ষেপ করে	1	2	3	4
54	একটি প্রস্থেসিস থাকা আমাকে আমি হতে চাই তার চেয়ে অন্যের উপর নির্ভরশীল করে তোলে	1	2	3	4

55	একটি প্রস্থেসিস থাকার ফলে আমি যে ধরনের কাজ করতে পারি তা সীমিত করে	1	2	3	4
56	ছিন্নভিন্ন হওয়ার অর্থ হল আমি যা করতে চাই তা করতে পারি না	1	2	3	4
57	একটি কৃত্রিম অঙ্গ থাকা আমার কাজের পরিমাণ সীমাবদ্ধ করে করতে পারেন	1	2	3	4

	সীমাবদ্ধতা	হ্যাঁ, অনেক কিছু সীমিত	একটু সীমিত	একেবারেই সীমাবদ্ধ নয়
58	জোরালো ক্রিয়াকলাপ, যেমন দৌড়ানো, ভারী বস্তু উত্তোলন, অংশ নেওয়া কঠোর খেলাধুলা	1	2	3
59	সিঁড়ি বেয়ে বেশ কয়েকটি উড্ডয়ন	1	2	3
60	বাসের জন্য দৌড়ানো	1	2	3
61	খেলাধুলা ও বিনোদন	1	2	3
62	সিঁড়ি বেয়ে এক ফ্লাইটে ওঠা	1	2	3
63	এক মাইলের বেশি হাঁটা	1	2	3
64	আধা মাইল হাঁটা	1	2	3
65	১০০ মিটার হাঁটা	1	2	3
66	শখ নিয়ে কাজ করা	1	2	3
67	কাজে যাওয়া	1	2	3
	সন্তুষ্টি	**সন্তুষ্ট না**	**সন্তুষ্ট**	**খুব সন্তুষ্ট**
68	রঙ	1	2	3
69	আকার	1	2	3
70	উপস্থিতি	1	2	3
71	ওজন	1	2	3
72	উপকারিতা	1	2	3
73	নির্ভরযোগ্যতা	1	2	3
74	ফিট	1	2	3
75	আরামদায়ক	1	2	3

অনুগ্রহ করে বাক্সে (0-10) টিক দিন যা আপনার কৃত্রিম অঙ্গগুলির সাথে আপনি কতটা সন্তুষ্ট তা সর্বোত্তমভাবে বর্ণনা করে:

মোটেও সন্তুষ্ট নয় খুব সন্তুষ্ট

1	2	3	4	5	6	7	8	9	10

Date: 13th February 2023
The Chairman
Institutional Review Board (IRB)
Bangladesh Health Professions Institute (BHPI),CRP
Savar, Dhaka-1343.Bangladesh

Subject: Application for review and ethical approval.

Dear sir,

With due respect, I amMD. Mohinul Islam Bhuiyan Bappy, student of B.Sc. in physiotherapy program at Bangladesh Health Professional Institute (BHPI) the academic institute of Centre for the Rehabilitation of the Paralysed (CRP) under the Faculty of Medicine,University of Dhaka.As per the course curriculum, I have to conduct a dissertation entitled **"Quality of Life and Psychosocial Adaptation of Lower Limb Amputee Patients"**under the supervision of Nadia Afrin Urme, Lecturer, Department of Physiotherapy,BHPI.

The purpose of the study is to explore the quality of life and psychosocial adjustment of lower limb amputee patients. The study involves face-to-face interview that may take 20 to 30 minutes to fill in the questionnaire and there is no likelihood of any harm to the participants. Related information will be collected from Prosthetics and Orthotics department of CRP. Data collectors will receive informed consent from all participants andthe collected data will be kept confidential.

Therefore, I look forward to having your kind approval for the thesis proposal and to start data collection. I can also assure you that I will maintain all the requirements for study.

Sincerely,

MD. Mohinul Islam Bhuiyan Bappy
4th Year B.Sc. in Physiotherapy
Session: 2017-2018 Student ID: 112170387
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Recommendation from the thesis supervisor

13.2.2023

Nadia Afrin Urme,
Lecturer,
Department of Physiotherapy, BHPI,CRP
Savar,Dhaka-1343,Bangladesh.

Dissertation presentation date:13th February,2023

18.02.2023

Head, Department of Physiotherapy, BHPI
Md. Shofiqul Islam
Associate Professor & Head
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

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

Ref: CRP/BHPI/IRB/03/2023/710 Date: 13/03/2023

To
MD. Mohinul Islam Bhuiyan Bappy
B.Sc. in Physiotherapy,
Session: 2017-2018, DU Reg. No: 8650
BHPI, CRP, Savar, Dhaka- 1343, Bangladesh

Subject: Approval of the dissertation proposal **"Quality of Life and Psychosocial Adaptation of Lower Limb Amputee Patients"** - by ethics committee.

Dear
MD. Mohinul Islam Bhuiyan Bappy
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 & Nadia Afrin Urme, Lecturer, Department of Physiotherapy, BHPI, as dissertation supervisor. The following documents have been reviewed and approved:

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

The purpose of the study is to find out the effect of postural awareness program on neck pain among the long-time smartphone user students from BHPI. Should there any interpretation, type, spelling, grammatical mistakes in the title, it is the responsibilities of the investigator. Since the study involves questionnaire that takes maximum 20- 25 minutes and have no likelihood of any harm to the participants. The members of the Ethics committee approved the study to be conducted in the presented form at the meeting held at 09:00 AM on January 9, 2023 at BHPI, 34th IRB Meeting.

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

Best regards,

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

Date: May 21, 2023

The Head

Department of Prosthetics and Orthotics

Centre for the Rehabilitation of the Paralysed (CRP)

Chapain, Savar, Dhaka-1343

Through: Head, Department of Prosthetics and Orthotics, BHPI.

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

Sir,

With due respect and humble submission to state that I am MD. Mohinul Islam Bhuiyan Bappy, student of 4th year B.Sc. in Physiotherapy at Bangladesh Health Professions institute (BHPI). The Ethical committee has approved my research project entitled: **"Quality of Life and Psychosocial Adaptation of Lower Limb Amputee Patients."** under the supervision of Nadia Afrin Urme, Lecturer, Department of Physiotherapy, Bangladesh Health Professions Institute (BHPI), CRP, Savar, Dhaka-1343. Conducting this research project is partial fulfillment of the requirement for the degree of B.Sc. in Physiotherapy. I want to collect data for my research project. So,I need your kind permission for data collection at Prosthetics and Orthotics department of CRP (Savar and Mirpur centre), Dhaka. I would like to assure that nothing of the study would be harmful for the participants.

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

Forwarded,
21.05.2023

Sincerely

MD. Mohinul Islam Bhuiyan Bappy
4thYear
B.Sc. in Physiotherapy
Class Roll: 29; Session: 2017-18
Bangladesh Health Professions Institute (BHPI)
(An academic institution of CRP)
Chapain, CRP, Savar, Dhaka-1343.

Recommended
21.05.23
Md. Shofiqul Islam
Associate Professor & Head
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

He may take data collection at PAD dept as per CRP policy. please cooperate him for this study.
21.05.2023
Head of the Department
Prosthetics and Orthotics
CRP Savar