



Faculty of Medicine
University of Dhaka

**PSYCHOLOGICAL STATUS OF PHYSICALLY CHALLENGED
SPORTS PERSONS DURING COVID-19 AT A SELECTED
REHABILITATION CENTER IN BANGLADESH**

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Session: 2016-2017

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Bangladesh

June 2022

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**PSYCHOLOGICAL STATUS OF PHYSICALLY CHALLENGED
SPORTS PERSONS DURING COVID-19 AT A SELECTED
REHABILITATION CENTER IN BANGLADESH**

Submitted by Masum Billah, for the partial fulfilment 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 source used have been cited appropriately. Any mistakes or inaccuracies are my own. I also declare that for any publication, presentation or dissemination of the study, I would be bound to take written consent from my supervisor.

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Acknowledgement

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

After that I must go to my family who inspired me always and provide necessary support. I am immensely grateful to my supervisor, **Muhammad Millat Hossain** Associate Professor, Department of Rehabilitation Science, BHPI, CRP, Savar, Dhaka I would like to express my deepest gratitude to my honorable teacher **Md. Shofiqul Islam**, Associate professor and head of the Physiotherapy department, BHPI, CRP. I also want to show my gratitude to **Mohammad Anwar Hossain**, Associate professor, physiotherapy, BHPI, Senior consultant & head of Physiotherapy Department, CRP, Savar, Dhaka; **Professor Md. Obaidul Haque**, Vice principal, BHPI, CRP. I would pay special gratitude to the staffs of sports and recreation Unit of CRP Savar for helping me in data collection.

I would like to express my gratitude to physically challenged sportspersons, who gave me their valuable time and provided the information, related to my study and helped me to make my work successful.

Abbreviation

APA	American Psychological Association
BHPI	Bangladesh Health Professions Institute
BMRC	Bangladesh Medical Research Council
CEST	Central European Summer Time
COVID	Coronavirus disease
CRP	Centre for the Rehabilitation of the Paralysed
GAD	Generalized Anxiety Disorder
IRB	Institutional Review Board
NCD	National Council on Disability
PHQ	Patient Health Questionnaire
PWD	Person with Disabilities
SPSS	Statistical Package for the Social Science
UEFA	Union of European Football Associations
WHO	World Health Organization

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ABSTRACT

Purpose: to identify the psychological status of physically challenged sportspersons and their coping strategies during COVID-19 in Bangladesh. **Objective:** To find out the socio-demographic information, understand the level of anxiety and depression among the participants of physically challenged sportspersons, identify the influencing factors on psychological impact of COVID-19 on disabled sportsperson, find out the coping strategies during COVID-19 pandemic situations. **Methodology:** It was a cross sectional study. Total 120 participants were attended willingly and conveniently for this study from sports and recreation unit of CRP. Data was collected with Patient Health Questionnaire (PHQ-9), General Anxiety Disorder Questionnaire, Brief Cope-28 questionnaire and Socio-demographic questions. Statistical Package for Social Science (SPSS version 25) was used for data analysis. **Result:** The purpose of the study is to identify the psychological status of physically challenged sportspersons and their coping strategies during COVID-19 in Bangladesh. In this study the prevalence of anxiety among physically challenged sportspersons was estimated at 62.5% (n=75) mild, 25.8% (n=31) moderate, 8.3% (n=10) moderately severe anxiety, 3.3% (n=4) showed severe level of anxiety and depression was estimated at 58.3% (n=70) minimal depression, 27.5% (n=33) mild anxiety depression, 11.7% (n=14) moderately severe, 2.5% (n=3) faced moderately severe depression. They have showed a mixed coping strategy during the wave of COVID-19. Emotion focused coping strategy showed the highest mean where as Avoidant Focused coping had lower scores. There is a strong positive association between problem focused and emotion focused coping strategy ($r = 0.792$). **Conclusion:** Depression and anxiety were highly prevalent among people with disabilities during COVID-19. The outcomes of this research may guide the development of better care and support for physically challenged sportsperson. The findings should encourage our government to gather more information on mental health concerns experienced by people with physical disabilities and apply the necessary psychological treatment measures.

Key word: GAD-7, PHQ-9, Brief Cope-28, Disability, PWD, sports, Anxiety, Depression Coping strategy.

Word count: 11630

1.1 Background

In late December 2019, an outbreak of patients with unexplained low respiratory infections broke out in Wuhan, the biggest urban region in the province of Hubei in China. According to the announcement made by the World Health Organization (WHO) on February 11, 2020, the coronavirus disease 2019 (COVID-19) was caused by a new coronavirus (CoV) that was given the name severe acute respiratory syndrome coronavirus 2 (SARS CoV-2). This virus was also responsible for the SARS CoV-2 outbreak. In the weeks that followed, infections spread throughout China and other nations, and the COVID-19 outbreak became a danger to the health of people all over the world (Maugeri et al., 2020).

The World Health Organization (WHO) declared the novel coronavirus disease 2019 (COVID-19) to be a pandemic on March 11, 2020. From the 3rd of January 2020 to the 5:31pm CEST on the 6th of May 2022, the WHO received reports of 1,952,747 confirmed cases of COVID-19 in Bangladesh, which resulted in 29,127 fatalities. There have been a total of 257,793,811 doses of the vaccine given as of the 29th of April, 2022 (WHO Coronavirus disease (COVID-19) update, 10th May 2022).

With morbidity and death, several nations' health sectors have battled this epidemic. In addition to the death rate and the morbidity rate, the health care systems of many nations have had a hard time combating this epidemic (Razu et al., 2021). Developing nations, many of which have inadequate medical infrastructure, have been unable to successfully deal with the dangerous scenario. COVID-19 represents one of the most significant possible dangers to a wide range of industries throughout the globe, including the health industry. A variety of pharmacological and non-therapeutic preventative interventions have been taken throughout the countries in an effort to cut down on the number of fatalities. As a result, this pandemic has risen to the top of the list of major socio-economic, behavioral, psychological, governance, and technology challenges, and it is

now able to be classified as one of the biggest catastrophes in the history of humanity that has a variety of different impacts around the globe (Rahman et al., 2021).

With the large-scale dissemination of this coronavirus and understanding of its transmission, most countries adopted heightened steps to restrict its spread (Dong and Bouey, 2020). These procedures include the deployment of protective equipment and the implementation of non-pharmaceutical protocols such as social distance, cleanliness recommendations, and, in extreme circumstances, a complete lockdown (Uroh and Adewunmi, 2021). These restrictions meant that gatherings of people were not welcome, and many sporting activities were postponed or stopped owing to the danger of transmitting the infection. Major events postponed include the Tokyo Olympics, UEFA Euro Cup, UEFA Champions League, and CAF Nations Cup qualifications. Most football leagues and tournaments were influenced by safety regulations. Bangladesh Sports have also been postponed owing to the epidemic (Samuel et al., 2020). The Ministry of Youth and Sports postponed all matches (local and international). As a consequence, all present and forthcoming tournaments and tours have been postponed (Nath et al., 2020).

Because of the closing of recreational and sporting venues like schools and gyms, athletes have had to adjust their normal training and the schedules of their contests, which has had an impact on the athletes' physical, technical, and psychological growth (Sanderson and Brown, 2020). As predicted, the postponing of these games caused economic challenges for host communities and sporting event organizers. These postponements have a huge psychological impact on the players (Uroh and Adewunmi, 2021).

Disabled athletes, in particular, have been negatively impacted by the limits imposed by COVID-19. These athletes have reported a lack of possibilities and programs for training and contests, in addition to information that is easily available. People who have impairments are more likely to have secondary illnesses, such as coronary heart disease, diabetes, and obesity. Participating in physical activity is required for these individuals since it allows for the prevention of COVID-19 problems (Junker and Carlberg, 2011). Specifically, the circumstances of their impairment may put them at a larger risk of problems from COVID-19, which may lead to an increased perception of stress. In general, persons with disabilities typically encounter discrepancies in their social

involvement as compared to those who do not have impairments. As a consequence of this, they belong to a group that is marginalized and socially vulnerable (Fiorilli et al., 2021).

A recent analysis of the psychological impacts of COVID-19 related lockdown identified various negative psychological effects connected with quarantine, including dread, tension, sleeplessness, despair, frustration, and rage. Some of these remained after quarantine time {Formatting Citation}. Previous research has shown that infectious disease epidemics have a significant and far-reaching impact on people and communities, leading to a broad spectrum of psychological and psychosocial repercussions. During the COVID-19 pandemic, it has been believed that general and vulnerable groups are seeing an increase in the number of individuals struggling with mental health issues (Summaka et al., 2021).

The impact of COVID-19 limits places the impaired sports community at a disproportionately high risk of suffering, and its impacts may have long-lasting repercussions. To be more specific, when viewed from the perspective of an individual's entire lifespan, their preexisting disabilities and worsening health status may contribute to an increased perception of stress and a deterioration in health and well-being among people who have disabilities and chronic conditions (Berger et al., 2020). The number of disabled people in Bangladesh ranges from 10 to 15 percent of the population, with 80 percent of them residing in rural regions. WHO voiced concerns over the accessibility of accurate information and understanding on COVID-19 for PWDs and advised them to think about the physical, environmental, and emotional obstacles that prevent them from following the health recommendation for them (Hossain et al., 2022).

The issues that individuals with disabilities are encountering in this time period have become a serious concern for public health (Greguol et al., 2021) primarily because of the scale of the pandemic and the absence of a short-term plan to rectify the situation. During the COVID-19 era, people with disabilities had a very high prevalence of mental health conditions such as depression, anxiety, and sleeplessness. A sizeable percentage of people who lived with disabilities also suffered from psychopathologies. This percentage was 46.2% for depression symptoms, 48.1% for generalized anxiety disorder symptoms,

and 71.0% for sleeplessness symptoms. A little under 45.7% of the individuals had a poor resilience level when it came to coping with their psychopathology (Necho et al., 2020).

People with disabilities in Bangladesh face the greatest challenges in their personal lives, within their families, and in their communities. 89 percent of respondents claimed that COVID-19 has mostly affected their personal life, while 69 percent said that it has had an influence on their social life, and 55 percent answered that it has had an effect on their family life (Diba and Zakaria, 2020). In addition, the sudden disruption of the daily routines of disabled athletes, the occurrence of life-altering events, and the imposition of stay-at-home orders as a result of the COVID-19 pandemic may overwhelm the athletes' individual capacity for coping and increase feelings of anxiety, fear, and other negative emotions (Fitzgerald et al., 2022);(Fiorilli et al., 2021).

Furthermore, handicapped athletes may consider the sudden disruption of their daily routines, social interactions, and the opportunity to overcome their limitations and hurdles via sport as a painful experience that overwhelms their unique capacity to cope. The individual's experience of an event or the ongoing conditions of this event that overwhelms the individual's ability to integrate their emotional experience is one definition of psychological trauma (Lund et al., 2020). Another definition of psychological trauma is the experience of a group of individuals who all experience the same event. "It is an incident seen by the subject as "critics," creating impotence and fragility, capable of inflicting such extreme stress as to undermine the psychophysical equilibrium" (Perrotta, 2019).

In addition, the researchers hypothesized that coping strategies are linked to a person's subjective well-being, quality of life, self-esteem, and acceptance of handicap. Through the course of human history, we have devised a variety of methods to help us endure and emerge victorious from adversity. On the other hand, over a longer length of time, the majority of individuals display ineffective mental coping mechanisms. The term "the actions that one performs to accept or lessen mental pressure" is one definition of the term "coping techniques." The Brief-COPE is a primary instrument for measuring effective and ineffective ways to cope with stressful situations. It introduces four key coping styles that are seen in patients with severe diagnoses, including: (1) Approach

Coping Strategy (APC), (2) Avoidant Coping Strategy (AVC), (3) Humor (H), and (4) Religion (R). It is generally accepted that coping mechanisms may be "positive" or "negative" in connection to a condition, or that they might exhibit a mix of these two characteristics. The ability to adapt better to adversity, better health outcomes, and a more stable emotional reaction to sickness are all connected with positive coping, as evidenced in the APC method. On the other hand, negative coping, as demonstrated in AVC strategy, is connected with unfavorable attitudes about the illness, poor physical health, and less effective mental health management. This is because negative coping leads to AVC. Other categories, such as comedy and religion, have the potential to have both positive and negative coping approach characteristics, and they exist independently of any coping method. We can only hope that as research on disabled people continues to grow, it will also yield understanding on how persons with disabilities find strategies to survive and derive good connotations from the state of disability (Fiorilli et al., 2021).

1.2. Rationale

The influence that COVID-19 has had on the health of people all around the world has been significant. Early on, the pandemic drove many health systems to their knees, and it continues to reveal and deepen imbalances that previously existed across nations, individuals, and access to fundamental health care. Some people experienced relatively higher emotional irregularities (such as panic, excessive anxiety, irritability, and other psychological reactions) while other people suffered from cognitive imbalances; as a result, their attention and memory may be influenced by the repeated stimulation of a large amount of information. NCD found that COVID-19 exacted a steep toll on certain populations of people with disabilities, and that the events that transpired during the pandemic, including measures to mitigate the spread, posed unique problems and barriers to people with disabilities in each of the report's seven areas of focus. In addition, NCD found that COVID-19 exacted a steep toll on specific populations of people with disabilities. This report investigates the disproportionately negative impact that COVID-19 has had on people with disabilities in the following areas: (1) accessing healthcare; (2) accessing direct care support; (3) congregate care settings and transition; (4) education; (5) employment; (6) effective communication; and (7) mental health and suicide prevention services.

The outbreak and the subsequent lockdown have had a significant impact on athletes who are challenged by a disability. Because of the emergence of the coronavirus, the business that deals with sporting events has been obliged to make some difficult choices. A significant number of important athletic events have either been rescheduled, relocated, or canceled recently. Take a look at the current state of affairs, which is detailed here. It is possible that the experience of living with impairment developed, both in men and women, better resilience, arising from psychological strength in the process of adapting and overcoming stressful environmental demand. Some recent studies showed that individuals with disabilities reported moderate levels of stress related to the COVID-19 pandemic. This is likely due to the high coping strategies that they showed. Younger athletes had a tendency to deny the implications of COVID-19.

There is insufficient information to determine whether or not COVID-19 had any effect on people with disabilities or the disabled sports sector. There is no information on the psychological state (anxiety level, depression level) of a COVID-19 physically challenged sportsperson in Bangladesh. The purpose of the study is to identify the psychological status of physically challenged sportspersons and their coping strategies during COVID-19 in Bangladesh.

1.3 Research Question

What is the psychological situation of physically challenged athletes during COVID-19 at a designated rehabilitation center in Bangladesh?

1.4 Objectives

1.4.1 General objective

- To describe and identify psychological status of physically challenged sportspersons during covid-19 situation

1.4.2 Specific objectives

- To discuss the influencing factors on psychological status of COVID-19 on disabled sportsperson.
- To find out the anxiety level of the disabled sportspersons.
- To find out the depression level of the disabled sportspersons.
- To find out the coping strategies during COVID-19 pandemic situations.

1.5 Conceptual framework:

Independent Variables

Dependent Variable

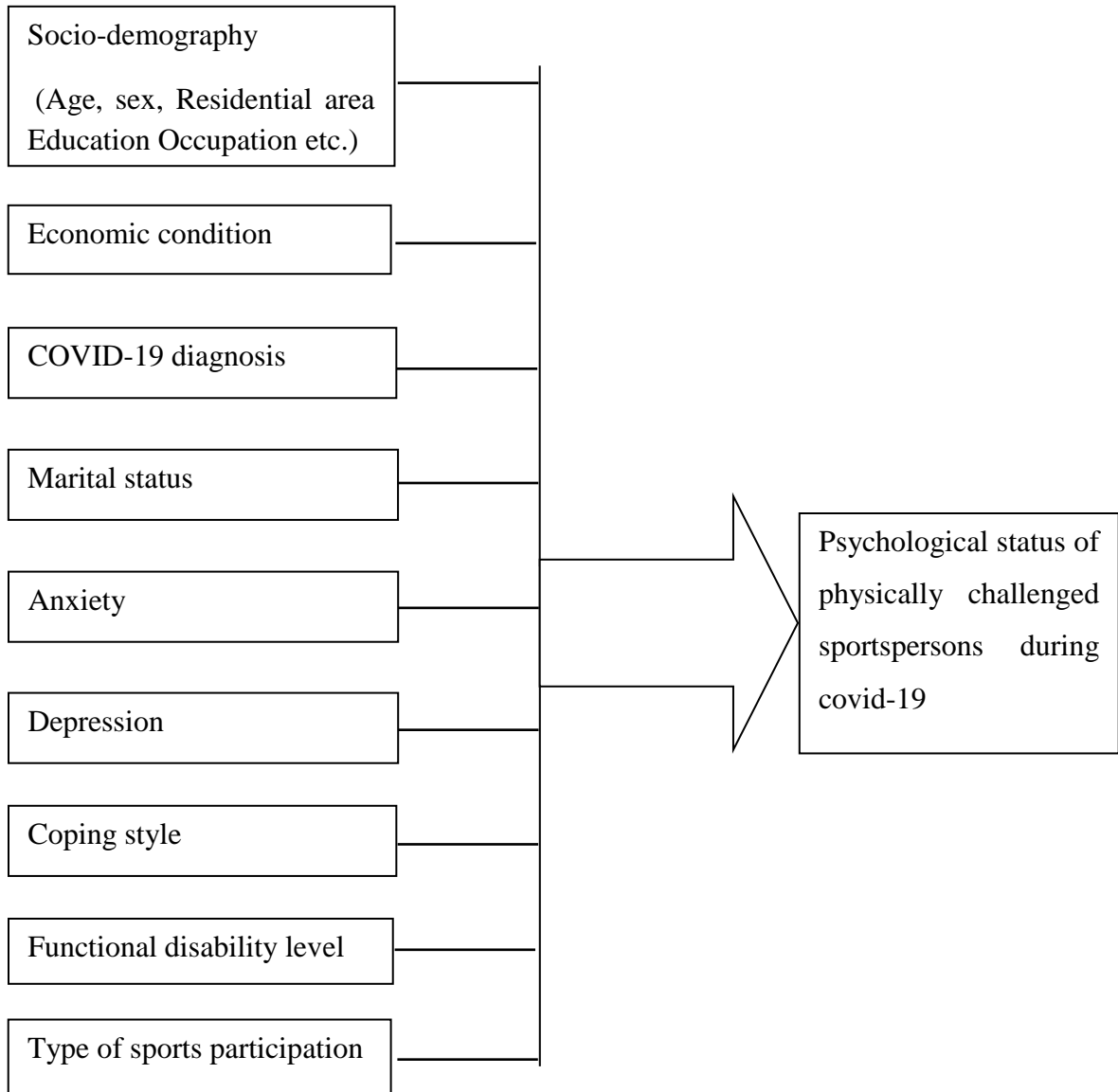


Figure -1.5: Conceptual framework:

1.6 Operational definition

COVID-19: According to WHO “Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. Anyone can get sick with COVID-19 and become seriously ill or die at any age. The virus can spread from an infected person’s mouth or nose in small liquid particles when they cough, sneeze, speak, sing or breathe. These particles range from larger respiratory droplets to smaller aerosols.”

Health: According to WHO “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition. The health of all peoples is fundamental to the attainment of peace and security and is dependent on the fullest co-operation of individuals and States.”

Psychological status: The condition of a person's mental faculties and processes. a mental attitude or state of mind. A person has to have typical emotional, behavioral, and social maturity in order to be considered psychologically healthy. This indicates that the individual in question is in a healthy state of mental well-being, one that allows them to operate regularly in society and during the events that occur on a day-to-day basis. They enjoy excellent mental health, which refers to the sort that determines how we feel. They also have excellent behavioral health, which is concerned with how we behave. Last but not least, they have excellent social health, which refers to the sort of well-being that comes from our relationships with other people.

Depression: According to WHO “Depression is a common mental disorder. Globally, it is estimated that 5% of adults suffer from the disorder. It is characterized by persistent sadness and a lack of interest or pleasure in previously rewarding or enjoyable

activities. It can also disturb sleep and appetite. Tiredness and poor concentration are common. Depression is a leading cause of disability around the world and contributes greatly to the global burden of disease. The effects of depression can be long-lasting or recurrent and can dramatically affect a person's ability to function and live a rewarding life. The causes of depression include complex interactions between social, psychological and biological factors. Life events such as childhood adversity, loss and unemployment contribute to and may catalyze the development of depression.”

Anxiety: According to American Psychological Association (APA) “Anxiety is an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure. People with anxiety disorders usually have recurring intrusive thoughts or concerns. They may avoid certain situations out of worry. They may also have physical symptoms such as sweating, trembling, dizziness or a rapid heartbeat.”

Disability: According to Centers for Disease Control and Prevention “A disability is any condition of the body or mind (impairment) that makes it more difficult for the person with the condition to do certain activities (activity limitation) and interact with the world around them (participation restrictions). There are many types of disabilities, such as those that affect a person's: Vision, Movement, Thinking, Remembering, Learning, Communicating, Hearing, Mental health, Social relationships”. According to the World Health Organization, “Disability has three dimensions:-1. Impairment in a person's body structure or function, or mental functioning; examples of impairments include loss of a limb, loss of vision or memory loss. 2. Activity limitation, such as difficulty seeing, hearing, walking, or problem solving. 3. Participation restrictions in normal daily activities, such as working, engaging in social and recreational activities, and obtaining health care and preventive services.”

Person with Disabilities: The UN Convention on the Rights of Persons with Disabilities (UNCRPD) recognizes that ‘disability is an evolving concept’. ‘Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others’. This fluid definition accommodates different

understandings of disability or impairment, but by defining disability as an interaction, makes clear that disability is not an attribute of the person. ‘An impairment on its own would not lead to disability should there be a completely inclusive and comprehensively accessible environment’ (Fitzgerald et al., 2022).

Coping strategy: According to American Psychological Association (APA) “An action, a series of actions, or a thought process used in meeting a stressful or unpleasant situation or in modifying one’s reaction to such a situation. Coping strategies typically involve a conscious and direct approach to problems, in contrast to defense mechanisms” Coping strategies are behavioral and cognitive tactics used to manage crises, conditions, and demands that are appraised as distressing. An important development in coping research was the creation of Robert Folkman and Susan Lazarus’ Ways of Coping scale. This scale was devised to assess the extent to which one uses one of two general types of coping. Problem-focused coping is directed at problem solving or taking action to change the source of the stress. Emotion-focused coping, in contrast, focuses on reducing or managing the emotional distress that results from the crisis. Some emotion-focused coping strategies include wishful thinking, distancing, avoidance, and positive reappraisal.

In Wuhan, China, during the month of December 2019, there was an outbreak of an acute atypical respiratory illness. This quickly expanded outside of Wuhan to other locations. It wasn't long before researchers identified the culprit as a hitherto unknown coronavirus. The new coronavirus was given the name severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2, 2019-nCoV) because to its high homology (80 percent) to SARS-CoV, which was the virus responsible for acute respiratory distress syndrome (ARDS) and a high fatality rate during the years 2002–2003 (Peret et al., 2003).

It is believed that zoonotic transmission related with the seafood market in Wuhan, China, was the initial source of the SARS-CoV-2 epidemic that spread across China. In later years, it was determined that human-to-human transmission had a significant part in the following spread of the disease. Coronavirus disease 19 (COVID-19) was the name given to the illness that was brought on by this virus, and the World Health Organization (WHO) proclaimed it to be a pandemic (WHO) (Zheng et al., 2020).

There is a broad spectrum of symptoms that have been observed among people infected with COVID-19, ranging from very minor symptoms to more serious sickness. After being exposed to the virus, symptoms could not show up for two to fourteen days. Anyone might have symptoms ranging from mild to severe. COVID-19 may be present in individuals who exhibit the following symptoms: Fever or chills, or both Symptoms include coughing, shortness of breath or trouble breathing, Fatigue, Aching muscles or all over the body, My head hurts, A new inability to taste or smell, as well as a lack of appetite a sore throat and Congestion or nasal discharge, etc. a feeling of nausea or vomiting, Diarrhea (Alimohamadi et al., 2020).

A study conducted on “More than 50 long- term effects of COVID- 19” defined long-COVID as 14 to 110 days’ post-viral infection. 80% of SARS-CoV-2 infected individuals

had one or more long-term symptoms. Fatigue (58%), headache (44%), concentration disturbance (27%), hair loss (25%), and dyspnea (24%) (Lopez-Leon et al., 2021).

Furthermore, more than two-thirds of individuals with disorders including acute respiratory distress syndrome (ARDS) showed clinically significant fatigue symptoms after a year (Neufeld et al., 2020). Headaches (44% of patients), concentration disorders (27% of patients), and a loss of smell (21% of patients) are among the neuropsychiatric symptoms that have been observed. There were also reports of other symptoms, such as brain fog and neuropathy (Maury et al., 2021).

A prospective Inception Cohort Study of COVID-19 survivors was carried out in Bangladesh to determine the prevalence of long-term COVID symptoms. At the end of the study period of 12 weeks, 16.1 percent of the total number of subjects had long COVID symptoms. In all, eight long-term COVID symptoms were recognized, and the order in which they are most prominent is as follows: weariness, pain, dyspnoea, cough, anosmia, appetite loss, and chest discomfort. People who were living with and afflicted by long COVID had anything from one to eight long COVID symptoms, with an overall length time ranging from 21.8 to 5.2 weeks. The duration of the long COVID was projected to be connected to factors such as younger age, female gender, rural residency, previous functional restriction, and smoking based on structural equation modeling (Hossain et al., 2021).

The pandemic caused by the COVID-19 virus has resulted in a significant number of deaths of people all over the globe and offers a challenge that has never been seen before to public health, food systems, and the working world. The disruption to both the economy and society brought on by the pandemic is catastrophic (Knuppel, 2021). A study on COVID-19, Economic Impact, Mental Health, and Coping Behaviors: showed that (1) The pandemic has increased economic uncertainty, unemployment and underemployment pressure, income uncertainty, and different degrees of employment pressure and economic difficulties; (2) These difficulties have stimulated different levels of mental health problems, ranging from perceived insecurity (environmental, food

safety, etc.), worry, fear, to stress, anxiety, depression, etc., and mental health deterioration varies across differing populations (Lu and Lin, 2021).

A cross-sectional study design with chain mediation model was employed with 4612 individuals from 8 countries. Poland and the Philippines had the most anxiety, sadness, and stress; Vietnam had the least. Need for health information and perceived pandemic effect were sequential mediators between COVID-19-like physical symptoms (predictor) and mental health status (outcome). Contradictory health information may exacerbate the pandemic's effect. Rapid COVID-19 testing should be undertaken to lessen the psychological cost of physical symptoms, while public mental health programmes might address bad mental consequences (Wang et al., 2021).

The psychological impact may be related to the length of time spent in quarantine (longer periods are associated with poorer mental health, avoidance behaviors, and anger), the fear of infection, frustration, and boredom, inadequate supplies (such as water, clothes, and accommodation), or inadequate information (Fuentes-Garcia et al., 2020).

Because of the epidemic brought on by COVID-19, there has been a 25 percent increase worldwide in the number of people suffering from anxiety and despair. Despite the fact that significant gaps and concerns still remain, ninety percent of the countries that were assessed have already incorporated mental health and psychosocial assistance into their COVID-19 response plans in response to the possibility of an increase in the number of disorders affecting mental health. According to the most recent edition of the World Health Organization's Mental Health Atlas, in the year 2020, governments all over the world spent just a little bit more than two percent of their total health budgets on mental health, and many low-income countries reported having fewer than one mental health worker for every one hundred thousand people. This information was gathered from surveys conducted in these countries (Otu and Yaya, 2022)

As a result of individuals continuing to keep their distance from one another and worry about being ill with COVID-19, 45% of adults in the United States have claimed that they

are suffering stress and anxiety. It is estimated that around 33% of individuals in the UK have experienced significant levels of stress and also nervousness at some point in their lives. According to the findings of a research conducted in Italy, respondents exhibited signs of posttraumatic tension at a rate of 37%, stress at a rate of 21%, severe anxiety at a rate of 20%, depressive symptoms at a rate of 17%, and sleeplessness at a rate of 7% (Luan, 2020).

The Influence of COVID 19 on People's Mental Health in Southeast Asia A comparison of the countries in Southeast Asia that were under investigation revealed that Malaysia had higher rates of poor mental health among its population (anxiety: 55.1%; depression: 59.2%; stress: 30.6 %), HCWs (anxiety: 29.7% - 31.6%; depression: 21.8% - 31%; stress: 23.5% - 29.1%), and students (anxiety: 34.3%; depression: 37.3% ; stress: 22%). This was followed by Filipinos (anxiety at 28.8 %, depression at 16.9%, and stress at 13.4%), and Singaporean health care workers (HCWs) (anxiety: 14.4%; depression: 9% ; stress: 6.5%). In a research that included many nations, it was shown that the Vietnamese population had the greatest distress prevalence (94%) while having the lowest DASS-21 scores (anxiety: 7%; depression: 4.9%; stress: 3.4%). When looking at cohorts, it is possible to observe that the prevalence scores for the population-based studies using DASS-21 ranged between 7% and 55.1% for anxiety, 4.9% and 59.2% for depression, and 3.4% and 39.8% for stress. On the other hand, the scores for HCWs ranged between 14.4% and 31.6%, 9% and 31%, and 6.5 percent and 29.1 percent (Balakrishnan et al., 2022).

The overall rate of Bangladeshi awareness was just 25%, whereas 96% knew about the COVID-19 outbreak. 33.5 percent maintain lockdown, while 40.0 percent maintain social distance. We identified lack of COVID-19 awareness may be up 68.1% across the nation, and there is a favorable association between knowing COVID-19 and awareness level (Rana et al., 2021).

An online survey was completed by a total of 1,427 people in Bangladesh. Symptoms of stress were experienced by 59.7% of the participants; however, mild symptoms were experienced by 28.0% and moderate symptoms were experienced by 22.0% of the

individuals. One-third (33.7%) of the participants reported having symptoms of anxiety. Of those who reported having symptoms of anxiety, 11.6 % had moderate anxiety symptoms, and 11.6 % had intense anxiety symptoms. More than half of the respondents (57.9 percent) reported having had depressive symptoms, the severity of which ranged from light (14.5%) to moderate (21.2%) to severe (13.2%) (Banna et al., 2022).

People who have impairments are substantially more likely to have encountered the stresses connected to pandemics than their counterparts who do not have disabilities. In addition, being exposed to pandemic stressors was related with more detrimental impacts on the individuals' psychological well-being. We contend that the COVID-19 pandemic is producing a secondary pandemic of mental illness, and that persons with disabilities are afflicted by this pandemic at considerably greater proportions than the general population (Ciciurkaite et al., 2022).

During the course of the epidemic, several different effects on day-to-day functioning have been seen, including as a reduction in access to medical treatment. Alterations in social and lifestyle habits, shifts in mood, and reduced levels of physical activity were also seen as a result of this condition (Lebrasseur et al., 2021).

People who have physical limitations demonstrated just a moderate amount of dread of COVID-19, and this fear was shown to be connected with age, educational level, and work position. In addition, researchers discovered that 22.9% of the population suffers from anxiety and 31.5 percent are affected by depression. Both being married and having a job were shown to be connected with higher levels of anxiety. In conclusion, it was shown that marital status, occupation, and educational level all have a role in the development of depression (Summaka et al., 2021).

During the COVID-19 epidemic, persons with ADL impairment experienced higher sadness, anxiety, and loneliness than those without. People with ADL impairment also experienced poor sleep quality and low quality of life. Results were similar when impairment was defined by mobility. Persons with ADL impairment had less real-time

and written social interaction with family than people without ADL impairment. (Steptoe and Di, 2021).

COVID-19 is associated with major psychological impacts across Bangladesh, which highlights the need for strategically located psychological support measures and improved access to mental health services, particularly among women and younger people. COVID-19 is also associated with significant physical impacts. The prevalence rates of depression and suicidal thoughts in connection with COVID-19 were respectively 33% and 5% of the population. Being young, being female, being a cigarette smoker, having comorbid illnesses, having high scores on the Fear COVID-19 Scale, and having symptoms of sleeplessness were all common risk factors for suicidal thoughts and depression. Other risk factors were having comorbid diseases and having insomnia. Depression and suicide thoughts were found at much higher rates using GIS-based maps in the districts around the capital of Bangladesh as well as coastal regions where the incidence of COVID-19 was high. This was in comparison to districts that had no known cases of the disease (Mamun et al., 2021).

People who are physically disabled are often impacted on a personal, familial, and societal level. 89 % claimed that COVID-19 has mostly affected their personal lives, while 69 % said that it has had an influence on their social lives, and 55 % answered that it has had an effect on their family lives. In terms of the personal consequences of COVID-19, 98 percent of the respondents indicated that they had encountered money losses, 79 percent endured food crises and starvation, and 76 % felt psychological repercussions. The majority of those who are financially impacted are those with disabilities. 88 % of them responded that their earnings have decreased and other expenses have increased, the salary of 17% of them has decreased substantially, 16% found very few customers in their shops, which led to a decrease in income, 15% replied that their sales decreased as a result of having to open their shops/stores for a limited period of time, 6% of them lost their jobs, and 2% had to change their profession as they had not gotten enough experience in their previous job. When asked about the psychological consequences of COVID-19, 76% of respondents said they feel irritated,

while 61% said they feel weaker than they did previously and that they feel exhausted even without exertion. Sixty-nine percent of them had the impression that they had less stamina to carry out their regular responsibilities. 44% of people said that they are less eager to eat, despite the fact that they consume more food overall. 36% are suffering from lack of sleep, 26% are accustomed to talking less than previously with their family members or others, 24% encounter difficulty in sleeping, and 18% are detecting significant changes in their weights (Diba and Zakaria, 2020).

The pandemic caused by the COVID-19 virus has had an effect not only on the population of the globe but also on the athletic business. As a result of the pandemic, several sporting events have been cancelled or postponed, which has had a significant impact on the sporting sector as a whole. The conclusion was based on a total of 35 research, which comprised participants from all over the globe, competing in a wide variety of sports at varying degrees of intensity. In the majority of research, at least one validated mental health questionnaire was applied, and participants were evaluated for outcomes such as depression, anxiety, stress, motivation, and athletic identity. In general, athletes experienced a decline in their mental and emotional health during the COVID-19 pandemic; however, the impacts of this decline were mitigated by home training programs and quarantine training camps. There was a correlation between the kind of sport played and the findings; solo sports and team sports both had separate enhanced risks for poor mental and emotional health. The vast majority of research agreed that an increase in the amount of psychological assistance offered to athletes is necessary during the COVID-19 epidemic. (Jia et al., 2022)

Athletes with disabilities (AWD) who were infected with SARS-cov-2 had significantly greater rates of depression, anxiety, and CAS than AWD who were not infected with SARS-cov-2. When compared to male AWD, female AWD reported significantly greater levels of anxiety. When compared to team sports AWD, individual sports AWD showed significantly greater levels of depression, stress, and K-10 scores. (Denerel and Lima, 2022)

A cross-sectional study was conducted through online questionnaires during the month of April 2020 to assess the psychological effects of confinement in a cross-cultural sample of 310 athletes (141 women and 169 men) from various countries in Europe, Asia, and America, and from a variety of sports disciplines. The study was designed to adapt the Psychological Assessment Protocol of the High-Performance Sports Center of Murcia (Spain). According to the findings, maladaptive perfectionism was linked to each and every indication of athletes' mental health. However, the levels of anxiety, tension, and depressive symptoms experienced by athletes are generally low, and it was shown that the adoption of coping mechanisms such as cognitive restructuring and emotional calm was connected with reduced levels of negative emotional states. Although women exhibited greater levels of anxiety, stress, and depression than men, the Iceberg Profile, which is a good match for the mental health model, is noticed in the mood of athletes, both in men and in women. This is despite the fact that women showed higher levels of anxiety than men (Leguizamo et al., 2021).

Hossain et al., 2021 conducted a study on Coping with COVID-19 Pandemic: A Population-Based Study in 2 Bangladesh where Participants (N=2001) ranging in age from 18 to 86 years old were recruited from eight of Bangladesh's 42 administrative divisions. The participants' mean age was 31.85 years old, with a standard deviation of 14.2. Higher scores were indicated for approach coping 44 methods (29.83 ± 8.9), whereas avoidant coping styles were reported to have lower values (20.83 ± 6.05). 45 people's scores for humor as a coping mechanism were reported to be 2.68 1.3, while their scores for religion as a coping mechanism were 5.64 ± 1.8 . The coping mechanisms shown by the 46 men and women were very comparable.

3.1 Study design

This study aimed to find out psychological status of physically challenged sportspersons and their coping strategies during COVID-19 in Bangladesh. For this aim a cross-sectional research model is used. Cross-sectional studies measure simultaneously the exposure and health outcome in a given population and in a given geographical area at a certain time. A cross-sectional study is an observational study. Cross-sectional is also called prevalence study. The temporal relationship between exposure and disease cannot be determined. Survey methodology was chosen to meet the study aim as an effective way to collect data.

3.2 Study area

Data was collected from the-

- Sports and recreation department, CRP, Savar.

3.3 Study population

The study populations were selected person with disabilities who participated in different local, national, international tournament under ‘sports and recreation department’ CRP, Savar.

3.4 Method of sampling:

In the study here used convenience sampling technique, considering the inclusion and exclusion criteria.

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 convenience sampling methods 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 Sample size

Sample was a group of subjects were selected from population, If this proportion is larger than 5% ($n/N > 0.05$), we need to use the formula with finite population correction (Daniel, 1999) as follows.

$$n' = \frac{NZ^2P(1 - P)}{d^2(N - 1) + Z^2P(1 - P)}$$
$$n' = \frac{124 \times 1.96^2 \times 0.5(1 - 0.5)}{0.05^2(124 - 1) + 1.96^2 \times 0.5(1 - 0.5)}$$
$$= 94$$

Here,

n' = Sample size with finite population correction,

N = Population size ($N= 124$)

Z = Level of confidence, 1.96 {95% confidence interval}

$P = 0.5$ ($P=$ prevalence and $P= 50\%$)

d = Precision, 0.05 {margin of error at 5% }

The actual sample size for this study is calculated as 94. As the population was known, 120 physically challenged sports person was taken as the sample of this study. So that the sample size is near to total population.

3.7 Inclusion criteria of the study

- Both male and female physically challenged sportsperson those who attended in local, national and regional tournaments were selected.
- Age group between 18-45 years. (Busch et al., 2022)
- People who were willing to participate in the study.
- Physically challenged sportsperson from corresponding organization.

3.8 Exclusion criteria of the study

- Subject who were not willing to participate in the study.

3.9 Data collection tools

The tools that needed for the study are-

- Consent paper

- Questionnaire
- COVID related questionnaire
- General anxiety questionnaire
- Patient health questionnaire
- Brief cope questionnaire
- Paper
- Pen
- File
- Calculator
- Computer
- Printer

3.10 Measurement tools:

Generalized Anxiety Disorder Assessment (GAD-7) questionnaire:

The Generalized Anxiety Disorder Assessment (GAD-7) is a seven-item instrument that is used to measure or assess the severity of generalized anxiety disorder (GAD). The GAD-7 score is calculated by assigning scores of 0, 1, 2, and 3, to the response categories of “not at all,” “several days,” “more than half the days,” and “nearly every day,” respectively, and then adding together the scores for the seven questions. GAD-7 total score for the seven items ranges from 0 to 21. Scores of 5, 10, and 15 represent cut-points for mild, moderate, and severe anxiety, respectively. When used as a screening tool, further evaluation is recommended when the score is 10 or greater (Spitzer et al., 2006).

Patient Health Questionnaire (PHQ)-9

The Patient Health Questionnaire (PHQ)-9 is the major depressive disorder (MDD) module of the full PHQ. Used to provisionally diagnose depression and grade severity of symptoms in general medical and mental health settings. This is calculated by assigning scores of 0, 1, 2, and 3, to the response categories of “not at all,” “several days,” “more than half the days,” and “nearly every day,” respectively. Scores represent: 0-5 = mild, 6-

10 = moderate, 11-15 = moderately severe, 16-20 = severe depression (Kroenke et al., 2001).

Brief-COPE (Brief-COPE) questionnaire:

The Brief-COPE is a 28 item self-report questionnaire designed to measure effective and ineffective ways to cope with a stressful life event. “Coping” is defined broadly as an effort used to minimize distress associated with negative life experiences. The scale is often used in health-care settings to ascertain how patients are responding to a serious diagnosis. It can be being used to measure how someone is coping with a wide range of adversity, including a cancer diagnosis, heart failure, injuries, assaults, natural disasters and financial stress. The scale can determine someone’s primary coping styles as either Approach Coping, or Avoidant Coping. In addition, the following subscales are reported: Self-distraction, Active coping, Denial, Substance use, Use of emotional support, Use of instrumental support, Behavioral disengagement, Venting, Positive reframing, Planning, Humor, Acceptance, Religion, & Self-blame.

Interpretation: Scores are presented for the two overarching coping styles:1. Avoidant Coping, which is characterized by the subscales of denial, substance use, venting, behavioral disengagement, self-distraction and self-blame. Avoidant Coping is associated with poorer physical health among those with medical conditions. Compared to Approach Coping, Avoidant Coping is shown to be a less effective at managing anxiety. 2. Approach Coping is characterized by the subscales of active coping, positive reframing, planning, acceptance, seeking emotional support, and seeking informational support. Approach Coping is associated with more helpful responses to adversity, including adaptive practical adjustment, better physical health outcomes and more stable emotional responding. As well as raw scored being presented for Avoidant and Approach Coping, percentile ranks are presented using normative data from a heart-failure sample (Eisenberg et al., 2012) to indicate the relative preference to coping compared to others experiencing adversity.

Scores are also presented for each of the following subscales.

- Self-distraction, items 1 and 19 (Avoidant)
- Active coping, items 2 and 7 (Approach)
- Denial, items 3 and 8 (Avoidant)

- Substance use, items 4 and 11 (Avoidant)
- Emotional support, items 5 and 15 (Approach)
- Use of informational support, items 10 and 23 (Approach)
- Behavioral disengagement, items 6 and 16 (Avoidant)
- Venting, items 9 and 21 (Avoidant)
- Positive reframing, items 12 and 17 (Approach)
- Planning, items 14 and 25 (Approach)
- Humor, items 18 and 28 *
- Acceptance, items 20 and 24 (Approach)
- Religion, items 22 and 27 *
- Self-blame, items 13 and 26 (Avoidant) (Carver, 1997)

3.11 Data collection procedure

At the very beginning researcher clarified that, the participant had the right to refuse to answer of any question during completing questionnaire. They could withdraw from the study at any time. Researcher also clarified to all participants about the aim of the study. Participants had ensured that any personal information would not be published anywhere. After getting verbal 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 could 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. The study involves over phone interview by using questionnaire to explore. 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.

3.12 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 25.0. 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 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 2015 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.

3.13 Inform consent:

Verbal inform consent was taken from every patient. And ensured every patient that they can leave any time during data collection, & it was ensured that participants were not influence by data collector. The researcher explained to the participants about his or her role in this study. The participants were informed clearly that their information would be kept confidential. The researcher assured the participants that the study would not be harmful to them. It was explained that there might not a direct benefit from the study for the participants but in the future cases like them might get benefit from it. Researcher maintained the confidentiality and all the interviews were taken in a confidential to maximize the participant's comfort and feelings of security. The study was conducted in a clean and systematic way. Every subject had the opportunity to discuss their problem

with the senior authority or administration of CRP and have any questioned answer to their satisfaction.

3.14 Ethical considerations

The proposal of the dissertation including methodology was presented to the Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI). Again before the beginning of the data collection, Ethical permission was taken from IRB to conduct the study. The whole process of this research project was done by following the Bangladesh Medical Research Council (BMRC) guidelines and World Health Organization (WHO) research guidelines.

Analysis of socio-demographic characteristics of participants

The study consists of total 16 variables covering almost all the information needed for the study. Descriptive analysis such as percentage, frequency, mean, standard deviation was performed whenever needed. The results were presented with the help of tables, graphs and charts.

4.1 Age and gender of participants

The study was conducted on 120 participants of physically challenged sportsperson. In this study the minimum age of a participant was 18 and maximum age of a participant was 41. Among the 120 participants who were included in this study and their mean age were 25.2167 with standard deviation 4.669.

Around 52.5% of total participants were from age group 15-24 years. The age group 25-39 had second highest number of participants (45.8%). The least number of participants belonged to the age group 40-54 years (1.7%).

Table 4.1 Distribution of participation according to their age and gender (N=120)

Variables	Frequency	Percentage	Mean
Age			25.217
15-24	63	52.5 %	
25-39	55	45.8 %	
40-54	2	1.7 %	
Total	120	100%	

4.2 Gender of the participants

In my study male were more than female. Among the 120 participants 79% (n=95) were male and 21% (n=25) were female.

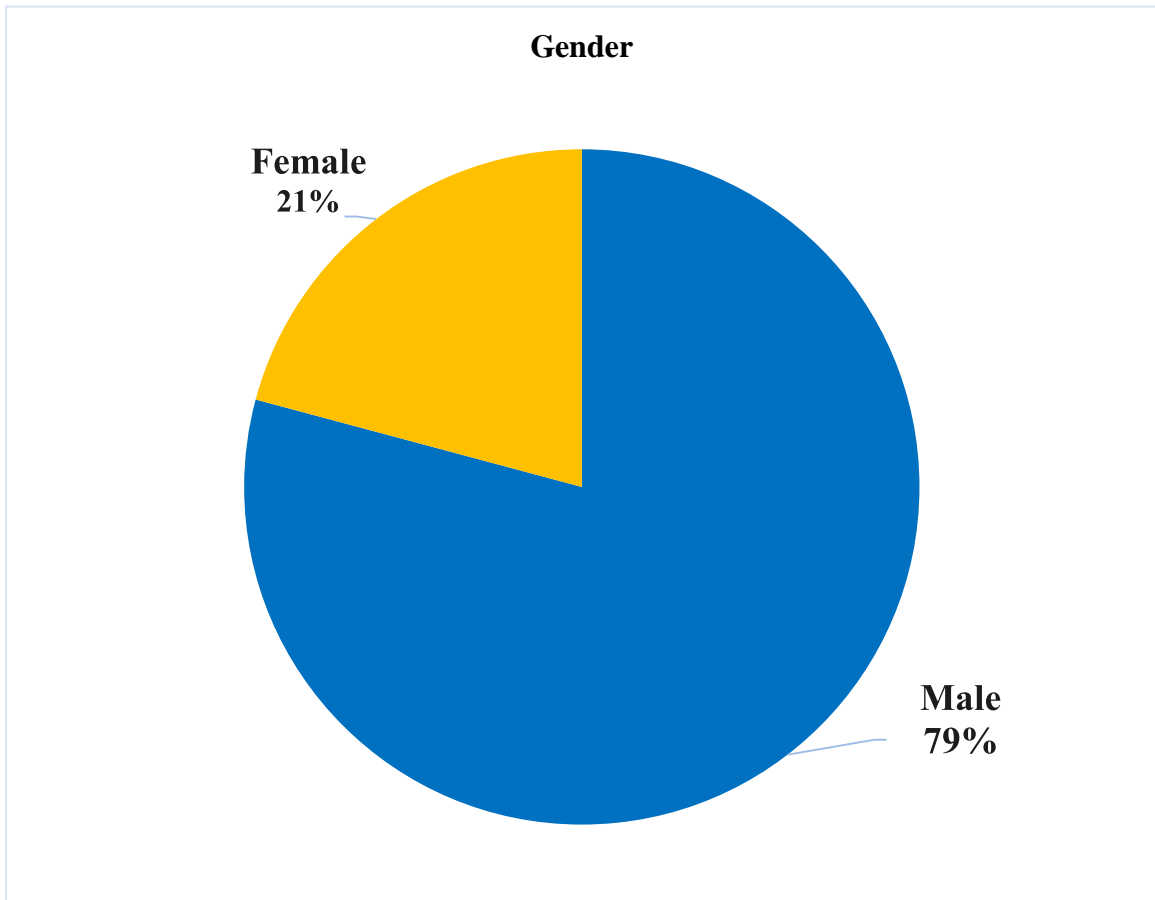


Figure-4.2: Gender

4.3 Marital status of the Participant

This figure shows the marital status of the participants. There 120 participants which are included in this study. Among them 30 (25.0%) participants are married, 86 (71.7%) participants are unmarried and 4 (3.3%) participants are divorced. The percentage of widowed, separated and divorced participant was minimal so was included under married categories.

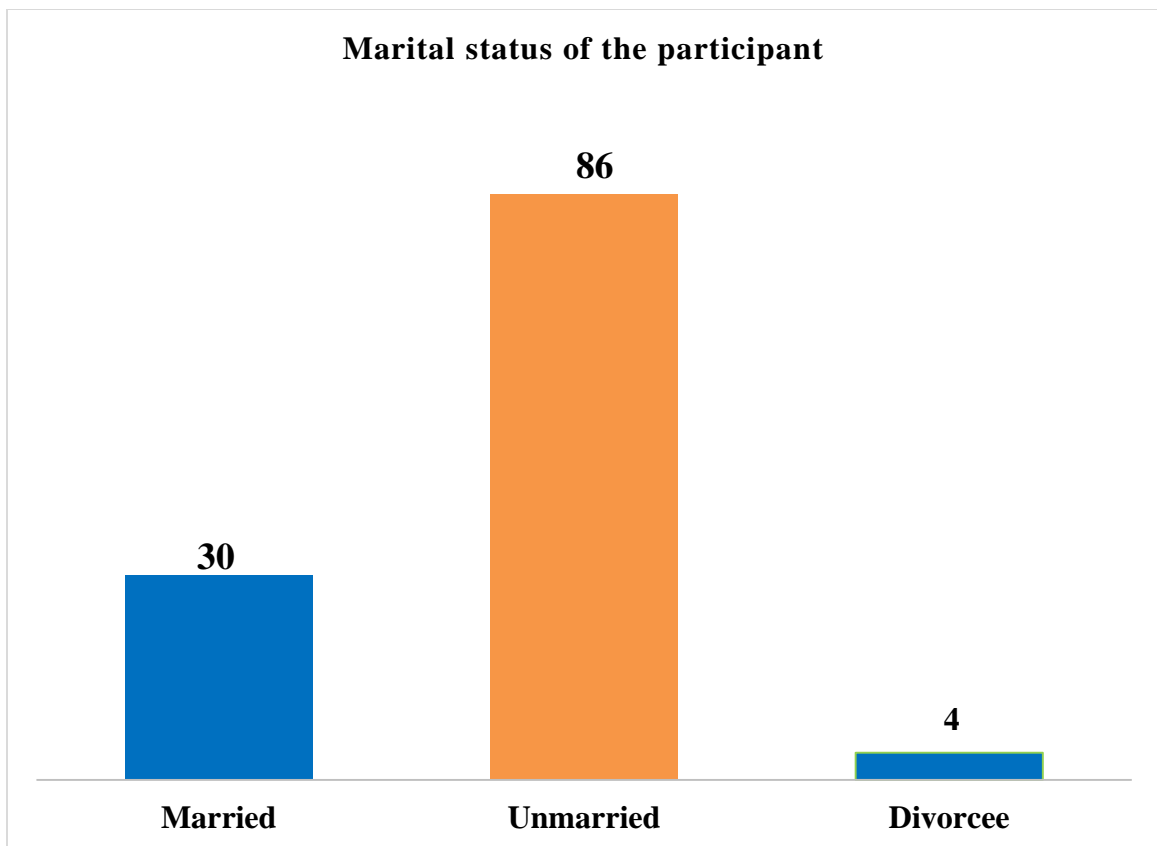


Figure-4.3: Marital status of the Participant

4.4 Educational status of the participants

Among the 120 participants 0.8% (n=1) participants were no formal education/ Illiterate, 21.7% (n=26) participants were primary passed, 44.2% (n=53) participants were completed secondary education, 23.3% (n=28) participants completed HSC level, 10% (n=12) participants were completed bachelor degree or above.

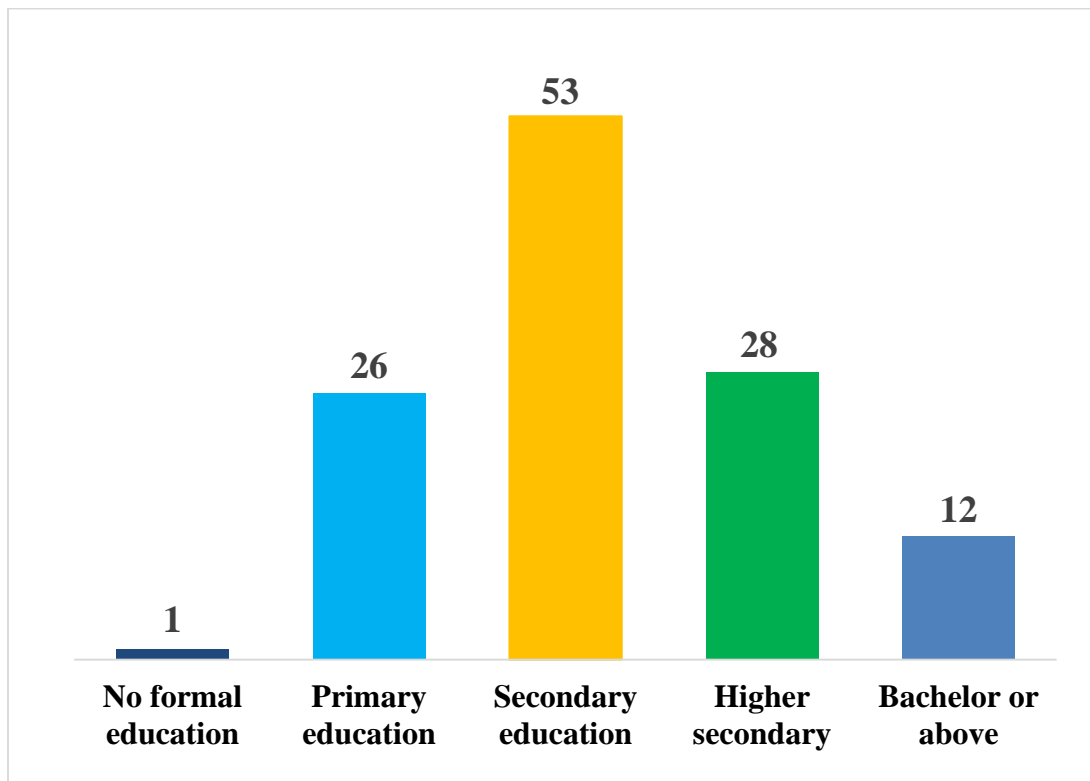


Figure-4.4: Educational status

4.5 Types of disability

The study observed the 120 participants, among them the study showed that around half of the participants (N=64) 53.3% were disabled due to spinal cord injury. Around (N=18)15% of participants were disabled due to amputee. 5.8% (N=7) of the participants were disabled due to polio. Around (N=3) 3 % participants disabled due to GBS and 23.3% (N=28) participants were congenitally disabled.

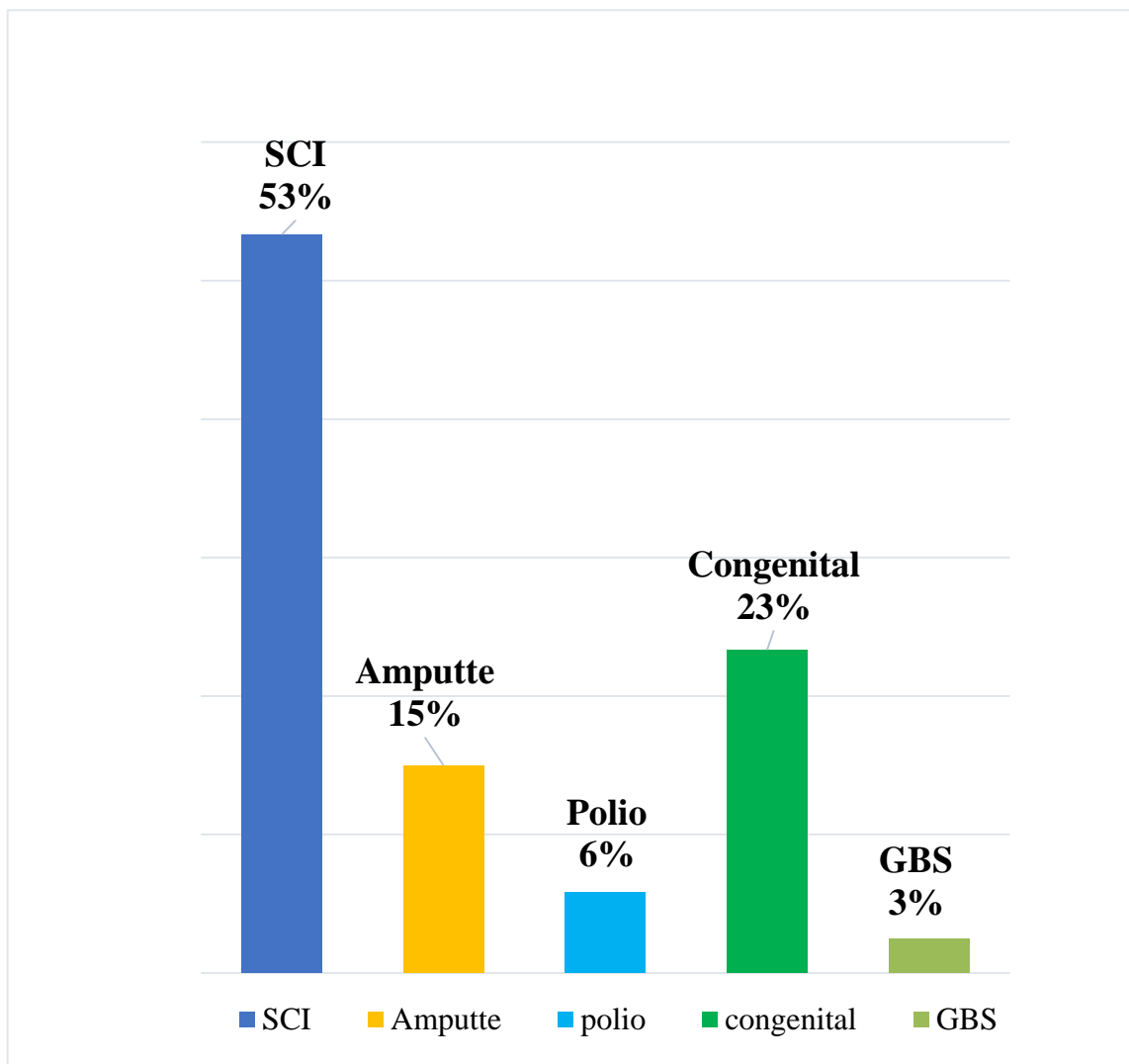


Figure-4.5: Types of Disability

4.6 Types of Sports of physically challenged sportsperson and sports level

The study observed the 120 participants, among them the study showed that around (N=92) 76.7% the participants played wheelchair basketball. Around (N=23) 19.2% of participants played disabled cricket. Around (N=3) 2.5% of participants played disabled table tennis, around (N=1) 0.8% of participant played as an athlete and Around (N=1) 0.8% of participant played as a badminton player. Among the participants around 40.8% (N=49) played international tournaments, 7.5% (N=9) sportspersons participated in national tournament and around half 51.7% (N=62) of the participants participated in local tournament.

Table 4.6.1: Level of Sports

Level of Sports		
	Frequency	Percent
Local	62	51.7%
National	9	7.5%
International	49	40.8%

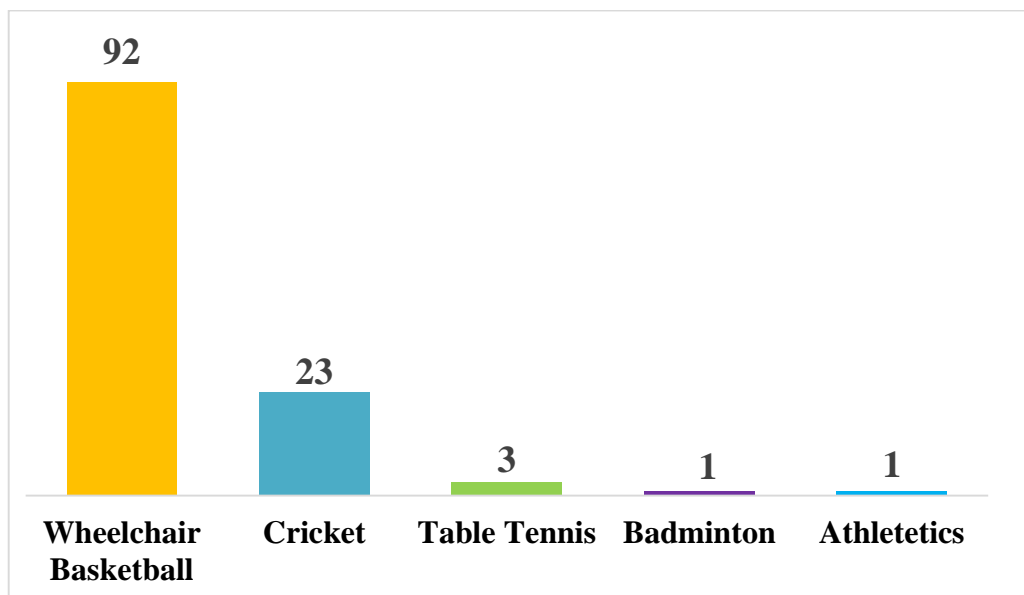


Figure-4.6.2: participants of physically challenged sports

4.7 Residential area of the Participant

This figure demonstrates the residential area of the participant. Among all participants, there 68% who lived in the rural area and 21% of the participants lived in semi urban area and 12% lived in urban area.

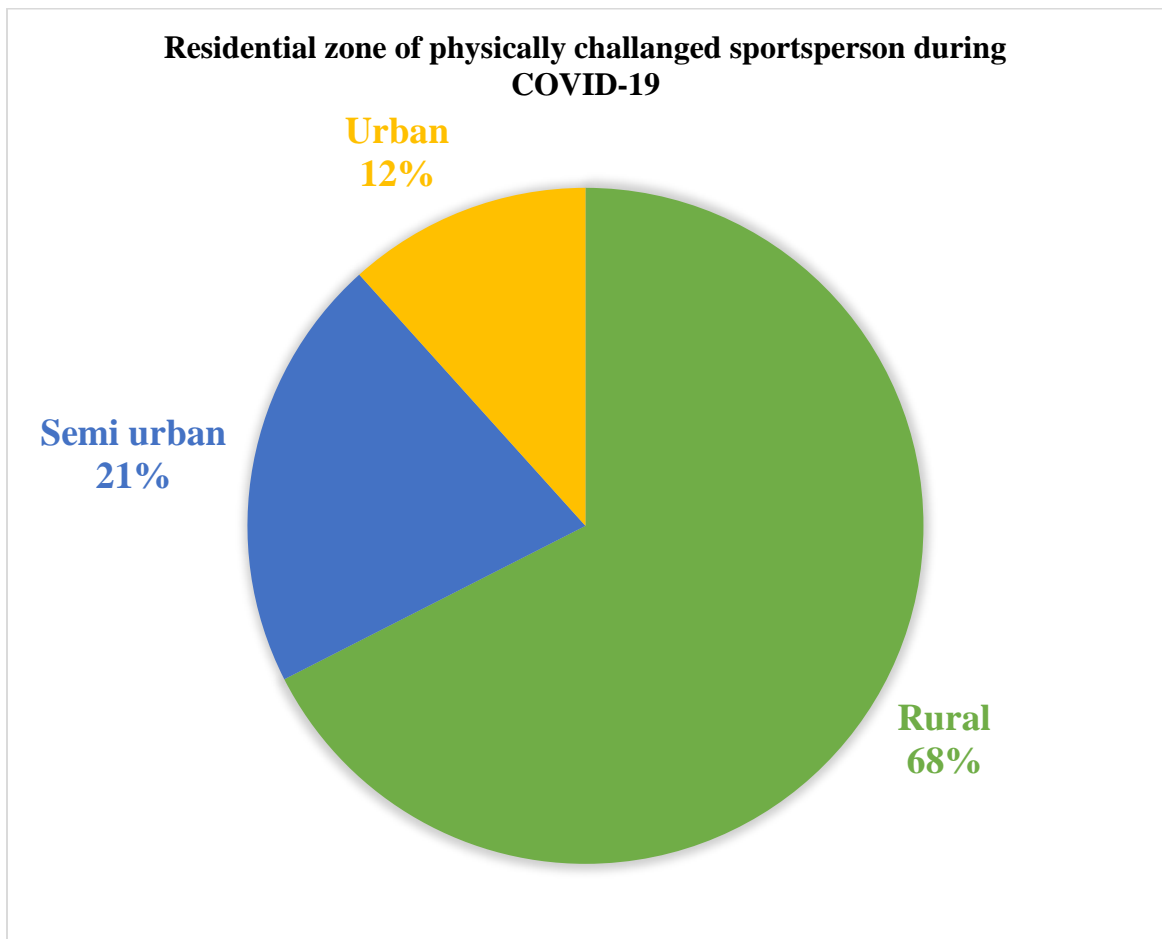


Figure-4.7: Residential area

4.8 Household size

Among the 120 participants it was found that 5% people live in a family with 2 persons, 9.2% people live in a family with 3 persons, 21.7% people live in a family with 4 persons, 25.8% people live in a family with 5 persons, 38.3% people live in a family with 6 or more persons.

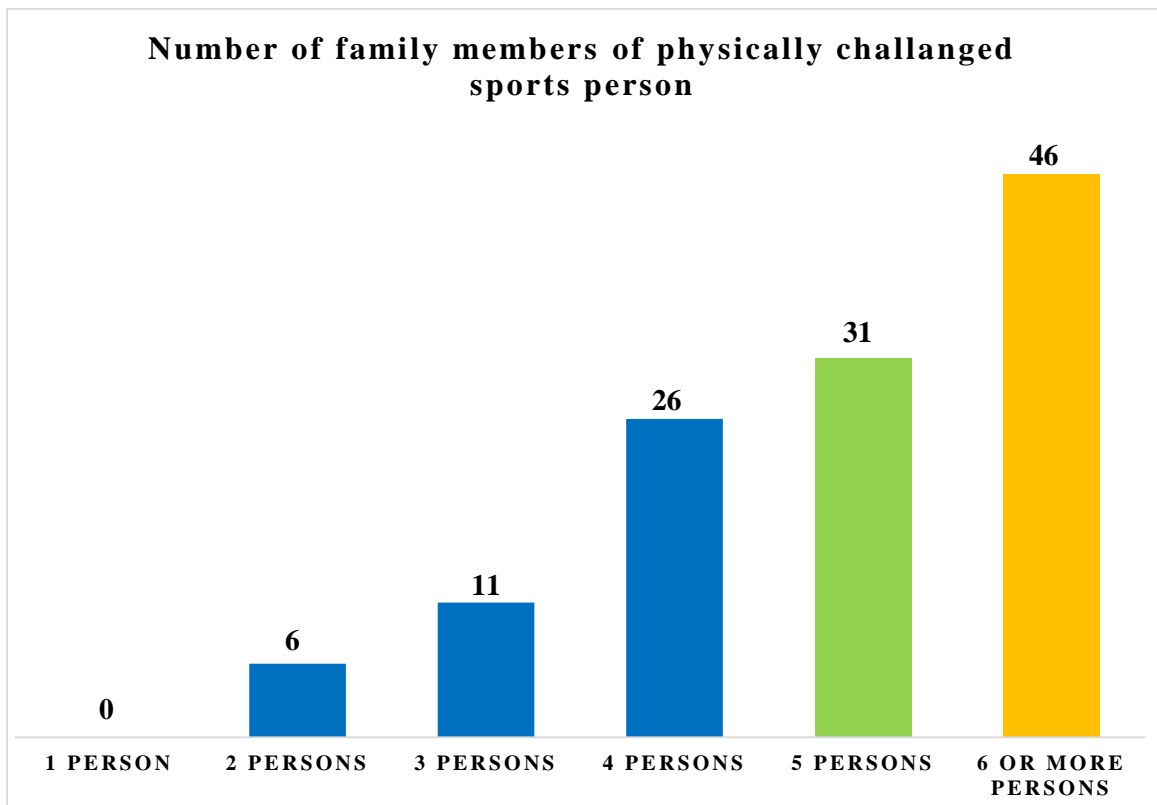


Figure-4.8: Household size

4.9 Monthly income of participants

Out of 120 participants, almost half (n=63) of the participants whose income level is <15000 taka, 48 participants earn in the range of 15000-20000 taka, 1 respondent earn 20000-25000 taka, 5 participants earn 25000-30000 and 3 respondents of them earn more than > 30000 taka in a month. The mean income of the participants was 14035.833 and Std. Deviation were 7393.352.

During COVID-19 44.2% (N=53) of the participant's income has been declined and the mean of the declined amount were 5051.889 and Std. Deviation 2933.137

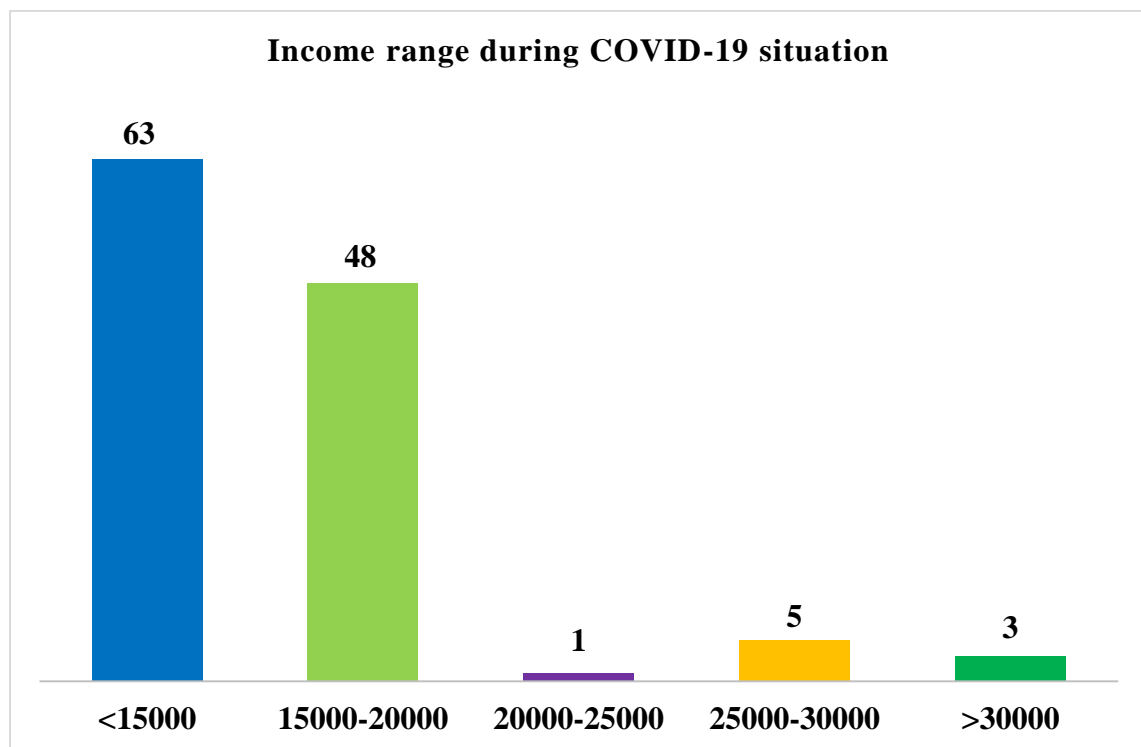


Figure-4.9: Income range during COVID-19 situation

4.10 Participants affected by COVID-19

Among 120 participants 19.2% (n=23) of the participants showed COVID symptoms. Among 120 participants 20.8% (n=25) of participants were diagnosed COVID-19 and 79.2% (n=95) participants didn't.

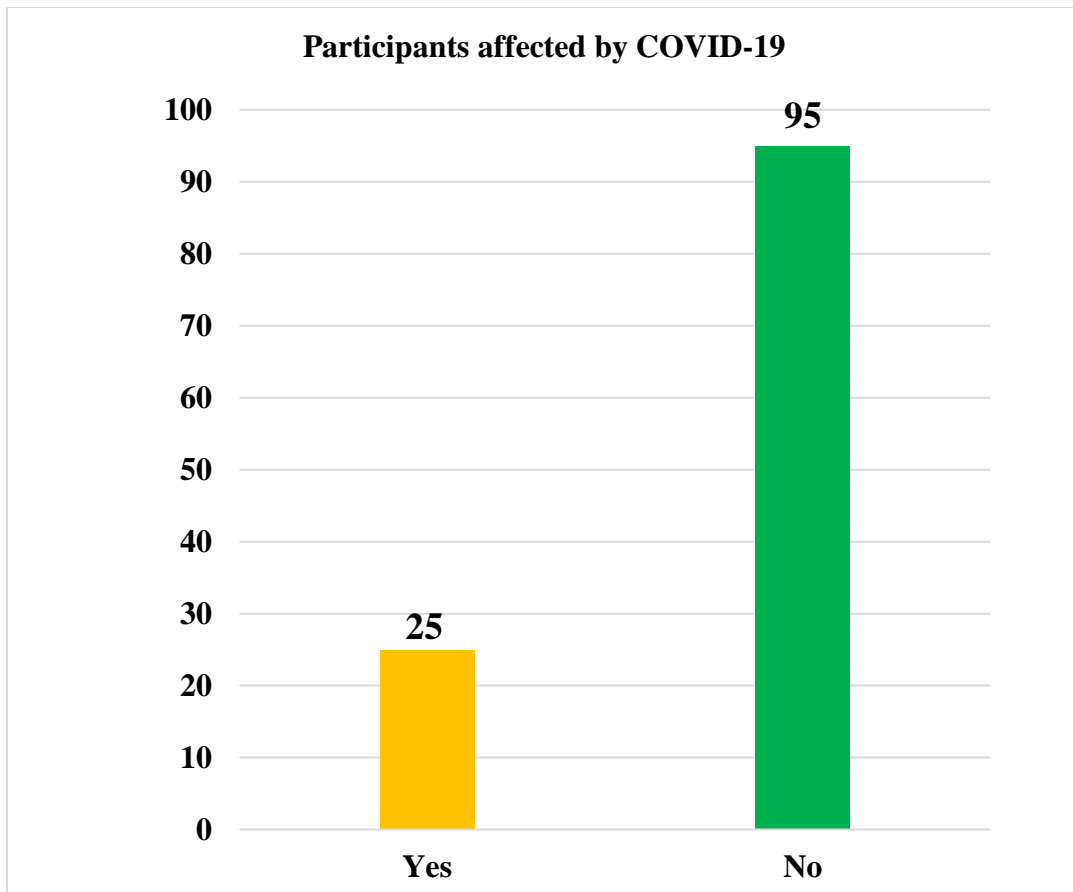


Figure-4.10: Participants affected by COVID-19

4.11 Participant's family/ neighbors/ colleagues affected by COVID-19

Among 120 participants 30.8% (n=37) of participant's family members/ neighbors/ colleagues were diagnosed COVID-19 and 69.2% (n=83) didn't.

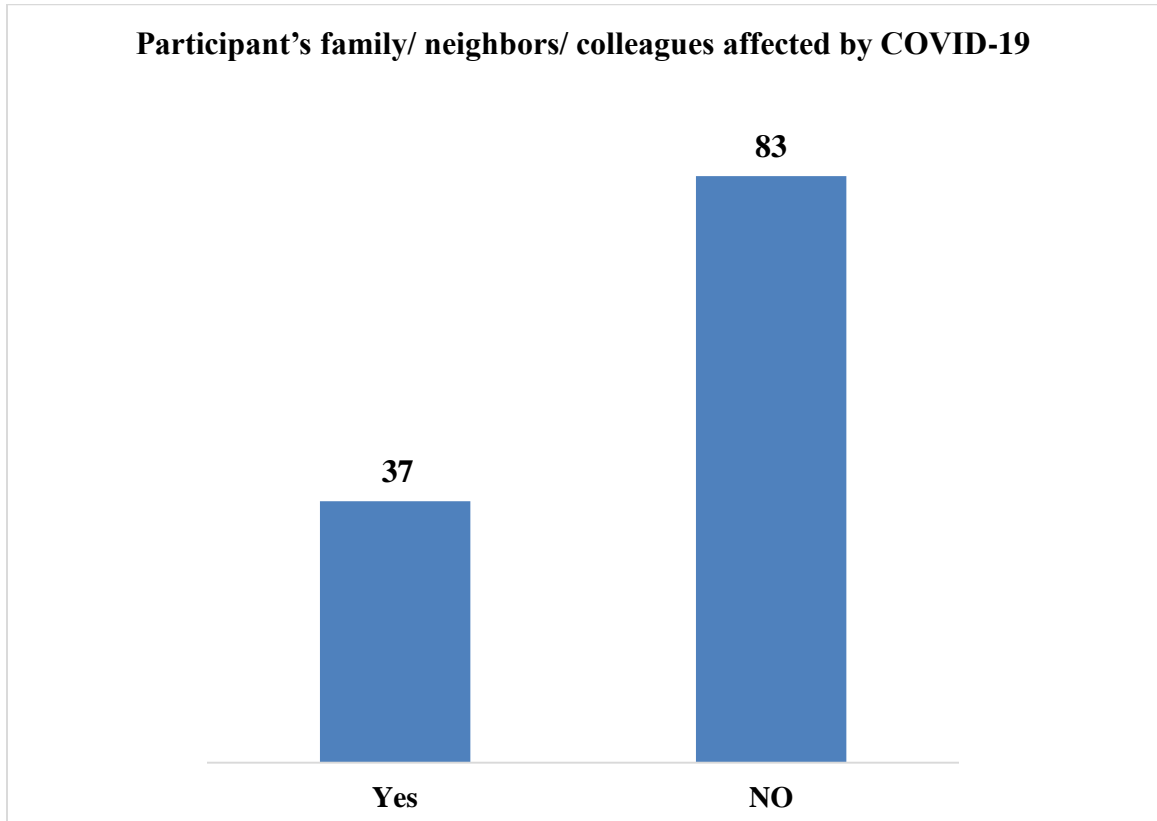


Figure-4.11: Participant's family/ neighbors/ colleagues affected by COVID-19

4.12 Experiences of violent activities during COVID situation

In this study among 120 participants 8.3% (n=10) experienced violent activities and 2.5% (n=3) of the participants refused to say about their violent activities. 89.2% (n=107) of the participants didn't face any violent activities.

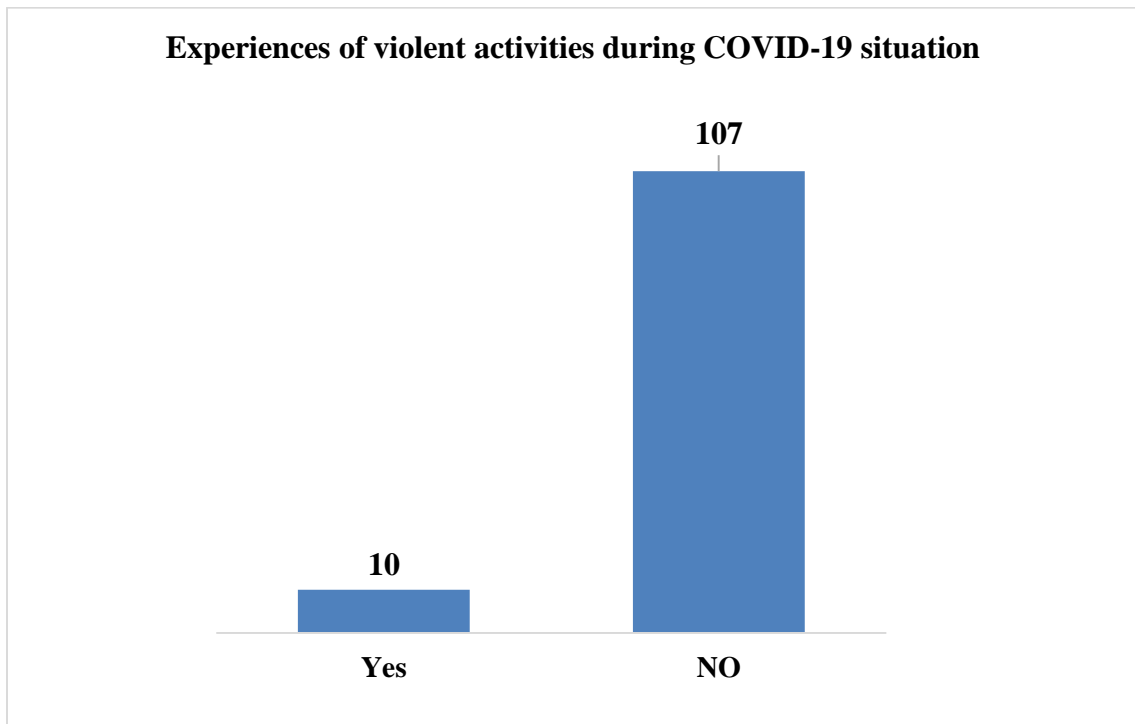


Figure-4.12: Experiences of violent activities during COVID-19 situation

4.13 GAD-7 analysis:

Table-4.13.1: Distribution of GAD-7 items

GAD-7 item	Not at all	Several days	More than half the days	Nearly every day
Feeling nervous, anxious or on edge	20%	45%	28.3%	6.7%
Not being able to stop or control worrying	31.7%	38.3%	20.8%	9.2%
Worrying too much about different things	40.8%	31.7%	23.3%	4.2%
Trouble relaxing	70%	17.5%	10.8%	1.7%
Being so restless that it is hard to sit still	75%	18.3%	5.8%	8%
Becoming easily annoyed or irritable	34.2%	43.3%	21.7%	8%
Feeling afraid as if something awful might happen	68.3%	19.2%	7.5%	5%

The below table-4.13.2 represented the distribution of participant's anxiety status of participants. The study showed that 62.5% (n=75) of participants had mild anxiety and among 25.8% (n=31) moderate, 8.3% (n=10) moderately severe anxiety and 3.3% (n=4) participants showed severe level of anxiety in the past 2 weeks in COVID situation.

Table-4.13.2 GAD-7 Anxiety status

Anxiety level	Frequency	Percent
Mild	75	62.5
Moderate	31	25.8
Moderately severe anxiety	10	8.3
Severe anxiety	4	3.3

The below table-4.13.3 represented the Association between sociodemographic variables and anxiety of participants. In chi-square test we see the association. If the p value is < 0.05 result is significant. In association between living area and Generalized Anxiety Disorder (GAD) total score, p value is 0.057. So the result is significant that indicate there is association between living area and Generalized Anxiety Disorder (GAD) total score.

In between decreased income during COVID and Generalized Anxiety Disorder (GAD) total score, p value is 0.037 which is less than 0.05. So the result is significant that indicate there is association between decreased income during COVID and Generalized Anxiety Disorder (GAD) total score.

In case of COVID symptoms and Generalized Anxiety Disorder (GAD) total score, p value is 0.002 which is less than 0.05. So the result is significant that indicate there is association between COVID symptoms and Generalized Anxiety Disorder (GAD) total score.

In association between Diagnosed COVID-19 any of your family members/ neighbors/ colleagues and Generalized Anxiety Disorder (GAD) total score, p value is 0.001. So the result is significant that indicate there is association between Diagnosed COVID-19 any

of your family members/ neighbors/ colleagues and Generalized Anxiety Disorder (GAD) total score.

P Value of age group, gender, marital status, injury type and type of sports was not significant in association with Generalized Anxiety Disorder (GAD) total score.

Table-4.13.3: Association between sociodemographic variables

		Mild	Moderate	Moderately severe anxiety	Severe anxiety	Chi-value	P-Value
Age group	18-27	58%	23%	7%	3%	1.899	0.929
	28-37	15%	8%	3%	1%		
	38-45	2%	0%	0%	0%		
Gender	Male	55%	26%	10%	4%	5.648	.130
	Female	20%	5%	0%	0%		
Marital status	married	14%	10%	5%	1%	6.143	0.407
	unmarried	58%	20%	5%	3%		
	Divorcee	3%	1%	0%	0%		
Education	No formal education	1%	0%	0%	0%	6.164	0.907
	Primary education	16%	6%	3%	1%		
	Secondary education	34%	12%	5%	2%		
	Higher secondary	19%	8%	1%	0%		
	Bachelor or above	5%	5%	1%	1%		
Disability	SCI	4%	12%	3%	3%	13.81	.313
	Amputee	11%	4%	3%	0%		
	Polio	5%	2%	0%	0%		
	Congenital	11%	12%	4%	1%		
	GBS	2%	1%	0%	0%		

Living area	Rural	57%	17%	4%	3%	14.91	.057
	Semi urban	12%	7%	5%	1%		
	Urban	6%	7%	1%	0%		
Income decreased	Yes	18%	27%	6%	2%	5.528	.037*
	No	48%	13%	4%	2%		
COVID symptoms	Yes	7%	13%	2%	1%	15.15	.002*
	No	68%	18%	8%	3%		
Have you diagnosed COVID-19?	Yes	8%	9%	6%	2%	17.33	.001*
	No	67%	22%	4%	2%		
Diagnosed COVID-19 any of your family members/ neighbors/ colleagues?	Yes	20%	9%	6%	2%	5.336	.149
	No	55%	22%	4%	2%		

*p<0.05

4.14 Patient Health Questionnaire (PHQ) total score interpretation

The below table 4.14.1 represented the distribution of participant's depression status of participants. Among 120 participants of physically challenged sportsperson, 58.3 % (n=70) respondents faced minimal depression, 27.5% (n=33) respondents are faced mild anxiety depression, 11.7% (n=14) respondents are faced moderately severe, 2.5% (n=3) faced moderately severe depression and there was no severely depressed participant.

Table-4.14.1: PHQ-9 depression level

Depression level	Frequency	Percent
Minimal	70	58.3%
Mild	33	27.5%
Moderate	14	11.7%
Moderately severe depression	3	2.5%
Severe anxiety depression	0	0%

4.14.2 Association between variables:

The below table-4.14.2 represented the Association between sociodemographic variables and anxiety of participants. In chi-square test we see the association. If the p value is < 0.05 result is significant.

In between gender and Patient Health Questionnaire (PHQ) total score, p value is 0.033 which is less than 0.05. So the result is significant that indicate there is association between gender and Patient Health Questionnaire (PHQ) total score.

There is association between sports types and Patient Health Questionnaire (PHQ) total score because their p value is 0.019.

In association between living area and Patient Health Questionnaire (PHQ) total score, p value is 0.032. So the result is significant that indicate there is association between living area and Patient Health Questionnaire (PHQ) total score.

In case of COVID symptoms, p-value is 0.002 and COVID diagnosed, p-value is .000 which is less than 0.05. So the result is significant that indicate there is significant association between COVID symptoms and COVID diagnosis with Patient Health Questionnaire (PHQ) total score.

Table-4.14.2: Association between variables and PHQ-9

		Minimal	Mild	Moderate	Moderately severe anxiety	Chi-value	P-Value
Age group	18-27	54	23	13	1	8.014	.237
	28-37	14	10	1	2		
	38-45	2	0	0	0		
Gender	Male	49	30	13	3	8.706	.033
	Female	21	3	1	0		
Marital status	Married	18	7	4	1	3.553	.737
	Unmarried	48	26	10	2		
	Divorcee	4	0	0	0		
Sports	Wheelchair Basketball	63	21	6	2	24.145	.019
	Cricket	5	10	7	1		
	Table Tennis	1	1	1	0		
	Badminton	1	0	0	0		
	Athlete	0	1	0	0		
Living area	Rural	55	18	7	1	13.786	.032
	Semi urban	8	11	4	2		
	Urban	7	4	3	0		
COVID symptoms	Yes	6	12	5	0	14.557	.002
	No	64	21	9	3		
COVID diagnosed	Yes	5	11	8	1	22.556	.000
	No	65	22	6	2		

4.15 Association between variables and BRIEF-COPE-28

Physically challenged sportspersons showed a mixed coping strategy during the wave of COVID-19. Male and females showed similar coping strategies, they have significantly used problem focused (p value 0.000), emotion focused (p-value 0.005) and avoidant focused (p-value 0.000) coping strategies; but emotion focused coping strategy showed the highest mean. In emotion focused coping male respondents reported higher score means for emotion focused coping (EFC) (mean, male 21.57± .529; female 18.56± .480). Disability type also had a significant impact over coping strategies and they have used all the coping strategies. Among them SCI (mean 20.17±0.595), Amputee (mean 20.61±1.115) , polio (mean 19.14±0.595) , congenital (mean 23.57±0.979), GBS (mean 19.00±1.000) participant showed highest focus on emotion focused coping strategy (p-value 0.021) respectively followed problem focused and avoidant focused coping strategy. Respondents those who had COVID symptoms and diagnosed COVID positive and whose family members were COVID affected they also highly followed emotion focused coping strategy respectively followed problem focused and avoidant focused coping strategy.

Table-4.15.1: One-Way ANOVA

Variables	N	Problem focused			Emotion focused			Avoidant focused			
		Mean±SE	F	Sig	Mean±SE	F	Sig	Mean±SE	F	Sig	
Age	15-24	63	16.86±.542	1.190	.308	21.12±.511	0.338	0.714	11.69±	2.114	0.125
	25-39	55	16.07±1.078			20.48±.976			11.19±		
	40-54	2	11.50±.500			19.00±.000			9.00±		
Marital status	Married	30	17.27±0.980	.666	.516	21.10±0.718	.032	.968	11.70±0.390	1.159	.317
	Unmarried	86	16.47±0.573			20.87±0.565			11.55±0.228		
	Divorcee	4	14.25±1.109			21.25±1.652			10.00±0.707		
Education	No formal education	1	18.00±1.068	1.202	.314	21.00±1.791	.428	.788	11.00±0.521	1.301	.274
	Primary education	26	16.15±0.742			20.19±0.793			11.46±0.346		
	Secondary education	53	16.60±0.939			20.74±0.981			11.38±0.729		
	Higher secondary	28	15.68±1.311			21.57±1.724			11.36±1.437		

	SCI	64	15.53±0.553			20.17±0.595			11.69±0.270		
	Amputee	18	16.89±1.212			20.61±1.115			11.89±0.478		
Disability	polio	7	13.71±2.190	3.696	0.007	19.14±0.595	3.012	0.021	9.14±0.404	2.646	0.037
	congenital	28	19.54±1.164			23.57±0.979			11.50±0.373		
	GBS	3	16.67±0.333			19.00±1.000			12.00±1.155		
	Wheelchair	92	15.63±.475			19.76±.425			11.59±.231		
	Basketball										
	Cricket	23	20.52±1.270			25.22±1.065			11.39±.371		
Sports	Table Tennis	3	16.00±4.041	4.942	.001	22.00±4.933			11.67±.882		
	Badminton	1	21.00±3.323			27.00± 2.143	7.603	.000	12.00±0.793	.410	.801
	Athlete	1	12.00±2.542			22.00± 2.310			9.00±0.528		
Living area	Rural	81	15.31±0.499			19.74±0.432			11.46±0.243		
	Semi urban	25	20.08±1.103	9.466	0.000	24.00±1.222	9.153	0.000	12.16±0.386	1.910	0.153
	Urban	14	17.79±1.635			22.43±1.349			10.86±0.467		
Income decreased	Yes	53	16.66±0.780			21.09±0.711			11.34±0.290		
	No	67	16.54±0.603	0.016	0.899	20.82±0.568	0.093	0.761	11.69±0.257	0.802	0.372
Symptoms arise	Yes	23	19.57±1.300			23.48±1.149			11.83±0.456		
	No	97	15.89±0.484	9.787	0.002	20.34±0.460	8.191	0.005	11.46±0.212	0.548	0.461
COVID diagnosed	Yes	25	20.40±1.058			24.16±1.026			12.36±0.351		
	No	95	15.59±0.491	19.117	0.000	20.09±0.457	15.479	0.000	11.32±0.220	5.030	0.027
Diagnosed family/friends	Yes	37	17.32±0.792			22.00±0.789			11.76±0.334		
	No	83	16.27±0.596	1.041	0.310	20.47±0.533	2.561	0.112	11.43±0.235	0.600	0.440
Bad habit	Yes	22	17.09±0.873			21.50±0.689			11.91±0.400		
	No	98	16.48±0.555	0.242	0.624	20.82±0.522	0.352	0.554	11.45±0.218	0.856	0.357

Pearson Correlation:

4.15.2 Correlation among PHQ-9, GAD-7, Brief-Cope-28

Correlations		GAD_Total	PHQ_Total	Problem Focused	Emotion Focused	Avoidant Coping
GAD7_total	Pearson Correlation	1	.475*	.451**	.366**	0.171
PHQ9_Total	Pearson Correlation		1	.511**	.528**	.222*
Problem Focused	Pearson Correlation			1	.792**	.486**
Emotion Focused	Pearson Correlation				1	.310**
Avoidant Coping	Pearson Correlation					1

** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).

The correlation r measures the strength of the linear relationship between two quantitative variables. Pearson r is always a number between -1 and 1.

The relationship between GAD-7 total and PHQ-9 total is statistically significant (p-value 0.01). There is a weak positive association ($r = 0.475$) between GAD-7 and PHQ-9, that means in case of increased anxiety there may increase in depression level. There is a weak positive association between GAD-7 and problem focused coping strategies ($r = 0.0451$); GAD-7 and emotion focused coping strategies ($r = 0.366$; p value 0.01) that means because as anxiety increases, so does problem focused and emotion focused coping, respectively there is very weak association between avoidant coping ($r = 0.171$).

correlation coefficient between PHQ-9 total and problem focused coping is 0.511 ($r = 0.511$) which is weakly positive and significant at .01. Similarly, the correlation coefficient between PHQ-9 total and emotion focusd is 0.528 ($r = 0.528$) which weakly positive and significant at .01. On the otherhand there is very weak relationship between PHQ-9 and avoidant coping where $r = 0.222$ and significant at 0.05 level.

There is a strong positive association between problem focused and emotion focused coping strategy ($r = 0.792$); similarly, weak positive association between problem focused and avoidant coping ($r = 0.486$), significant at 0.01 level.

There is a correlation between emotion focused and avoidant focused coping that is weak positive association ($r = 0.310$) and significant at 0.01 level.

The purpose of the analysis and discussion is to find published publications and determine their relevance to the gathered data. In this chapter, the study's findings in connection to its research questions and goals are addressed. The purpose of this study was to find out the socio-demographic information, understand the level of anxiety and depression among the participants of physically challenged sportspersons, identify the influencing factors on psychological impact of COVID-19 on disabled sportsperson. Participants also discussed how they coped with their anxiety throughout this pandemic.

World Health Organization (WHO) scientific brief says that the COVID-19 pandemic causes a 25% rise in anxiety and depression prevalence globally. There are unique stressors and challenges that could worsen mental health for people with disabilities during the COVID-19 crisis (How COVID-19 impacts people with disabilities, 2022, May 31).

There are limited studies in Bangladesh that evaluated psychological states of physically challenged sportspersons and potentially related factors during the COVID-19 outbreak. According to our analysis 62.5% (n=75) of physically challenged sportsperson had mild anxiety and among 25.8% (n=31) moderate, 8.3% (n=10) moderately severe anxiety and 3.3% (n=4) participants showed severe level of anxiety. The present study report that the associated factors that are related to the level of anxiety among the physically challenged sportsperson are economic condition (p value .037), living area (p value .057), presence of COVID symptoms (p value .002), those who diagnosed COVID (p value .001).

The highest prevalence of anxiety in Asia is 32.9, the highest prevalence of stress in Europe is 31.9 and the highest prevalence of depression in Asia is 35.3 (Salari et al., 2020). In Bangladesh the prevalence of loneliness, depression, anxiety and sleep disturbance was estimated at 71% (mild: 32%, moderate: 29%, severe: 10%), 38% (mild: 24%, moderate: 11%, severe: 3%), 64% (mild: 30%, moderate: 17%, severe: 17%) and 73% (mild: 50%, moderate: 18%, severe: 5%), respectively. In Bangladesh, the key

factors associated with poor mental health during COVID-19 were female sex, unemployment, being a student, obesity and living without a family (Das et al., 2021).

Bangladesh has nearly 10-15% of people with disabilities and 80% of them living in rural areas (Hossain, 2018), and disability has been defined by Persons with disabilities rights and protection Act (2013) and neurodevelopmental disability protection trust act (2013) as physical, psychological, visual, speech, intellectual, hearing, cerebral palsy, autism spectrum disorder, and down's syndrome (Alam et al., 2020).

The associated risk factors of mental health problems were gender, age, residence area, family size, monthly family income, educational status, marital status, physical exercise, smoking, alcohol use, fear of COVID-19, presence of chronic illness, unemployment status, and exposure to COVID-19-related news and social media (Hosen et al., 2021).

This study found that 58.3 % (n=70) respondents faced minimal depression, 27.5% (n=33) respondents are faced mild anxiety depression, 11.7% (n=14) respondents are faced moderately severe, 2.5% (n=3) faced moderately severe depression and there was no severely depressed participant. The associated factors that are related to the level of depression among the physically challenged sportsperson are gender (p value .033), sports (p value .019), living area (p value .032), presence of COVID symptoms (p value .002), those who diagnosed COVID (p value .000).

It is that 22% of persons with disabilities are diagnosed with depression in their lifespan (Hogan, 2022). 61% and 50% of U.S. people with disabilities in the COVID-19 satisfied criteria for a likely diagnosis of major depressive disorder and generalised anxiety disorder, respectively. Participants reported considerably greater levels of disability-related stigma and social isolation compared to pre-pandemic norms (Wang et al., 2022). Athletes infected with COVID-19 exhibited greater levels of depression and anxiety than those infected with COVID-19 who had not been infected. Anxiety levels among female athletes with disabilities were greater than among males. Individual sport AWD had a greater rate of depression and anxiety than team sport AWD.(Denerel and Lima, 2022)

Correlation analyses showed that stress related to COVID-19 was positively linked to the adoption of coping methods such as self-distraction, denial, drug use, behavioural

disengagement, venting and planning as well as self-blame and religious beliefs. In addition, the findings of hierarchical regression showed that participants' well-being was connected with active coping, denial, the use of emotional support, humour, religion, and self-blame after adjusting for demographic and psychological factors (Umucu and Lee, 2020).

In this study physically challenged sportspersons showed a mixed coping strategy during the wave of COVID-19. Male and females showed similar coping strategies, they have significantly used problem focused (p value 0.000), emotion focused (p-value 0.005) and avoidant focused (p-value 0.000) coping strategies; but emotion focused coping strategy showed the highest mean. In emotion focused coping male respondents reported higher score means for emotion focused coping (EFC) (mean, male $21.57 \pm .529$; female $18.56 \pm .480$). Disability type also had a significant impact over coping strategies. Respondents those who had COVID symptoms and diagnosed COVID positive and whose family members were COVID affected they also highly followed emotion focused coping strategy respectively followed problem focused and avoidant focused coping strategy.

Participation in sports, particularly for athletes with disabilities, has the potential to provide a stress-buffering effect by inducing a sense of self-efficacy, which in turn assists athletes in coping with the effects of stressors (Craike et al., 2019).

Participation in sports may help people with disabilities develop habits and enjoy the benefits for the rest of their lives. Their positive self-perception is strengthened along with their self-esteem as a result of their efforts in training and contests (Marin-Urquiza, Ferreira and Van Biesen, 2018), as well as the confidence gained from winning. An alternative term for this condition might be post-traumatic growth (Fletcher and Sarkar, 2013). Youngsters exhibited greater avoidance and intrusion than adults. Young individuals often utilise avoidant methods to escape stressful thoughts and situations (Hampel and Petermann, 2005). High levels of intrusive thoughts in young individuals are linked to increased anxiety and failure to cope (Fiorilli et al., 2021b).

In Bangladesh among genegal people approach coping strategies were found to have higher scores (29.83 8.9), whereas avoidant coping styles were reported to have lower

scores (20.83 6.05). The scores for dealing with humour were 2.68 on a scale of 1.3, while the scores for coping with religion were 5.64 on a scale of 1.8. Both men and women had coping mechanisms that were quite comparable to one another (K. M. A. Hossain et al., 2021).

Disabled athletes were shown to be less anxious than non-disabled counterparts when compared to a control group of athletes their same age. Disabled athletes, according to a prior research, gain mental adaptability and a positive perspective that help them deal with the interruption of their sports involvement. Self-discovery was seen by some of them as a benefit of being confined at home (Hu et al., 2021).

Therefore, athletes with disabilities had an appropriate degree of emotional regulation, and as a result, they developed coping methods that allowed them to deal with these transitory obstacles (Díaz and García, 2018).

Limitations of study:

This study explored the Psychological status of physically challenged sports persons during COVID-19, there were few limitation of the study.

- It was not sufficient budget for the study to generalize the wider population in Bangladesh.
- The study covers the sample only from at a selected rehabilitation center in Bangladesh only. So the result of the study cannot be generalized to psychological status of sports persons of overall people with disability in Bangladesh.
- In this particular study, just two aspects of psychological problems—*anxiety and depression* were investigated. The other aspects, such as *psychosis, stress disorders, and mood swings*, were completely ignored in the study.

Conclusion

The study aimed to identify the psychological status of physically challenged sportspersons and their coping strategies during COVID-19 at a selected rehabilitation center in Bangladesh. In this study the prevalence of anxiety among 120 physically challenged sports persons was estimated at 62.5% mild, 25.8% moderate, 8.3% moderately severe anxiety, 3.3% showed severe level of anxiety and depression was estimated at 58.3 % minimal depression, 27.5% mild depression, 11.7% moderately severe, 2.5% faced severe depression. They have showed a mixed coping strategy during the wave of COVID-19. Emotion focused coping strategy showed the highest mean where as Avoidant Focused coping had lower scores. There is a strong positive association between problem focused and emotion focused coping strategy ($r = 0.792$). Depression and anxiety were highly prevalent among people with disabilities during COVID-19. The outcomes of this research may guide the development of better care and support for physically challenged sportsperson. The findings should encourage our government to gather more information on mental health concerns experienced by people with physical disabilities and apply the necessary psychological treatment measures.

Recommendations

The purpose of this research is to evaluate identify the psychological status of physically challenged sportspersons and their coping strategies during COVID-19. Despite this, there were a few drawbacks to the research. It was determined that there are certain actions that may be made in order to get better results in the ongoing investigation.

The sample size of this research, 120 people, was too small and should be increased in future studies to find out overall situations in Bangladesh. In this particular study, just two aspects of psychological problems—*anxiety and depression* were investigated. The other aspects, such as *psychosis, stress disorders, and mood swings*, were completely ignored in the study. So future studies need to focus on other aspects of psychological status. Future studies should look into how much different ways of coping can reduce or increase the psychological effects of the COVID-19 crisis, not just on emotional distress and short-term functioning but also on the long-term health and well-being of physically challenged sportsperson.

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Appendix

CONSENT FORM (ENGLISH)

Assalamualaikum,

I am Masum Billah, 4th Professional, B.Sc. in Physiotherapy student at Bangladesh Health Professions Institute (BHPI) under the Faculty of Medicine, University of Dhaka. To obtain my Bachelor degree, I have to conduct a research project and it is a part of my study. My research title is **“Psychological status of physically challenged sportspersons during COVID-19 at a selected rehabilitation center in Bangladesh.”** To fulfill my research project, I need some information from you to collect data. So, you can be a respected participant of this research and the conversation time will be 10-15 minutes. I would like to inform you that this is a purely academic study and will not be used for any other purposes. I assure that all data will be kept confidential. Your participation will be voluntary. You may have the right to withdraw consent and discontinue participation at any time from this study. You also have the right to reject a particular question that you don't like.

If you have any query about the study, you may contact with my Muhammad Millat Hossain, Associate Professor, Department of Rehabilitation Science BHPI, CRP, Savar, Dhaka- 1343.

Do you have any questions before start this session?

So, I can proceed with the interview.

Yes

No

Signature of the participant and Date.....

Signature of the researcher and Date.....

Signature of the witness and Date.....

Address.....

Mobile no.....

Questionnaire (English)

Psychological status of physically challenged sportspersons during COVID-19 at a selected rehabilitation center in Bangladesh

Please give a tick (√) mark on the left side of the box of correct answer

1. Socio-demographic information:

Response	
1.1 Address: (Please write)	District:
1.2 Gender	1= Male 2=Female
1.3 Marital status	1=Married 2=Unmarried 3=Widow/widower 4= Divorcee
1.4 Educational status	1= No formal education 2=Primary education 3=Secondary education 4=Higher secondary 5=Bachelor or above
1.5 Type of disability
1.6 Sports types
1.7 Level of sports	1. Local 2. National 3. International
1.8 Living area	1=Rural 2=Semi Urban 3=Urban
1.9 Number of family members	
1.10 Average monthly income from March'20 till now? (Please write)tk
1.11 Does your income decrease during these days?	1=Yes 2= No (If yes, mention how much your income decrease.....tk)
1.12 Have you felt any COVID-19 like symptoms from March'20 till now?	1=Yes 2=No

	(If yes, specify.....)
1.13 Have you diagnosed COVID-19?	1=Yes 2=No
1.14 Diagnosed COVID-19 any of your family members/ neighbors/ colleagues?	1=Yes 2=No
1.15 Do you have a habit of smoking/betel leaf/Alcoholism?	1=Yes 2=No
1.16 Do you have experienced any violent activities that had been happened from March'20 till now?	1=Yes 2=No 3=I don't want to say (If yes, please specify.....)

2. General Anxiety Disorder (GAD-7)

Over the last 2 weeks, how often have you been bothered by any of the following problems? <i>(Use "✓" to indicate your answer)</i>	Not at all	Several days	More than half the days	Nearly Everyday
2.1 Feeling nervous, anxious, or on edge	0	1	3	4
2.2 Not being able to stop or control worrying	0	1	3	4
2.3 Worrying too much about different things	0	1	3	4
2.4 Trouble relaxing	0	1	3	4
2.5 Being so restless that it is hard to sit still	0	1	3	4
2.6 Becoming easily annoyed or irritable	0	1	3	4
2.7 Feeling afraid, as if something awful might happen	0	1	3	4
Total score:				

3. Patient Health Questionnaire-9 (PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems? <i>(Use "✓" to indicate your answer)</i>	Not at all	Several days	More than half the days	Nearly Everyday
3.1 Little interest or pleasure in doing	0	1	3	4

things				
3.2 Feeling down, depressed, or hopeless	0	1	3	4
3.3 Trouble falling or staying asleep, or sleeping too much	0	1	3	4
3.4 Feeling tired or having little energy	0	1	3	4
3.5 Poor appetite or overeating	0	1	3	4
3.6 Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	3	4
3.7 Trouble concentrating on things, such as reading the newspaper or watching television	0	1	3	4
3.8 Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	3	4
3.9 Thoughts that you would be better off dead or of hurting yourself in some way.	0	1	3	4
Total Score:				

4. Brief-COPE (Brief-COPE) Questionnaire

The following questions ask how you have sought to cope with a hardship in your life. Read the statements and indicate how much you have been using each coping style.

	I haven't been doing this at all	A little bit	A medium amount	I've been doing this a lot
4.1 I've been turning to work or other activities to take my mind off things.	1	2	3	4
4.2 I've been concentrating my efforts on doing something about the situation I'm in.	1	2	3	4
4.3 I've been saying to myself "this isn't real".	1	2	3	4
4.4 I've been using alcohol or other drugs to make myself feel better	1	2	3	4
4.5 I've been getting emotional support from others.	1	2	3	4

4.6 I've been giving up trying to deal with it.	1	2	3	4
4.7 I've been taking action to try to make the situation better.	1	2	3	4
4.8 I've been refusing to believe that it has happened.	1	2	3	4
4.9 I've been saying things to let my unpleasant feelings escape.	1	2	3	4
4.10 I've been getting help and advice from other people.	1	2	3	4
4.11 I've been using alcohol or other drugs to help me get through it.	1	2	3	4
4.12 I've been trying to see it in a different light, to make it seem more positive.	1	2	3	4
4.13 I've been criticizing myself.	1	2	3	4
4.14 I've been trying to come up with a strategy about what to do.	1	2	3	4
4.15 I've been getting comfort and understanding from someone.	1	2	3	4
4.16 I've been giving up the attempt to cope.	1	2	3	4
4.17 I've been looking for something good in what is happening.	1	2	3	4
4.18 I've been making jokes about it.	1	2	3	4
4.19 I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	1	2	3	4
4.20 I've been accepting the reality of the fact that it has happened.	1	2	3	4
4.21 I've been expressing my negative feelings.	1	2	3	4
4.22 I've been trying to find comfort in my religion or spiritual beliefs.	1	2	3	4
4.23 I've been trying to get advice or help from other people about what	1	2	3	4
4.24 I've been learning to live with it.	1	2	3	4
4.25 I've been thinking hard about what steps to take.	1	2	3	4
4.26 I've been blaming myself for things that happened	1	2	3	4
4.27 I've been praying or meditating	1	2	3	4
4.28 I've been making fun of the situation.	1	2	3	4
Total				

সম্মতি পত্র

(অংশগ্রহনকারীকে পড়ে শোনাতে হবে)

আসালামুআলাইকুম/নমস্কার,

আমার নাম মাসুম বিল্লাহ, আমি এই গবেষণা প্রকল্পটি বাংলাদেশ হেলথ প্রফেশনস ইনস্টিটিউট (বি এইচ পি আই) এ পরিচালনা করছি যা আমার ৪র্থ বর্ষ বি এস সি ইন ফিজিওথেরাপী কোর্সের অধিভুক্ত আমার গবেষণার শিরোনাম " বাংলাদেশের একটি নির্বাচিত পুনর্বাসন কেন্দ্রে কভিড-১৯ এর সময় শারীরিকভাবে প্রতিবন্ধী ক্রীড়াবিদদের মনস্তাত্ত্বিক অবস্থা " আমি এক্ষেত্রে আপনার কিছু ব্যক্তিগত এবং আনুষঙ্গিক মনস্তাত্ত্বিক অবস্থা সম্পর্কে প্রশ্ন করতে চাচ্ছি । এতে আনুমানিক ১০-১৫ মিনিট সময় নিবো ।

আমি আপনাকে অবগত করছি যে, এটা আমার অধ্যয়নের অংশ এবং যা অন্য কোন উদ্দেশ্যে ব্যবহার হবে না । গবেষক সরাসরি এই অধ্যয়নের সাথে অন্তর্ভুক্ত নয় । তাই এই গবেষণায় আপনার অংশগ্রহণ বর্তমান ও ভবিষ্যৎ চিকিৎসায় কোন প্রকার প্রভাব ফেলবেনা । আপনি যে সব তথ্য প্রদান করবেন তার গোপনীয়তা বজায় থাকবে এবং আপনার প্রতিবেদনের ঘটনা প্রবাহে এটা নিশ্চিত করা হবে যে এই তথ্যের উৎস অপ্রকাশিত থাকবে । এই অধ্যয়নে আপনার অংশগ্রহন স্বেচ্ছাপ্রণোদিত এবং আপনি যে কোন সময় এই অধ্যয়ন থেকে কোন নেতিবাচক ফলাফল ছাড়াই নিজেকে প্রত্যাহার করতে পারবেন । এছাড়াও কোন নির্দিষ্ট প্রশ্ন অপছন্দ হলে উত্তর না দেয়ার এবং সাক্ষাৎকারের সময় কোন উত্তর না দিতে চাওয়ার অধিকারও আপনার আছে । এই অধ্যয়নে অংশগ্রহনকারী হিসেবে যদি আপনার কোন প্রশ্ন থাকে তাহলে আপনি আমাকে অথবা /এবং মুহাম্মদ মিল্লাত হোসেন সহকারী অধ্যাপক, পুনর্বাসন বিজ্ঞান বিভাগ সদস্য সচিব, প্রাতিষ্ঠানিক পর্যালোচনা বোর্ড (IRB) বিএইচপিআই, সিআরপি, সাভার, ঢাকা-১৩৪৩, বাংলাদেশ যোগাযোগ করতে পারেন ।

সাক্ষাৎকার শুরু করার আগে আপনার কি কোন প্রশ্ন আছে?

আমি আপনার অনুমতি নিয়ে এই সাক্ষাৎকার শুরু করতে যাচ্ছি ।

হ্যাঁ.....

না.....

১। অংশগ্রহনকারীর স্বাক্ষর

২। সাক্ষাৎ গ্রহনকারীর স্বাক্ষর

৩। গবেষকের স্বাক্ষর

শিরোনামঃ বাংলাদেশের একটি নির্বাচিত পুনর্বাসন কেন্দ্রে কভিড-19-এর সময় শারীরিকভাবে প্রতিবন্ধী ক্রীড়াবিদদের মনস্তাত্ত্বিক অবস্থা

ব্যক্তিগত শনাক্তকরণ

সাক্ষাৎ গ্রহণের তারিখঃ

সাক্ষাৎ গ্রহণকারীর নামঃ

উত্তরদাতার নামঃ

বয়সঃ

তথ্য গ্রহণের স্থানঃ

মোবাইল নং:

ধাপ-১- আর্থ-সামাজিক বিষয়ক প্রশ্নসমূহঃ

প্রশ্নাবলী / প্রশ্নসমূহ	সম্ভাব্য উত্তর
১.১ ঠিকানা (দয়া করে লিখুন)	জেলাঃ
১.২ লিঙ্গ	১= পুরুষ ২=মহিলা
১.৩ বৈবাহিক অবস্থা	১=বিবাহিত ২=অবিবাহিত ৩=বিধবা/বিধবা ৪= তালাকপ্রাপ্ত
১.৪ শিক্ষাগত যোগ্যতা	১= কোন প্রাতিষ্ঠানিক শিক্ষা নেই ২=প্রাথমিক শিক্ষা ৩ = মাধ্যমিক শিক্ষা ৪ = উচ্চ মাধ্যমিক ৫ = স্নাতক বা তার উপরে
১.৫ শারীরিক প্রতিবন্ধকতার ধরণ
১.৬ খেলাধুলার ধরণ	
১.৭ খেলাধুলার স্তর	১ স্থানীয়

	২. জাতীয় ৩. আন্তর্জাতিক
১.৮ বাসস্থান	১ = গ্রামীণ ২ = আধা শহুরে ৩ = শহুরে
১.৯ পরিবারের সদস্য সংখ্যা	
১.১০ মার্চ'২০ থেকে এখন পর্যন্ত গড় মাসিক আয়? (অনুগ্রহ করে লিখুন)
১.১১ এই দিনগুলিতে আপনার আয় কি কমে যায়?	১= হ্যাঁ ২= না (যদি হ্যাঁ, তাহলে আপনার আয় কত কমেছে তা উল্লেখ করুন)
১.১২ আপনি কি মার্চ'২০ থেকে এখন পর্যন্ত কোনো COVID-19-এর মতো উপসর্গ অনুভব করেছেন?	১= হ্যাঁ ২=না (যদি হ্যাঁ, উল্লেখ করুন)
১.১৩ আপনি কি COVID-19 নির্ণয় করেছেন?	১= হ্যাঁ ২= না
১.১৪ আপনার পরিবারের সদস্য/প্রতিবেশী/সহকর্মীদের মধ্যে কেউ COVID-19 নির্ণয় করেছেন?	১= হ্যাঁ ২= না
১.১৫ আপনার কি ধূমপান/সুপারি পাতা/মদ্যপানের অভ্যাস আছে?	১= হ্যাঁ ২= না
১.১৬ আপনি কি কোনো হিংসাত্মক কার্যকলাপের অভিজ্ঞতা পেয়েছেন যা মার্চ'২০ থেকে এখন পর্যন্ত ঘটেছে?	১= হ্যাঁ ২=না ৩ = আমি বলতে চাই না (যদি হ্যাঁ, অনুগ্রহ করে উল্লেখ করুন)

২. সাধারণ উদ্বেগজনিত ব্যাধি (GAD-7)

গত ২ সপ্তাহে, আপনি কতবার নিম্নলিখিত সমস্যাগুলির দ্বারা বিরক্ত হয়েছেন? (আপনার উত্তর নির্দেশ করতে "✓" ব্যবহার করুন)	একেবারেই না	বেশ কিছু দিন	অর্ধেকেরও বেশি দিন	প্রায় প্রতিদিন
২.১ নার্ভাস, উদ্ভিন্ন, বা অস্থিরতা বোধ করেন	০	১	২	৩
২.২ দুশ্চিন্তা থামাতে বা নিয়ন্ত্রণ করতে পারেন না	০	১	২	৩
২.৩ বিভিন্ন বিষয়ে খুব বেশি চিন্তা করেন	০	১	২	৩
২.৪ আরামদায়ক অবস্থায় বা রিলাক্স থাকতে সমস্যা হয়	০	১	২	৩
২.৫ এতটাই অস্থিরতা লাগে যে স্থির হয়ে বসে থাকা কঠিন হয়	০	১	২	৩
২.৬ সহজেই বিরক্ত বা খিটখিটে হয়ে যান	০	১	২	৩
২.৭ ভয় লাগে, যেন ভয়ংকর কিছু হতে পারে এমন অনুভব হয়	০	১	২	৩
সম্পূর্ণ ফলাফল:				

3. রোগীর স্বাস্থ্য প্রশ্নাবলী-9 (PHQ-9)

গত 2 সপ্তাহে, আপনি কতবার নিম্নলিখিত সমস্যাগুলির দ্বারা বিরক্ত হয়েছেন? (আপনার উত্তর নির্দেশ করতে "✓" ব্যবহার করুন)	একেবারেই না	বেশ কিছু দিন	অর্ধেকেরও বেশি দিন	প্রায় প্রতিদিন
৩.১ কাজ করতে অল্প আগ্রহ বা আনন্দ পান	০	১	২	৩
৩.২ মন খারাপ, বিষণ্ণ, বা আশাহীন মনে হয় নিজেকে	০	১	২	৩
৩.৩ আপনার ঘুমাতে অসুবিধা হয় বা বেশি ঘুম হয়	০	১	২	৩
৩.৪ ক্লান্ত লাগে বা অল্প এনার্জি বা শক্তি পান	০	১	২	৩
৩.৫ খাবার খেতে ইচ্ছা করে না বা বেশী খাওয়া হয়	০	১	২	৩
৩.৬ নিজের সম্পর্কে খারাপ বোধ করা - বা আপনি একজন ব্যর্থ মানুষ অথবা নিজেকে বা আপনার পরিবারকে হতাশ করেছেন মনে হয়	০	১	২	৩
৩.৭ কোনো কিছুতে মনোযোগ দিতে সমস্যা হয়, যেমন- সংবাদপত্র পড়া বা টেলিভিশন দেখা	০	১	২	৩
৩.৮ এত আন্তে চলাফেরা করেন বা কথা বলেন যে অন্য	০	১	২	৩

মানুষেরা সেটা লক্ষ্য করে বা একবোরে উল্টেটা- এতটাই চঞ্চল যে আপনি সাধারণ মানুষের চেয়ে বেশী চলাফেরা করেন				
৩.৯ আপনার মনে হয় যে মরে গেলে ভাল বা নিজেকে নিজে আঘাত করলে ভাল ।	০	১	২	৩
সম্পূর্ণ ফলাফল:				

4. BRIEF COPE (সংক্ষিপ্ত- COPE) প্রশ্নাবলী

নিম্নলিখিত প্রশ্নগুলি জিজ্ঞাসা করে যে, আপনি কীভাবে আপনার জীবনে একটি কষ্টকর পরিস্থিতি মোকাবিলা করার চেষ্টা করছেন। (বিবৃতি পড়ুন এবং নির্দেশ করুন যে আপনি প্রতিটি মোকাবিলার ধরন কতটা ব্যবহার করছেন।)

	আমি এটা করছি না	আল্প পরিমাণে করছি	মাঝারি পরিমাণে করছি	আমি এটা অনেক করছি
৪.১ আমি নিজের কাজ বা অন্যান্য ক্রিয়াকলাপের দিকে ঝুঁকছি যাতে আমি আমার মনকে দূরে সরিয়ে রাখতে পারি ।	১	২	৩	৪
৪.২ আমি যে পরিস্থিতিতে আছি সে সম্পর্কে কিছু করার জন্য আমি আমার প্রচেষ্টায় মনোনিবেশ করছি।	১	২	৩	৪
৪.৩ আমি নিজেকে বলছি "এটি বাস্তব নয়"।	১	২	৩	৪
৪.৪ আমি নিজেকে ভালো বোধ করার জন্য অ্যালকোহল বা অন্যান্য ওষুধ ব্যবহার করছি	১	২	৩	৪
৪.৫ আমি অন্যদের কাছ থেকে মানসিক সহায়তা পাচ্ছি ।	১	২	৩	৪
৪.৬ আমি এর সাথে মোকাবিলা করার চেষ্টা ছেড়ে দিয়েছি ।	১	২	৩	৪
৪.৭ পরিস্থিতি ভালো করার চেষ্টা করার জন্য আমি ব্যবস্থা নিচ্ছি	১	২	৩	৪
৪.৮ আমি বিশ্বাস করতে অস্বীকার করছি যে এটি ঘটেছে	১	২	৩	৪
৪.৯ আমি আমার অপ্রীতিকর অনুভূতিগুলি এড়াতে বিভিন্ন কিছু বলেছি	১	২	৩	৪
৪.১০ আমি অন্য লোকদের কাছ থেকে সাহায্য এবং পরামর্শ পাচ্ছি	১	২	৩	৪

8.১১ আমি অ্যালকোহল বা অন্যান্য ড্রাগ ব্যবহার করছি যাতে আমাকে এটি থেকে মুক্তি পেতে সহায়তা করে	১	২	৩	৪
8.১২ আমি এটিকে আরও ইতিবাচক মনে করার জন্য এটিকে ভিন্ন দৃষ্টিকোণ থেকে দেখার চেষ্টা করছি	১	২	৩	৪
8.১৩ আমি নিজের সমালোচনা করছি	১	২	৩	৪
8.১৪ আমি কি করতে হবে সে সম্পর্কে একটি কৌশল নিয়ে আসার চেষ্টা করছি	১	২	৩	৪
8.১৫ আমি কারো কাছ থেকে সাহায্য পেয়েছি এবং উপলব্ধি করতে পেরেছি	১	২	৩	৪
8.১৬ আমি মোকাবেলা করার প্রচেষ্টা ছেড়ে দিয়েছি	১	২	৩	৪
8.১৭ যা ঘটছে তার মধ্যে আমি ভালো কিছু খুঁজছি	১	২	৩	৪
8.১৮ আমি এটা নিয়ে রসিকতা করছি	১	২	৩	৪
8.১৯ আমি এটি সম্পর্কে কম চিন্তা করার জন্য কিছু করছি, যেমন সিনেমায় যাওয়া, টিভি দেখা, পড়া, দিবাস্বপ্ন দেখা, ঘুমানো বা কেনাকাটা করা।	১	২	৩	৪
8.২০ আমি বাস্তবতার সত্যতা স্বীকার করছি যে এটি ঘটেছে	১	২	৩	৪
8.২১ আমি আমার নেতিবাচক অনুভূতি প্রকাশ করছি	১	২	৩	৪
8.২২ আমি আমার ধর্ম বা আধ্যাত্মিক বিশ্বাসে সাহায্য খোঁজার চেষ্টা করছি	১	২	৩	৪
8.২৩ আমি কি করব এই বিষয়ে অন্য লোকদের কাছ থেকে পরামর্শ বা সাহায্য পাওয়ার চেষ্টা করছি	১	২	৩	৪
8.২৪ আমি এটার সাথে বাঁচতে শিখছি	১	২	৩	৪
8.২৫ কি পদক্ষেপ নিতে হবে তা নিয়ে আমি দৃঢ়-চিন্তে চিন্তা করছি	১	২	৩	৪
8.২৬ যা কিছু ঘটেছে তার জন্য আমি নিজেকে দোষারোপ করছি	১	২	৩	৪
8.২৭ আমি প্রার্থনা করছি বা ধ্যান করছি	১	২	৩	৪
8.২৮ আমি এই পরিস্থিতি নিয়ে মজা করছি।	১	২	৩	৪
সম্পূর্ণ ফলাফল:				

Permission letter

April 25, 2022

Incharge of Sports and Recreation Department,
Centre for the Rehabilitation of the Paralysed (CRP)
Chapain, Savar, Dhaka-1343.

Through: Head, Department of Physiotherapy, BHPI

Subject: Seeking permission for data collection of 4th year Physiotherapy Research Project.

Sir,

With due respect and humble submission to state that I am Masum Billah, a student of 4th year B.Sc. in Physiotherapy at Bangladesh Health Professions Institute (BHPI). In 4th year course curriculum, I have to conduct a research project. The ethical committee has approved my research project entitled on "Psychological status of physically challenged sportspersons during COVID-19 at a selected rehabilitation center in Bangladesh" under the supervision of Muhammad Millat Hossain, Assistant Professor, Dept. of Rehabilitation Science. Member Secretary, Institutional Review Board (IRB), BHPI, CRP. I would like to collect data, for which I need your kind approval. I assure that anything of my study will not be harmful for my participants. 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

MASUM BILLAH

Masum Billah

4th year, B.Sc. in Physiotherapy

Roll: 02, Session: 2016-2017, ID No: 112160323

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343.

recommended & Forwarded
Muazzam Hossain
1136
25/04/2022

Muazzam Hossain
25/04/2022
Muazzam Hossain
Asst. Physiotherapy & Incharge
of the Institutional Review Board (IRB) Unit
Sports Department
Chapain, Savar, Dhaka-1343

Recommended
Shofiq
25.04.22
Md. Shofiqul Islam
Associate Professor & Head
Department of Physiotherapy
Bangladesh Health Professions Institute (BHPI)
CRP, Chapain, Savar, Dhaka-1343

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 Masum Billah, 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 Paralyzed (CRP) under the Faculty of Medicine, University of Dhaka. As per the course curriculum, I have to conduct a research project entitled “**Psychological status of physically challenged sportspersons during COVID-19 at a selected rehabilitation center in Bangladesh**” under the supervision of Muhammad Millat Hossain, Assistant Professor, Dept. of Rehabilitation Science. Member Secretary, Institutional Review Board (IRB), BHPI, CRP.

The purpose of the study is to identify the psychological status of physically challenged sportspersons and their coping strategies during COVID-19 in Bangladesh. The study involves face-to-face and by over phone interview by using questionnaire to explore. This study will review the actual impact related to COVID-19 in the disabled sportspersons in Bangladesh that may take 10 to 15 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.

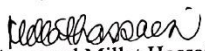
Sincerely,

MASUM BILLAH
Masum Billah
Final Year B.Sc. in Physiotherapy
Session: 2016 – 2017,
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Thesis presentation date: 12th October 2021


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

Recommendation from the Supervisor


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



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

Ref: CRP/BHPI/IRB/04/2022/593

Date: 13th April 2022

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

Subject: Approval of the research project proposal “Psychological status of physically challenged sportspersons during COVID-19 at a selected rehabilitation center in Bangladesh” by ethics committee.

Dear Masum Billah,
Congratulations.

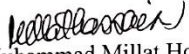
The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above-mentioned dissertation, with yourself, as the Principal Investigator. The following documents have been reviewed and approved:

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

The purpose of the study is to identify the psychological status of physically challenged sportspersons and their coping strategies during COVID-19 in Bangladesh. Since the study involves questionnaire that takes maximum 10-15 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