

Psychological Impacts of COVID-19 on Nurses at a Tertiary Care Hospital

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Abstract

Introduction: Corona virus disease 2019 (COVID-19) is the newly developed respiratory disease that is caused by a novel Corona virus which was first testified in Wuhan, China in December 2019. The common clinical manifestations of this highly infectious disease, fever, dry cough, tiredness and less common symptoms are aches, pain, sore throat, diarrhea, conjunctivitis, headache, loss of taste or smell, a rash on skin, or discoloration of fingers or toes. The most Serious symptoms which can put the patient in life threatening condition are difficulty breathing or shortness of breath, chest pain or pressure, loss of speech or movement (WHO, 2020). The health care workers' adherence to the recommended measures taken to prevent trans mission are inevitable to minimize the increasing number of COVID-19 cases. This can be achieved by enhancing knowledge, positive attitudes, and infection control practices of the frontline workers. **Objective:** To analyze the covid-19 fear and anxiety among health care professionals especially front line nurses who are putting their efforts to serve and save life of public at a tertiary care hospital Lahore. Evaluate the psychological impact of COVID -19 on nurses. Every one suffers a great fear but this pandemic and lack of proper research based articles and increased mortality rate leads to psychological stress among nurses. **Material and method:** This was a cross-sectional quantitative study; Nurses who were directly in contact with infected or suspected COVID-19 patients on the frontline were invited to participate by random sampling method. An international standardized psychological impact questionnaire was used to see the psychological impact of COVID-19 on nurses. Data was collected by the researchers through electronic media. Results: Result from 10 May 2021, a Total of 100 electronic questionnaires were collected, of which 20 questionnaires were excluded because of the uncompleted answer finally 80 valid questionnaires were included in the analysis. All the analysis were conducted using SPSS Descriptive statistic were presented as frequency and constituent ratio mean and standard deviation SD were calculated for quantitative variables such as age, according to the data type. Categorical variables such as gender, marital status education, and family type were expressed as frequencies and percentages. Psychological impact of COVID-19 was coded as dichotomous variables and licked scale according to the evaluation method of the scale. thus the relationship between psychological impact and categorical variable Age, Gender, education level etc, was analysis by Chi-square test, the comparison of psychological impact among nurses the four point Likert scale of worried ness such as "Never" "Sometime" "Often" "Always". Liner regression model were developed to explore the impact association among health care and to estimate the possible, demographic predictors by using unadjusted and adjusted model of Age, Gender, Marital status, education. **Conclusion:** The study result revealed that 88.8% of the frontline nurses experienced psychological distress, evidenced by their score on the GHQ. 68.8% nurse was suffered from insomnia due to excessive stress. 80.0% nurses always feel you under tension due to performing duty on COVID19. only 60.0% nurses were enjoyed their leisure time after their shift. The nurses 52.5% said they understand that they can't solve problems.

Key world: Psychological impact of COVI-19.

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INTRODUCTION

The corona virus could be transmitted by many ways, direct transmission, contact transmission, aerosol transmission and even faecal- oral transmission (Nie,

A., Su, X., Zhang, S., Guan, W., & Li, J. (2020). Covid-19 disease is spreading all over the world. This virus is related to severe respiratory syndrome that has independently emerged from zoonotic virus. The first

case of virus is from Chinese city Wuhan, in late December 2019, which officially declared in 7th January 2020. The number of new cases increasing gradually. Where the corona virus depend upon roots slowly and gradually. The first two confirmed cases of COVID -19 were reported in Pakistan on 26 February 2020, and the total infected cases are 27, 4749 tilld May 2020 (Anser *et al.*, 2020).

More importantly, poor psychological health among nurses might not only be detrimental to individual but also hinder professional performance and, in turn, the quality of nursing patients (Li *et al.*, 2017; Sonoda, Onozuka, &Hagihara, 2018). Nursing for COVID-19 patients was a high-risk work, and any mistake in the process might lead to serious consequences, such as transmission of the novel coronavirus from patients to others in the hospital or disease condition deterioration of the COVID-19patients (Nie *et al.*, 2019).

A large number of nurses and paramedics have suffered from infections and many of them have died during their services patients. One of the major contributions to decrease mortality rate among HCP during this pandemic can be filling the gaps with existing knowledge. WHO is playing role in increasing awareness of HCP regarding prevention and treatment of this disease. The study provides the awareness and practices of HCP regarding covid-19 in Punjab, Pakistan (Minhas *et al.*, 2020).

Transmission. It has an enormous effect on the whole country, but it's powerfully transmission caused many infection among health care worker. The increases in number of covid-19 patients has produce a great challenges to hospital, especially in covid-19 designated hospitals, resulted in severe shortage of medical supplies and medical staff. The shortage of medical supplies increase the risk of COVID -19 viruses among nurses who work in frontline (Emergency department, Intensive care unit, Infection department and other departments receiving covid-19 infected patients) sometime needed work over time. The health of nurses was terrifying by the increase of work load, physical burden and wearing of personal protective equipment's (PPE). For a long time the physical health of nurses has paid more attention, but the psychological health was usually neglected. (Master *et al.* 2020).

The situation regarding these circumstances different policies are introduced by government of Pakistan in response of COVID - 19 situations. In which include social distancing, isolation, handewashing and wearing of mask and gloves. In response of these policies educational institutes public places and offices are closed for certain period of time. The people have advised to stay at home and follow the WHO policies to decrease the spread of COVID- 19.

Owing to rising number of COVID -19 cases in the cities, authorities have decided to impose lock down in several areas of the cities in a bid to contain the virus. Peoples are updated about disease through news channels and internet. The large numbers of individuals affected and die due to COVID – 19 and the poor knowledge may cause fear and anxiety among the peoples. The suspected and confirm out cases of covid-19 suffered from anxiety, Loneliness, depression, insomnia and fear. Suspected patient may suffer from anxiety and conscious about their health and suffering from obsessive compulsive symptom.

Many health care professionals are infected due to COVID -19 because they are giving care to the affected patient and they are most vulnerable group. The study aims to analyze the covid-19 fear and anxiety among heath care professional of Pakistan who are putting their lives to serve and save the public health according to the WHO criteria (Salem *et al.*, 2020). Psychological distress was reported to occur in nurses during the similar crisis, and it exacerbated the shortage of nurses due to mental illness, sick leave or resignation (Nie *et al.*, 2019).

The psychological health status of nurses has been studied in previous studies, but has not been adequately explored among nurses working on the frontline. Therefore, this study aimed to portray the prevalence and the risk factors of psychological distress among nurse working in the frontline during the outbreak of COVID-19. It was expected the results of this study to provide some useful information for making supportive strategies to improve the mental health of nurses in frontline during the epidemic. (Nie *et al.*, 2019).

METHOD

This was a descriptive cross-sectional quantitative study. The study was conducted on registered nurses who were working on COVID-19 at services Hospital Lahore.

This study was conducted in the capital of Punjab province Lahore the second most popular city of Pakistan. Which has so many tertiary care hospitals which are expected to deliver evidence based quality care to patients. This is a hospital based study were conducted at services hospital Lahore in clinical setting. This study was conducted on all the registered nurses working on COVID-19 at services Hospital Lahore.

Nurses who were directly in contact with infected or suspected COVID-19 patients on the frontline were invited to participate by simple Random sampling technique.

Anxiety is considered a future oriented, long-acting response broadly focused on a diffuse threat, whereas fear is an appropriate, present –oriented and short –live response to a clearly identifiable and specific threat – anxious adj.

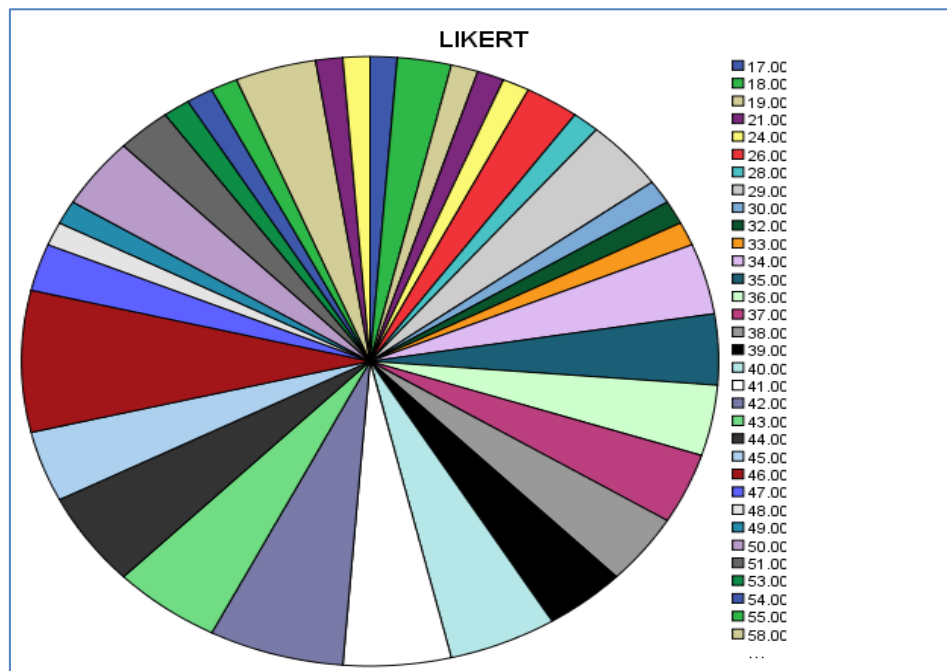
A negative affective state, ranging from unhappiness and discontent to an extreme feeling of sadness, pessimism, and despondency that interferes with daily life. Various physical, cognitive and social changes also tend to co-occur, including altered eating or sleeping, habits, lack of energy or motivation, difficulty concentrating or making decision, and withdrawal from social activities, it is symptomatic of a number of mental health disorders.

RESULTS

The 80 participants (n=49, 61.3%) were female (n=31, 38.8%) were male .And the majority (n=30, 37.5%) were younger than 35 year of age. The common (n=20, 25.0%) were BSc nursing, and the majority

(n=44, 55.0%) were Post RN, and very less (n=4, 5 %) were MSCN.

All the analysis were conducted using SPSS Descriptive statistic were presented as frequency and constituent ratio mean and standard deviation SD were calculated for quantitative variables such as age, according to the data type. Categorical variables such as gender, marital status education, and family type were expressed as frequencies and percentages. Psychological impact of COVID-19 was coded as dichotomous variables and licked scale according to the evaluation method of the scale. Thus the relationship between psychological impact and categorical variable Age, Gender, education level was analysis by Chi-square test, the comparison of psychological impact among nurses the four point Likert scale of worried ness such as “Never” “Sometime” “Often” “Always”. Liner regression model were developed to explore the impact association among health care and to estimate the possible, demographic predictors by using unadjusted and adjusted model of Age, Gender Marital status, education.



DISCUSSION

The study result revealed that 88.8% of the frontline nurses experienced psychological distress, evidenced by their score on the GHQ. 68.8% nurse was suffered from insomnia due to excessive stress. 80.0% nurses always feel you under tension due to performing duty on COVID19. only 60.0% nurses were enjoyed their leisure time after their shift. The nurses 52.5% said they understand that they can't solve problems.

63.7% nurses told they are good decision maker. 77.5% concentrated when doing something in recent scenario. 50.0% nurses lost their confidence in previous hectic days of COVID. 11.3% related to the COVID will trigger the feeling at the time. 10.0% thought everything will be going well in current COVID situation. 87.5% felt worry to attend COVID patients. 22.5% nurses felt nervous and easily frightened. 15.0% have difficulty falling asleep. 41.3% Things that remind me of that matter will cause my body to react, such as: sweating, difficulty breathing, dizziness and heartbeat.

	Responses		Percent of Cases
	N	Percent	
You think you long time exposure in COVID -19 department has psychological impact on you	71	10.6%	88.8%
You suffered from insomnia due to excessive stress related to COVID	55	8.2%	68.8%
You always feel yourself under tension due to COVID	64	9.5%	80.0%
You enjoy your leisure time after your shift	48	7.1%	60.0%
You Feel that you can't solve the problems	42	6.3%	52.5%
You feel that you are a good decision maker	51	7.6%	63.7%
You concentrate when doing something in recent scenario	62	9.2%	77.5%
You lost your confidence in previous hectic days of COVID	40	6.0%	50.0%
Anything related to the COVID will trigger the feeling at the time	9	1.3%	11.3%
You think everything is going well in current COVID situation	8	1.2%	10.0%
You feel worry to attend COVID patients	70	10.4%	87.5%
I feel I am easily irritated and worried	9	1.3%	11.3%
Even when I don't want to think about COVID, I think about it	12	1.8%	15.0%
Whenever thinking of that or things reminds me of it, I will try to avoid upsetting myself	4	0.6%	5.0%
A picture of that incident (Covid-19) will suddenly appear in my mind	10	1.5%	12.5%
I try to stay away from everything that reminds me of it	8	1.2%	10.0%
I feel nervous and easily frightened	18	2.7%	22.5%
I tried not to think about COVID	7	1.0%	8.8%
I feel a little numb about that	9	1.3%	11.3%
It is difficult for me to sleep well until dawn	8	1.2%	10.0%
I have difficulty falling asleep	12	1.8%	15.0%
I find that my behavior and feelings seem to be back to when the incident happened	10	1.5%	12.5%
I want to forget that incidence	4	0.6%	5.0%
I have strong emotional fluctuations due to that incident	8	1.2%	10.0%
Things that remind me of that matter will cause my body to react, such as: sweating, difficulty breathing, dizziness and heartbeat	33	4.9%	41.3%
Total	672	100.0%	840.0%

a. Dichotomy group tabulated at value 1.

GHQ (n=80)	Never			sometime			often			Always		total N (%)
	n	vp	cf	n	%	cf	n	%	cf	n	%	
Anything related to the COVID will trigger the feeling at the time	9	13.3	13.3	37	46.3	57.5	19	23.8	81.3	15	18.8	100.0
Things that remind me of that matter will cause my body to react, such as: sweating, difficulty breathing, dizziness and heartbeat	33	41.3	41.3	30	37.5	78.8	15	18.8	97.5	2	2.5	100.0
I want to forget that incidence	4	5.0	5.0	12	15.5	20.0	43	53.8	98.8	1	1.3	100.0
I have strong emotional fluctuations due to that incident	8	10.0	10.0	24	30.0	40.0	31	38.8	78.8	80	21.3	100.0
I have difficulty falling asleep	122	15.0	15.0	30	37.5	52.5	27	33.8	86.3	11	13.8	100
I find that my behavior and feelings seem to be back to when the incident happened	10	12.5	12.5	35	43.8	56.3	25	31.3	87.5	10	12.5	100
I feel a little numb about that	9	11.3	11.3	27	33.8	45.0	29	36.3	81.3	15	18.8	100
I tried not to think about COVID	7	8.8	8.8	21	26.3	35.0	14	17.5	52.5	38	100	100
I feel nervous and easily frightened	18	22.5	22.5	30	37.5	60	17	21.3	81.3	15	18.8	100
A picture of that incident (Covid-19) will suddenly appear in my mind	10	12.5	12.5	18	22.5	35.0	14	17.5	52.5	38	47.5	100
I try to stay away from everything that reminds me of it	8	10.0	10.0	15	18.8	28.7	35	43.8	56.3	80	100.0	100.
Even when I don't want to think about COVID, I think about it	12	15.0	15.0	27	33.8	48.8	20	25.0	73.8	21	26.3	100
Whenever thinking of that or things reminds me of it, I will try to avoid upsetting myself	4	5.0	5.0	25	31.3	36.3	28	35.0	71.3	23	28.7	100
I feel I am easily irritated and worried	9	11.3	11.3	22	27.5	38.5	22	27.5	66.3	27	33.8	100

CONCLUSION

The study results demonstrated that a significant psychological impact of COVID-19 on frontline nurses services Hospital Lahore. Working on COVID, concern for family, being treated differently, affected by COVID-19 and negative coping style were the risk factors of psychological distress. Perceived more social support and effective precautionary measures were the protective factors of psychological health. Hence, it is important for hospitals and Health care institutions to provide psychosocial support and intervention for the frontline nurses early to avoid further impact of the epidemic.

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