

The Psychological Impact and Coping Mechanism of Covid-19 on Staff Nurses

Usha Mallick

Coronavirus disease (Covid-19) is an infectious disease caused by a relatively newly discovered coronavirus. The Covid-19 syndrome is caused by SARS CoV2.

Most people infected with the Covid-19 virus experience mild to moderate respiratory illness and temperature and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. The most common symptoms of this viral infection are fever, cold, cough, bone pain and breathing problems, ultimately leading to pneumonia.

The best way to prevent and slow down transmission is to be well informed about the Covid-19 virus, the disease it causes and how it spreads. We all need to protect ourselves and others from infection by often washing hands using an alcohol-based sanitiser and not touching the face.

The Covid-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it is also important to practice respiratory etiquette (for example, by coughing into a flexed elbow). The severity of Covid-19 symptoms is highly variable, ranging from unnoticeable to life-threatening. Severe illness is more likely in elderly Covid-19 patients, as well as those who have underlying medical conditions. Covid-19 transmits when people breathe in air contaminated by droplets and small airborne particles. The risk of breathing these in is highest when people are in close proximity, but they can be inhaled over longer distances, particularly indoors. Transmission can also occur if splashed or sprayed with contaminated fluids, in the eyes, nose or mouth, and, rarely, via contaminated surfaces. People remain contagious for up to 20 days, and can spread the virus even if they do not develop any symptoms. Implementing travel restrictions, lockdowns and quarantines, workplace hazard controls, and business closures can reduce the spread of infection.

The coronavirus outbreak came to light on 31 December 2019 when China informed the World Health Organisation of a cluster of cases of pneu-

monia of an unknown cause in Wuhan City in Hubei Province. Subsequently the disease spread to more provinces in China, and to the rest of the world. The virus has been named SARS-CoV-2 and the disease is now called Covid-19.

Recommended preventive measures include social distancing, wearing face masks in public, ventilation and air-filtering, hand washing, covering one's mouth when sneezing or coughing, disinfecting surfaces, and monitoring and self-isolation for exposed or symptomatic people.

The pandemic resulted in severe global, social and economic disruption, including the largest global recession. It led to widespread supply shortages exacerbated by panic buying, agricultural disruption, and food shortages though there was decreased emissions of pollutants and greenhouse gases. Numerous educational institutions and public areas were partially or fully closed, and many events were cancelled or postponed. The pandemic raised issues of racial and geographic discrimination, health equity, wealth inequality and the balance between public health imperatives and individual rights.

This Covid-19 affected the supply sources and effected the global economy. There were restrictions of travelling from one country to another. During travelling, many cases were identified positive when tested especially in international visits. Healthcare professional face lot of difficulties in maintaining the quality of healthcare these days. Covid-19 rapidly affected our day-to-day life, businesses, disrupted the world trade and movements.

Identification of the disease at an early stage is vital to control the spread of the virus because it very rapidly spreads from person to person. Most of the countries had slowed down their manufacturing of the products. Various industries and sectors were affected by the disease; these include the pharmaceuticals industry, solar power sector, tourism, information & electronics industry. This virus creates significant knock-on effects on the daily life of citizens. Nurses have critical roles and responsibilities during the COVID-19 pandemic. They continue to be at the front line of patient care in hospitals and actively involved with evaluation and monitoring in the community. They have to ensure that all patients acquire personalised, high-quality services irrespective of their infec-

The author is Associate Professor-cum-HOD, Department of Nursing, Aliah University, Kolkata, West Bengal.

tious condition. They will also engage in planning for anticipated Covid-19-related outbreaks, which increase the demand for nursing and healthcare services that might overload systems. Moreover, nurses must maintain effective supply and usage of sanitation materials and personal protective equipment and offer screening information, confinement guidelines, and triage protocols based on the latest guidelines. A global pandemic needs strong nursing staff engagement in clinical management, awareness & knowledge exchange, and public safety.

Impacts of Covid-19 in daily life were extensive with far reaching consequences. These can be divided into various categories. Health care sector faced many challenges like in the diagnosis, quarantine and treatment of suspected or confirmed cases. High burden on the existing medical system with patients of other diseases and health problems got neglected; overload on doctors and other healthcare professionals put them at a high risk. There was overloading of medical shops, requirement for high protection, disruption of medical supply chain, undue stress among the population and social distancing with peers and family members.

Nursing management for patients with Covid-19 infection includes assessment, diagnosis, the development of nursing care plans and goals, interventions, evaluations, and documentation. The psychosocial consequences of the coronavirus pandemic are serious for health professionals including nurses because of a higher level of exposure. Nurses often face huge psychological pressure as a result of workload, long hours, and working in a high-risk environment. The current study explores the social effects of the Covid-19 pandemic, within the workplace and more generally, as perceived by employees working in hospital. The pandemic (virus and related safety measures) could influence an individual's perspectives about other people, desires pertaining to social interaction, workplace rapport, empathy, and communication.

The other issues that nurses faced as frontlines workers are medical risks such as injuries, infection. As a frontline covid warrior nurses have shown their remarkable dedication and contributions to combat the Covid-19 situation.

Symptoms of Covid-19: People with Covid-19 have had a wide range of symptoms from mild symptoms to severe illness. Symptoms may appear 2-14 days after exposure to the virus. People with following symptoms may have Covid-19: Fever or chills; Cough; Shortness of breath or difficulty breathing; Fatigue; Muscle or body aches; Headache; Loss of taste or smell; Sore throat; Congestion or runny nose; Nausea or vomiting; Diarrhoea.

This list does not include all symptoms. Older adults and people who have severe underlying medical conditions like heart or lung disease or diabetes seem to be at higher risk for developing more serious complications from Covid-19 illness.

Numbers at a glance in the world: 317,627,277, confirmed cases, 49,202,783 active cases 5,531,118 confirmed deaths, 262,893,376 recovered cases (www.worldometers.info – 11th January).

Numbers at a glance in India: Total cases 36,317,927; Active cases 1,117,531; Discharged cases 34,715,361; Deaths 485,035 (www.worldometers.info – 11th January).

Numbers at a glance in West Bengal: Corona Update (Live) 22115 new cases in West Bengal today (ABP 12th Jan 22); 17,74,332 people are so far affected in West Bengal by novel coronavirus Covid-19.

Review of Literature

Ardebili et al (2020) had done a qualitative study on Health care providers' experience of working during the Covid-19 pandemic in Iran where he used a thematic analysis approach with semi-structured interviews with 97 health care professionals. Participants included pre-hospital emergency services (EMS), physicians, nurses, pharmacists, laboratory personnel, radiology technicians, hospital managers and managers in the ministry of health who work directly or indirectly with Covid-19 cases. Data analysis highlighted four main themes, namely: 'Working in the pandemic era', 'Changes in personal life and enhanced negative affect', 'Gaining experience, normalisation and adaptation to the pandemic' and 'Mental health considerations' which indicated that mental ill deteriorations unfolded through a stage-wise process as the pandemic unfolded.

Bozdog et al (2021) in their a study on Psychological Resilience of Healthcare Professionals during Covid-19 pandemic found that the Covid-19 pandemic as a public health issue has spread to the rest of the world. Although the wellbeing and emotional resilience of healthcare professionals are key components of continuing healthcare services during the Covid-19 pandemic, healthcare professionals were observed in this period to experience serious psychological problems and to be at risk in terms of mental health. This study showed that in order to raise psychological resilience of healthcare professionals working during the Covid-19 pandemic their quality of sleep, positive emotions and life satisfaction need to be enhanced. Psychological resilience levels of healthcare workers in their later years were found to be higher. Doctors constitute the group with the lowest levels of psychological resilience among healthcare workers. Primary needs such as sleep which

are determinants of quality of life, life satisfaction and psychological resilience should be met.

Li et al (2020) in a study on The Psychological Health Status of Healthcare Workers during the Covid-19 Outbreak in Guangdong, China assessed their psychological health status at the peak of Covid-19 and identified some coping strategies. A cross-sectional survey study was completed by 908/924 HCW (response rate 98.27%) in government-designated hospitals in Guangdong. A quality of life (QoL) scale, the Zung Self-Rating Anxiety Scale (SAS), and the Zung Self-Rating Depression Scale (SDS) were used to evaluate their psychological status. Logistic regression models were used to identify the occupational factors related to anxiety or depression. A total of 221 (24.34%) respondents had varying levels of anxiety, and 299 (32.93%) of them had depression. The mean SAS (42.9) and SDS (47.8) scores of HCW indicated that they were in the normal range for both anxiety and depression. Contact with Covid-19 or suspected cases, worry about suffering from Covid-19, worry about their family, and dismissing during the Covid-19 period were significant work-related contributing factors to the psychological health problems of HCW (all $p < 0.01$).

Labrugae et al (2020) conducted a study on fear of Covid-19, psychological distress, work satisfaction and turnover intention among front line nurses in China. The study examined the relative influence of fear of Covid-19 on nurses' psychological distress, work satisfaction and intent to leave their organisation and profession. Cross sectional research design was used involving 261 frontline nurses in the Philippines. Five standardised scales were used for data collection. Overall, the composite score of the fear of Covid -19 scale was 19.92. Job role and attendance of Covid-19 related training predicted fear of Covid-19. An increased level of fear of Covid-19 was associated with decreased job satisfaction, increased psychological distress, and increased organisational and professional turnover intentions.

Mathur et al (2020) conducted a study on stress-related disorders in health-care workers in Covid-19 pandemic. A nationwide cross-sectional online study using semi-structured pro forma along with the Adjustment Disorder New Module and the Depression, Anxiety, and Stress Scale-21 was conducted among 200 respondents. Of these 174 (87%) were doctors and 26 nursing staff, with a mean age of 42.1 ± 12.2 years; 62 percent were male, and 63 percent were working in the government sector. A significant number of respondents were found to be suffering from acute stress (9.5%), depression (17%), and anxiety (19.5%) which attributed to the negative professional and personal

influence of the ongoing pandemic. HCWs on the front lines of this pandemic are facing compounding stressors and need robust psychiatric help to adequately take care of this need.

Ali et al (2020) conducted a study on psychological impact of the Covid-19 pandemic on healthcare workers at acute hospital settings in Ireland. This study sought to understand the psychological impact of the pandemic among healthcare workers (HCWs) at acute hospital settings in the South-East of Ireland. It was an observational cohort study covering 472 HCWs from two distinct acute hospital settings, A and B. Measures of psychological distress were depression, anxiety, acute and post-traumatic stress disorder (PTSD) as dictated by the Depression, Anxiety and Stress Scale (DASS-21) and Impact of Event Scale-Revised (IES-R). An independent sample t-test and a Mann-Whitney U test was used to determine significance of difference in continuous variables between groups. Categorical variables were assessed for significance with a χ^2 test for independence. The DASS-21 provided independent measures of depression (mean 4.57, IQR 2–7), anxiety (mean 3.87, IQR 1–6) and stress (mean 7.41, IQR 4–10). Positive scores were reflected in 201 workers (42.6%) for depression and 213 (45.1%) for both anxiety and stress. The IES-R measured subjective distress on three subscales: intrusion (mean 1.085, IQR 0.375–1.72), avoidance (mean 1.008, IQR 0.375–1.5) and hyper arousal (mean 1.084, IQR 0.5–1.667). Overall, 195 cases (41.3%) were concerning PTSD. Site B scored significantly higher across all parameters of depression (5.24 vs 4.08, $p < 0.01$), anxiety (4.66 vs 3.3, $p < 0.01$), stress (8.91 vs 6.33, $p < 0.01$) and PTSD (0.058 vs 0.043, $p < 0.01$). Worse outcomes were noted in HCWs with underlying medical ailments.

Tan et al (2020) conducted a study to examine the psychological distress, depression, anxiety, and stress experienced by health care workers in Singapore in the midst of the Covid-19 outbreak, and to compare these between medically and non-medically trained hospital personnel. From 19 February to 13 March 2020, health care workers from 2 major tertiary institutions in Singapore who were caring for patients with Covid-19 were invited to participate with a self-administered questionnaire. In addition to information on demographic characteristics and medical history, the questionnaire included the validated. Depression, Anxiety, and Stress Scales (DASS-21) and the Impact of Events Scale-Revised (IES-R) instrument. Health care workers included “medical” (physicians, nurses) and “non-medical” personnel (allied health professionals, pharmacists, technicians, administrators, clerical staff, and maintenance workers). The primary outcome was the prevalence of depression,

stress, anxiety, and post-traumatic stress disorder (PTSD) among all health care workers. Secondary outcomes were comparison of the prevalence of depression, anxiety, stress, and PTSD, and mean DASS-21 and IES-R scores between medical and non-medical health care workers. The Pearson χ^2 test and student t test was used to compare categorical and continuous outcomes, respectively, between the two groups. Multivariable regression was used to adjust for the a priori defined confounders of age, sex, ethnicity, marital status, presence of comorbid conditions, and survey completion date. Of 500 invited health care workers, 470 (94%) participated in the study. Sixty-eight (14.5%) participants screened positive for anxiety, 42 (8.9%) for depression, 31 (6.6%) for stress, and 36 (7.7%) for clinical concern of PTSD. The prevalence of anxiety was higher among non-medical health care workers than medical personnel (20.7% vs 10.8%; adjusted prevalence ratio, 1.85 (95% CI, 1.15 to 2.99, $p=0.011$), after adjustment for age, sex, ethnicity, marital status, survey completion date, and presence of comorbid conditions. Similarly, higher mean DASS-21 anxiety and stress subscale scores and higher IES-R total and subscale scores were observed in non-medical health care workers.

Que et al (2020) conducted a study on psychological impact of the Covid-19 pandemic on healthcare workers in China. This study aimed to investigate the prevalence of psychological problems in different healthcare workers (i.e. physicians, medical residents, nurses, technicians and public health professionals) during the Covid-19 pandemic in China and explore factors that are associated with the onset of psychological problems in this population during this public health crisis. A cross-sectional, web-based survey was conducted in February 2020 among healthcare workers during the Covid-19 pandemic. Psychological problems were assessed using the Generalised Anxiety Disorder Scale, Patient Health Questionnaire and Insomnia Severity Index. Logistic regression analyses were used to explore the factors that were associated with psychological problems. The prevalence of symptoms of anxiety, depression, insomnia and the overall psychological problems in healthcare workers during the Covid-19 pandemic in China was 46.04 percent, 44.37 percent, 28.75 percent and 56.59 percent, respectively. The prevalence of the overall psychological problems in physicians, medical residents, nurses, technicians and public health professionals was 60.35 percent, 50.82 percent, 62.02 percent, 57.54 percent and 62.40 percent, respectively. Compared with healthcare workers who did not participate in front-line work, front-line healthcare workers had a higher risk of anxiety, insomnia and overall psychological problems. In addition, attention to negative or neutral

information about the pandemic, receiving negative feedback from families and friends who joined front-line work, and unwillingness to join front-line work if given a free choice were three major factors for the psychological problems.

Chatterjee et al (2020) in a cross-sectional study on Stress, Sleep and Psychological Impact in Healthcare Workers during the early phase of Covid-19 outbreak in India investigated mental distress among healthcare workers. 140 healthcare workers of a tertiary care hospital were assessed for perceived stress and insomnia. A factor analysis with principal component method reduced these questions to four components as: insomnia, stress-related anxiety, stress-related irritability, and stress-related hopelessness. Statistical analyses were done on these factor scores to identify the predictors and investigate the differences between the different categories of healthcare workers. Doctors had the highest level of anxiety among the healthcare workers. Both doctors and nurses perceived a greater level of irritability than the other HCWs. Compared to doctors and nurses, other HCWs were more likely to experience insomnia. Lower age, higher education, female gender, and urban habitat were associated with greater perception of anxiety. Older age, being quarantined, and single marital status were the significant predictors of irritability. Female gender, single marital-status, and higher number of medical ailments contributed to perceived hopelessness. Quarantine significantly predicted insomnia.

Nobles et al (2020) conducted a study on the potential impact of Covid-19 on mental health outcomes and the implications for service solutions. The study aimed to assess the prevalence of mental health conditions within the general population and across health care workers and to prevent and address the increased levels of mental health conditions following such outbreaks.

Gap of existing literature: There are various research works on the psychological impacts of Covid-19 on health care workers and many are going on. Many studies have been conducted abroad related to burnout and psychological impact of Covid-19 outbreak on health care workers. But the study on assessment of psychosocial and personal impact of Covid-19 outbreak on staff nurses are very few in India as well as in West Bengal. As a frontline worker, nurses faced many challenges in management of Covid-19 outbreak.

The investigator herself worked a lot with the nurses during Covid-19 pandemic. So, she felt the need for a study to assess the psychosocial and personal impact of Covid-19 outbreak on staff nurses. Maharashtra, Gujarat and West Bengal have had the maximum number of Covid-positive

staff nurses in the country and also the highest fatality rate. TNAI, the largest nursing association in the country, released data for the first time since the beginning of the pandemic, indicating that 509 nursing staff were infected and 20 died while providing care to Covid patients.

According to the data, West Bengal reported 111 Covid-positive nurses with three fatalities; Maharashtra had 75 cases with six deaths and Gujarat 96 cases with four deaths. Mizoram, Chhattisgarh, Kerala and Uttar Pradesh had the least recorded Covid case-load among nursing staff with Rajasthan, Telangana, Uttar Pradesh registering the lowest reported fatalities. Based on the above points, psychological impact and coping mechanism of Covid-19 on staff nurses was studied by the investigator.

Objectives

- To assess psychological impact of Covid-19 in anxiety depression, stress; and coping mechanism of the staff nurses.
- To find out the association of (i) psychological impact with demographic variables of the staff nurses; and (ii) coping mechanism with demographic variables of the staff nurses.

The Conceptual Framework

The conceptual model used for this study was based on Betty Neuman system model. It could guide to develop plan, implement and evaluate the study. This model is based on a general system theory and reflects the nature of living organisms as open systems in interaction with each other and with the environment. In the Neuman model, the client may be an individual, a family, a group, a community, or a social entity. Newman theory assumes that “each client system is unique, a composite of factors and characteristics within a given range of responses.”

The human being is a total person, characterised mostly by three variables: physiological, psychological, social. The physiological variable refers to body structure and function. The psychological variable refers to mental processes in interaction with the environment. The socio variable refers to the effects and influences of social condition.

Theoretical framework: Health care workers experience an enormous amount of stress while working in the high demanding conditions of the work environment. The Neuman Systems Model is a theoretical framework that revolves around the structure of stressors, the emotional response to these stressors, and the corresponding interventions. This framework establishes a holistic approach incorporating physiological, psychological, social conditions (Kerime, 2017). With these

factors, the goal is to organise Running head: The Effects of Covid-19 On Health Care Workers with intra-, inter-, and extra-personal stressors. Organising how these stressors affect an individual helps identify and analyse the main source of where the stress may be coming from. Using this model allows the individual to assess what the problem is, how they perceive it. This may help HCWs identify what causes stress in the work environment.

This can also help measure the level of burn-out they are experiencing and determine the specific interventions to decrease their stress. In the present study the triggering factors of staff nurses are broadly classified in two major ways.

Triggering Factors

Changes in personal life and having negative feelings – fundamental changes in life, self-quarantining, fear of dying alone and separated from loved one, fear of transmitting the diseases to family members, feeling of guilt and remorse.

Working in pandemic era (Covid-19) - changes in personal life - work load, inadequate rest and sleep, altered nutrition, shortage of personal protective equipment, difficulty of using PPE, providing futile care, loss of control over situation.

Impact on staff nurses: There are psychological, social and personal impact on staff nurses.

Psychological impact: Anxiety, depression and stress.

Relieving factors: Coping strategies are as follows - family support, positive thinking, meditation, relaxation, support from family, friends and team members, adequate nutrition, adequate rest and sleep, adequate use of PPE, Completion of vaccination

The conceptual framework (Fig 1) illustrates what a researcher expects to find through research. It defines the relevant variables for her study and maps out how they might relate to each other.

The schematic representation of the conceptual frame work based on Betty Neuman system model is presented in Figure 2.

Operational Definition:

Impact: Have a strong effect on someone.

Sources of data: Data collected from staff nurses working in selected hospitals in West Bengal.

Population: Staff nurses working in different private and government hospitals having at least one year experience.

Sampling technique: Non-probability convenience sampling.

Sample size: 300 staff nurses working in selected hospital in West Bengal.

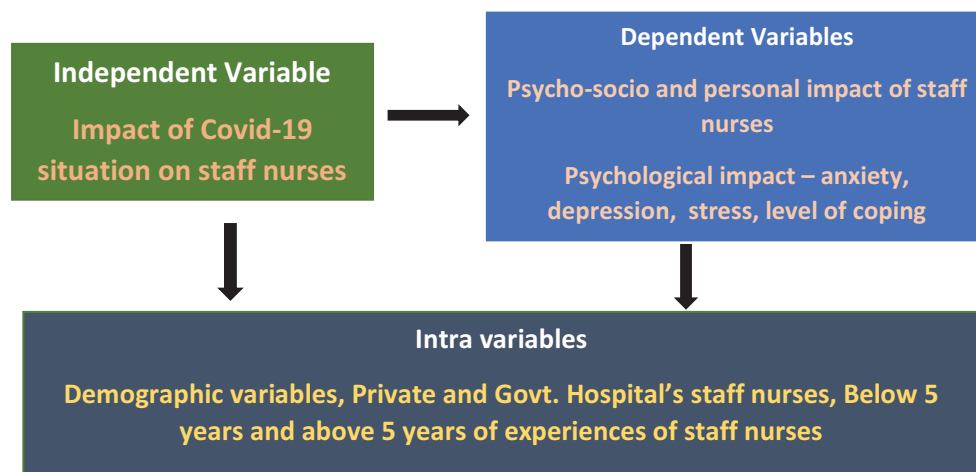


Fig 1: Conceptual framework.

Setting of the study: Study was conducted in different private and govt hospitals in Kolkata.

Ethical permission: Obtained from the competent authority.

Pilot study: Done with 50 samples.

Time period of the study: From august 2020 to February 2022.

Criteria for selection of sample

Inclusion criteria

Staff nurses working in selected hospital in West Bengal, present at the time of data collection, willing to participate in the study, and having at least one year of working experience.

Exclusion criteria

Student nurses, teaching staff, senior nursing administrators were excluded in the study; staff nurses who were very sick, unable to take part in the study during the time of data collection.

Tools for data collection

Section 1: Demographic proforma which will be assessing the demographic variables of the staff nurses such as age, gender, degree, years of experience, marital status, place of residence, place of work.

Section 2: A. A standardised tool (DASS 21 Scale) was used to measure the depression, anxiety and stress level of the staff nurse due to Covid-19. DASS 21 Scale is depression, anxiety and stress scale. It was developed by Lovibond and Lovibond in 1995.

Section 2: B. Brief cope scale will be used for measuring coping of the staff nurses. CS Carver invented this scale in 1997.

Content validity of the tool was obtained in consultation with guide and experts in the field of community medicine, community health nursing,

psychiatry, psychiatric nursing, medical surgical nursing, educational and biostatistics.

Reliability of the tool was established by split -half and test-retest method, inter rater reliability test and by Cronbach alpha. The tool was accepted after try out and reliability score ranged between to 0.75 to 0.95.

Data collection procedure: After taking the approval from the competent authority, investigator discussed about the aim of the study.

Investigator had taken the consent from the staff nurses. Three tools were introduced to the staff nurses. Total 15 minutes time was given for the same.

Discussion

This descriptive study was conducted to explore the front line nurses' perceptions about the psychological impacts of treating hospitalised people with Covid-19.

The main psychological impacts of caring for people with Covid-19 perceived by nurses working on the front line were fear, anxiety, stress, social isolation, depressive symptoms, uncertainty, and frustration. The fear of infecting family members or being infected was the main repercussion perceived by the nurses. A different study revealed the sleep disorder of the nurses happened due to pandemic. In a recent systematic review and meta-analysis of 53 studies involving 38,189 nurses Ali et al (2020) found the prevalence of stress, anxiety, depression and sleep disturbance to be 38.9, 37, 37.2 and 38.2 percent, respectively, during the Covid-19 outbreak.

Hart R in 2021 conducted a study on high numbers of Covid patients report Impact on Mental Health, In a review of 215 studies exploring the ways Covid-19 affects the brain and mental health, the researchers found very high numbers of patients reporting symptoms of mental health issues like depression (23%) and anxiety (16%). Neurological symptoms were also commonplace, with the most frequently reported symptoms being a loss of smell (43%), weakness (40%), fatigue (38%), loss of taste (37%), muscle pain (25%) and headache (21%). Some serious neurological issues were also linked with Covid-19 infection, including ischaemic stroke (1.9%), haemorrhagic stroke (0.4%) and seizure (0.06%), which the researchers noted could lead to a "substantial increase in the burden of disease"

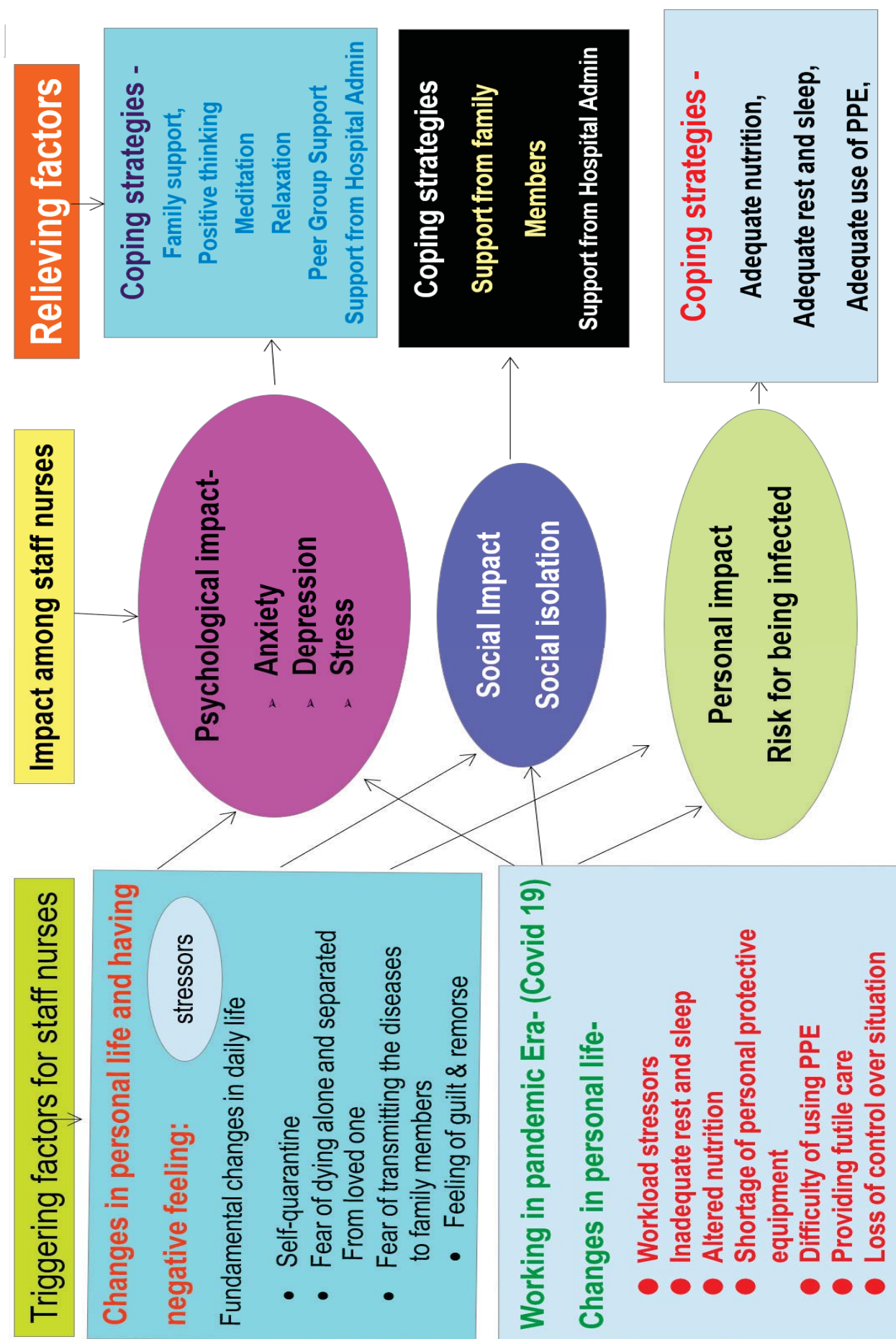


Fig 2: Application of Betty Newman theory model on psycho socio and personal impact of covid- 19 on staff nurses.

Kafle K. et al in 2021 conducted a study on psychological distress among health service providers during Covid-19 pandemic in Nepal. This online survey attempted to assess the psychological impact of Covid-19 and its associated variables among healthcare workers in Nepal. For data collection purposes, Covid-19 Peritraumatic Distress Index (CPDI) Questionnaire was used whose content validity was verified by Shanghai mental health cent.

Data for the survey were collected from 11 to 24 October 2020 which was extracted to Microsoft Excel-13 and analysed. A total of 254 health care workers from different provinces of the country participated in this study with a mean age of 26.01 ($\pm$ 4.46) years. A majority 46.9 percent (n=119) of the participants were not distressed (score $\leq$ 28) while 46.5 percent (n=118) were mild to moderately distressed (score $>$ 28 to $\leq$ 51) and 6.7 percent (n=17) were severely distressed (score $\geq$ 52) due to the Covid-19 pandemic. Female participants (p=0.004) and participants who were doctors by profession (p=0.001) experienced significantly more distress.

Recommendations

- A similar study can be done in rural and urban areas.
- A similar study can be done for other health care team members.
- A study can be done on social and personal impact of Covid-19 on staff nurses.

Conclusion

The results of the study showed the main psychological impacts of caring for people with Covid-19 by the nurses as manifested by the score for depression, anxiety and stress as follows:

Depression score = 14. This is a moderate level.

Anxiety score = 16. This is a severe level.

Stress score = 20. This is a moderate level.

Findings from the Brief Cope scale inventory:

Problem focussed coping - 38 percent

Emotional focused coping - 54 percent

Avoidance coping - 8 percent

1. Ardebili ME, et al. Health care providers experience of working during the COVID -19 pandemic - A qualitative study: *Am J Infect Control* 2021; 49(5): 547-54 <https://doi.org/10.1016/j.ajic.2020.10.001>
2. Bozdogan F, Ergun N. Psychological resilience of healthcare professionals during COVID-19 pandemic, *Psychol* 2021; 124(6): 2567-86. <http://doi.org/10.1177/00332941209654773>.
3. Li Q, Jinglong Chen. The psychological health status of healthcare workers during the covid-19 outbreak: A cross-sectional survey study in Guangdong, China, *Frontiers in Public Health*, 18 September 2020. <http://www.frontiersin.org>fpubh.2020.562885>full>
4. Labrague LJ, Janet Alexis. Fear of COVID-19, psychological distress, work satisfaction and turnover intention among frontline nurses. June, 2020, <https://doi.org/10.21203/rs.3.rs-35366/v1>
5. Mathur S, Sharma Divya, Solanki RK, Goyal MK. Stress-related disorders in health care workers in Covid-19 pandemic – A cross sectional study from India. *Indian Journal of Medical Specialties* 2020; 11(4): 180-84. <http://www.ijms.in/text.asp?2020/11/4/180/302078>
6. Ali S, Maquire S, Marks E, et al. Psychological impact of the COVID-19 pandemic on healthcare workers at acute hospital settings in the South-East of Ireland: An observational cohort multicentre study, *BMJ Open* 2020; 10 (12): eo42930. <http://dx.doi.org/10.1136/bmjopen-2020-042930>
7. Tan BYQ, Chew NWS, Lee GKH, et al. Psychological impact of the COVID-19 pandemic on health care workers in Singapore. *Annals of Internal Medicine* 2020; Apr 6:M 20-1083. doi: 10.7326/M20-1083
8. Que J, Shi Le, Deng J, et al. Psychological impact of the COVID-19 pandemic on healthcare workers: A cross-sectional study in China. *General Psychiatry* 2020; 33(3): e100259. >PMC7299004, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7299004>
9. Chatterjee SS, Chakrabarty M, Banerjee D, et al. Stress, sleep and psychological impact in healthcare workers during the early phase of COVID-19 in India: A factor analysis. *Front Psychol* 2021; 12(61): 611314. <https://doi.org/10.3389/fpsyg.2021.611314>
10. Nobles J, Martin F, Dawson S, et al. The potential impact of COVID-19 on mental health outcomes and the implications for service solutions. NIHR, Applied Research Collaboration West, 15 April 2020. <http://arc-w.nihr.ac.uk>covid-response>rapid-reports>

Lodging at TNAI Headquarters Made Easier !

TNAI Hqrs has expanded its capacity to accommodate more of TNAI members visiting Delhi. The TNAI members including students visiting Delhi on official or professional tours can avail the lodging facility, within the TNAI Hqrs premises at reasonable charges. The per day charges are as under:

TNAI Members: Rs. 600/-

SNA Members: Rs. 250/-

Non-Members: Rs. 900/-

Children below 5 yrs: No charges

Children 6-12 yrs: Rs. 150/-

However, due to limited beds, interested members may get the booking done in advance.

Secretary-General, TNAI