Faculty of Medicine

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MENTAL RESILIENCE AND QUALITY OF LIFE OF PERSON WITH DISABILITIES IN COVID 19 PANDEMIC

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MENTAL RESILIENCE AND QUALITY OF LIFE OF PERSON WITH DISABILITIES IN COVID 19 PANDEMIC

Submitted by **Farhan Labib Sifat** for the partial fulfillment of the requirement for the degree of Bachelor of Science in Physiotherapy (B.Sc. PT).

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Declaration

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

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List of acronyms

BHPI	Bangladesh Health Professions Institute
BMRC	Bangladesh Medical and Research Council
BRS	Brief Resilience Scale
BP	Bodily Pain
CRP	Centre for the Rehabilitation of the Paralysed
COVID-19	Corona Virus Disease-2019
GH	General Health
IRB	Institutional Review Board
MH	Mental Health
PF	Physical Functioning
QoL	Quality of life
RE	Role Emotional
RP	Role Physical Health
SF	Social Functioning.
SCI	Spinal Cord Injury
SPSS	Statistical Package for the Social Sciences
SARSCov-2	Severe Acute Respiratory Syndrome Corona-Virus 2
VT	Vitality
WHO	World Health Organization

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Abstract

Purpose: The purpose of this study was to determine the mental resilience and quality of life for persons with disability aimed COVID-19 pandemic. **Objectives*:*** The objectives of this study were to find out socio-demographic characteristics related to quality of life and mental resilience, to examine the prevalence of the quality of life and level of mental resilience, to know whether there has been any association between mental resilience and socio- demographic information, quality of life among disabled persons. **Methods*:*** The cross-sectional study was chosen to carry out this study among 143 participants who were selected according to inclusion criteria from April 2022 to May 2022. All data were collected through a standard structured questionnaire having socio demographic, SF 36 questionnaire, The "Brief Resilience Scale" (BRS), this used to assess the Mental Resilience among 143 participants. The inferential statistical has been calculated by independent t-test, one-way ANOVA, chi-square, and person correlation test. Statistical Package for Social Science (SPSS version 20) was used for data analysis **Results*:*** Among 143 disabled participants in the COVID-19 pandemic, their overall age Mean ± SD was (46.09± 15.40). Among them prevalence of the level of mental resilience were low =70.6%, normal = 19.6% & high=9.8%. Statistically significant association also found in between Mental Resilience & some of socio- demographic information such as occupation (P<.024) Residential area (P<.011), types of disability (P<.001). From SF-36 score, the participant's physical health of quality of life was poor and mental health, social, emotional quality of life was fair. On the other hand, socio-demographic factors were found significantly associated with different domains of SF-36 questionnaire. **Conclusio*n:*** Disability is a condition that influences physical and psychological health. Disability negatively can decrease mental resilience and quality of life. Mental resilience has a significant relation to Socio- Demographic. The researcher also found that, gender and occupation was significantly associated and most of the socio-demographic factors were found significantly associated with different domains of SF-36 questionnaire .

Key words*:* Mental Resilience, Disability, Quality of life, COVID-19 pandemic

Word count: 10140

CHAPTER-I INTRODUCTION

1.1 Background

The COVID-19 pandemic, commonly referred to as the corona-virus pandemic, is an ongoing corona-virus disease outbreak caused by coronavirus-2, a severe acute respiratory syndrome virus (SARS-CoV-2). It was first discovered in December 2019, In Wuhan, China (Lai et al., 2020).

The outbreak was declared a Public Health Emergency of International Concern in January 2020 and a Pandemic in March 2020 by the World Health Organization. Although the exact origin of the outbreak is still unknown, many early cases of COVID-19 have been linked to visitors to the Huanan Seafood Wholesale Market in Wuhan, Hubei, China. The World Health Organization (WHO), which refers "corona-virus disease," named this condition as "COVID-19" on February 11, 2020 (Sohrabi et al., 2020).

People with physical disabilities experienced changes in routine treatment, the termination of home-based physiotherapy, lack of access to hospital care and medications, and restrictions on buying goods and services and transportation for daily activities during the pandemic. Those who acquire COVID19 may face incapacitating post-COVID symptoms, such as newly acquired disability brought on by insufficient medical care, organ damage, or mental disorder brought on by COVID19 infection (Kuper et al., 2020).

People might develop disabilities due to congenital abnormalities, accidents, or illnesses that arise after childbirth, among other causes. Some physical impairment is relatively minor and temporary, whereas some are severe and progressive and finally cause early death. Some people with physical limitations require rehabilitative tools and settings to carry out daily activities (Tavakoli et al., 2022).

All around the world, there are more than a billion people who are suffering from disabilities. A disability was reported by one in four non-institutionalized adults in

the US. Due to their higher risks of morbidity and death, access difficulties to care, greater unmet medical needs, and stigmatization laws and regulations that discriminate against them, these people may be disproportionately affected by the COVID-19 pandemic. They frequently live in community settings and have several comorbid conditions, both of which may increase their chance of transmitting an infection (Bialek et al., 2020).

Pandemics, such as the COVID-19, place everyone at risk, but some risks are particularly worse for people with disabilities because they are often left behind in emergencies. Due to this, any response to the pandemic must conform to the law, the distributive justice principles, societal norms of protecting vulnerable people, and the fundamental principles of public health in order to prevent the aggravation of existing disparities (Lugo-Agudelo et al., 2022).

Disability is an increasing public health issue, especially as the world's populations become older. People with physical disabilities or functional limitations typically have less opportunity to engage in social activities. These limitations may harm people's health and wellbeing in addition to being incompatible with fundamental human rights (Berkman et al.,2014).

According to the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO), as a vulnerable group people with disabilities may be more likely to contract the SARS-CoV-2 virus or develop a serious illness because of underlying medical conditions, communal living situations, systemic social inequities, and potential access barriers to healthcare during the pandemic. As a result, rehabilitation must be a critical element of COVID-19 management, maintained as a top health priority during the COVID-19 pandemic, and provided enough financial support (Gutenbrunner et al., 2020).

In terms of psychiatric conditions, decreased mental health places a major burden on the global health system, specifically in people with disabilities. There is strong evidence that a lack of social connections has a harmful effect on mental health (Santini et al.,2015).

People with disabilities were more likely to experience social isolation and loneliness, and so this risk increased during the pandemic when social limitations were put in place and social support decreased as a result. Long-term negative health impacts may result from this. People with physical limitations for instance, have seen changes in their emotional reactions, behavioral difficulties, mood swings, and sleep issues throughout the pandemic (Lebrasseur et al., 2020).

People with disabilities were thought to be more vulnerable to morbidity and mortality during infection, in addition to being more likely to live in situations or receiving care and assistance in ways that made them more vulnerable. For instance, a large number of disabled people live in community settings increase their risk of COVID-19 transmission (Daly et al., 2020).

Individuals with disabilities who depend on in-home social care from personal assistants and support workers were also considered as being at risk because so many care providers visit so many people with disabilities. For many people with disabilities, self-isolation is challenging or impossible. The Care Act 2014, in England and the requirement for local authorities to assess need in Scotland were suspended by the United Kingdom's Coronavirus Act (2020), which raised concerns that social support needs may not always be fulfilled (Shakespeare et al., 2021) .

Depressive symptoms have been linked to physical disability. Multiple risk factors for depressive symptoms are present in people with physical disabilities, including stereotypical social and personal attitudes, abuse, loss of responsibilities, pressures associated to poverty, environmental barriers, and a lack of access to quality healthcare. There is strong evidence that individuals who live with physical limitations are at least three times more likely to develop depression than the general population (Noh et al., 2016).

Due to the COVID-19 pandemic's complexity and level of uncertainty, as well as the lack of knowledge regarding the disease's causes and prevention, patients' quality of life may be significantly impacted. Pandemic stress effects can lead to depression, fear, and

somatic symptoms, cause neurological impairments, slow the process of healing, and decrease quality of life (QOL) (Vindegaard et al.,2020).

The psycho-social environment of people with disabilities has more significant barriers. Such as unfavorable psychosocial beliefs, which harm the mental health of people with physical disabilities and make them feel less worthy of respect than other people. All of these problems together have an impact on their quality of life (Tavakoli et al.,2022).

It is widely known that people with disabilities face higher social participation limitations than those without physical disabilities, which is linked to a lower degree of wellbeing and a relative lower quality of life among them (QOL). While there are numerous factors that affect QOL, most studies have focused on demographic factors, such as age, gender, education, etc., which do not make a significant contribution to QOL variability (Zheng et al.,2014).

Disability-related restrictions, such as limited exposure to healthcare and community support services, might make life much harder for those who were already marginalized. People with disabilities are viewed as vulnerable in this crisis due to their higher susceptibility to COVID-19 and their reliance on services and others to address special requirements (Buchanan ,2020).

It is well known that the severity of a person's handicap, namely the activity restriction and participation restriction, is an objective health-related factor that affects the quality of life (QOL) of people with disabilities. But people with disabilities do not generally have higher levels of QOL, even when their disabilities are less severe. According to studies, personal attitudes and perceptions about health have a significant impact on wellbeing and can occasionally reduce the effect of an objective health condition on quality of life (Schulz et al., 2012).

Whenever lockdown-related measures are implemented, people with disabilities may be disproportionately affected in terms of their socioeconomic and physical health. For example, compared to their non-disabled counterparts, people with disabilities are more

commonly resource poor, have lower employment rates, higher health care and living costs, and less available income (Banks et al., 2017).

Therefore, it is critical to evaluate how the COVID-19 pandemic has impacted people with disabilities in order to reduce long-term effects and improve their quality of life and social integration in accordance with the international convention on the rights of persons with disabilities (Buchanan, 2020).

When compared to people without disabilities, people with disabilities frequently encounter social participation gaps because they are denied, excluded from, or deprived of an equal opportunity to seek decent employment, social roles, and social integration. As decent employment is a major factor in determining a person's health and wellbeing, these social engagement discrepancies in turn have a direct impact on more general health disparities (Hammell , 2020).

The World Health Organization (WHO) declared that additional considerations for individuals with disabilities are required from governments, healthcare systems, disability service providers, institutional settings, communities, and actors in perspective of the COVID-19 pandemic. People with disabilities may be more affected than the general population by a global pandemic, which might greatly raise their everyday struggles (Buchanan ,2020).

Although resilience is generally acknowledged in relation to responses to immediate stressors, it may also be crucial for preserving wellbeing when faced with the losses that come with age. By taking into consideration certain older people's tendency to perceive their lives and health as satisfying despite age-related sickness and impairment, resilience may be particularly significant to effective aging (Terrill et al.,2016).

The aim of this study is to find out the mental resilience and of QoL and personal attitude towards disability in covid19 pandemic.

1.2 Rationale:

The COVID-19 pandemic has disrupted the normal existence of the world's population. Social isolation and economic uncertainty result have led to change the quality of life for the person and also improve highly significant mental health problems, including loneliness, anxiety, depression, and suicidal delineation; however, people differ widely in how they respond to challenges and difficulties. Too many people died due to Covid19. Many lost their beloved ones due to Covid19. Normally People with functional limitations or bodily impairments are generally disadvantaged in their opportunities to participate in social life. Due to Covid19 pandemic they also suffer. They cannot participate in social life. Also they suffer from mentally due to their disability. This affect their life style and make an impact on their Quality of life. Due to isolation in pandemic this also make an impact on their mental health. There are no proper study about the mental resilience and quality of life among disabled persons in Covid19 pandemic.

In this study researchers try to find out the mental resilience and quality of life among the disabled persons in Covid19 pandemic. It will help to find out the impact of Covid19 to disable persons mental health and how their quality of life affected by the pandemic. It will also help the health professionals to modify the treatment protocol and to improve their mental health and improve quality of life.

1.3 Research Question:

What is the Mental Resilience and Quality of Life of Person With Disabilities in Covid19 Pandemic ?

1.4 Objectives:

1.4.1 General Objective

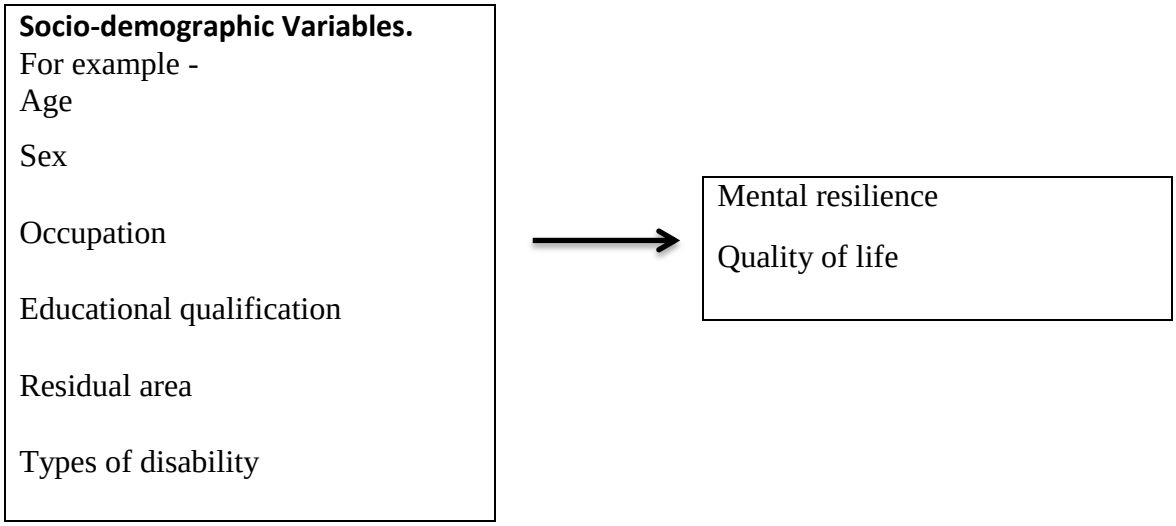
To identify the mental resilience and quality of life of persons with disabilities in covid19 pandemic situation

1.4.2 Specific Objectives:

1. To identify the socio demographic characteristics of the participants
2. To find out participants covid-19 related information
3. To find the prevalence of mental resilience of the participants
4. To find out quality of life of person with disabilities in covid19 pandemic situation
5. To find out relationship among socio demographics with mental resilience and quality of life

1.5 Conceptual Framework

Independent variables **Dependent variables**



1.6 Operational Definitions:

Disability: A disability is any condition that makes it more difficult for a person to do certain activities or effectively interact with the world around them (socially or materially). These conditions, or impairments, may be cognitive, developmental, intellectual, mental, physical, sensory or a combination of multiple factors

COVID-19 : A mild to severe respiratory illness caused by a corona-virus (severe acute respiratory syndrome corona-virus 2 of the genus Beta corona-virus), transmitted mainly by contact with infectious material (such as respiratory droplets) or with objects or surfaces contaminated by the causative virus, and is characterized in particularly from fever, cough, and shortness of breath and can progress to pneumonia and respiratory failure. It was first identified in December 2019 in Wuhan, China.

Quality Of Life

Quality of life (QOL) is the general well-being of individuals and societies, outlining negative and positive features of life. It observes life satisfaction, including everything from physical health, family, education, employment, wealth, religious beliefs, finance and the environment.

Mental Resilience

Psychological resilience is the ability to cope with a crisis mentally or emotionally or to quickly return to a pre-existing state. Resilience exists when the person uses "mental processes and behaviors to promote personal resources and protect themselves from the possible negative effects of stressors". In simpler terms, psychological resilience exists in people who develop psychological and behavioral skills that allow them to remain calm during crises and go through the accident without long-term negative consequences.

CHAPTER-II LITERATURE REVIEW

A global pandemic was declared due to the novel SARS-CoV-2 (COVID-19) at the end of 2019, which resulted in more than 22 million cases by August 20, 2020 . The ongoing COVID-19 pandemic, as well as the associated isolation and protective measures, is significantly changing society across the globe. In addition to the potential for COVID-19 and its health-related complications, the general public is also dealing with significant effects in their day-to-day lives, including increased stress exposure, depressed mood, disrupted sleep habits, and financial worry and sadness. According to projections, this pandemic could lead to an increase in suicide rates. Overall, COVID19 has had a significant impact on the population of individuals without disabilities (Soltan et al.,2020).

Individuals with disabilities compensate 15% of the world's population. Without the COVID19 framework, people frequently face difficulties going about their daily lives, including barriers to community mobility, difficulties using public transportation, limited access to healthcare services, and communication difficulties. People with impairments are more likely than the general public to experience depression, have lower life satisfaction, and feel more lonely (Buchanan, 2020).

Over 11 million disabled persons live in the United Kingdom. They make up about 20% of the total population of the country. At the beginning of the pandemic, there was a significant amount of worry about their vulnerability to the SARS-CoV-2 virus and the ensuing COVID-19 infections. According to the Office for National Statistics' 2019a and 2019b reports, 45% of those 65 and older are disabled, and it is well known that the virus is more likely to affect elderly people (Harrison et al., 2020).

The health, psychological well-being, and financial security of people in the United States and around the world have all been severely impacted by the coronavirus disease 2019 (COVID-19) pandemic. Although they only make up 13% of the population nationwide, adults 65 and older have been especially vulnerable to the virus, accounting

for more than 80% of all COVID-related deaths in the United States (Centers for Disease Control and Prevention, 2021). There have been significant economic effects on elderly persons as well. The virus's susceptibility in older people and social behaviors that distance them from others have made it difficult for them to work and accelerated retirement (Li & Mutchler, 2020).

Nowadays, there are more than a billion disabled persons in the world. People who experience disability or functional decline for significantly extended periods of their life are becoming increasingly frequent according to the present demographic and health developments. In part because of aging populations and a rise in chronic health issues, this figure is rising internationally. As a result, these developments lead to rising demand for health and rehabilitation services, which is far from being satisfied, especially in low- and middle-income nations (Lugo-Agudelo et al., 2022).

The prevalence of disability in Bangladesh is about 9%. In rural areas, the prevalence of disability is found to be much greater than urban area. In urban areas 3% and rural area 5% people are disabled. Among them most are female (4% in male & 5% in female) and the elderly population (3% in 15–59 years, 16% in 60 years). The most frequent form of disability is physical impairment, which is followed by visual, speech, mental, and hearing impairment (39%, 20%, 13%, 13%, and 9%, respectively). Bangladesh has also been found to have a high incidence of chronic and incapacitating diseases, indicating a greater need for rehabilitation services. However, it is unclear how Bangladesh plan to meet this disproportionate demand for rehabilitative services (Al Imam et al., 2021).

Public health professionals increasingly realize that there are considerable health differences among people with disabilities. According to studies from the Centers for Disease Control and Prevention, despite its massive size. 20% of children and 26% of adults in the United States are obese. This community is still very underdeveloped, largely unexplored, and marginalized. People with disabilities are less educated, have greater economic, food, housing, and employment insecurity, and have less access to the online world than the general population (Krahn et al., 2015).

People with disabilities may depend more on personal relations with others to meet their daily requirements, and some of them, particularly those with intellectual developmental disabilities, might find it challenging to comply to public health regulations. People with disabilities may be more likely to experience severe consequences after contracting SARS-CoV-2 due to their higher prevalence of co-morbid conditions. Physiologic changes brought on by some impairments (such as spinal cord injuries and neurological conditions) make people more susceptible to respiratory illnesses. These changes can also hide the symptoms of acute respiratory illnesses, which can delay diagnosis. There have also been reports of obstacles preventing patients with disabilities who use COVID-19 from gaining good hospital care, such as communication problems brought on by the usage of masks and limited access to support people (Brown et al., 2022).

The average age of people with long-term physical disabilities is increasing as a result of improved medical care, earlier onset ages, and the overall "graying" of the American population (Lin et al..,2012).

Resilience, which is frequently defined as the ability to survive in the face of unfavorable life events, becomes a contributing cause. Resilience is a complex concept made up of learnt skills like mindfulness and environmental supports as well as dispositional elements like optimism (e g, social contentedness). After going through traumatic experiences like natural disasters and incapacitating injuries, resilient people maintain consistent psychological well-being (Senders et al., 2014).

Physical disability can be considerably worse. A physical disability is a condition that makes it difficult for a person to carry out daily tasks like working for a living or going food shopping. People with disabilities consistently have lower employment rates than people without disabilities, and those who do work earn less money and receive fewer benefits. During economic downturns, they are also more susceptible to unemployment and less likely to get recruited again (Namkung et al., 2021).

A study from the UK indicates that governments mistreated persons with disabilities with high rates of deaths reported, up until November 20, 2020 especially in England 59.5% of all COVID-19-related deaths in England were due to those who self-identified as needing considerable assistance or a lot of assistance (Henderson et al.,2020).

According to a 2011 study, 1.4% of Iranians have some form of disability. In Iran, blindness affects roughly 1% of the population. About 5% of participants in a population-based study in Tehran, Iran, reported having a hearing impairment that was temporarily incapacitate. People with movement disabilities constitute about 10% and 32% of adult, and elderly, Iranian population respectively (Soltani et al. 2015).

Depending on one's other social qualities, a person's disability may have different effects. Recent research has adopted an intersectional perspective to explain disability, showing that its social and economic consequences are compounded for historically marginalized groups, including women, people of color, and the elderly. Other contextual factors, such as a COVID-19 diagnosis and job loss, may exacerbate the impact of disability on pandemic-related hardship; the accumulation of disadvantage may increase one's financial needs and further impair one's ability to access the food and money required to help a healthy, active life (Namkung et al., 2021).

About 1.3% of Iranians were reported to have an intellectual handicap in 2011. Outpatient rehabilitation clinics offer the majority of the rehabilitation treatments in Iran. The majority of inpatient rehabilitation facilities are only found in university hospitals, and they are nearly rarely empty. After their families, daycare and nursing facilities run by the government, NGOs, and the private sector are vital providers of care for persons with disabilities (Jalali et al., 2020).

Resilience is reportedly common for many people in the first two years following the commencement of a traumatic injury, according to several longitudinal studies (Bonanno et al.,2012) .

Moreover, Silverman et al. 2015 , suggest that even years after the condition's onset, many persons with chronic diseases report quality of life that is comparable to that of the general population.

Determine the extent to which two pandemic-related contextual risk variables and three personal characteristics (age, sex, and race/ethnicity) moderate the impact of disability on pandemic-related problems (COVID diagnosis of self or co residential kin; job loss). Furthermore, the analyses control for demographic, socioeconomic, and psychological variables that are known to be related to insecurity in employment and disabilities (Namkung et al., 2021).

During this pandemic, there was a significant medical concentration in studies that were published, which makes sense given the nature of this worldwide occurrence and the pressing need for a vaccine. The characteristics of COVID19, which was initially diagnosed as a respiratory and inflammatory disease, may also argue as why neurological diagnoses including stroke, ALS, multiple sclerosis, and chronic neurological diseases were included in the few studies about individuals with physical disabilities. Researchers may have been interested in them during the crisis due to the potential neurological effects of COVID19 on those conditions (Martínez et al., 2020).

There have been no population-based studies conducted in the United States that specifically evaluated the likelihood that older persons with disabilities will experience increased levels of hunger and poverty during the pandemic. Elderly people with disabilities may encounter financial challenges, particularly if they are unable to work and are dependent on younger family members for financial support during times of economic downturn or job loss. During the early stages of the pandemic, many food delivery and congregate meal services aimed at home bound elderly people or people with disabilities were terminated (Flowers & Dean, 2020).

During the COVID-19 pandemic, research has examined at loneliness in the broader community, particularly in young individuals (aged between 18 and 24) or the elderly (60 or older). About 31% of people with disabilities said they felt more alone during the

pandemic. However, this study did not take into account different types of disabilities or compare this group to persons without disabilities. In comparison to older adults without disabilities, researchers have found a higher prevalence of loneliness during the pandemic among those with vision and mobility disabilities. Increased loneliness during the pandemic was also linked to hearing problems. Even before the pandemic, people with general and specific limitations such as mobility, eyesight, hearing, and cognitive experienced loneliness more commonly than people without disabilities (Holm et al., 2022).

According to studies, stroke patients who depended heavily on activities of daily living (ADL) also had poor quality of life (QOL). ADLs can have a significant impact on patients' mental QOL in addition to their physical health. Physical activity can improve the mental health and independence of patients with stroke (Mustafaoglu et al.,2020).

Disability discrimination is prohibited under the Americans with Disabilities Act (ADA), but it is common, even within the healthcare industry. Health care organizations are preparing for crisis-level triage as a result of surges in Covid-19 cases that could lead to severe shortages of critical care resources. Professional societies and experts are providing guidance as they allocate limited resources with the primary goal of saving as many lives as possible (White & Lo ., 2020).

Researchers have looked at how lonely people have been in general during the COVID19 pandemic. The results are contradictory, with some indicating no changes and others indicating an increase in loneliness, particularly among young persons (aged between 18 and 24) or the elderly (60 or older). About 31% of those with disabilities has said that the pandemic had resulted in them feeling more alone (Pettinicchio et al., 2021).

According to World health organization compared to the general population, individuals with disabilities have a higher risk of depression, lower life satisfaction and increased loneliness. Considering the COVID19 pandemic, the World Health Organization (WHO) stated that additional considerations from governments, healthcare systems, disability

service providers, institutional settings, communities and actors are needed for people with disabilities (Holm et al., 2022).

Individuals with disabilities who comprise 15% of the world's population, frequently face difficulties going about their daily lives outside of the COVID19 context, such as obstacles to community mobility, difficulties using public transportation, limited access to healthcare services, and communication barriers (Hersh , 2013).

Disability is more than a health issue or personal trait; it also represents challenges people may encounter in social interactions and physical activities. The term "disability" refers to impairments, activity constraints, and participation limitations. The word "disability" can indicate many different things; however, the global burden of disease (GBD) uses it to refer to a loss of health, where health is viewed in terms of one's ability to operate in a variety of health domains, including mobility, cognition, hearing, and vision. Due to widespread health issues and the particular social stigma associated with different forms of impairment, the situation for disabled people and their families becomes extremely tough. People with disabilities face a variety of obstacles because their involvement is limited, and as a result, their lives are impacted by poor health outcomes, low educational attainment, a lack of social and economic participation, higher rates of poverty, and increasing dependency (Kuvalekar et al.,2015).

According to WHO, a global pandemic has the potential to significantly increase the daily challenges of people with disabilities and may have a greater impact compared to the general population. Indeed, people with disabilities are often directly impacted by deficiencies and gaps in the healthcare system. They may have a higher risk of contracting COVID-19 and increased complications associated with additional barriers to respect social distancing measures (Tsibidaki, 2021).

CHAPTER-III METHEDOLOGY

3.1 Study Design:

A cross-sectional study was performed with structured questionnaires and face to face interviews were conducted with persons having disabilities. This study design was appropriate to find out the objectives. The data was collected from March 2022 to April 2022.

3.2 Study Site:

Data was collected from disabled patients attending at Centre for the Rehabilitation of the Paralysed, Savar , Dhaka. CRP is the largest hospital and renowned rehabilitation center for Spinal Cord Injury (SCI) in South Asia. It is a tertiary level of rehabilitation centre . It is a non-government organization working for the development of health care delivery system of Bangladesh through providing Physiotherapy, Occupational therapy, Speech and Language therapy services in indoor and outdoor programs.

3.3 Study population:

A population refers to the entire group of people or items that meet the criteria set by the researcher. It conforms to some designated set of specifications that provide clear guidance as to which elements are to be included in the population and which are to be excluded (Kenneth, 2015).

To prepare a suitable description of a population it is essential to distinguish between the population for which the results are ideally required, the desired target population, and the population which is studied, the defined target population. An ideal situation, in which the researcher had complete control over the research environment, would lead to both of these populations containing the same elements. About 143 samples were selected for this study.

3.4 Sample Size :

$$\mathbf{N}=\frac{z2pq}{d2}$$

Here,

Z (confidence interval) = 1.96
P (prevalence) =10% =50%
And, Q = 1-.5

=.5

$$N = \frac{1.96^2(0.1)(1-0.5)}{(0.05)2}$$

=384

Researcher has taken 143 participants as sample. Due to time limitation the researcher has to choose 143 participants to conduct this study; within the short time it could not be possible to conduct the study with a large number sample.

3.5 Sampling technique:

Findings the appropriate number and type of people taking part in the study is called "sampling" (Hicks, 2009). The study was conducted by using the hospital based random sampling methods due to the time limitation and as it was the one of the easiest, cheapest and quicker method of sample selection. The researcher used this procedure, because, getting of those samples whose criteria were concerned with the study purpose.

3.6 Inclusion Criteria:

- Person with any physical disabilities
- Age 18 years and above
- Both male and female were included
- Person's with intact cognitive function were included.
- The patients who had shown willingness to participate were included

3.7 Exclusion Criteria:

- Person who were not interested to attend the program
- Physically and psychologically unstable patient

- Person having hearing impairment
- Persons having speaking problem

3.8 Data Processing

3.8.1 Data Collection Tools:

- Pen
- Pencil
- white paper
- clip board
- Socio demographic questionnaires
- SF 36 questionnaires
- Brief Resilience scale (BRS) questionnaires

Quality of life related scale (SF-36):

The Short Form-36 (SF-36) is a 36 item questionnaire which measures Quality of Life (QOL) across eight domains, which are both physically and emotionally based and it is a structured, self-report questionnaire (Jenkinson et al., 2014).The eight domains that the SF36 measures are as follows: physical functioning; role limitations due to physical health; role limitations due to emotional problems; energy/fatigue; emotional well-being; social functioning; pain; general health. It is the most widely used measures to predict health-related quality of life and it also help in showing the difference between subjects with variety of chronic conditions and between subjects with different level of severity of the same disease. The Test-retest reliability of sf-36 Bangla version has been tasted and the value of Test- retest reliability (.94-1.0) (Walton et al., 2012).

Brief Resilience scale (BRS): BRS is reliable and measured as a unitary construct. It is predictably related to personal characteristics, social relations, coping, and health in all samples. It is negatively related to anxiety, depression, negative affect, and physical symptoms. The BRS is a reliable means of assessing resilience as the ability to bounce back or recover from stress and may provide unique and important information about people coping with health-related stressors.

3.8.2 Data Collection Procedure:

In this study, a socio-demographical informative questionnaire was developed by researcher to collect data. A questionnaire named SF-36 were used for measures

Quality of Life (QOL).Mental resilience tools-Brief Resilience scale (BRS), was used for measures mental resilience of the person. At the very beginning researcher clarified that, the participant has the right to refuse to answer of any question during completing questionnaire. They can withdraw from the study at any time. Researcher also clarify to all participants about the aim of the study. Participants were ensured that any personal information would not be published anywhere. Researcher took permission from each volunteer participant by using a written consent form. After getting consent from the participants, standard questionnaire was used to identify the complain and collect demographic information. Questions were asked according to the Bangla format. For conducting the interview, the researcher conducted a face-to-face interview and asked questions. Physical environment was considered strictly. Stimuli that can distract interviewee were removed to ensure adequate attention of interview. Interviewee was asked questions alone as much as possible with consent as sometimes close relatives can guide answer for them. The researcher built a rapport and clarified questions during the interview. Face to face interviews are the most effective way to get full cooperation of the participant in a survey. Face to face interviews are also effective to describe characteristics of a population. Face to face interviews was used to find specific data which describes the population descriptively during discussion. According to the participants' understanding level, sometimes the questions were described in the native language so that the patients can understand the questions perfectly and answer accurately. All the data were collected by the researcher own to avoid the errors.

3.9 Data Analysis:

Descriptive statistics were used to analyze data. Descriptive statistics refers methods of describing a set of results in terms of their most interesting characteristics (Hicks, 2009). Data were analyzed with the software named Statistical Package for the Social Science (SPSS) version 20.0. The variables were labeled in a list and the researcher established a computer-based data definition record file that consist of a list of variables in order. The researcher put the name of the variables in the variable view of SPSS and defined the types, values, decimal, label alignment and measurement level of data. The next step was cleaning new data files to check the inputted data set to ensure that all data has been accurately transcribed from the questionnaire sheet to the SPSS data view. Then the raw

data were ready for analysis in SPSS. Data were collected on frequency and contingency tables. Measurements of central tendency were carried out using the mean plus standard deviation (SD) for variables. For the study of the association of numeric variables chi squared test, Spearman Correlation test were used. Data were analyzed by descriptive statistics and calculated as percentages and presented by using table, bar graph, pie charts etc. Microsoft office Excel 2021 was used to decorating the bar graph and pie charts. The results of this study were consisted of quantitative data. By this study a lot of information was collected.

Chi-squared test:

A chi-squared test, also written as $\chi 2$ test, is any statistical hypothesis test where the sampling distribution of the test statistic is a chi-squared distribution when the null hypothesis is true. Without other qualification, 'chi-squared test' often is used as short for Pearson's chi-squared test. The chi-squared test is used to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories.

One way anova test

One-way analysis of variance (ANOVA) is a statistical method for testing for differences in the means of three or more groups. One-way ANOVA can only be used when investigating a single factor and a single dependent variable. When comparing the means of three or more groups, it can tell us if at least one pair of means is significantly different, but it can't tell us which pair. Also, it requires that the dependent variable be normally distributed in each of the groups and that the variability within groups is similar across groups.

3.10. Ethical Consideration:

Bangladesh Medical Research Council (BMRC) guideline & WHO research guideline. A research proposal was submitted to the physiotherapy department of BHPI for approval and the proposal was approved by the faculty members and gave permission initially from the supervisor of the research project and from the course coordinator before conducting the study. The proposal of the dissertation including methodology was

presented to the Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI) for oral presentation defense was done infront of the IRB. Then the necessary information was approved by Institutional Review Board and was permitted to do this research. After getting the permission of doing this study from the academic institute the researcher had been started to do it. The researcher had been taken permission for data collection from the physiotherapy department and prosthesis and orthosis department of CRP, Savar. The participants would be informed before to invite participation in the study. A written consent form used to take the permission of each participant for the study. The researcher ensured that all participants were informed about their rights and reserves and about the aim and objectives of the study. Researcher also ensured that the organization (CRP) was not hampered by the study. All kinds of confidentiality highly maintained. The researcher ensured not to leak out any type of confidentialities. The researcher was eligible to do the study after knowing the academic and clinical rules of doing the study about what should be done and what should not. All rights of the participants were reserved and researcher was accountable to the participant to answer any type of study related question.

3.11. The rigor of the study

A rigorous manner was maintained to conduct the study. The study was conducted cleanly and systemically. During the data collection, it was ensured participants were not influenced by experience. The answer was accepted whether they were in a negative or positive impression. No leading questions were asked or no important questions were avoided. The participant information was coded accurately and checked by the supervisor to eliminate any possible errors. The entire information was handled with confidentiality. In the result section, the outcome was not influenced by showing any personal interpretation. Every section of the study was checked and rechecked by the research supervisor.

CHAPTER-IV RESULTS

4.1 Socio-demographic findings

4.1.1 Age of the participants:

Out of the 143 participants, the minimum age 18 years, maximum age 78 years, the mean of the age is 46.15 and the standard deviation is 15.28. 143 person's was participant in this study. In this case of age the most participants was attended from 41-60 age group 49.0% (n=70). Among 143 of the participants 35.7% (n=51) participants were in 18-40 age group, 15.3% (n=22) participants were in 61-80 age group.

Table 1: Age group of the participants

Age group	Frequency (N)	Percent%
18-40	51	35.7%
41-60	70	49.0%
61-80	22	15.3%
Total	143	100.0%

4.1.2 Gender of the participants:

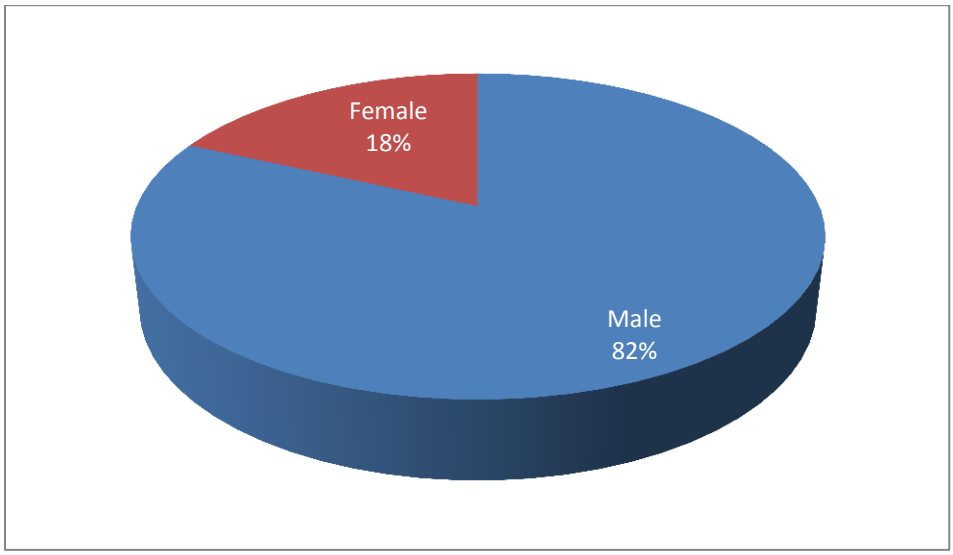


Figure 1: Gender of the participants

Among 143 participants, the most participants were male. Data showed 82% (n=117) was male and 18% (n=26) was female.

4.1.3 Marital status of the participants:

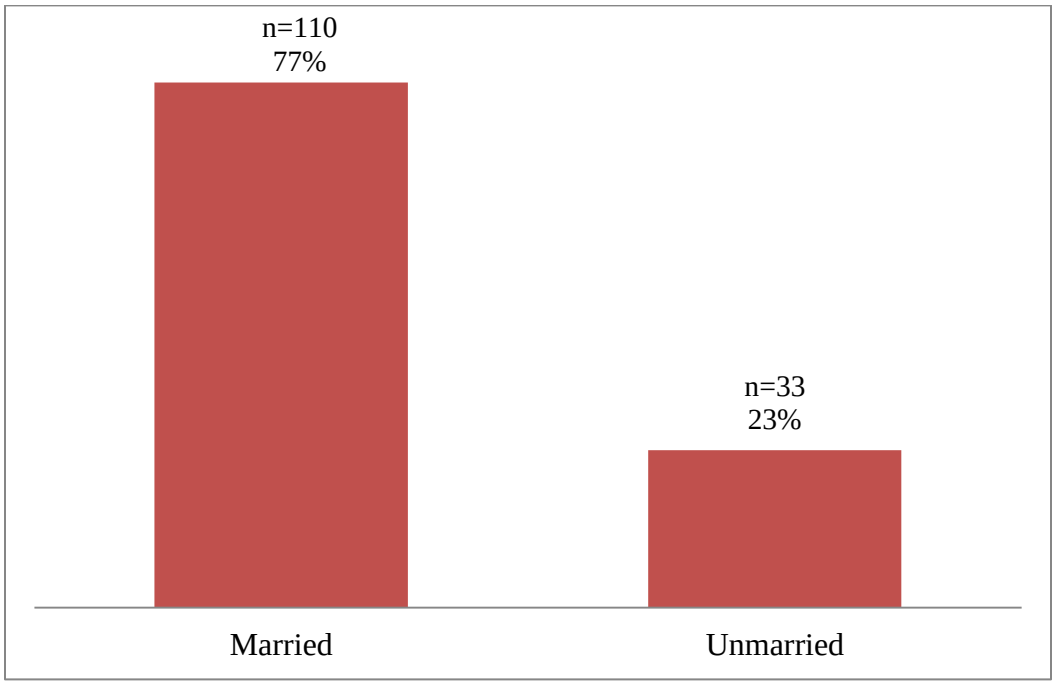


Figure 2: Marital status of the participants

Among 143 participants, most participants were married. Data showed that 77% (n=110) were married, 23% (n=33) were unmarried.

4.1.4 Educational level of the participants:

In this study, educational level of the participants 14.7% (n=21) were uneducated, 19.6% (n=28) were primary , 31.5% (n=45) participants had secondary education , 18.9% (n=27) participants got higher secondary education , 14%(n=20) were graduated , 1.4% (n=2) were post graduated.

Table 2: Educational level of the participants

Educational level	Frequency (N)	Percent %
Uneducated	21	14.7%
Primary	28	19.6%
Secondary	45	31.5%
Higher secondary	27	18.9%
Graduated	20	14.0%
Post graduated	2	1.4%
Total	143	100.0

4.1.5 Occupation of the participants:

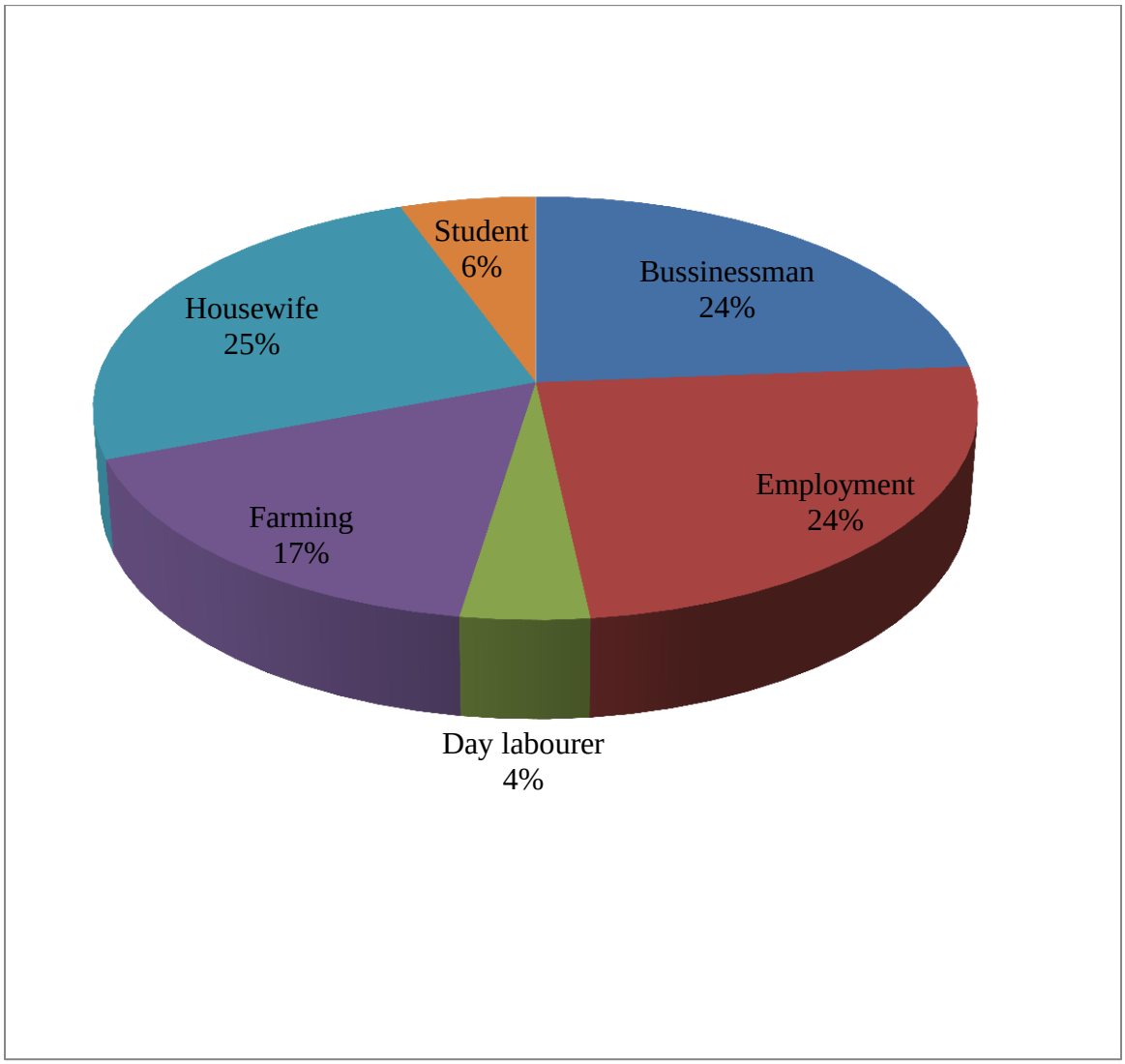


Figure 3: Occupation of the participants

In this study, occupation of the participants 24%(n=34) were businessman , 24%(n=35) were employment , 4% (n=6) were day labourer , 17% (n=24) were farmer , 25%(n=36) were housewife , 6%(n=8) were student .

4.1.6 Residential area of the participants:

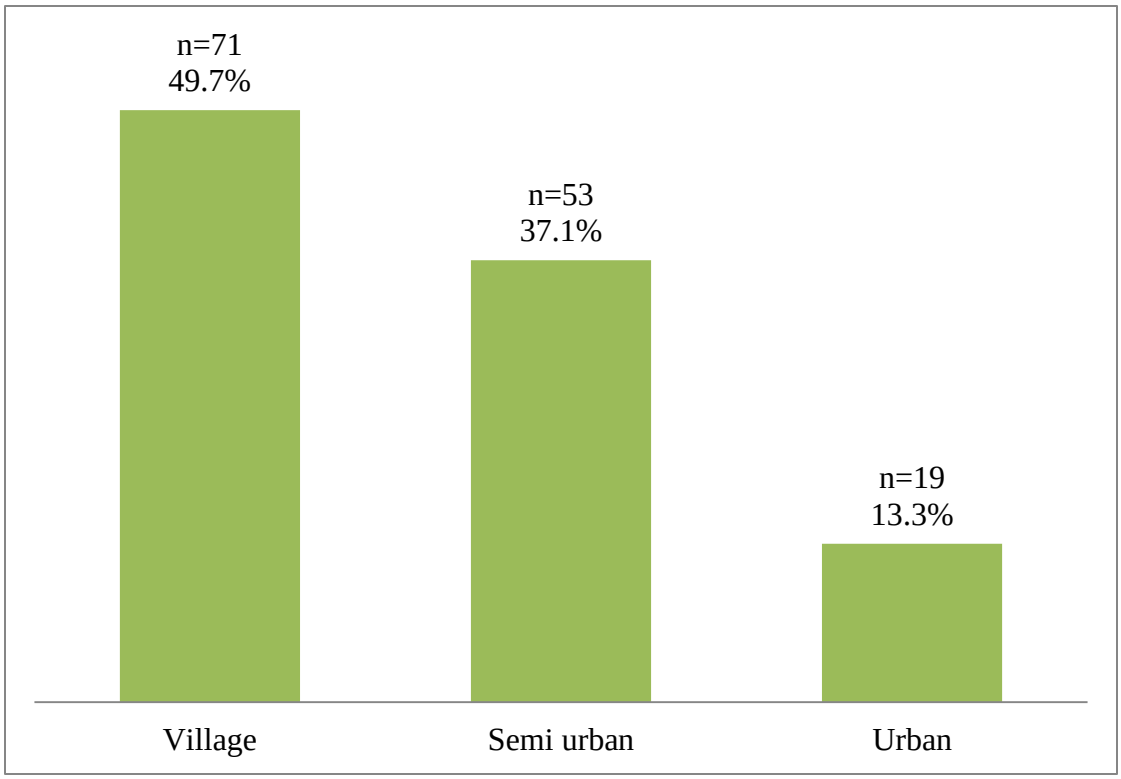


Figure 4: Residential area of the participants

Among 143 participants 49.7% (n=71) lived in village areas, 37.1% (n=53) lived in semi-urban area , 13.3% (n=19) lived in urban area.

4.1.7 Types of disability of the participants:

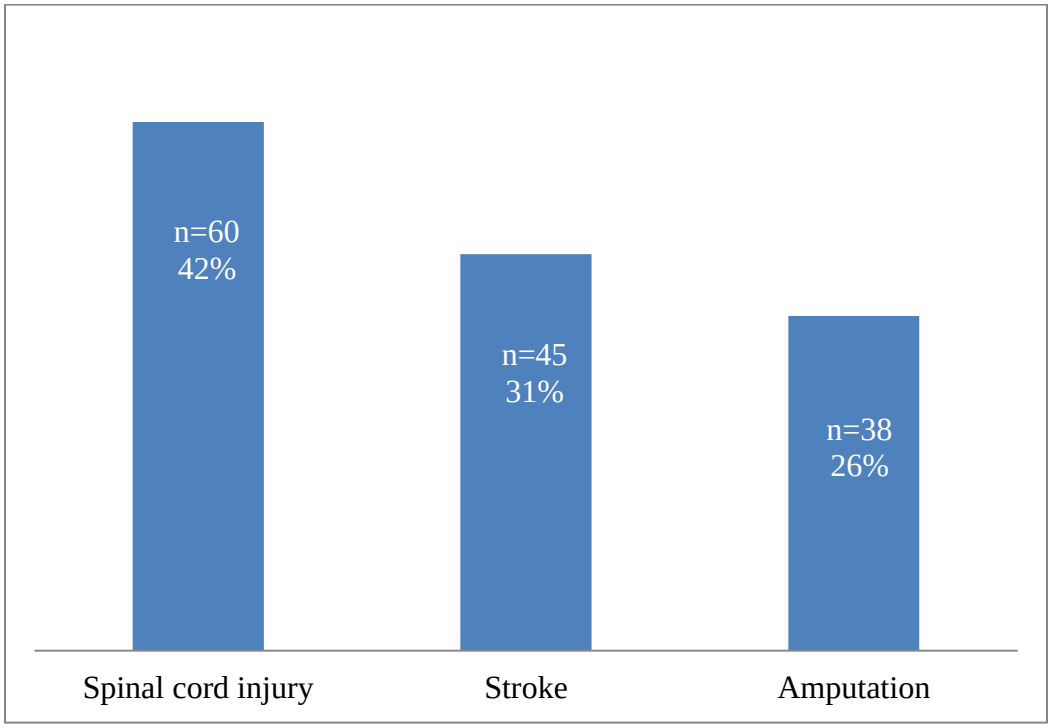


Figure 5: Types of disability of the participants

Among 143 participants 42% (n=60) were spinal cord injury ,31% (n=45) were stroke , 26% (n=38) were amputation patients

4.2 Covid-19 related information

4.2.1 Covid-19 affected of the participants:

Among 143 participants 27.3% (n=39) were covid-19 affected , 72.7% (n=104) didn't affected covid-19

Table 3: Covid-19 affected of the participants

Covid-19 affected	Frequency(N)	Percent %
Yes	39	27.3
No	104	72.7
total	143	100.0

4.2.2 Hospital admission of Covid-19 affected of the participants:

Table 4: Hospital admission of Covid-19 affected of the participants

Do you have covid-19 positive		Admission of hospital	
		Yes	No
Yes	39 (27.3%)	6 (4.2%)	33(23.1%)
No	104 (72.7%)	00	104 (72.7%)

Among 143 participants 27.3% (n=39) were affected covid-19, 72.7% (n=104) didn't affected covid-19

Above 39 covid-19 affected person 4.2% (N=6) were admitted into hospital. 23.1% (N=33) covid-19 affected person didn't admitted to hospital. They remain self-isolation.

4.2.3 Covid-19 vaccination of the participants:

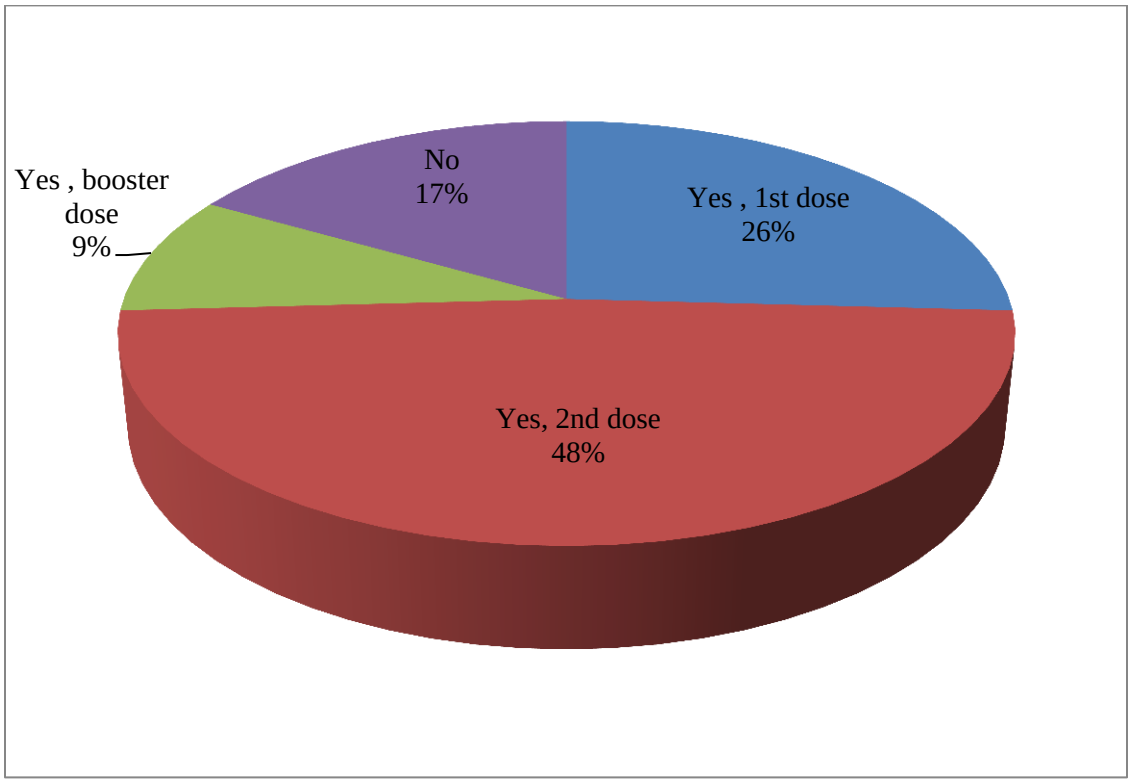


Figure 6 : Covid-19 vaccination of the participants

Among the participants 26%(n=37) take 1st dose of vaccine , 48%(n=69) has taken 2nd dose vaccine , 9%(n=13) has taken booster dose of vaccine , 17%(n=24) didn't take any vaccine.

4.3.1 Mental resilience of the participants:

The Brief Resilience Scale (BRS) Score has been used to find out the level of mental resilience. According to Smith et al, (2008) - BRS has three interpretation to identify the level of mental resilience-

1. Low resilience (1.00 - 2.99)
2. Normal resilience (3.00 - 4.30)
3. High resilience (4.31 - 5.00)

Among 143 participants the mean resilience score of the respondents was 1.39 with a standard deviation ±0.661 scores. Each participant had resilience with different levels. Participants disability persons during the COVID-19 pandemic, most of them had Low resilience 70.6% (n=101), 19.6%, (N=28) participants had normal resilience and 9.8 % (N=14) participants had high Resilience

Table 5: Mental resilience of the participants

Mental resilience	Frequency(N)	Percent %
Low resilience	101	70.6
Normal resilience	28	19.6
High resilience	14	9.8

4.3.2 Prevalence of the participants socio demographic according to mental resilience (BRS Scale) :

In my study total population was 143. All over the participants, most of them 70.6% (n=101) mental resilience level was low resilience. 19.6% (n=28) participants mental resilience level was normal resilience. And 9.8% (n=14) participants was high resilience. (Table-6)

In the study total participants are 143, most of them are male person, total male were 117 participants, 69.2% of the male mental resilience were low resilience (n=81), 24 participants male were normal resilience that was 20.5% and only 10.3% (n=12) participants were high resilience.

Among the 143 participants female were 26 participants, the majority (76.9%) of the women mental resilience was low resilience (n=20) , 15.4% & only 4 participants were female were normal, and also 7.7% (n=2) participants were high resilience. (Table-6)

In the study marital status of the participants, the major person who was married (n=110), there was 79 (71.8%) married person whose mental resilience was low, 20 (18.2%) participants were normal resilience and others 11 (10.0%) were high resilience.

In this study Unmarried participants were 33 people, 22 (66.7%) participants mental resilience was low resilience , 8 (24.2%) participants had normal resilience, and only 3 (9.1%) people had high resilience (Table-6)

Educational level among the 143 participants, 21 people were uneducated. 16(76.2%) persons mental resilience is low, 3(14.3%) persons mental resilience is normal, 2(9.5%) person has high resilience.

28 people were primary educated. among them 17 (60.7%) persons mental resilience is low, 5(17.9%) persons mental resilience is normal, 6(21.4%) person has high resilience.

45 people were secondary educated . among them 30 (66.7%) persons mental resilience is low, 11(24.4%) persons mental resilience is normal, 4(8.9%) person has high resilience.

27 people were higher secondary educated. among them 21 (77.8%) persons mental resilience is low, 5(18.5%) persons mental resilience is normal, 1(3.7%) person has high resilience.20 people were graduated . among them 16 (80.0%) persons mental resilience is low, 3(15.0%) persons mental resilience is normal, 1(5.%) person has high resilience.

2 people were post graduated . among them 1 (50%) persons mental resilience is low, 1(50%) persons mental resilience is normal (Table-6)

Occupation among 143 participants, majority person were employed (n=35), 26 (74.3%) participants had low resilience. 5(14.3%) people had normal resilience, 4(11.4%) participant had high resilience that was 12.5%. The minority of the participants (n=6) were day labourer, 4(66.7%) had low resilience, 2(33.3%) had normal resilience.(Table-6)

Residential area, In the study total the majority, 71 participants lived in village area, among of the people 54((76.1%) as low resilience, 12(16.9%) people have normal resilience, 5(7.0%) participants have high resilience.

Among the 143 participants minority of them were living in urban area (n=19), 9(47.4%) people's mental resilience were low resilience, 4 (21.1%)participants people were normal resilience and 6(31.6%) participants were high resilience (Table-6).

In this study the 143 disable participants were participants. Among them 60 were spinal cord injury patients, 45 were stroke patients, 38 were amputation patients. Among the 60 spinal cord injury patients 51(85.0%) has low mental resilience, 8(13.3%) has normal resilience, 1(1.7%) has high mental resilience. (Table-6).

Among the 45 stroke patients 22(48.9%) has low mental reliance, 14(31.1%) has normal mental resilience, 9(20.0%) has high mental resilience (Table-6).

Among the 38 amputation patients 28(73.7%) has low mental resilience, 6(15.8%) has normal mental resilience, 4(10.5%) has high mental resilience.

In this study among the 143 participants , 26%(n=37) take 1st dose of vaccine , 48%(n=69) has taken 2nd dose vaccine , 9%(n=13) has taken booster dose of vaccine , 17%(n=24) didn't take any vaccine. (Table-6).

Among the 37 person who takes 1st dose of vaccine 27(73.0%) has low mental resilience , 6(16.2%) has normal mental resilience , 4(10.8%) has high mental resilience.

Among the 69 participants who take 2nd dose of vaccine 48(69.6%) has low mental resilience , 13(18.8%) has normal mental resilience , 8(11.6%) has high mental resilience

Among the 13 participants who take booster dose of vaccine 11 (84.6%) has low mental resilience , 2(15.4%) has normal mental resilience .

Among the 24 participants who didn't take any dose of vaccine 15(62.5%) has low mental resilience, 7(29.2%) has normal mental resilience, 2(8.3%) has high mental resilience (Table-6).

Table 6: Participants socio demographic according to mental resilience (BRS Scale):

	Mental resilience (BRS) score interpretation					
	Low resilience		**Normal resilience**		**High resilience**	
Overall population(N=143)	N	%	N	%	N	%
	101	70.6%	28	19.6%	14	9.8%
Age of the participants(years)						
18-40	38	37.6%	9	32.1%	4	28.6%
41-60	48	47.5%	15	53.6%	7	50.0%
61-80	15	14.9%	4	14.3%	3	21.4%
Gender						
Male	81	69.2%	24	20.5%	12	10.3%
Female	20	76.9%	4	15.4%	2	7.7%
Marital status						
Married	79	71.8%	20	18.2%	11	10.0%
Unmarried	22	66.7%	8	24.2%	3	9.1%
Educational qualification						
Uneducated	16	76.2%	3	14.3%	2	9.5%
Primary	17	60.7%	5	17.9%	6	21.4%
Secondary	30	66.7%	11	24.4%	4	8.9%
Higher secondary	21	77.8%	5	18.5%	1	3.7%

Graduated	16	80.0%	3	15.0%	1	5.0%
Post graduated	1	50.0%	1	50.0%	0	0
Occupation						
Bussinessman	23	67.6%	9	26.5%	2	5.9%
Employment	26	74.3%	5	14.3%	4	11.4%
Day labourer	4	66.7%	2	33.3%	0	0
Farming	21	87.5%	2	8.3%	1	4.2%
Housewife	26	72.2%	6	16.7%	4	11.1%
Student	1	12.5%	4	50.0%	3	37.5%
Residential area						
Village	54	76.1%	12	16.9%	5	7.0%
Semi urban	38	71.1%	12	22.6%	3	5.7%
Urban	9	47.4%	4	21.1%	6	31.6%
Types of disability						
Spinal cord injury	51	85.0%	8	13.3%	1	1.7%
Stroke	22	48.9%	14	31.1%	9	20.0%
Amputation	28	73.7%	6	15.8%	4	10.5%
Covid 19 related						
Yes	30	76.9%	5	12.8%	4	10.3%
No	71	68.3%	23	22.1%	10	9.6%
Covid 19 vaccination						
Yes , 1st dose done	27	73.0%	6	16.2%	4	10.8%
Yes, 2nd dose done	48	69.6%	13	18.8%	8	11.6%
Yes , booster dose done	11	84.6%	2	15.4%	0	0
No	15	62.5%	7	29.2%	2	8.3%

4.4 Participants quality of life

4.4.1 General health:

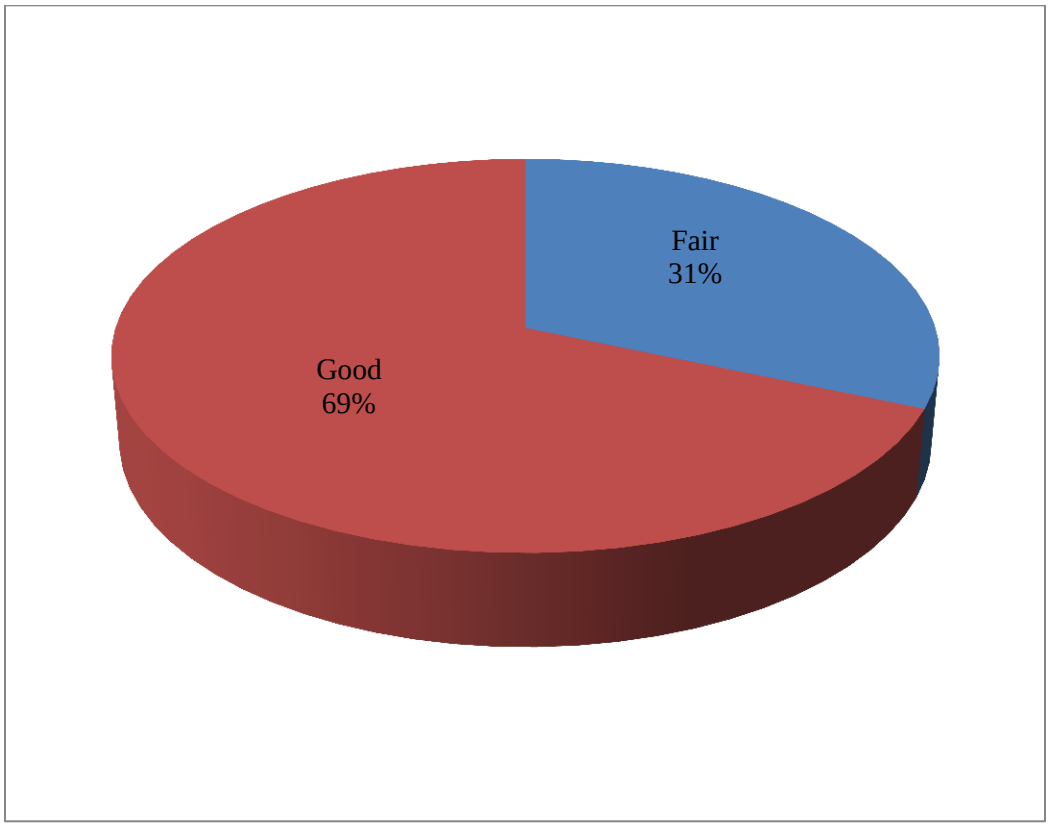


Figure 7: General health of the participants

This study showed that among the 143 participants, 31% (n=45) has fair health, 69% (n=98) has good health status.

4.4.2 Physical Functioning:

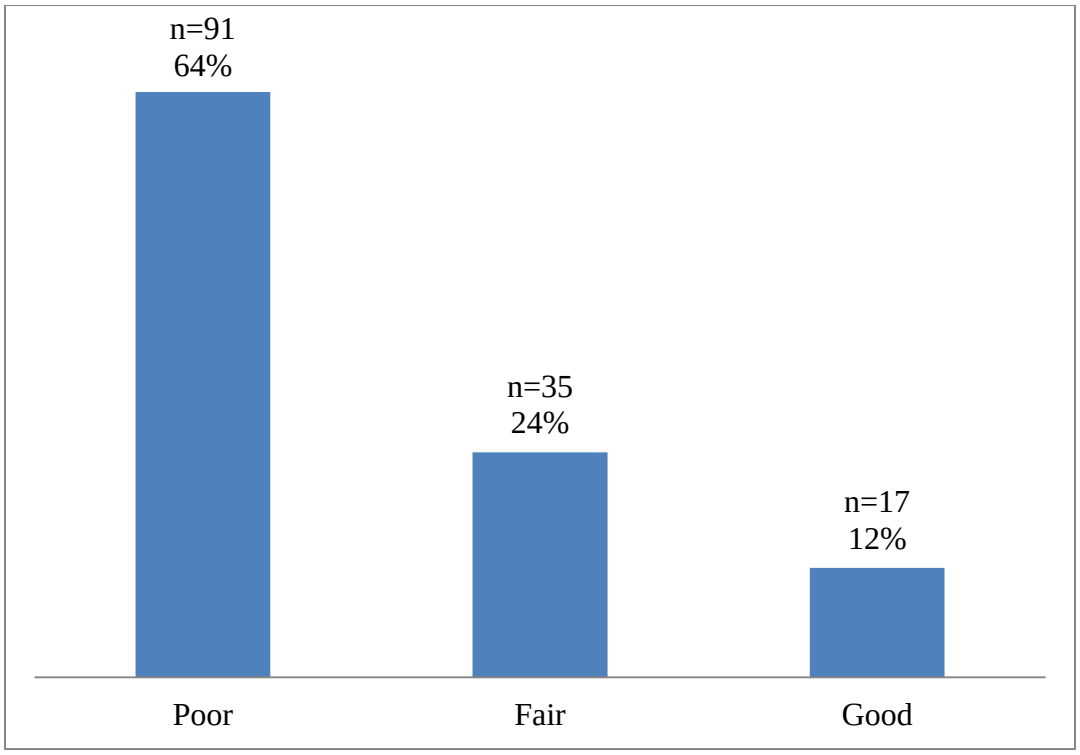


Figure 8: Physical Functioning of the participants

In this study total participant was 143, among the participants 64% (n=91) had poor physical functioning, 24% (n=35) had fair physical functioning and 12% (n=17) had good physical functioning.

4.4.3 Role limitations due to physical health:

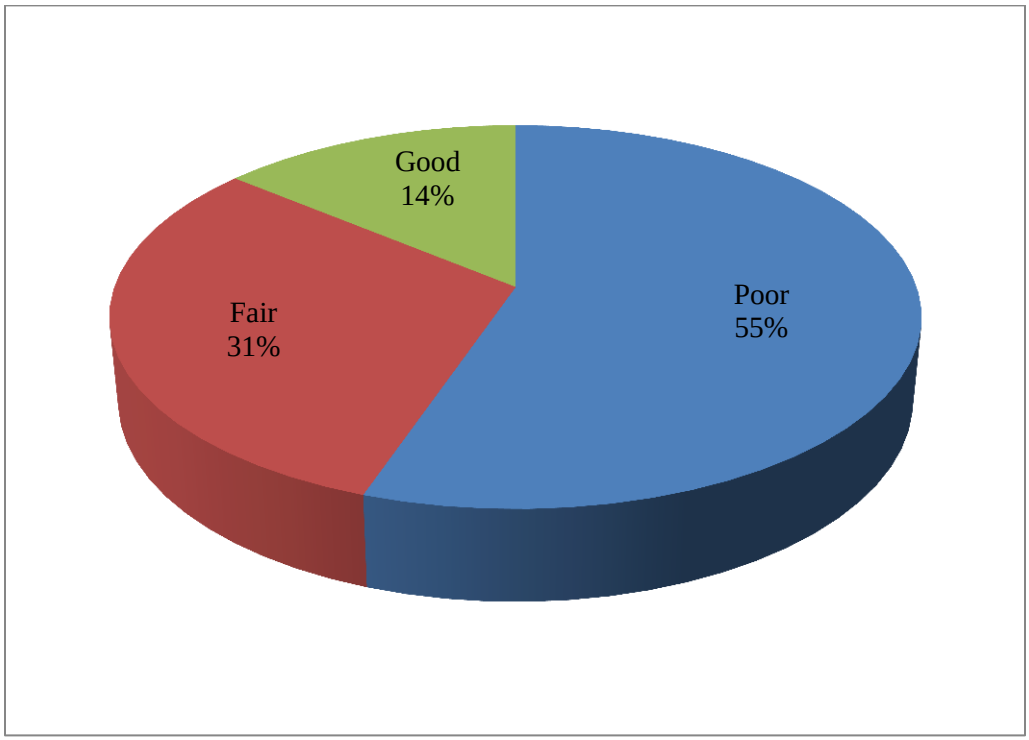


Figure 9: Role limitations due to physical health of the participants

Among the 143 participants, 55% (n=79) has poor role limitations due to physical health, 31% (n=44) has fair role limitations due to physical health, 14% (n=20) has good role limitations due to physical health

4.4.4 Role limitations due to emotional problems:

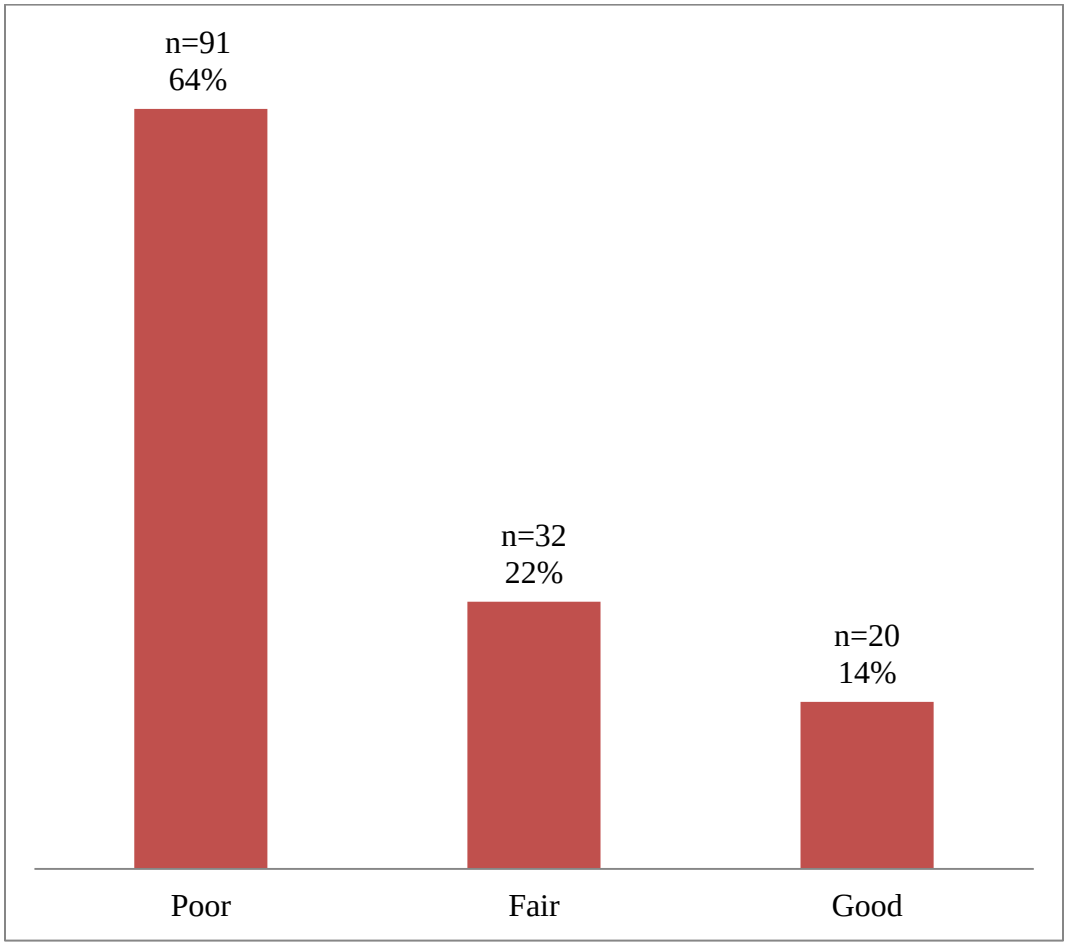


Figure 10: Role limitations due to emotional problem of the participants

Among the 143 participants, 64% (n=91) has poor role limitations due to emotional problem, 22% (n=32) has fair role limitations due to emotional problem, 14% (n=20) has good role limitations due to emotional problem

4.4.5 Energy:

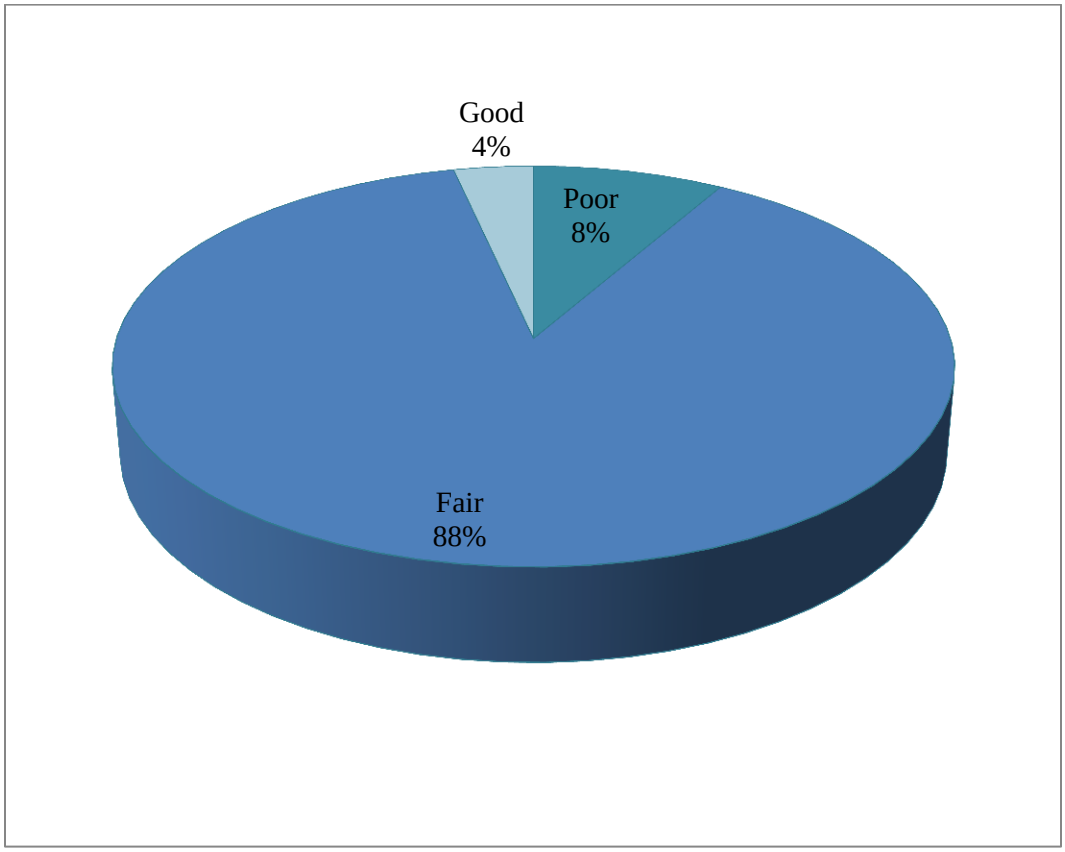


Figure 11: Energy of the participants

Among the 143 participants, 8% (n=12) has poor energy, 88% (n=126) has fair energy, 4% (n=5) has good energy.

4.4.6 Emotional wellbeing:

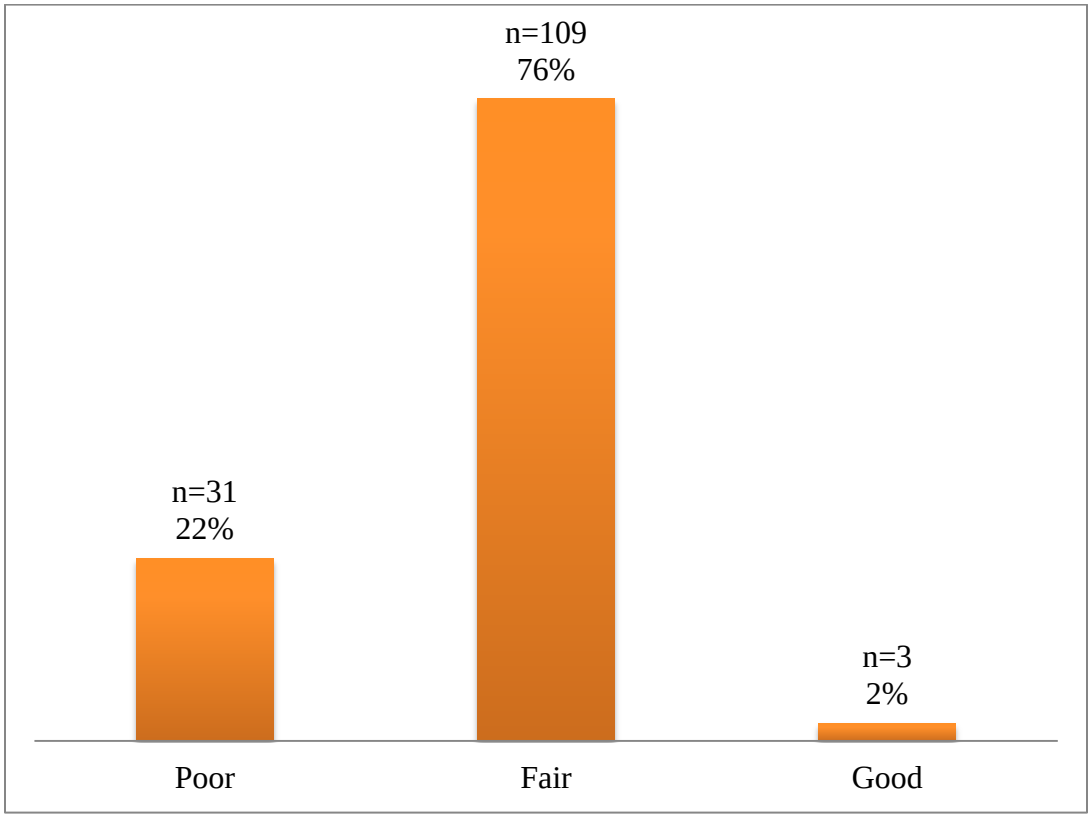


Figure 12 : Emotional wellbeing of the participants

Among the 143 participants, 76% (n=109) has fair emotional wellbeing, 22% (n=31) has poor emotional wellbeing, 2% (n=3) has good emotional wellbeing.

4.4.7 Social functioning:

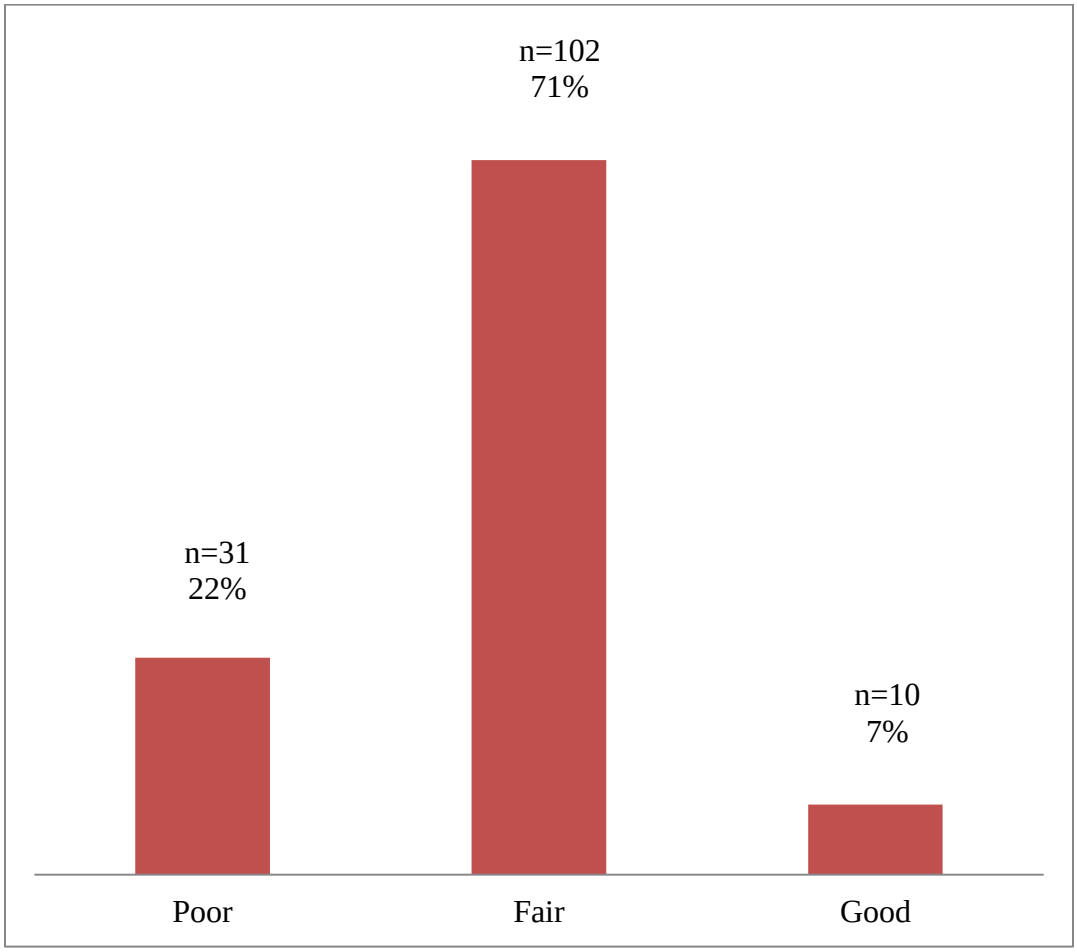


Figure 13: Social functioning of the participants

Among the 143 participants, 71% (n=102) has fair social functioning, 22% (n=31) has poor social functioning, 7% (n=10) has good social functioning.

4.4.8 Pain:

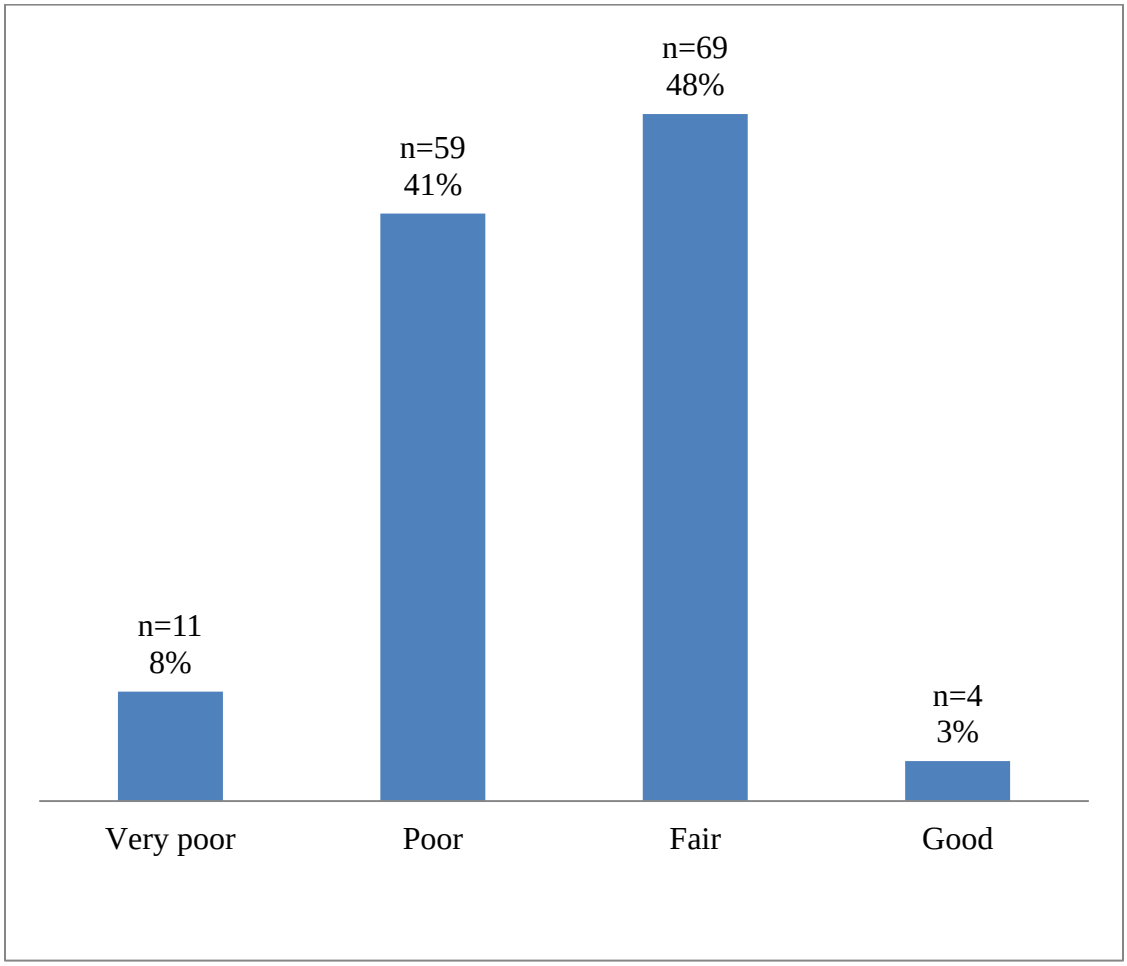


Figure 14: Pain of the participants

Among the 143 participants, 48% (n=69) has fair pain, 41% (n=59) has poor pain, 8% (n=11) has very poor pain, 3 %(n=4) has good amount of pain.

4.5 Correlations between socio-demographic and quality of life related variables of the participants

4.5.1 Association between age and quality of life:

In Table- 7: This study found no association in between Age and quality of life. All the p value is higher than P<0.05

Table 7: Association between age and quality of life of the participants

Variables	Age group	N	mean±SE	Observed anova value (F)	P value
General health	18-40	51	150.98±7.308	1.092	.338
	41-60	70	163.21±7.062		
	61-80	22	146.59±11.665		
Physical functioning	18-40	51	286.27±42.61	.976	.380
	41-60	70	235.71±29.75		
	61-80	22	197.73±51.015		
Role limitation due to physical health	18-40	51	109.80±18.42	1.247	.291
	41-60	70	75.71±13.26		
	61-80	22	104.55±30.49		
Role limitations due to emotional problem	18-40	51	60.78±12.55	.242	.785
	41-60	70	50.00±9.49		
	61-80	22	54.55±18.29		
Energy fatigue	18-40	51	155.29±10.96	3.143	.046
	41-60	70	187.14±8.34		
	61-80	22	186.36±14.01		
Emotional well being	18-40	51	203.92±10.86	1.644	.197
	41-60	70	230.00±9.44		
	61-80	22	220.91±16.51		

Social functioning	18-40	51	102.94±6.88	1.254	.289
	41-60	70	99.64±5.25		
	61-80	22	117.05±8.12		
pain	18-40	51	102.55±7.30	1.207	.302
	41-60	70	98.86±5.57		
	61-80	22	116.82±7.76		

4.5.2 Association between gender and quality of life:

In Table- 8: There is no association between gender and quality of life. All the p value is higher than P<0.05

Table 8: Association between gender and quality of life of the participants

Variables	Gender	N	Mean±SE	Observed anova value (F)	P value
General health	Male	117	151.71±5.18	4.401	.038
	Female	26	176.92±10.27		
Physical functioning	Male	117	240.60±25.30	.474	.492
	Female	26	280.77±48.44		
Role limitation due to physical health	Male	117	87.18±11.16	1.102	.296
	Female	26	115.38±27.00		
Role limitations due to emotional problem	Male	117	52.14±7.63	.531	.467
	Female	26	65.38±17.49		
Energy fatigue	Male	117	174.36±6.61	.202	.654
	Female	26	181.54±16.18		
Emotional well being	Male	117	216.92±7.09	.587	.445
	Female	26	230.00±17.12		
Social functioning	Male	117	103.85±4.09	.038	.845
	Female	26	101.92±9.79		
pain	Male	117	103.68±4.38	.155	.694
	Female	26	99.62±9.48		

4.5.3 Association between marital status and quality of life of the participants:

In Table-9: There is no association between quality of life and marital status of the participants. All the p value is higher than P<0.05

Table 9: Association between marital status and quality of life of the participants

Variables	Marital status	N	Mean±SE	Observed anova value (F)	P value
General health	Married	110	153.64±5.33	1.070	.303
	Unmarried	33	165.15±9.84		
Physical functioning	Married	110	240.00±23.69	.411	.523
	Unmarried	33	274.24±57.49		
Role limitation due to physical health	Married	110	84.55±11.04	1.881	.172
	Unmarried	33	118.18±25.54		
Role limitations due to emotional problem	Married	110	53.64±7.71	.056	.813
	Unmarried	33	57.58±16.30		
Energy fatigue	Married	110	178.18±6.84	.558	.456
	Unmarried	33	167.27±13.81		
Emotional well being	Married	110	224.91±7.39	2.452	.120
	Unmarried	33	200.61±13.99		
Social functioning	Married	110	101.14±4.06	1.305	.255
	Unmarried	33	111.36±9.17		
Pain	Married	110	102.27±4.28	.093	.761
	Unmarried	33	105.15±9.65		

4.5.4 Association between educational qualification and quality of life of the participants:

In Table-10: This study found an association in between educational qualification and SF-36 Questionnaire among the participants. Physical functioning P value was 0.000. P<0.05 was significant. Post graduated has mean±SE 800.00±50.00 which may the highest among the other educational qualification. Role limitation due to physical health P value was .013 P<0.05 was significant. Post graduated has mean±SE 250.00±150.00 which may the highest among the other educational qualification. Role limitations Due to emotional problem P value were 0.010. P<0.05 was significant. Post graduated has mean±SE 150.00±50.00 which may the highest among the other educational qualification. Emotional wellbeing P value was 0.021. P<0.05 was significant. Post graduated has mean±SE 280.00±80.00which may the highest among the other educational qualification.

Table 10: Association between educational qualification and quality of life of the participants

Variables	Educational level	N	Mean±SE	Observed anova value (F)	P value
General health	Uneducated	21	144.05±8.78	1.585	.168
	Primary	28	175.89±10.64		
	Secondary	45	147.78±9.72		
	Higher secondary	27	168.52±9.58		
	Graduated	20	143.75±11.73		
	Post graduated	2	162.50±12.50		
Physical functioning	Uneducated	21	157.14±47.34	5.801	.000*
	Primary	28	185.71±40.73		
	Secondary	45	180.00±37.71		
	Higher secondary	27	387.04±47.71		
	Graduated	20	340.00±69.64		

	Post graduated	2	800.00±50.00		
Role limitation due to physical health	Uneducated	21	47.62±23.52	3.020	.013*
	Primary	28	96.43±20.88		
	Secondary	45	62.22±18.61		
	Higher secondary	27	144.44±25.22		
	Graduated	20	115.00±24.36		
	Post graduated	2	250.00±150.00		
Role limitations due to emotional problem	Uneducated	21	23.81±16.76	3.172	.010*
	Primary	28	71.43±14.41		
	Secondary	45	31.11±10.92		
	Higher secondary	27	88.89±17.15		
	Graduated	20	60.00±21.02		
	Post graduated	2	150.00±50.00		
Energy fatigue	Uneducated	21	169.52±17.76	1.202	.312
	Primary	28	197.86±13.73		
	Secondary	45	157.33±12.00		
	Higher secondary	27	180.74±10.96		
	Graduated	20	185.00±14.64		
	Post graduated	2	180.00±60.00		
Emotional well being	Uneducated	21	188.57±16.59	2.743	.021*
	Primary	28	239.29±15.24		
	Secondary	45	197.33±11.41		
	Higher secondary	27	237.04±11.38		
	Graduated	20	243.00±19.48		
	Post graduated	2	280.00±80.00		

Social functioning	Uneducated	21	110.71±8.37	.829	.531
	Primary	28	111.61±8.28		
	Secondary	45	93.89±7.50		
	Higher secondary	27	106.48±8.18		
	Graduated	20	100.00±9.76		
	Post graduated	2	125.00±50.00		
pain	Uneducated	21	112.38±8.78	1.005	.417
	Primary	28	99.64±9.08		
	Secondary	45	93.67±8.13		
	Higher secondary	27	115.37±7.79		
	Graduated	20	104.00±9.85		
	Post graduated	2	80.00±35.00		

4.5.5 Association between Occupation and quality of life of the participants:

In Table-11: This study found an association in between Occupation and quality of life among the participants. Pain P value was .032. P<0.05 was significant. Day labourer has mean±SE 155.83±22.33 which may the highest among the other occupation.

Table 11: Association between Occupation and quality of life of the participants

Variables	Occupation	N	Mean±SE	Observed anova value (F)	P value
General health	Bussinessman	34	173.53±10.49	2.057	.075
	Employment	35	142.14±8.74		
	Day labourer	6	150.00±34.76		
	Farming	24	136.46±10.09		
	Housewife	36	164.58±8.59		
	Student	8	171.88±16.66		
Physical functioning	Bussinessman	34	267.65±45.71	1.522	.187
	Employment	35	324.29±51.21		
	Day labourer	6	358.33±159.38		
	Farming	24	170.83±52.98		
	Housewife	36	200.00±34.56		
	Student	8	193.75±87.34		
Role limitation due to physical health	Bussinessman	34	70.59±19.59	1.613	.160
	Employment	35	122.86±25.30		
	Day labourer	6	183.33±74.90		
	Farming	24	66.67±15.54		
	Housewife	36	91.67±19.26		
	Student	8	62.50±41.99		

Role limitations Due to emotional problem	Bussinessman	34	58.82±14.07	1.796	.118
	Employment	35	74.29±18.03		
	Day labourer	6	116.67±54.26		
	Farming	24	33.33±11.52		
	Housewife	36	41.67±10.82		
	Student	8	25.00±16.36		
Energy fatigue	Bussinessman	34	185.29±10.95	1.393	.231
	Employment	35	152.00±12.12		
	Day labourer	6	190.00±46.97		
	Farming	24	165.00±14.10		
	Housewife	36	191.67±12.90		
	Student	8	187.50±24.47		
Emotional well being	Bussinessman	34	225.88±13.01	.480	.791
	Employment	35	201.71±12.63		
	Day labourer	6	233.33±43.41		
	Farming	24	221.67±13.87		
	Housewife	36	224.44±14.80		
	Student	8	227.50±27.75		
Social functioning	Bussinessman	34	109.56±7.00	1.067	.381
	Employment	35	95.71±7.28		
	Day labourer	6	137.50±23.93		
	Farming	24	102.08±8.36		
	Housewife	36	100.00±7.52		
	Student	8	106.25±24.43		

Pain	Bussinessman	34	103.82±7.79	2.524	.032*
	Employment	35	93.29±8.14		
	Day labourer	6	155.83±22.33		
	Farming	24	113.33±6.66		
	Housewife	36	93.33±7.36		
	Student	8	113.75±25.73		

4.5.6 Association between residential area and quality of life of the participants:

In Table- 12: This study found an association in between Residential area and quality of life among the participants. General health P value was .014 P<0.05 was significant. Urban has mean±SE 190.79±11.66 which may the highest among the other residential area.

Table 12: Association between residential area and quality of life of the participants

Variables	Residential area	N	Mean±SE	Observed anova value (F)	P value
General health	Village	71	152.11±6.78	4.374	.014*
	Semi urban	53	149.53±7.29		
	Urban	19	190.79±11.66		
Physical functioning	Village	71	220.42±30.54	.963	.384
	Semi urban	53	262.26±39.22		
	Urban	19	310.53±60.04		
Role limitation due to physical health	Village	71	85.92±14.22	.222	.801
	Semi urban	53	96.23±17.86		
	Urban	19	105.26±29.09		
Role limitations due to emotional problem	Village	71	43.66±9.54	2.313	.103
	Semi urban	53	56.60±11.59		
	Urban	19	89.47±20.08		
Energy fatigue	Village	71	166.76±8.67	1.479	.231
	Semi urban	53	179.62±10.50		
	Urban	19	197.89±14.42		

Emotional well being	Village	71	210.99±9.32	1.380	.255
	Semi urban	53	221.51±11.00		
	Urban	19	244.21±16.65		
Social functioning	Village	71	104.58±5.52	1.963	.144
	Semi urban	53	96.23±6.18		
	Urban	19	119.74±8.45		
Pain	Village	71	105.70±5.90	.914	.403
	Semi urban	53	96.32±6.18		
	Urban	19	111.05±10.34		

4.5.7 Association between types of disability and quality of life of the participants:

In Table- 13 : This study found an association in between Residual area and quality of life among the participants Physical functioning P value was .000 P<0.05 was significant. Amputation person has mean±SE 503.95±40.89 which may the highest among the other types of disability. Role limitation due to physical health P value was .000 P<0.05 was significant. Amputation person has mean±SE 186.84±19.29 which may the highest among the other types of disability. Role limitations due to emotional problem P value were .005 P<0.05 was significant. Amputation person has mean±SE 92.11±13.76 which may the highest among the other types of disability. Pain P value was .040 P<0.05 was significant. Stroke person has mean±SE 117.67±7.68 which may the highest among the other types of disability.

Table 13: Association between types of disability and quality of life of the participants

Variables	Types of disability	N	Mean±SE	Observed anova value (F)	P value
General health	Spinal cord injury	60	151.25±7.57	.418	.659
	Stroke	45	159.44±8.42		
	Amputation	38	160.53±8.46		
Physical functioning	Spinal cord injury	60	60.00±9.78	58.422	.000**
	Stroke	45	282.22±38.24		
	Amputation	38	503.95±40.89		
Role limitation due to physical health	Spinal cord injury	60	55.00±11.25	18.902	.000**
	Stroke	45	62.22±19.40		
	Amputation	38	186.84±19.29		

Role limitations due to emotional problem	Spinal cord injury	60	41.67±9.29	5.552	.005*
	Stroke	45	40.00±13.25		
	Amputation	38	92.11±13.76		
Energy fatigue	Spinal cord injury	60	172.67±9.41	.115	.891
	Stroke	45	176.00±12.30		
	Amputation	38	180.00±10.37		
Emotional well being	Spinal cord injury	60	217.00±9.28	.238	.789
	Stroke	45	216.00±12.81		
	Amputation	38	226.84±13.15		
Social functioning	Spinal cord injury	60	99.17±5.66	.960	.386
	Stroke	45	111.11±7.26		
	Amputation	38	101.32±6.92		
Pain	Spinal cord injury	60	95.42±6.35	3.292	.040*
	Stroke	45	117.67±7.68		
	Amputation	38	97.37±5.66		

4.5.8 Association between covid-19 perspective and quality of life of the participants

In Table- 14 : This study found an association in between covid-19 perspective and quality of life among the participants Physical functioning P value was .047 P<0.05 was significant. Covid19 affected person has mean±SE 320.51±41.95 which may the highest among non covid19 affected person. Energy fatigue P value was .011 P<0.05 was significant. Non covid19 affected person has mean±SE 185.19±6. Which may the highest among covid19 affected person. Emotional wellbeing P value was .029 P<0.05 was significant. Non covid19 affected person has mean±SE 228.08±7.50 which may the highest among covid19 affected person.

Table 14: Association between covid-19 perspective and quality of life of the participants

Variables		N	Mean±SE	Observed anova value (F)	P value
General health	Yes	39	145.51±8.15	1.995	.106
	No	104	160.34±5.65		
Physical functioning	Yes	39	320.51±41.95	4.000	.047*
	No	104	220.67±26.20		
Role limitation due to physical health	Yes	39	100.00±19.78	.205	.651
	No	104	89.42±12.21		
Role limitations due to emotional problem	Yes	39	61.54±11.39	.373	.542
	No	104	51.92±8.64		
Energy fatigue	Yes	39	150.26±12.57	6.677	.011*
	No	104	185.19±6.81		
Emotional well being	Yes	39	195.90±12.85	4.885	.029*
	No	104	228.08±7.50		
Social functioning	Yes	39	93.59±6.0	2.611	.108
	No	104	107.21±4.63		
Pain	Yes	39	100.77±6.50	.111	.739
	No	104	103.75±4.89		

4.5.9 Association between Covid-19 vaccination and quality of life of the participants:

In Table- 15 : This study found an association in between Covid-19 vaccination and quality of life among the participants social P value was .002 P<0.05 was significant. The person who didn't take any vaccine has mean±SE 131.25±9.06 which may the highest among who take vaccine.

Table 15: Association between Covid-19 vaccination and quality of life of the participants

Variables	Covid-19 vaccination	N	Mean±SE	Observed anova value (F)	P value
General health	Yes , 1st dose done	37	169.59±11.83	2.127	.100
	Yes, 2nd dose done	69	151.45±6.42		
	Yes , booster dose done	13	128.85±10.14		
	No	24	164.58±7.51		
Physical functioning	Yes , 1st dose done	37	204.05±38.91	.912	.437
	Yes, 2nd dose done	69	278.26±29.85		
	Yes , booster dose done	13	288.46±85.51		
	No	24	206.25±70.08		
Role limitation due to physical health	Yes , 1st dose done	37	100.00±19.75	.145	.933
	Yes, 2nd dose done	69	85.51±14.04		
	Yes , booster dose done	13	92.31±39.97		
	No	24	100.00±29.48		
Role	Yes , 1st dose done	37	70.27±13.89	.766	.515

limitations due to emotional problem	Yes, 2nd dose done	69	44.93±9.35		
	Yes , booster dose done	13	61.54±24.12		
	No	24	54.17±19.94		
Energy fatigue	Yes , 1st dose done	37	174.59±13.41	.308	.820
	Yes, 2nd dose done	69	171.01±8.69		
	Yes , booster dose done	13	186.15±15.25		
	No	24	185.00±15.33		
Emotional well being	Yes , 1st dose done	37	215.14±14.02	.243	.866
	Yes, 2nd dose done	69	217.39±9.90		
	Yes , booster dose done	13	218.46±18.04		
	No	24	231.67±13.45		
Social functioning	Yes , 1st dose done	37	87.16±6.54	5.392	.002*
	Yes, 2nd dose done	69	100.72±5.41		
	Yes , booster dose done	13	113.46±11.18		
	No	24	131.25±9.06		
Pain	Yes , 1st dose done	37	90.54±7.08	1.493	.219
	Yes, 2nd dose done	69	104.93±5.59		
	Yes , booster dose done	13	103.85±10.05		
	No	24	115.83±12.00		

4.5.10 Association between mental resilience with Socio- demographic information:

The study had an association occurred between socio-demographic profile and mental resilience which was mentioned in the objective of the study. In this study, the BRS scale was used. Here, the dependent variable was the BRS scale score, mental resilience had highly significant (.001) with the types of disability & BRS score interpretation.(Table-5)
Mental resilience was moderately significant (p = .011) in the Residential area. Mental resilience was moderately significant (p = .024) with occupation. Mental resilience was comparatively less significant (p = .743) with the marital status. (Table-16)
Mental resilience was not found any association with age category, gender, marital status, education, covid-19 related information. (Table-16)

Table -16 Association between mental resilience with Socio- demographic information:

Independent variable	**Test Value (**Chi square**)**	**P-Value**
Age category**:** 18-40, 41-60 ,61-80	.944	.918
Gender :Male , Female	.607	.738
Marital status : Married , unmarried	.593	.743
Educational qualification: Uneducated, primary, secondary, higher secondary, graduated, post graduated	8.807	.551
Occupation : Bussinessman, Employment, Day labourer, Farming, Housewife, Student	20.650	.024*
Residential area : village , semi urban , urban	12.908	.011*
Types of disability : Spinal cord injury , Stroke , Amputation	18.203	.001**
Covid 19 affected related ; yes , no	1.564	.457
Covid 19 vaccine : yes 1st dose , yes 2nd dose , yes booster dose ,no	3.694	.718

CHAPTER-V DISCUSSION

The purpose of the study is to find out the mental resilience and quality of life of person with disabilities in covid-19 pandemic.

Now-a-days the quality of life has become a major topic of research in the area of health and the findings contribute to the definition and approval of treatments and evaluation of cost benefits of the disabled persons. During covid-19 situation the disabled persons suffer more and that impact on their mental health.

In this study,SF-36 scale is used to measure the quality of life of the disabled persons during covid-19 pandemic situation . The Brief resilience scale (BRS) and a demo-graphical questionnaire were used to measure the level of mental resilience of disabled persons during the COVID-19 pandemic. Socio- demographic characteristics played an important role in association with resilience and quality of life in this study. There had an association between socio- demographic factors and mental resilience. Also there had an association between socio- demographic and quality of life.

In this study 143 persons are participate. There minimum age group is 18 years and maximum age group is 78 years. Mean age group is 46.15. Standard deviation is 15.28 .most of the participants 35.7%(n=51) were 18-40 age group. A study of disability of Yilmaz et al., (2013) found that the mean age of the persons was 41.3 and standard deviation was 12.1. Among 143 participants of our study, there are higher number disabled persons 82% (n=117) are male and 18% (n=26) of them are female. A study of Mannino, 2015 found that among 31 participants 55%(n=55) are male and 45% (n=14) are female. So it is found that there are more permeability of male are higher than female. In our study participants most them 77%(n=110) are married . In a research that was published by Azzam et a., (2020) the majority of the participants were married (66.1%) .

In our study, educational level of the participants 14.7% (n=21) were uneducated, 19.6% (n=28) were primary , 31.5% (n=45) participants had secondary education , 18.9% (n=27) participants got higher secondary education , 14%(n=20) were graduated ,

1.4%(n=2) were post graduated. A study of Wong et al., (2022) showed that among 733 participants of their study , (61.2%, *n* =381) had a bachelor's degree .

In this study among 143 participants occupation of them 23.8%(n=34) were businessman , 24.5%(n=35) were employment , 4.2%(n=6) were day labourer , 16.8% (n=24) were farmer , 25.2%(n=36) were housewife , 5.6%(n=8) were student . Also found an association in between occupation and quality of life among the participants. Pain P value was .032. P<0.05 was significant. Day labourer has mean±SE 155.83±22.33 which may the highest among the other occupation. A study of Wong et al., (2022) found that among 733 participants of their study ,52.5% (*n* = 95) were working when they completed the survey, and 47.5% (*n* = 86) did not work during the pandemic. Among 143 participants of this study 49.7% (n=71) lived in village areas, 37.1% (n=53) lived in semi urban area , 13.3% (n=19) liven in urban area. Among 143 participants 42% (n=60) were spinal cord injury ,31.5% (n=45) were stroke , 26.% (n=38) were amputation patients.

In this study among 143 participants 27.3% (n=39) were covid-19 affected , 72.7% (n=104) didn't affected covid-19. Above 39 covid-19 affected person 4.2% (N=6) were admitted into hospital. 23.1% (N=33) covid-19 affected person didn't admitted to hospital . They remain self-isolation. The participants of this study among them , 26%(n=37) take 1st dose of vaccine , 48%(n=69) has taken 2nd dose vaccine , 9%(n=13) has taken booster dose of vaccine , 17%(n=24) didn't take any vaccine.

The study found an association in between covid-19 perspective and quality of life among the participants Energy fatigue P value was .011 P<0.05 was significant. Non covid19 affected person has mean±SE 185.19±6. Physical functioning P value was .047 P<0.05 was significant. Covid19 affected person has mean±SE 320.51±41.95 which may the highest among non covid19 affected person. Which may the highest among covid19 affected person. Emotional wellbeing P value was .029 P<0.05 was significant. Non covid19 affected person has mean±SE 228.08±7.50 which may the highest among covid19 affected person.

Among 143 participants the mean resilience score of the respondents was 1.39 with a standard deviation ±0.661 scores. Each participant had resilience with different levels. Participants disability persons during the COVID-19 pandemic , most of them had Low resilience 70.6% (n=101) , 19.6%, (N=28) participants had normal resilience and 9.8 % (N=14) participants had high Resilience . In this study there is significant association of mental resilience with the residential area where (p = .011). Mental resilience was comparatively less significant (p = .743) with the marital status. A study of Terrill et al., (2014) found that significant differences in resilience among disability types scored significantly lower on resilience .

This study found an association in between educational qualification and SF-36 Questionnaire among the participants. Physical functioning P value was 0.000. P<0.05 was significant. post graduated has mean±SE 800.00±50.00 which may the highest among the other educational qualification. Role limitation due to physical health P value was .013 P<0.05 was significant. post graduated has mean±SE 250.00±150.00 which may the highest among the other educational qualification. Role limitations Due to emotional problem P value was 0.010. P<0.05 was significant. post graduated has mean±SE 150.00±50.00 which may the highest among the other educational qualification. Emotional wellbeing P value was 0.021. P<0.05 was significant. post graduated has mean±SE 280.00±80.00which may the highest among the other educational qualification. Yang, 2022 et al., found an Association Between education and resilience during covid-19 pandemic in his study where (p=<0.001).

Most of the respondents who are disabled were from rural Areas 49.7% (n=71), semi urban area 37.1% (n=53) Only 13.3% (n=19) were from urban area. This study identified a correlation between the residential area and both quality of life (p=<.0.014) and mental resilience (p=<0.011) According to Mannino, 2015 the current living location was semi urban 81% (n= 25). Urban 20%(n=6) and also determinate association mental resilience with current living location (p=0.01).

Limitation of the study:

There might be some limitations in every research. In this study, a small sample size may constitute a limitation. As the study was conducted at the disabled persons at selected area of the Centre for the Rehabilitation of the Paralysed (CRP) in the physiotherapy department and prosthesis and orthosis department which might not represent the whole population within the context of Bangladesh. Another major limitation was time and resources which have a great impact on the study and affect the result to generalize for a wider population. As the study period was short so an adequate number of samples could not arrange for the study.

CHAPTER VI CONCLUSION AND RECOMMENDATION

6.1 Conclusion:

Disability is a sudden, unexpected event that may occur acutely or chronically and has a long-term impact on physical functioning and psychological wellbeing. It is a major problem in health sector in Asia as well as in Bangladesh. Every year many people are disabled by spinal cord injury, stroke , amputation. disability can affect any person, at any age, at any time but active younger males are more prompt to having disability than females. Disability negatively affects not only the patient's physical condition but also all aspects of their lives more importantly their mental status. After disability quality of life and mental resilience becomes an unavoidable event. It is a prominent psychiatric disorder among disabled persons and appears to be more common in other physical and psychological problem. Quality of life and mental resilience levels may change over time since injury. It has such a harmful effect on a disabled person's ability to function in day-to-day life. It can make the pain worse, make sleep difficult, sap the energy, take away the enjoyment and make it difficult to take good care of health. In this study, the level of quality of life and mental resilience of patients has been found. It has been also significant that there has been an association between mental resilience and socio-demographic information during the COVID-19 pandemic. Also there has been an association between quality of life and socio- demographic information during the COVID-19 pandemic So it is immensely essential to assess quality of life and mental resilience in patients having disability and make proper treatment plans during the rehabilitation period and always should be considered with priority.

6.2 Recommendation:

The aim of the study was to assess the quality of life and mental resilience of the person with disability in covid-19 pandemic. It is an inevitable consequence after having disability and has a negative influence on patients with disability. So, the necessity is to give more attention to this psychological aspect which is linked to disability. There are so many studies based on disability but there are few amounts of studies related to the concept of this patient's quality of life and psychology such as mental resilience. If other authors want to do further related studies, they are recommended to do their study from a whole country perspective with an increased sample size.

REFERENCES

Al Imam, M., Jahan, I., Das, M., Muhit, M., Akbar, D., Badawi, N. and Khandaker, G., (2021). Situation analysis of rehabilitation services for persons with disabilities in Bangladesh: identifying service gaps and scopes for improvement. Disability and Rehabilitation,1-14.

Azzam, N., Aljebreen, A., Almuhareb, A. and Almadi, M., (2020). Disability and quality of life before and during the COVID-19 outbreak: A cross-sectional study in inflammatory bowel disease patients. Saudi Journal of Gastroenterology, 26(5), p.256.

Banks, L., Kuper, H. and Polack, S., (2017). Poverty and disability in low- and middle-income countries: A systematic review. PLOS ONE, 12(12), p.e0189996.
Berkman LF, Kawachi I, Glymour MM. Social Epidemiology. 2nd ed. Oxford,UK: Oxford University Press; 2014.

Bialek, S., Boundy, E., Bowen, V., Chow, N., Cohn, A., Dowling, N., Ellington, S., Gierke, R., Hall, A., MacNeil, J., Patel, P., Peacock, G., Pilishvili, T., Razzaghi, H., Reed, N., Ritchey, M. and Sauber-Schatz, E., (2020). Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19) — United States, February 12–March 16, 2020. MMWR. Morbidity and Mortality Weekly Report, 69(12):343-346.

Bonanno GA, Kennedy P, Galatzer-Levy IR, Lude P, Elfstom ML. Trajectories of resilience, depression, and anxiety following spinal cord injury. Rehabil Psychol (2012);57:236-47.

Brown, H., Saha, S., Chan, T., Cheung, A., Fralick, M., Ghassemi, M., Herridge, M., Kwan, J., Rawal, S., Rosella, L., Tang, T., Weinerman, A., Lunsky, Y., Razak, F. and Verma, A., (2022). Outcomes in patients with and without disability admitted to

hospital with COVID-19: a retrospective cohort study. Canadian Medical Association Journal, 194(4):E112-E121.

Buchanan J. Protect Rights of People with Disabilities during COVID-19. New York:Human Rights Watch; (2020).

Daly, M., Sutin, A. and Robinson, E., (2020). Longitudinal changes in mental health and the COVID-19 pandemic: evidence from the UK Household Longitudinal Study. Psychological Medicine:1-10.

Flowers, L., & Dean, O. (2021). Addressing food insecurity among at-risk older adults. In S. Basu, J. L. Alpert, & R. S. Phillips (Eds.), Primary care in the COVID-19 pandemic. New York: Milbank Memorial Fund; (97–106).

García-Azorín D, Martínez-Pías E, Trigo J, et al. Neurological comorbidity is a predictor of death in covid-19 disease: a cohort study on 576 patients. Front Neurol. (2020);11:781.

Gutenbrunner, C., Stokes, E., Dreinhöfer, K., Monsbakken, J., Clarke, S., Côté, P., Urseau, I.,Constantine, D., Tardif, C., Balakrishna, V. and Nugraha, B., (2020). Why Rehabilitation must have priority during and after the COVID-19-pandemic: A position statement of the Global Rehabilitation Alliance. Journal of Rehabilitation Medicine, p.0

Hammell, K.W. Action on the social determinants of health: Advancing occupational equity and occupational rights. Braz. J. Occup. Ther. (2020), 28, 378–400.

Harrison, S. L., Fazio-Eynullayeva, E., Lane, D. A., Underhill, P., & Lip, G. Y. H. (2020). Comorbidities associated with mortality in 31,461 adults with COVID-19 in the United States: A federated electronic medical record analysis. PLoS Medicine,17(9), e1003321.

Henderson, A., Fleming, M., Cooper, S., Pell, J., Melville, C., Mackay, D., Hatton, C. and Kinnear, D., (2022). COVID-19 infection and outcomes in a population-based

cohort of 17 203 adults with intellectual disabilities compared with the general population. Journal of Epidemiology and Community Health, 76(6):550-555.

Hersh M. Deaf blind people, communication, independence, and isolation. J Deaf Stud Deaf Educ. (2013);18(4):446e463.

Holm, M., Sainio, P., Parikka, S. and Koskinen, S., (2022). The effects of the COVID-19 pandemic on the psychosocial well-being of people with disabilities. Disability and Health Journal, 15(2):101224.

Jalali, M., Shahabi, S., Bagheri Lankarani, K., Kamali, M. and Mojgani, P., (2020). COVID-19 and disabled people: perspectives from Iran. Disability & Society, 35(5):844-847.

Krahn GL, Walker DK, Correa-De-Araujo R. Persons with disabilities as an unrecognized health disparity population.Am J Public Health. (2015);105(suppl 2):S198–S206.

Kuper H, Banks LM, Bright T, Davey C, Shakespeare T. Disability-inclusive COVID-19 response: what it is, why it is important and what we can learn from the United Kingdom's response. Wellcome Open Res. (2020);5.

Kuvalekar, K., Kamath, R., Ashok, L., Shetty, B., Mayya, S. and Chandrasekaran, V., (2015). Quality of life among persons with physical disability in udupi taluk: A cross sectional study. Journal of family medicine and primary care, 4(1), p.69

Lai, C.C., Shih, T.P., Ko, W.C., Tang, H.J. and Hsueh, P.R., (2020). Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges. International Journal of Antimicrobial Agents, 55(3):105924.

Lebrasseur A, Fortin-B_edard N, Lettre J, et al. Impact of COVID-19 on People with Physical Disabilities. A rapid; (2020).

Li, Y., & Mutchler, J. E. (2020). Older adults and the economic impact of the COVID-19 pandemic. Journal of Aging & Social Policy, 32(4–5), 477–487.

Lin SF, Beck AN, Finch BK, Hummer RA, Master RK. Trends in U.S. older adult disability: exploring age, period, and cohort effects. Am J Pub Health (2012);102:2157-63.

Lugo-Agudelo, L., Spir Brunal, M., Posada Borrero, A., Cruz Sarmiento, K., Velasquez Correa, J., Di Dio Castagna Iannini, R., Gonzalez Zuluaga, M., Ospina, V., Patiño Lugo, D., Mesa Franco, L. and Gutenbrunner, C., (2022). Countries Response for People With Disabilities During the COVID-19 Pandemic. Frontiers in Rehabilitation Sciences, 2

Mannino, J.E., (2015). Resilience and transitioning to adulthood among emerging adults with disabilities. Journal of Pediatric Nursing, 30(5):e131-e145.

Mustafaoglu, R., Erhan, B., Yeldan, I., Gunduz, B. & Tarakci, E. Does robot-assisted gait training improve mobility, activities of daily living and quality of life in stroke? A single-blinded, randomized controlled trial. Acta Neurol. Belg. 120, 335–344 (2020).

Na, L. and Yang, L., (2022). Psychological and behavioral responses during the COVID-19 pandemic among individuals with mobility and/or self-care disabilities. Disability and health journal, 15(1), p.101216

Namkung, E .,Choi, S., and. Carr, D., (2021). Physical Disability and Older Adults' Perceived Food and Economic Insecurity During the COVID-19 Pandemic. The Journals of Gerontology: Series B, 77(7):e123-e133.

Noh, J.W., Kwon, Y.D., Park, J., Oh, I.H. and Kim, J., (2016). Relationship between physical disability and depression by gender: a panel regression model. PloS one, 11(11), p.e0166238.

Pettinicchio D, Maroto M, Chai L, Lukk M. Findings from an online survey on the mental health effects of COVID-19 on Canadians with disabilities and chronic health conditions. Disability and Health Journal. (2021);14(3):101085.

Santini ZI, Koyanagi A, Tyrovolas S, Mason C, Haro JM. The association between social relationships and depression: a systematic review. J Affect Disord. (2015);175:53–65.

Schulz, T., Niesing, J., Stewart, R., Westerhuis, R., Hagedoorn, M., Ploeg, R., Homan van der Heide, J. and Ranchor, A., (2012). The role of personal characteristics in the relationship between health and psychological distress among kidney transplant recipients. Social Science & Medicine, 75(8):1547-1554

Senders A, Bourdette D, Hanes D, Yadav V, Shinto L. Perceived stress in multiple sclerosis: the potential role of mindfulness in health and well-being. J Evid Based Complementary Altern Med (2014);19: 104-11.

Shakespeare, T., Watson, N., Brunner, R., Cullingworth, J., Hameed, S., Scherer, N., Pearson, C. and Reichenberger, V., (2021). Disabled people in Britain and the impact of the COVID -19 pandemic. Social Policy & Administration, 56(1):103-117.

Silverman, A., Molton, I., Alschuler, K., Ehde, D. and Jensen, M., (2015). Resilience Predicts Functional Outcomes in People Aging With Disability: A Longitudinal Investigation. Archives of Physical Medicine and Rehabilitation, 96(7):1262-1268.

Sohrabi, C., Alsafi, Z., O'neill, N., Khan, M., Kerwan, A., Al-Jabir, A., Iosifidis, C. and Agha, R., (2020). World Health Organization declares global emergency: A

review of the 2019 novel coronavirus (COVID-19). International journal of surgery, 76:71-76.

Soltan, E., El-Zoghby, S. and Salama, H., (2020). Impact of the COVID-19 Pandemic on Mental Health and Social Support among Adult Egyptians. Journal of Community Health, 45(4):689-695.

Soltani, S.,. B. Khosravi, and H. Salehiniya. (2015). "Prevalence of Intellectual Disability in Iran: Toward a New Conceptual Framework in Data Collection." Journal of Research in Medical Sciences 20 (7): 714.

Tavakoli, P. and Makhtoom Nejad, M., (2022). The Relationship between Perceived Social Support and Psychological Resilience with the Quality of Life of People with Physical Disabilities. Human Relations Studies, 2(4):13-21.

Terrill, A., Molton, I., Ehde, D., Amtmann, D., Bombardier, C., Smith, A. and Jensen, M., (2014). Resilience, age, and perceived symptoms in persons with long-term physical disabilities. Journal of Health Psychology, 21(5):640-64

Terrill, A.L., Molton, I.R., Ehde, D.M., Amtmann, D., Bombardier, C.H., Smith, A.E. and Jensen, M.P., (2016). Resilience, age, and perceived symptoms in persons with long-term physical disabilities. Journal of Health Psychology, 21(5):640-649.

Tsibidaki, A., (2021). Anxiety, meaning in life, self-efficacy and resilience in families with one or more members with special educational needs and disability during COVID-19 pandemic in Greece. Research in Developmental Disabilities, 109, p.103830.

Vindegaard, N. & Benros, M. E. COVID-19 pandemic and mental health consequences: systematic review of the current evidence.Brain Behav. Immun. 89, 531–542 (2020)

White DB, Lo B. A framework for rationing ventilators and critical care beds during the COVID-19 pandemic. JAMA (2020) March 27 (Epub ahead of print).

Wong, J., Ezeife, N., Kudla, A., Crown, D., Trierweiler, R., Capraro, P., Tomazin, S., Su, H., Pham, T. and Heinemann, A., (2022). Employment Consequences of COVID-19 for People with Disabilities and Employers. Journal of Occupational Rehabilitation

World Health Organization. Disability considerations during the COVID-19 outbreak. https://apps.who.int/iris/rest/bitstreams/1277373/retrieve; (2020).

Yilmaz, N., Can, M., Oner, F., Kalfa, M., Emmungil, H., Karadag, O., Yildiz, F., Kimyon, G., Yilmazer, B., Gerdan, V., Bilge, S., Ilhan, B., Cobankara, V., Kasifoglu, T., Cefle, A., Kisacik, B., Onat, A., Akar, S., Onen, F., Erken, E., Kiraz, S., Aksu, K., Keser, G., Mumcu, G. and Direskeneli, H., (2013). Impaired quality of life, disability and mental health in Takayasu's arteritis. Rheumatology, 52(10):1898-1904.

Zheng, Q., Tian, Q., Hao, C., Gu, J., Lucas-Carrasco, R., Tao, J., Liang, Z., Chen, X., Fang, J., Ruan, J., Ai, Q. and Hao, Y., (2014). The role of quality of care and attitude towards disability in the relationship between severity of disability and quality of life: findings from a cross-sectional survey among people with physical disability in China. Health and Quality of Life Outcomes, 12(1).

Appendix

English Verbal Consent Form
(Please read out to the participants)

Assalamualikum,

My name is Farhan Labib Sifat. I am final year students of Bangladesh health professions institute (BHPI) , CRP , Savar , Dhaka. I am conducting a research according to my course curriculum. Titled "**Mental Resilience and quality of life of disabled persons in COVID-19 Pandemic**" . the purpose of the study is to find out the mental resilience and quality of life for disabled persons during covid19 pandemic situation . for this study I need to collect data from the disabled persons. According to the criteria you are eligible for participating to the study. I request you to participate the study. I will ask you some questions which are mentioned in

the attached form. This will take approximately 20-25 minutes. I would like to inform you that this is a purely academic study and will not be used for any other purpose.

All information provided by you will be treated as confidential and in the event of any report or

publication, it will be ensured that the source of information remains anonymous, and also all information will be destroyed after completion of the study. Your participation's in this study is voluntary and you may withdraw yourself at any time during this study without any negative consequences. You also have the right not to answer a particular question that you don't like or do not want to answer during an interview.

If you have any queries about the study you may contact mFarhan Labib Sifat (01911713889) BPT 4th year students or Professor Md. Obaidul Haque ,Vice Principal (01730059640), BHPI, CRP, Savar, Dhaka.

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

YES ☐

NO ☐

Signature of the Participant _____ Date_____
Signature of the Interviewer _____ Date_____

সম্মতিপত্র

আসসালামু আলাইকুম

আমি ফারহান লাবীব সিফাত বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট(বিএইচপিআই),সিআরপিতে অধ্যায়নরত শেষ বর্ষের ছাত্র। আমি একটি গবেষনা পরিচালনা করছি যা আমার কোর্সের অন্তর্ভুক্ত । যার শিরোনাম "কোভিড 19 মহামারীতে প্রতিবন্ধী ব্যক্তিদের মানসিক ঘাত সহিষ্ণুতা এবং তাদের জীবনযাত্রার মান"। এই গবেষনার উদ্দেশ্য হলো কোভিড ১৯ মহামারীতে প্রতিবন্ধী ব্যক্তিদের মানসিক ঘাত সহিষ্ণুতা এবং তাদের জীবন যাত্রার মান বের করা । এই জন্য আমাকে প্রতিবন্ধী ব্যক্তিদের কাছ হতে তথ্য নিতে হবে। গবেষনার ক্ষেত্র অনুযায়ী আপনি এই গবেষনায় অংশগ্রহনের যোগ্যতা অর্জন করেছেন। আমি আপনাকে এই গবেষনায় অংশগ্রহনের জন্য আমন্ত্রণ জানাচ্ছি । আমি আপনাকে কিছু প্রশ্ন জিজ্ঞেস করবো যার জন্য ২০-২৫ মিনিট সময় লাগবে। আমি নিশ্চিত প্রদান করছি যে আপনার থেকে যে তথ্য নেওয়া হবে তা গোপনীয় থাকবে এবং আপনার কোন ক্ষতি হবে না। আপনার যদি কোন জিজ্ঞেসা থাকে তাহলে যোগাযাগ করুন ফারহান লাবীব সিফাত,(০১৯১১৭১৩৮৮৯) বিপিটি চতুর্থ বর্ষ অথবা অধ্যাপক মো. ওবায়দুল হক, উপাধ্যক্ষ (০১৭৩০০৫৯৬৪০), বিএইচপিআই,সিআরপি,সাভার, ঢাকা-১৩৪৩

গবেষনা শুরু করার পূর্বে আপনার কি কোন প্রশ্ন আছে?

-

আমরা কি ইন্টারভিউ শুরু করতে পারি?

হ্যাঁ ☐

না ☐

আমি..... ফর্মের বিষয়বস্তু পড়েছি এবং বুঝেছি। আমি স্বেচ্ছায় গবেষনায় অংশ গ্রহন করছি

অংশগ্রহণ কারীর স্বাক্ষর..... তারিখ

স্বাক্ষীর স্বাক্ষর..... তারিখ

Questionnaire English

	Part I : **Patient's Identification** **(to be provided by patient or attendant)**	
1.1	Patients name:	Identification number
1.2	Date of interviewer:	Mobile no:
1.3	Address - Village: Post office: Thana: District:	Consent Taken : 1. Yes 2. No
	Part- II: Patient's Socio-demographic Information **(To be collected from Record/Patient/Caregiver)**	
2.1	Age	year
2.2	Gender	1. Male 2. Female
2.3	Marital status	1. Married 2. Unmarried
2.4	Educational level	1. Illiterate 2. Primary 3. Secondary 4. Higher secondar 5. Graduated 6. Post graduate
2.5	Occupation	1. Businessman 2. Service Holder 3. Day Laborer 4. Farmers 5. Housewife 6. Student

		7. Others (Specify):…….
2.6	What is the average monthly income of your household?	taka
2.7	Residential Area	1. Rural 2. Semi urban 3. Urban
2.8	Types of disability	1. Spinal cord injury 2. Stroke 3. Head injury 4. Amputation 5. others

Part-III covid19 pandemic related question

3.1	Do you have covid19 positive?	1. Yes 2. No
3.2	If yes , how long you have been in isolation	day
3.3	Have you admitted into the hospital?	1. Yes 2. No
3.4	Do you have done covid19 vaccination	1. Yes, 1st dose 2. Yes, 2nd dose 3. Yes, booster dose 4. No

Part-VI : participants quality of life scale

SF-36 QUESTIONNAIRE

Please answer the 36 questions of the Health Survey completely, honestly, and without interruptions.

GENERAL HEALTH:

1.1	**In general, would you say your health is?**	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor
1.2	**Compared to one year ago, how would you rate your health in general now?**	1. Much better now than one year ago 2. Somewhat better now than one year ago 3. About the same 4. Somewhat worse now than one year ago 5. Much worse than one year ago

LIMITATIONS OF ACTIVITIES:

The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

2.1	**Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports.**	1. Yes, Limited a lot 2. Yes, Limited a Little 3. No, Not Limited at all
2.2	**Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf**	1. Yes, Limited a lot 2. Yes, Limited a Little 3. No, Not Limited at all
2.3	**Lifting or carrying groceries**	1. Yes, Limited a lot 2. Yes, Limited a Little 3. No, Not Limited at all
2.4	**Climbing several flights of stairs**	1. Yes, Limited a lot 2. Yes, Limited a Little 3. No, Not Limited at all
2.5	**Climbing one flight of stairs**	1. Yes, Limited a lot 2. Yes, Limited a Little 3. No, Not Limited at all
2.6	**Bending, kneeling, or stooping**	1. Yes, Limited a lot 2. Yes, Limited a Little 3. No, Not Limited at all

2.7	**Walking more than a mile**	1. Yes, Limited a lot 2. Yes, Limited a Little 3. No, Not Limited at all
2.8	**Walking several blocks**	1. Yes, Limited a lot 2. Yes, Limited a Little 3. No, Not Limited at all
2.9	**Walking one block**	1. Yes, Limited a lot 2. Yes, Limited a Little 3. No, Not Limited at all
2.10	**Bathing or dressing yourself**	1. Yes, Limited a lot 2. Yes, Limited a Little 3. No, Not Limited at all

PHYSICAL HEALTH PROBLEMS:
During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

3.1	**Cut down the amount of time you spent on work or other activities**	1. Yes 2. No
3.2	**Accomplished less than you would like**	1. Yes 2. No
3.3	**Were limited in the kind of work or other activities**	1. Yes 2. No
3.4	**Had difficulty performing the work or other activities (for example, it took extra effort)**	1. Yes 2. No

EMOTIONAL HEALTH PROBLEMS:
During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

4.1	**Cut down the amount of time you spent on work or other activities**	1. Yes 2. No
4.2	**Accomplished less than you would like**	1. Yes 2. No
4.3	**Didn't do work or other activities as carefully**	1. Yes 2. No

	as usual	

SOCIAL ACTIVITIES:

5.1	**Emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?**	1. Not at all 2. Slightly 3. Moderately 4. Severe **5.** Very Severe

PAIN:

6.1	**How much bodily pain have you had during the past 4 weeks?**	1. None 2. Very Mild 3. Mild 4. Moderate 5. Severe 6. Very Severe
6.2	**During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the** **home and housework)?**	1. Not at all 2. A little bit 3. Moderately 4. Quite a bit **5.** Extremely

ENERGY AND EMOTIONS:
These questions are about how you feel and how things have been with you during the last 4 weeks. For each question, please give the answer that comes closest to the way you have been feeling.

7.1	**Did you feel full of pep?**	1. All of the time 2. Most of the time 3. A good Bit of the Time 4. Some of the time 5. A little bit of the time 6. None of the Time
7.2	**Have you been a very nervous person?**	1. All of the time 2. Most of the time 3. A good Bit of the Time 4. Some of the time 5. A little bit of the time **6.** None of the Time

7.3	**Have you felt so down in the dumps that nothing could cheer you up?**	1. All of the time 2. Most of the time 3. A good Bit of the Time 4. Some of the time 5. A little bit of the time 6. None of the Time
7.4	**Have you felt calm and peaceful?**	1. All of the time 2. Most of the time 3. A good Bit of the Time 4. Some of the time 5. A little bit of the time **6.** None of the Time
7.5	**Did you have a lot of energy?**	1. All of the time 2. Most of the time 3. A good Bit of the Time 4. Some of the time 5. A little bit of the time 6. None of the Time
7.6	**Have you felt downhearted and blue?**	1. All of the time 2. Most of the time 3. A good Bit of the Time 4. Some of the time 5. A little bit of the time 6. None of the Time
7.7	**Did you feel worn out?**	1. All of the time 2. Most of the time 3. A good Bit of the Time 4. Some of the time 5. A little bit of the time 6. None of the Time
7.8	**Have you been a happy person?**	1. All of the time 2. Most of the time 3. A good Bit of the Time 4. Some of the time 5. A little bit of the

		time 6. None of the Time
7.9	**Did you feel tired?**	1. All of the time 2. Most of the time 3. A good Bit of the Time 4. Some of the time 5. A little bit of the time 6. None of the Time

SOCIAL ACTIVITIES:

8.1	**During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?**	1. All of the time 2. Most of the time 3. Some of the time 4. A little bit of the time **5.** None of the Time

GENERAL HEALTH:
How true or false is each of the following statements for you?

9.1	**I seem to get sick a little easier than other people**	1. Definitely true 2. Mostly true 3. Don't know 4. Mostly false 5. Definitely false
9.2	**I am as healthy as anybody I know**	1. Definitely true 2. Mostly true 3. Don't know 4. Mostly false 5. Definitely false
9.3	**I expect my health to get worse**	1. Definitely true 2. Mostly true 3. Don't know 4. Mostly false 5. Definitely false
9.4	**My health is excellent**	1. Definitely true 2. Mostly true 3. Don't know 4. Mostly false 5. Definitely false

Part V : persons mental resilience

Brief Resilience Scale (BRS)

Respond to each statement belowby circling one answer per row.		**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
BRS 1	I tend to bounce back quickly after hard times.	**1**	**2**	**3**	**4**	**5**
BRS 2	I have a hard time making it through stressful events.	5	**4**	**3**	**2**	**1**
BRS 3	It does not take me long to recover from a stressful event.	**1**	**2**	**3**	**4**	**5**
BRS 4	It is hard for me to snap back when something bad happens.	5	**4**	**3**	**2**	**1**
BRS 5	I usually come through difficult times with little trouble.	**1**	**2**	**3**	**4**	**5**
BRS 6	I tend to take a long time to get over setbacks in my life.	5	**4**	**3**	**2**	**1**

Scoring: Add the value (1-5) of your responses for all six items, creating a range from 6-30.
Divide the sum by the total number of questions answered (6) for your final score.
Total score: _____ / 6
My score: _____ (average)

BRS	**Score Interpretation**
1.00 - 2.99	Low resilience
3.00 - 4.30	Normal resilience
4.31 - 5.00	High resilience

প্রশ্নপত্র বাংলা

	অংশ ১: রোগীর শনাক্তকরন (রোগী বা রোগীর পরিচারক দ্বারা প্রদান করা হবে)	
১.১	রোগীর নাম :	সনাক্তকরন নম্বর:
১.২	সাক্ষাৎকারের তারিখ :	মোবাইল নম্বর:
১.৩	ঠিকানা- গ্রাম পোস্ট অফিস থানা জেলা	সম্মতি নেওয়া হয়েছে : 1. হ্যাঁ 2. না
	অংশ ২: রোগীর সামাজিক-জনসংখ্যাতাত্ত্বীক তথ্য (রেকর্ড/ রোগী/ কেয়ার দাতা থেকে সংগ্রহ করা হবে)	
২.১	বয়স	বছর
২.২	লিঙ্গ	1. পুরুষ 2. মহিলা
২.৩	বৈবাহিক অবস্থা	1. বিবাহিত 2. অবিবাহিত
২.৪	শিক্ষাগত যোগ্যতা	1. অক্ষর-জ্ঞান অসম্পুর্ণ 2. প্রাথমিক 3. মাধ্যমিক 4. উচ্চ-মাধ্যমিক 5. স্নাতক 6. স্নাতকোত্তর
২.৫	পেশা	1. ব্যবসায়ী 2. চাকুরীজীবী 3. দিনমজুর 4. কৃষি 5. গৃহিনী 6. ছাত্র 7. অন্যান্য (নির্দিষ্ট

		করুন):……..
২.৬	আপনার পরিবারের মাসিক গড় আয় কত?	টাকা
২.৭	আবাসিক এলাকা	1. গ্রাম 2. মফস্বল 3. শহর
২.৮	প্রতিবন্ধীতার ধরন	1. স্পাইনাল কর্ড ইন্জুরি 2. স্ট্রোক 3. মাথায় আঘাত 4. এম্পুটেশন 5. অন্যান্য

অংশ – ৩: কোভিড ১৯ মহামারী সম্পর্কিত প্রশ্নাবালী

৩.১	আপনার কি কোভিড ১৯ পজিটিভ হয়েছিলো?	1. হ্যাঁ 2. না
৩.২	যদি হ্যাঁ হয় তাহলে কতদিন যাবত আপনি আইসোলেশন এ ছিলেন	দিন
৩.৩	আপনাকে কি হসপিটালে ভর্তি হতে হয়েছিলো?	1. হ্যাঁ 2. না
৩.৪	আপনার কি কোভিড ১৯ টিকা দেওয়া হয়েছে?	1. হ্যাঁ,১ম ডোজ 2. হ্যাঁ, ২য় ডোজ 3. হ্যাঁ, বুস্টার ডোজ 4. না

অংশ ৪: রোগীর জীবনের গুনগতমান

এসএফ ৩৬ প্রশ্নপত্র

সঠিক উত্তরের পাশে টিক চিন্হ দিন

অনুগ্রহ করে স্বাস্থ্য সমীক্ষার ৩৬টি প্রশ্নের উত্তর দিন (সম্পূর্ণ, অকপট ও কোন প্রকার বাধা ছাড়াই)।

সাধারন স্বাস্থ্য:

১.১	সাধারনত আপনার স্বাস্থ্য কেমন?	1. চমৎকার 2. খুব ভাল 3. ভাল 4. সাধারণ 5. দুর্বল
১.২	এক বছর আগের তুলনায়, কিভাবে আপনি এখন সাধারণভাবে আপনার স্বাস্থ্য মূল্যায়ন করবেন?	1. এক বছর আগের এখন তুলনায় অনেক ভালো 2. এক বছর আগের এখন তুলনায় কিছু ভালো 3. একই 4. এক বছর আগের এখন তুলনায় কিছু খারাপ 5. এক বছর আগের এখন তুলনায় অনেক খারাপ

কার্যকলাপের সীমাবদ্ধতাঃ

নিম্নোক্ত বিষয়গুলো একটি সাধারণ দিনে আপনার কার্যক্রম হতে পারে। আপনার স্বাস্থ্য

কি এখন এইসব কার্যক্রমে আপনাকে সীমাবদ্ধ করছে? যদি করে, তাহলে কিভাবে?

২.১	সক্রিয় কার্যক্রম যেমনঃ শ্রমসাধ্য ক্রীড়ায় অংশগ্রহণ, ভারী বস্তু উত্তোলন, দৌড়ানো।	1. হ্যাঁ, অনেক সীমাবদ্ধ 2. হ্যাঁ, কিছুটা সীমাবদ্ধ 3. না, সীমাবদ্ধ নয়
২.২	মাঝারি কার্যক্রম যেমনঃ টেবিল সরানো , গলফ খেলা, বল করা।	1. হ্যাঁ, অনেক সীমাবদ্ধ 2. হ্যাঁ, কিছুটা সীমাবদ্ধ 3. না, সীমাবদ্ধ নয়

২.৩	মুদি জিনিসপএ উত্তলন বা বহন করা।	1. হ্যাঁ, অনেক সীমাবদ্ধ 2. হ্যাঁ, কিছুটা সীমাবদ্ধ 3. না, সীমাবদ্ধ নয়
২.৪	একাধিক তলা সিড়ি দিয়ে উঠা।	1. হ্যাঁ, অনেক সীমাবদ্ধ 2. হ্যাঁ, কিছুটা সীমাবদ্ধ 3. না, সীমাবদ্ধ নয়
২.৫	এক তলা সিড়ি দিয়ে উঠা।	1. হ্যাঁ, অনেক সীমাবদ্ধ 2. হ্যাঁ, কিছুটা সীমাবদ্ধ 3. না, সীমাবদ্ধ নয়
২.৬	বাঁকা হওয়া, হাঁটু গেড়ে বসা বা নত হওয়া।	1. হ্যাঁ, অনেক সীমাবদ্ধ 2. হ্যাঁ, কিছুটা সীমাবদ্ধ 3. না, সীমাবদ্ধ নয়
২.৭	এক মাইলের বেশি হাঁটা।	1. হ্যাঁ, অনেক সীমাবদ্ধ 2. হ্যাঁ, কিছুটা সীমাবদ্ধ 3. না, সীমাবদ্ধ নয়
২.৮	একের অধিক ব্লক হাঁটা।	1. হ্যাঁ, অনেক সীমাবদ্ধ 2. হ্যাঁ, কিছুটা সীমাবদ্ধ 3. না, সীমাবদ্ধ নয়
২.৯	এক ব্লক হাঁটা	1. হ্যাঁ, অনেক সীমাবদ্ধ 2. হ্যাঁ, কিছুটা সীমাবদ্ধ 3. না, সীমাবদ্ধ নয়
২.১০	গোসল বা নিজের কাপড় পরা।	1. হ্যাঁ, অনেক সীমাবদ্ধ 2. হ্যাঁ, কিছুটা সীমাবদ্ধ 3. না, সীমাবদ্ধ নয়

শারীরিক স্বাস্থ্যজনিত সমস্যাঃ

গত ৪ সপ্তাহ সময়,আপনার শারীরিক স্বাস্থ্যজনিত কারণে আপনার কাজ বা অন্যান্য নিয়মিত দৈনন্দিন কার্যক্রমে নিম্নিখিত কোন সমস্যাগুলি ছিল?

৩.১	আপনার কাজ বা অন্যান্য কার্যক্রম কাটানো সময় পরিমাণ কমে যাওয়া।	1. হ্যাঁ 2. না
৩.২	আপনার যতটুকু চান তার চেয়ে কম কাজ সম্পন্ন	1. হ্যাঁ 2. না

৩.৩	আপনার কাজ বা অন্যান্য যে কোন ধরনের কার্যক্রম সীমাবদ্ধ ছিল।	1. হ্যাঁ 2. না
৩.৪	আপনার কাজ বা অন্যান্য কার্যক্রম সম্পাদন করতে অসুবিধা ছিল (উদাহরণস্বরূপ, এটি অতিরিক্ত প্রচেষ্টা গ্রহণ)।	1. হ্যাঁ 2. না

মানসিক স্বাস্থ্যজনিত সমস্যা:

গত ৪ সপ্তাহ সময়,আপনার মানসিক স্বাস্থ্যজনিত কারণে আপনার কাজ বা অন্যান্য নিয়মিত দৈনন্দিন কার্যক্রমে নিম্নলিখিত কোন সমস্যাগুলি ছিল?

৪.১	আপনার কাজ বা অন্যান্য কার্যক্রম কাটানো সময় পরিমাণ কমে যাওয়া।	1. হ্যাঁ 2. না
৪.২	আপনার যতটুকু চান তার চেয়ে কম কাজ সম্পন্ন হওয়া।	1. হ্যাঁ 2. না
৪.৩	পূর্বের মত সাবধানে স্বাভাবিকভাবে কাজ বা অন্যান্য কাজকর্ম করা হয়নি।	1. হ্যাঁ 2. না

সামাজিক কার্যকলাপ :

৫.১	মানসিক সমস্যার কারণে পরিবার, বন্ধু, প্রতিবেশী, বা দলের সাথে আপনার স্বাভাবিক সামাজিক কার্যকলাপ বিঘ্নিত হচ্ছে?	1. কোন ভাবেই নয় 2. কিছুটা 3. একদম সামান্য 4. বেশি 5. খুব বেশি

ব্যথাঃ

৬.১	গত ৪ সপ্তাহ সময় আপনার কতটুকু শারীরিক ব্যাথা ছিল?	1. একদম না 2. খুব অল্প 3. অল্প 4. সহনীয় 5. বেশি 6. খুব বেশি
৬.২	গত ৪ সপ্তাহ সময় কতটুকু শারীরিক ব্যথা আপনার স্বাভাবিক কাজ (ঘর ও ঘরের বাহিরে) বিঘ্নতা সৃষ্টি করেছে?	1. একদম না 2. অল্প 3. সহনীয় 4. বেশি 5. খুব বেশি

শক্তি এবং আবেগ:

এই প্রশ্ন হচ্ছে গত ৪ সপ্তাহ সময় আপনার অনুভূতি কেমন ছিল এবং সব কিছু আপনার সাথে হয়েছে কিভাবে। প্রত্যেক প্রশ্নের জন্য, সব চেয়ে বেশি মিলের উত্তরটি বাছাই করুন।

৭.১	আপনার নিজেকে পুরোপুরি তেজপূর্ণ মনে হয়েছে?	1. সব সময় 2. অধিকাংশ সময় 3. অনেকটা সময় 4. কিছুটা সময় 5. সামান্য কিছুটা সময় 6. একদমই না
৭.২	আপনি কি খুবই চিন্তিত ছিলেন	1. সব সময় 2. অধিকাংশ সময় 3. অনেকটা সময় 4. কিছুটা সময় 5. সামান্য কিছুটা সময় 6. একদমই না
৭.৩	আপনি কি এতটাই হতাশাগ্রস্থ হয়েছেন যে কোন কিছুই আপনাকে উৎফুল্ল করতে পারেনি ?	1. সব সময় 2. অধিকাংশ সময় 3. অনেকটা সময়

		4. কিছুটা সময় 5. সামান্য কিছুটা সময় 6. একদমই না
৭.৪	আপনার নিজেকে কি শান্ত এবং শান্তিপূর্ণ অনুভূত হয়েছে?	1. সব সময় 2. অধিকাংশ সময় 3. অনেকটা সময় 4. কিছুটা সময় 5. সামান্য কিছুটা সময় 6. একদমই না
৭.৫	আপনার কি নিজেকে কর্মশক্তিপূর্ণ মনে হয়েছে?	1. সব সময় 2. অধিকাংশ সময় 3. অনেকটা সময় 4. কিছুটা সময় 5. সামান্য কিছুটা সময় 6. একদমই না
৭.৬	আপনার কি নিজেকে হতাশাগ্রস্থ মনে হয়েছে?	1. সব সময় 2. অধিকাংশ সময় 3. অনেকটা সময় 4. কিছুটা সময় 5. সামান্য কিছুটা সময় 6. একদমই না
৭.৭	আপনার কি নিজেকে জরাজীর্ণ মনে হয়েছে?	1. সব সময় 2. অধিকাংশ সময় 3. অনেকটা সময় 4. কিছুটা সময় 5. সামান্য কিছুটা সময় 6. একদমই না
৭.৮	আপনার কি নিজেকে সুখি ব্যক্তি মনে হয়েছে?	1. সব সময় 2. অধিকাংশ সময় 3. অনেকটা সময় 4. কিছুটা সময় 5. সামান্য কিছুটা সময় 6. একদমই না

৭.৯	আপনার কি নিজেকে ক্লান্ত মনে হয়েছে?	1. সব সময় 2. অধিকাংশ সময় 3. অনেকটা সময় 4. কিছুটা সময় 5. সামান্য কিছুটা সময় 6. একদমই না

সামাজিক কার্যক্রমে অংশগ্রহন :

৮.১	গত ৪ সপ্তাহে , কত সময় মনে হয়েছে, শারীরিক স্বাস্থ্য বা মানসিক সমস্যার কারনে আপনার সামাজিক কার্যকলাপে বাধা সৃষ্টি করেছে? (ধরুন:বন্ধুবান্ধবদের সাথে ঘুরতে যাওয়া,আত্বীয়ের বাসায় বেড়াতে যাওয়া ইত্যাদি)	1. সব সময় 2. অধিকাংশ সময় 3. অনেকটা সময় 4. সামান্য কিছুটা সময় 5. একদমই না

সাধারন স্বাস্থ্য :

আপনার জন্য নিম্নলিখিত বিবৃতি প্রতিটি কতটুকু সত্য বা মিথ্যা ?

৯.১	আমি অন্য মানুষের চেয়ে সহজে অসুস্থ হই	1. সম্পূর্ণ সত্য 2. অধিকাংশ সত্য 3. জানি না 4. অধিকাংশ মিথ্যা 5. সম্পুর্ণ মিথ্যা
৯.২	আমার পরিচিত সবার মত আমি সুস্থ	1. সম্পূর্ণ সত্য 2. অধিকাংশ সত্য 3. জানি না 4. অধিকাংশ মিথ্যা 5. সম্পুর্ণ মিথ্যা

৯.৩	আমি আমার স্বাস্থ্য আরও খারাপ হতে আশা করি।	1. সম্পূর্ণ সত্য 2. অধিকাংশ সত্য 3. জানি না 4. অধিকাংশ মিথ্যা 5. সম্পূর্ণ মিথ্যা
৯.৪	আমার স্বাস্থ্য চমৎকার।	1. সম্পূর্ণ সত্য 2. অধিকাংশ সত্য 3. জানি না 4. অধিকাংশ মিথ্যা 5. সম্পূর্ণ মিথ্যা

অংশ ৫: রোগীর মানসিক ঘাতসহিষ্ণুতা

ব্রিফ রেসিলিএন্স স্কেল (বিআরএস)

প্রতি সারিতে একটি বাক্স চিহ্নিত করে প্রতিটি আইটেমের প্রতিক্রিয়া জানান		দৃঢ়ভাবে অসম্মতি	অসম্মতি	নিরপেক্ষ	একমত	দৃঢ়ভাবে সম্মতি
বিআরএস ১	আমি কঠিন সময়ের পরে দ্রুত ফিরে আসি।	১	২	৩	৪	৫
বিআরএস ২	মানসিক চাপের মধ্য দিয়ে এটিকে তৈরি করতে আমার খুব কষ্ট হয়েছে।	৫	৪	৩	২	১
বিআরএস ৩	মানসিক চাপের ঘটনা থেকে সেরে উঠতে আমার বেশি সময় লাগে না।	১	২	৩	৪	৫
বিআরএস ৪	আমার যখন খারাপ কিছু ঘটে তখন ফিরে আসা খুব কঠিন।	৫	৪	৩	২	১
বিআরএস ৫	আমি সাধারণত সামান্য কষ্টের মধ্যে আছি।	১	২	৩	৪	৫
বিআরএস ৬	আমি আমার জীবনে বিপত্তিগুলি কাটিয়ে উঠতে দীর্ঘ সময় নেই।	৫	৪	৩	২	১

স্কোরিং: সমস্ত ছয় আইটেম থেকে রেন্জ দেওয়ার জন্য ১-৫ থেকে পৃথক প্রতিক্রিয়া যুক্ত করুন ৬-৩০। উত্তর দেওয়া মোট প্রশ্নের সংখ্যার দ্বারা মোট যোগফলকে ভাগ করুন।

আমার স্কোর.....আইটেম গড়/৬

বিআরএস স্কোর	মান
১.০০ – ২.৯৯	নিম্ন রেসিলিএন্স
৩.০০ – ৪.৩০	নরমাল রেসিলিএন্স
৪.৩১ – ৫.০০	উচ্চ রেসিলিএন্স

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 am Farhan Labib Sifat, student of final year B.Sc. in Physiotherapy program at Bangladesh Health Professions 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 research project .My titled is "**Mental Resilience And Quality Of Life Of Person With Disabilities In Covid 19 Pandemic** ". I am doing this under the supervision of Prof. Md. Obaidul Haque , Vice Principal, BHPI.

The purpose of the study is to find out the mental resilence and the quality of life of persons with disabilities in covid 19 pandemic .The study involves face-to-face interview by using questionnaire to explore the mental resilience and the quality of life of persons with disabilities at CRP , Savar .The interview may take 20 to 30 minutes to fill in the questionnaire and there is no likelihood of any harm to the participants. Data collectors will receive informed consent from all participants and the collected data will be kept confidential.

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

Sincerely,

Farhan Labib Sifat

Farhan Labib Sifat
Final Year B.Sc. in Physiotherapy
Session: 2016 – 2017,
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Thesis presentation date: 17th October 2021

Head of Department
B.Sc. in Physiotherapy, BHPI.

Recommendation from the Supervisor

Prof. Md. Obaidul Haque

Vice Principal, BHPI.

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

Ref: CPR/BHPI/IRB/03/2022/584

Date: 06/03/2022

Farhan Labib Sifat
4th Year B.Sc. in Physiotherapy
Session: 2016 – 2017
BHPI, CRP, Savar, Dhaka- 1343, Bangladesh

Subject: Approval of the research project proposal **"Mental Resilience And Quality Of Life Of Person With Disabilities In COVID 19 Pandemic"** by ethics committee.

Dear Farhan Labib Sifat,
Congratulations.
The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above-mentioned dissertation, with yourself, as the Principal Investigator and Prof. Md Obaidul Haque as thesis supervisor. The following documents have been reviewed and approved:

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

The purpose of the study is to find out the mental resilience and quality of life of persons with disability in COVID 19 pandemic. Should there any interpretation, typo, spelling and grammatical mistakes in the title, it is the responsibilities of the investigator. Since the study involves questionnaire that takes maximum 20- 30 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 October 12, 2021 at BHPI (30th 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. However, the members of ethics committee have approved the study to be conducted in the presented form at the meeting held at 9.00 AM on October 12, 2021 at BHPI.

Best regards,

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

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

Permission Letter

Date: March 23, 2022
The Head of the Department
Department of Physiotherapy
Centre for the Rehabilitation of the Paralysed (CRP)
Chapain, Savar, Dhaka-1343

Through: Head, Department of Physiotherapy, BHPI.

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

Respected Sir,

With due to respect and humble submission to state that I am Farhan Labib Sifat, a student of 4th year B.Sc. in physiotherapy at Bangladesh Health Professions Institute (BHPI). The Ethical committee has approved my research project entitled: **"Mental Resilience And Quality Of Life For Person With Disabilities Aimed COVID 19 Pandemic"** under the supervision of Prof. Md. Obaidul Haque , Vice Principal, BHPI. I want to collect data for my research project from the Spinal cord injury unit, Neurology Unit, Prosthetics and Orthotics Department of CRP from the month of March to May, 2022. So, I need permission for data collection from the Spinal cord injury unit, Neurology Unit at CRP-Savar. I would like to assure that anything of the study will not be harmful for the participants and the department itself.

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

Yours faithfully,
Farhan Labib Sifat
Farhan Labib Sifat
4th Year B.Sc. in Physiotherapy
Class Roll: 27; Session: 2016-17
Bangladesh Health Professions Institute (BHPI)
(An academic Institution of CRP)
CRP-Chapain, Savar, Dhaka-1343

Forwarded
Shafiq
23.03.22

Recommended
23.03.2022
Prof. Md. Obaidul Haque
Vice-Principal
BHPI, CRP, Savar Dhaka

Approved
23/3/22
MOHAMMAD ANWAR HOSSAIN
Senior Consultant &
Head of Physiotherapy Dept
Associate Professor, BHPI
CRP Savar Dhaka-1343

Permission Letter

Date: March 23, 2022
The Head of the Department
Department of Prosthetics and Orthotics
Centre for the Rehabilitation of the Paralysed (CRP)
Chapain, Savar, Dhaka-1343

Through: Head, Department of Physiotherapy, BHPI.

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

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Forwarded
Shafiq
23.03.22

Recommended
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Prof. Md. Obaidul Haque
Vice-Principal
BHPI, CRP, Savar, Dhaka