Original Research Article

A study to assess the level of stress among nursing students of IUST during COVID-19 pandemic

Asmat Parveen[1], Javaid Ahmad Mir[2],*, Suheel Rashid Wani[1], Tayyibah Nisar[1], Sakeena Majeed[1], Wahida Kausar[1], Basit Ul Islam[1]

[1]Dept. of Nursing Education, College of Nursing Education, SMMCN & MT, Islamic University of Science & Technology, Awantipora, Jammu and Kashmir, India
[2]Dept. of Nursing Education, Govt. Nursing College, Government Medical College and Hospital, Baramulla, Jammu and Kashmir, India

A R T I C L E   I N F O

A B S T R A C T

Introduction: Stress is a universal phenomenon to which every individual is exposed WHO declared Covid-19 a pandemic on March 11, 2020 which leads to stress anxiety burnout and need for sick leave which would harm the capacity of health care systems to provide services during crisis.

Materials and Methods: Research approach in this study, quantitative research approach was found to be appropriate to assess 60 students from nursing college of IUST random sampling technique was used for selecting the sample pandemic related perceived stress scale was used for data collection.

Research Design: The research design selected for this study was Descriptive Survey Design the current study was about to assess the level of stress among nursing students during Covid -19 pandemic. Hence, as per the nature of the research problem descriptive design was selected.

Results: The responses of the subjects to the standard tool revealed that most of the nursing students had moderate stress 75% (45) followed by high stress with 16.7% (10) and mild stress with 8.3% (5). The mean low stress was 1.40 (SD = .548, percentage = 8.3%), mean moderate stress 1.57 (SD = .503, percentage = 75%) and mean high stress was 1.57 (SD = .500, percentage = 16.7%).

1. Introduction

Covid-19 is defined as a mild to severe respiratory illness that is caused by corona virus (severe respiratory syndrome coronavirus-2 of genus beta corona virus) is transmitted chiefly by contact with infectious droplets or surfaces contaminated by the causative virus and is characterized especially by fever, cough, and shortness of breath and may progress to pneumonia and respiratory failure.[1,2]

Corona virus disease 2019 (COVID-19) is defined as illness caused by a novel corona virus now called as severe acute respiratory syndrome corona virus 2 (SARS-COV-2 formerly called as n-COV) was first identified amid an outbreak of respiratory illness cases in Wuhan city Hubei province,China. It was initially reported to WHO on December 31, 2019. On march 11, 2020, WHO declared COVID 19 a global pandemic.[3,4] Presentation of COVID-19 range from asymptomatic/mild symptom to severe illness and mortality, after exposure to the virus symptoms may begin from 2 days to 2 weeks. The mean incubation period has been found to be 5.1 days and 97.5% of individual who developed symptoms did so within 11.5 days of infection, after collective analysis of 181 confirmed cases of COVID-19 outside Wuhan.[3]

* Corresponding author.
  E-mail address: mirjavaidahmad77@gmail.com (J. A. Mir).

1.1. Stress

It is defined as any type of change that causes physical, emotional or psychological strain. It is body's response to anything that requires attention or action. Every one experiences stress to some degree. Stress triggers the body's response to a perceived threat or danger known as the fight or flight response. During this reaction certain hormones like adrenaline and cortisol are released.[5,6]

1.2. Covid 19 and stress

Stress can be explained as a feeling of emotional and physical tension which arises from any event that threatens our homeostasis (Selye 1956). In terms of COVID-19 pandemic people tend to experience fear of getting infected with virus resulting in stress. It appears that in India, the present lockdown affects people differently with regard to their sex, profession, socio economic status or residing place etc. For instance, person who is with his family with all necessities may not b distressed as someone who does not have. Students all over the world are also experiencing distress because of uncertainty in exams, availability of jobs etc. Inspite of teachers trying their best to teach students online, the impact of such teaching is not optimum.[7]

The COVID-19 pandemic has had a major effect on our lives. Every person facing challenges that can be stressful, overwhelming and cause strong emotions in adults and children.[8] The hygienic and health actions, such as social distancing, are necessary to reduce the spread of COVID-19, But they can make us feel Isolated and lonely and can increase stress and anxiety. Learning to cope with stress in a healthy way will make you, the people you care about, and those around you become stronger. Stress can cause the following:[9,10]

1. Feeling of fear, anger and sadness.
2. Anorexia, loss of energy.
3. Confusion.
4. Insomnia, nightmares.

2. Literature Review

Review literature is the key component of research study. It is also very important step of the research process. Literature review lays a systematic foundation for research study.[11,12] The related literature review for the present study has been organized under following sections:

1. *Section A*: Review literature related to stress.
2. *Section B:* Review literature related to COVID-19.
3. *Section C*: Review literature related to stress due to COVID-19.

2.1. Section A: Review literature related to stress

Bushra M, Javid Ah., Onaisa Aalia (2021)[13] conducted the study on stress level among nursing students. The findings of the study revealed that out of total of 40 students, 15 (37.5%) were having high perceived stress, 25 (62.5%) were having moderate stress and none of them had low stress.

MamtaNebhinani, Ashok kumar (2020)[14] conducted a descriptive study to assess the stress and coping strategies among under graduate nursing students of western Rajasthan. A total of 222 under graduate students were selected by purposive sampling technique. To assess the level of stress standardized student Nurse stress index was used. About 82.4% reported moderate level of stress, 12.6% had mild stress and 5% had low stress. The main source of stress was found to be interface worries and academic load.

2.2. Section B: Review literature related to Covid-19

U Rabbani, Al siagul (2019)[15] conducted a cross-sectional survey on knowledge attitude and practices of health care workers about corona virus disease 2019 in Saudi Arabia. A total of 398 participants were taken as sample by using convenience and snowball sampling technique the tool used for the data collection was online structured questionnaire. The results revealed that 97.5 had knowledge that close contact with the infected person increases the risk of getting infected, also 63% were aware that antibiotics had no role in treating COVID-19 disease and 32% thought that surgical mask was not suitable to control the spread of COVID-19.

TS Yimer G Belay (2021)[16] conducted a cross-sectional study on knowledge and practice of health care providers towards proper face mask utilization to minimize the extent of COVID-19 infection in Amhara regional hospitals, Ethiopia. The sample size taken was 422 by using single population proportion formula. The results revealed that out of the total sample taken 65.8% were well-versed in using face mask, 67.3% knew the proper technique of wearing masks, and also they revealed that 96 had the knowledge that wearing the face mask properly prevents the spread of COVID-19.

In an another, pre-experimental study, security officers were given training on knowledge to prevent Covid-19 infection was found significantly effective.[17]

2.3. Section C: Review literature related to stress due to Covid-19

Deepika, Dapple et al (2020)[18] conducted a cross sectional study on nursing students to assess the perceived stress and coping strategies in the selected colleges of Pune during COVID-19 pandemic lockdown. The study in was conducted on 427 nursing students by using questionnaire. The findings of the study were that the mean perceived stress score among the participants 21.88 (±4.30) and the

mean coping strategies was 74.38 (±12.30). They found that 13.35% of the participants were having high perceived stress and 82.67 had moderate stress.

3. Research Methodology

3.1. Research approach

According to the nature of research problem under study and to achieve our objectives the approach selected for the present study was quantitative approach.

3.2. Research design

The current study was about to assess the level of stress among nursing students during Covid -19 pandemic. Hence, as per the nature of the research problem descriptive design was selected.

3.3. Research setting

The study was conducted in Syed Mantaqui Memorial College of Nursing and Medical technology where target population was found. The setting was selected as per feasibility and availability of sample.

3.4. Target population

100 Students of SMMCN and MT Awantipora Demographic variables Age, gender, residence, type of family, income.

3.5. Sample

Students of SMMCN and MT who fulfilled the criteria.

3.5.1. Sample size
Total of 60 students of SMMCNMT Awantipora.

3.6. Sampling technique

The sampling technique adapted for the selection of sample was random sampling technique.

3.7. Sampling criteria

3.7.1. Inclusion criteria
BSc. Nursing students who were willing to participate.

3.7.2. Exclusion criteria
Students who were willing to participate Nursing students who were not available at the time of data collection.

3.8. Setting

Study will be conducted in SMMCN and MT.

3.9. Selection and development of tool

3.9.1. Selection of tool
Tool was prepared on the basis of objectives of the study. A standard perceived stress scale was selected to assess the level of stress due to Covid -19 among the B.Sc. nursing students in SMMCN & MT Awantipora. It was considered to be the most appropriate instrument to elicit the response from subjects.

3.9.2. Development of tool
We have used "Pandemic related stress scale of Covid-19 to assess the level of stress among the B.Sc. Nursing due to Covid-19.

3.10. Data collection method

Before collecting data permission was taken from the Principal of Syed Mantaqui Memorial College of Nursing and Medical technology. The process was made easy by introducing the investigator to the students and explaining to them the purpose of data collection and ensuring confidentiality. The students were conducted according to the convenience of students.
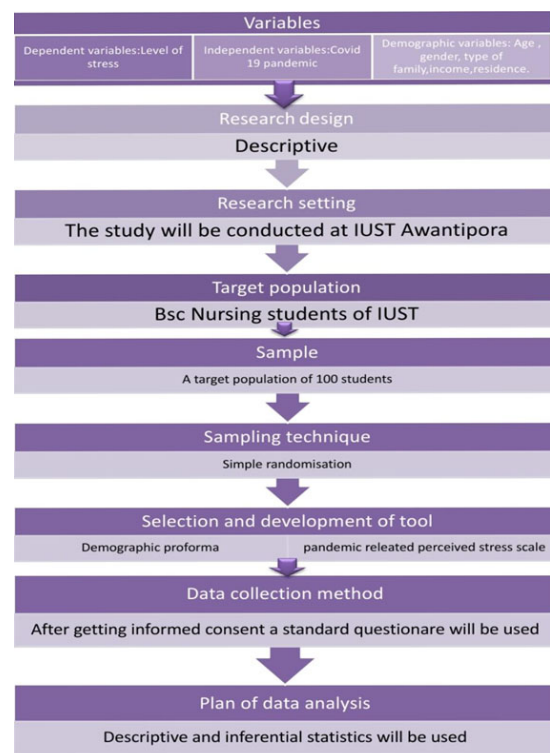

Fig. 1: Schematic representation of research methodology

3.11. Findings

The responses of the subjects to the standard tool revealed that most of the nursing students had moderate stress 75%

Table 1: Analysis

Level of Stress	N	Percentage
Low Stress	5	8.3%
Moderate Stress	45	75%
High Stress	10	16.7%
Total	60	100.0%

Table shows the levels of stress among the nursing students. The majority 75% (45) of study subject has moderate stress level while 16.7% (10) of study subject has high stress level and 8.3% (5) of study subject has low stress level.

Table 2: Descriptive statistic of study subjects according to their stress level

Level of Stress	Mean	SD
Low Stress	1.40	.548
Moderate Stress	1.56	.503
High Stress	1.70	.483
Total	1.57	.500

Distribution of study subjects according to their mean score, SD, The mean low stress is 1.40 (SD = .548), mean moderate stress is 1.56 (SD = .503, and mean high stress is 1.57 (SD = .483).

(45) followed by high stress with 16.7% (10) and mild stress with 8.3% (5). The mean low stress was 1.40 (SD = .548, percentage = 8.3%), mean moderate stress 1.57 (SD = .503, percentage = 75%) and mean high stress was 1.57 (SD = .500, percentage = 16.7%). Based on the above results hypothesis H_1 was accepted which stated the there will be significant relationship between COVID-19 pandemic and stress level among nursing students. But the null hypothesis H_{01} was rejected which stated that there is no significant relationship between COVID-19 pandemic and levels of stress among nursing students.

The results were supported by the previous study by Aslan and Pekince on nursing students view on COVID-19 pandemic and their perceived stress level in three universities of Turkey where they found that most of the nursing students had moderate stress due to COVID-19 pandemic

4. Conclusion

The present study assessed the level of stress due to COVID-19 pandemic among nursing students. The overall score shows that 75% have moderate stress, 16.7 have high stress, 8.3 have low stress. There was significant association of demographic variables (type of family, monthly income) with the level of stress indicating that demographic variables have impact on the stress.

5. Source of Funding

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6. Conflict of Interest

The author declares that there is no conflict of interest.

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Author biography

Asmat Parveen, Professor/Principal

Javaid Ahmad Mir, Faculty

Suheel Rashid Wani, Nursing Graduate Student

Tayyibah Nisar, Nursing Graduate Student

Sakeena Majeed, Nursing Graduate Student

Wahida Kausar, Nursing Graduate Student

Basit Ul Islam, Nursing Graduate Student