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Research Article

# EFFECT ON MENTAL AND PHYSICAL HEALTH OF UNIVERSITY QUARANTINED STUDENTS DUE TO COVID-19 PANDEMIC

Dr Hira Qadir, Dr Amna Noor, Dr Attiqa Tabassum, Dr Rubina Zulfiqar  
School of Rehabilitation Sciences, The University of Faisalabad

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**Abstract:**

**Background:** University students are frequently recognizing as to have entitlement spot in society and more prone to illness and incapacity. There is multiple researches that large group of population experienced health issues which further affect their mental health and wellbeing with learning behaviours. **Aim:** This study will examine the physical and mental health issues in The University of Faisalabad students and their perception of burst to available health system in this crucial time period of pandemic COVID-19.

**Methods:** Cross-sectional study design conducted for this project that is based on Holistic Health Score Sheet internationally recognized as content validity tool. Data collected through online generated form and sent to students of The University of Faisalabad randomly in which sample size was based on average value of multiple researches but we received response rate that were 75% in which 5% comes in category of exclusion criteria while others included in this study. Data was analysed using descriptive statistics through SPSS 25. **Results:** The mean age of participants was 21.61 (SD 1.905). 66.86% students comes in category of normal BMI. In holistic health scoring optimal grading is the best but no one comes in this category in physical health point but 5 student out of 350 comes in it in mental scoring. Thriving represent 1 student in physical and 22 in mental. Striving state include 19 students in physical but 66 in mental. After that nourishing state approached showing 73 out of 350 in physical and 108 in mental. In physical maintaining students were 119 and in mental 98 students and second last point is sustaining showing 91 in physical and 33 in mental. At the last surviving state is the modest in category and explained 47 in physical but 18 students in mental state. Mostly students report physical health issues and lie in lower category but student shows better mental health according to holistic health scoring. Except these two main points, students report multiple issues included mood swings and anxiety (66.0%) headache and frustration (57.43%) with relationship problems (29.14%).

**Conclusion:** This project build-up the limited compositions of physical and mental health problems as well as there was a barrier in connecting with students. It provides ix beneficial baseline data for the evolution of individualised support at The University of Faisalabad. Future researches with large sample size and extensive data those meet criteria of multiple health issues are recommended to further understanding of student's health issues.

**Key words:** COVID-19, Quarantine, Physical Health, Mental Health, University students

**Corresponding author:**

**Dr. Hira Qadir,**

School of Rehabilitation Sciences, The University of Faisalabad

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**INTRODUCTION:**

In the last of year 2019, a case come out of impenetrable pneumonia at December 12 in China, Wuhan city and then burst of virus happen by confirmed positive cases of 9720 patients and 213 deaths.

Couple of days later, findings explain the reason behind this unexplainable pneumonia and shows it's a novel corona virus (**He et al., 2020**).

China Centre for Disease Control (CCDC) use term Novel Corona-Virus Pneumonia (NCP) for this new disease. After that Chinese analysts name it as 2019-nCoV. This virus mainly interfere the respiratory system of humans that's why the International Committee on Taxonomy of Virus call out the novel corona virus as Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2). On February 11, 2020 the World Health Organization (WHO) named this unhealthy Pneumonia disease as Corona Virus disease-19 (COVID-19) (**Waris et al., 2020**).

After China, Italy strike firstly in Europe and it became pandemic by World Health Organization due to approximately confirmed cases of at least 200,000 patients and when mortality rate exceed 8000 among 160 countries. This contagious virus outspread rapidly all over the world, after 2 weeks of 1st case 1000 new cases tested positive and increasingly to 30,000 patients and 2500 deaths at date of 18-03-2020. Most challenging disturbance take place in healthcare system of Italy, Lombardy city and then governments enforce strict lockdown strategy all over the world. Iran experienced higher number of death rates after Italy. In Pakistan first case of COVID19 confirmed by Health Ministry of Pakistan government on 26 February, 2020 in Karachi and on the same day in Islamabad, Federal Ministry of health confirmed first case. In 15 days, positive cases became 20 out of suspected 471 and mostly affect the area of Sindh along with Gilgit Baltistan and that all came from China, Iran and United Kingdom. Now case increasing rapidly and situation get worse. This contagious virus cause threatening situation all over the world (**Waris et al., 2020**).

The quarantine or being isolated from populous areas implementation strategy crop up all over the world for control of this contagious disease including self-physical home restrictions, say no to crowded areas and social and public gatherings, travelling restrictions and government enforce medium term lock down at

markets, institutions and in business areas. Approximately, more than 3.9 billion people quarantined at their places in this crucial outbreak (**Meo et al., 2020**).

Quarantine and isolation are two different perspectives in which quarantine implement on those who have been exposed to contagious disease and can acquire infection but isolation criteria implement on those who have infectious/contagious disease. Being quarantined is too much difficult for whole world and thus it affects the socio-economic status of people and also the main cause of frustration, anxiety, boredom, loss of physical activity and weight gain due to unhealthy diet and prolonged fatalistic effects on systems of body especially cardiovascular system (**Mattioli et al., 2020**).

Physical health basically related to body movements that come about with skeletal muscles contractions and secondly linked with metabolic fitness having the ability to withstand environmental stress and immensely challenges on the body. It should be crystal clear both at rest and in exertion stage. Mental health didn't means there is only absence of cerebral ailment there should be complete perception about oneself and surrounding realistic environment is far more than able to enjoy natural word and have belief on own creativity, imaginations and capabilities to full extent in taking risks, asking questions and admiring different point of views with optimistic perceptions. For complete wellbeing there should be dynamic and inventive intellectual pursuits (Thompson, 2015).

Tension, pressure, stress or anxiety not only affects mental health but also shows great impact on physical health of person. It influenced body's internal system reaction cause change in mood, decrease self-confidence level and impaired sense of wellbeing. Primarily it does not shows any negative effects on health but later on main cause of deleterious effects. It can also impair person's emotional health and impair to understand others feeling and having problem in conveying their own feelings, after that shows effects on sleep pattern, food digestion and unable to maintain positive mood swings and comparatively all these effect student academic career. (Maajida M. A. et al., 2018).

Under-graduate university students occupy a large number of young adults as they comprise age between 18-24 years and afterwards future of nation depends on them. Different analysts explains that their optimal health is not important because of their societal prospective impact but also by reason of many bad

habits develop in this time period like as smoking, alcohol usage and unhealthy sexual activities. According to American College Health Association (ACHA) survey 60.2% feels excellent health, 31.9% measured as good health students. Mostly problems experienced by these students are backache, sore throat, allergic issues and sinusitis. These problems impacted their academic career along with cause of sleep disturbance, upper respiratory tract infections and stress. (Hussain R. et al., 2013).

## MATERIALS AND METHODOLOGY:

### Introduction:

This survey project was designed to notify the prevalence of physical and mental Health problems in University students without any specified impairments.

Result obtained through holistic health score sheet with added screening questions. Consent form is properly guided to the students.

### Study Type:

Cross Sectional study was used to conduct this study. This survey derived for Covid19 pandemic and completed through online questionnaire form with ethical consideration for students.

### Study Setting:

Data collection was taken from 3 campuses of The University of Faisalabad, Amin Campus, Saleem Campus and Lahore Campus.

### Duration of Study:

4 month duration of study in which data was collected, analysed, interpreted and its conclusion was drawn.

### Study Population:

This study was conducted among undergraduate students both male and female from all campuses of the University of Faisalabad.

**Sample size** :350 students were included in this study. Based on different relevant researches, average sample size was 500 but we received response 75 % that is 375 but added subjects were 350 those fulfill inclusion criteria of this project.

### Sampling Technique:

Simple Random Sampling was used  
Screening of study Population  
Population was properly screen out through the screening form that was based on Inclusion and Exclusion Criteria.

### Inclusion Criteria:

- Age from 18 – 28 years old
- University students
- Gender both male and female
- Mental issues like headache, frustration, negative thoughts, loss of self-confidence, anxiety, anger, irritability and restlessness along with relationship problems with friends and family.
- Physical health problems include fatigue, weight gain, body pains mild to moderate,

### Exclusion Criteria:

- Persons affected with corona virus
- Severe mental problem like depression
- Physical impairment such as injury
- Diseased patients
- Alcohol users and drug abusers

**Enrollment:** Students were enrolled properly in this study after screen out.

**Parameter** Evaluation of physical and mental health in university students including sleep level, activity level, body mass index, level of strength, balanced diet criteria, water intake, bowel and bladder movements, better mind-body level, specific goals in life, expression of feelings and self-regard.

**Outcomes Measures:** “Holistic Health Score Sheet” was outcome measure which further evaluate the physical and mental health status of students.

### Data Collection Procedure:

Through generated link online questionnaire form was sent to the students of The University of Faisalabad randomly. Also guide students completely about form and explain how to fill it along with consent form.

### Data Collection Tool:

**Data collection tool** is “Holistic Health Score Sheet” with content validity was data collection tool which is taken from Prevention Practice and Health Promotion book.

### Statistical Analysis:

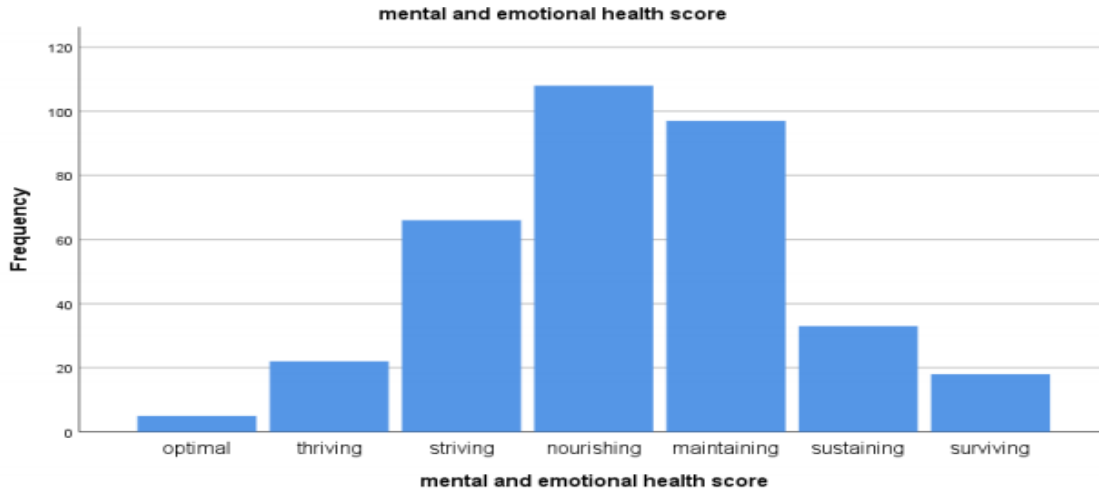
For descriptive statistical analysis we used latest SPSS 25.

### Difficulties:

- Experienced lack of cooperation by the students.
- Internet services problems.
- Difficulty in contacting students.

**Ethical Consideration:**

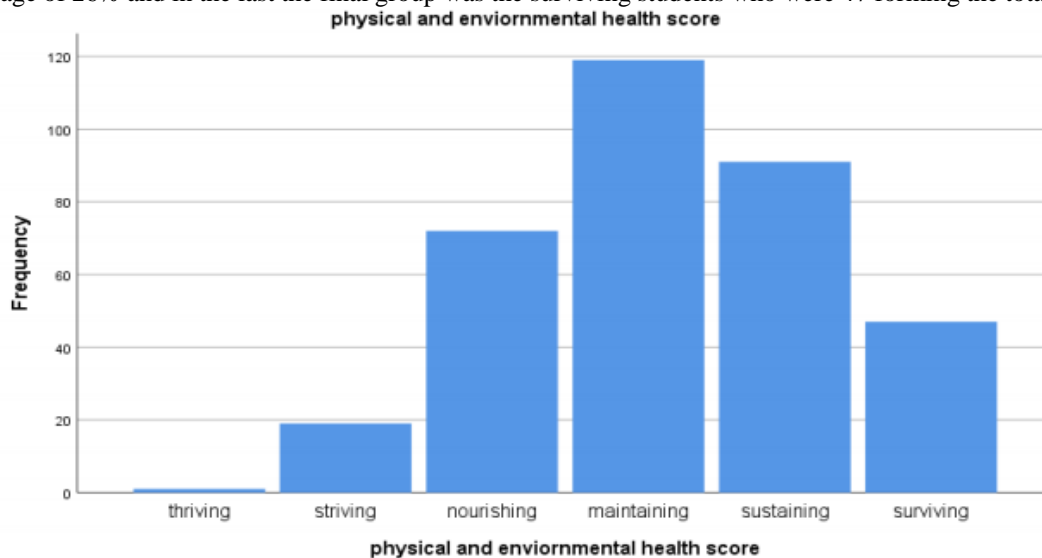
For data collection proper guideline was provide to the students with consent form and approached them during their free time.

**MENTAL HEALTH SCORE:**

Mental health and emotional health score card were devised around Basic 7 group to look in to the effect on student in the above situation the finding suggested that out of 350 students 5 students were optimal (1.4%), 22 students were thriving (6.3%), 66 students were striving (18.9%), 108 students were nursing (30.09%), 98 students were maintaining (28%), 33 students were sustaining (9.4%) and 18 students were surviving (5.1%).

**TOTAL PHYSICAL HEALTH SCORE:**

The above physical and environment health score card has been categorized into six groups for the total population of 350 students, the first group represents the thriving students which is only 1 student that is 0.3% percent, 2nd group represents striving students which were 19 that represented 5.4% of the entire population, 3rd group represented nourishing students that were 73 in total that represented 20.9%, 4th group represented the maintain students that were 119 students making it 34%, the 5th group represented the sustaining students who were 91 in total having the percentage of 26% and in the last the final group was the surviving students who were 47 forming the total of 13.4 %.



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**DISCUSSION:**

The appearance of this study are in accordance with comparative results of researches for university student health status. According to that intra university students experienced multiple physical health issues along with 40% students and 8% student shows psychological distress like depression and anxiety. A lot of students experienced body fatigue due to challenging work of the university (Hussain R. et al., 2013).

It is generally recognized as students especially in university faces mental health issues than overall population. Some studies explained those problems student faced during their early life may become enduring for complete life span.

If concerned gender, females are more prone to mental dysfunctional issues. Furthermore, male population are more prone to lack of self-management (Sadia S. et al., 2013).

**STRENGTH OF STUDY**

The aim of this research was to look in to the factors and related domains to study the impact of the Covid-19 on the students in respect of physical, mental, psychological and day to day routines during the quarantine duration. This study has focused on many aspects of the student life and each aspect was reviewed in depth before abstracting any conclusion to ensure that the finding of this research reassembles the actual circumstances. The results of this finding were somehow anticipated and some were totally unexpected. The study was a bit different as compared to the studies that were already conducted around the world by the educational institutions and doctors on this subject matter. The reason of this different from other researches is because of the demography of the educational structure of our country which is very different as compared to the other countries. This research has highlighted some of the aspects that usually developing country educational system faces and is quiet hopeful that the same can be helpful to conduct further studies

**CONCLUSION:**

Survey on physical and mental health of students in COVID-19 period shows  
Somehow different results as compared to normal world routine zone. 57.43%  
population suffer from headache and frustration along with 29.14 % relationship problems and 66.0 % mood swings and anxiety. Near to half i.e. 46.86 % students suffer from sleep issues and only 3.14 % smoke.

When discussing about physical health with mental health almost, no student lie in category of optimal level in physical health but in mental 1.4% lie in this. While in Thriving state 0.3% and 6.3%, Striving condition 5.4% and 18.9%, 20.9 and 30.9 comes in nourishing, maintaining group involve 34.0% and 28.0% and sustaining life 26.0% and 9.4% and at the end surviving health 13.4% and 5.1% respectively  
According to Physical and Mental Health state. Conclusion is physical health affected more in COVID-19 pandemic period as compared to mental health.

**RECOMMENDATIONS:**

Further researches with large sample size and easily access to patients must be conducted with inclusion criteria of multiple institutes and different researches along  
with variant age groups and should focus on multiple aspects of health is required for better restoration.

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