

Psychological Impacts, Hand Hygiene Practices & and Its Correlates in View of Covid-19 among Health Care Professionals in Northern States of India

Shalu Sharma¹, Akoijam Mamata Devi², Deepak³

¹PG Tutor, Faculty of Nursing, SGT University, Gurugram, ²Professor, Faculty of Nursing, SGT University, Gurugram, ³Asst. Professor, Faculty of Nursing, SGT University, Gurugram

Abstract

Background: The novel coronavirus disease 2019 presents an important and urgent threat to global health. 190 countries with more than 300000 confirmed cases and 14510 deaths¹. This critical situation, health care workers on the front line who are directly involved in the diagnosis, treatment, and care of patients with COVID-19 are at risk of developing psychological distress and other mental health symptoms and transmission between people through close contact and droplets²⁻³.

Method: Descriptive correlation survey design was to assess psychological impacts, hand hygiene practices & and its correlates in view of covid-19. Probability Stratified cluster staging sampling techniques were used to select 320 health care professionals.

Result: The findings revealed that the effect of noval coronavirus covid-19 among health care professionals 43.8% had mild fear, 45.9% moderate fear, and 10.3% a severe fear, and their mean value (14.58), S.D (6.96) and the variance was 48.54. Level of mild perceived stress was 46.87%, moderate perceived stress was 44.06% and 9.06% had severe perceived stress their mean value (14.417), S.D (7.09) and variance was (50.38). Researcher is also assessing the level of practice was 94.37% had good practice, 5.62% had weak practice their mean value (18.22), S.D (3.15) and variance was (9.92) regarding the prevention of novel coronavirus covid -19 among Health care professionals. The correlation between fear and perceived stress was intermediate correlation, fear and practice had weak positive correlation and in between perceived stress and practice was showing weak positive but nearly close to no correlation. Fear was significantly associated with workplace was, perceived stress was significantly associated with Gender, No. of family members was statistically significant at $P < 0.05$.

Conclusion: Novel coronavirus covid-19 was affecting their psychological factors among health care professionals those are working in hospitals.

Key word: Fear, Health care professionals, Novel coronavirus covid-19, Perceived stress, Practice

Introduction

Covid-19 was indicate human-to-human transmission and thus the risk of much wider spread of the disease⁴. The coronavirus is contagious during

the incubation period (2-10 days). There's no specific treatment for the coronavirus, and you'll be prescribed medicine that would treat your symptoms⁵⁻⁶. A vaccine is in the works, and that will stop the infection, but the vaccine won't be done for a few months, as it has to undergo the same steps as any new treatment, including clinical trials and approvals from oversight bodies⁷.

Corresponding Author:

Mrs. Akoijam Mamata Devi

Professor, Faculty of Nursing, SGT University,
Gurugram, E-mail: mamatadevi@sgtuniversity.org

This pandemic situation is developing the challenges for healthcare staffs are currently facing. This critical

situation, health care workers on the front line who are directly involved in the diagnosis, treatment, and care of patients with COVID-19 are at risk of developing psychological distress and other mental health symptoms⁸⁻⁹. The ever-increasing number of confirmed and suspected cases, overwhelming workload, depletion of personal protection equipment, widespread media coverage, lack of specific drugs, and feelings of being inadequately supported may all contribute to the mental burden of these health care workers¹⁰. The various research studies have reported that the health care professionals affecting from adverse psychological reactions due to the (SARS-Cov) outbreak¹¹. Studies showed that those health care workers feared contagion and infection of their family, friends, and colleagues, felt uncertainty and stigmatization, reported reluctance to work or contemplating resignation, and reported experiencing high levels of stress, anxiety, and depression symptoms, which could have develop the long-term psychological effects. Similar concerns about the mental health, psychological adjustment, and recovery of health care workers treating and caring for patients with COVID-19 are now arising¹²⁻¹³.

Irrespective of the measure implemented, health care workers must have the required IPC education and training about the correct use of PPE and other IPC precautions, including demonstration of competency in appropriate procedures for putting on and removing PPE required for direct care of patients with COVID-19¹⁴⁻¹⁵.

This study aims to observe various points. First, it aims to find out how it's producing changes in the affective state of the health care professionals. Next, it is expected, that we assess the level of fear perceived stress and the practices of health professionals due to the overwhelming situation they are living in hospitals around the world. This survey is the first attempt to measure the psychological consequences this pandemic is having. The results of the study will help determine the mental health care that might be needed.

Material and Methods

Research Approach: Quantitative research approach.

Research Design: Descriptive correlational survey

Source of Data Collection: Data was collected from the Health care professionals those are working in selected hospital of northern states of India.

Population: population consist all the Health care professionals. The accessible population of study consists of health care professionals in selected hospitals. The target population was the selected hospitals of northern India.

Sample: Health care professionals working in selected hospitals of northern states of India.

Sample size and Sampling Technique:

The sample size for the final study consists of 320 health care professionals working in selected hospitals of northern India. Probability cluster sampling technique was used to select the sample. The rational was the numbers of Healthcare workers are having a busy schedule due to coronavirus Covid-19.

Ethical Consideration:

Research proposal will be approved by ethical / DRC committee of university. Prior permission will be taken by concerned authority of SGT University. Informed consent will be taken from each selected sample.

Result and Findings

Findings related to frequency and percentage distribution of selected demographic Variables:

According to the Age group the maximum participant was in age group of 23-31years (91.56%). Gender was 82 (25.62%) was male and 238(74.37%) was females. Work tittle 31(9.6%) was doctors, 170 (53.12%) was Nurses, 12(3.75%) teaching faculties, 82(25.62%) was Intern students, 4(1.25%) Lab technicians, 21(6.5%) was other health care professionals. Marital status 63(19.68%) was married and 257(80.31%) was unmarried health care professionals. Number of people in family members was 1-5 members (72.18%),6to 10 (24.68%),11 and above members (3.12%).Working experience of health care professionals was less than 1year was (54.37%),1-2 years(21.25%),3-4(13.75%) and 5years and above was 10.62%. Work place those are working in Government hospital 39(12.18%), private hospitals 229(71.56%) and 52(16.25%) was working in semi government hospitals. Awareness regarding the

prevention of coronavirus covid-19 the 315(98.43%) samples are aware and 5(1.56%) was not aware. Working in covid-19 designated wards was 61(19.06%) and 259(80.93%) was designated in non covid-19 wards. Presence of any vulnerable /suspected people are presently residing along with your family is 31(9.68%) and 289(90.31%) was not living along with vulnerable

or suspected peoples. Any personal medical insurance 103(32.18%) are having or 217(67.18%) are not having any personal medical insurance.

Findings related to the Frequency and Percentage distribution of Fear, perceived stress and level of practice among health care professionals working in selected hospitals

Table 1: Depicts The Level Of Fear Regarding Corona Virus Covid-19 Among Health Care Professionals. n=320

V V variable	LEVELS OF FEAR		
	Mild Fear (0-12) F (%)	Moderate Fear (13-24) F (%)	Severe Fear (25-36) F (%)
Fear a Level of fear regarding coronavirus Covid-19 among health care professionals	140(43.8%)	147(45.9%)	33(10.3%)

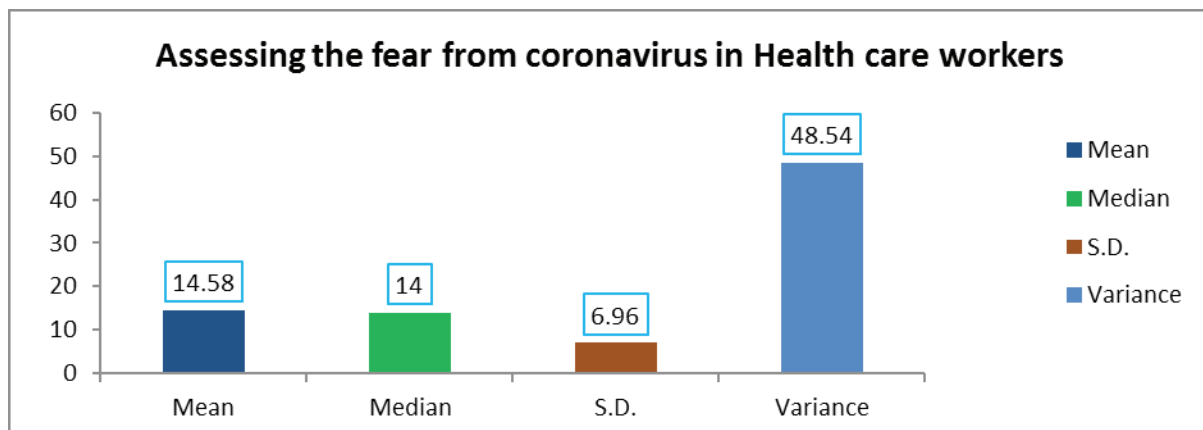


Figure-1: bar diagram showing the mean, median, SD and variance of fear among health care professionals

The Level of perceived stress was 150(46.87%) had mild perceived stress, 141(44.06%) had moderate and 29(9.06%) among health care professionals.

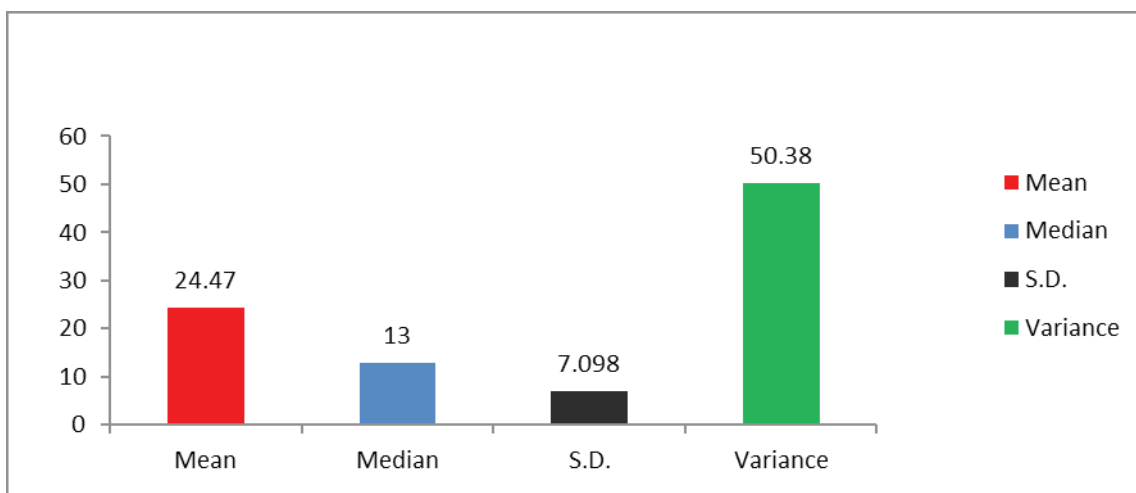


Figure- 2: bar diagram showing the mean, median, SD and variance of perceive stress among health care providers working

The level of practice was 302(94.37%) had good practice and 18(5.62%) had weak practice their mean value (18.22), median (19) Standard deviation (3.15) and variance was (9.92) regarding the prevention of coronavirus covid -19among Health care professionals.

Findings related to the correlation in between the variables Fear, perceived stress and level of practice among health care professionals working in selected hospitals

The Karl Pearson coefficient of correlation

method was used to calculate the correlation in between fear and perceived stress was ($r = 0.64$) intermediate positive correlation was found.

In between fear and practice the correlation was ($r = 0.042$) interpretation was a weak positive correlation in these two variables.

Correlation in between perceived stress and practice was ($r = 0.029$) showing weak positive correlation but very nearly close to the no correlation in these two variables respectively. Hence, research hypothesis H_1 was accepted and null hypothesis H_{01} was rejected.

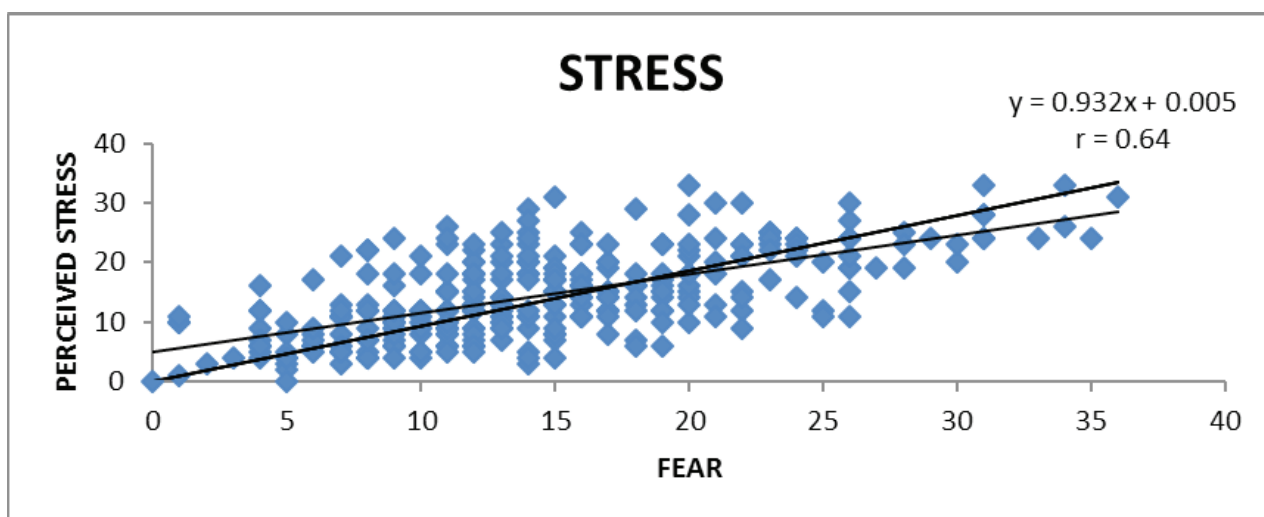


Figure- 3: Scattered dotted diagram shows that the correlation in between fear and perceived stress

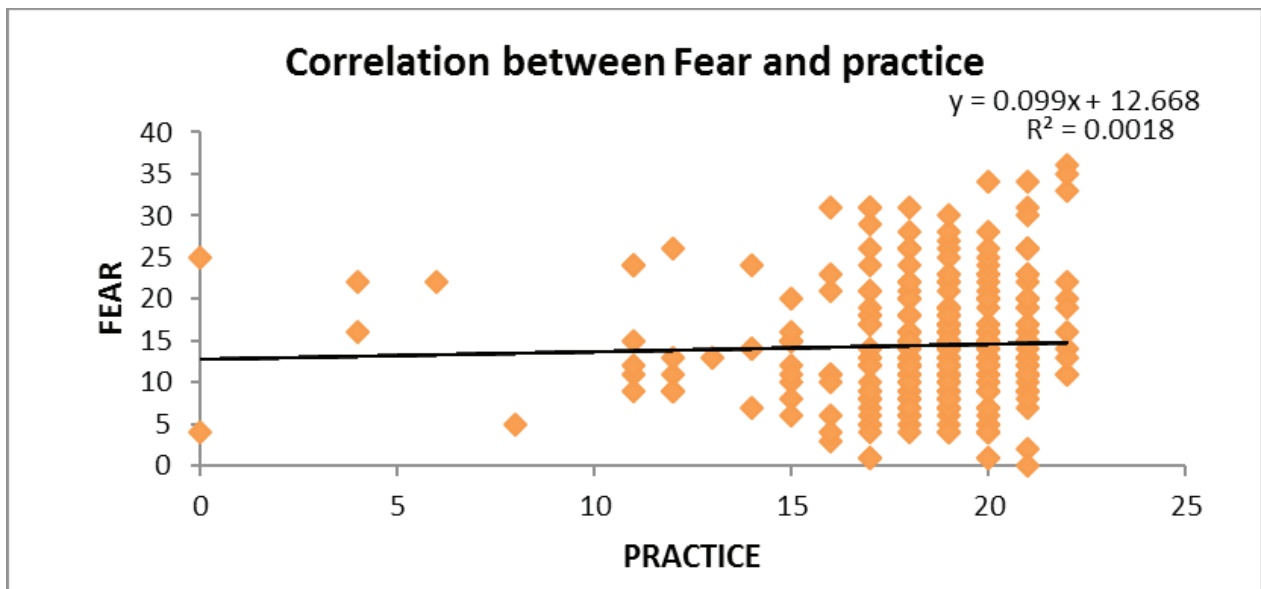


Figure-4: Scattered dotted diagram shows that the correlation in between fear and practice

Findings related to association of level of fear, perceived stress and practice score among health care professionals with selected demographic variables

· Chi-square was applied to survey group with respect to fear scoring in that workplace ($\chi^2=10.68$) was significant at 0.05 level of significance and other demographic variables are found to be non-significant at 0.05 level of significance.

· Level of perceived stress was significantly associated with Gender ($\chi^2=8.36$), Number of family members ($\chi^2=10.515$) value was significant at the level of significance $P<0.05$ and There is no association was found in between perceived stress other selected demographic variables.

· Level of Practice was not found significant at the level of significance was $P<0.05$ with any selected demographic variables.

· Hence, research hypothesis H_1 was accepted and null hypothesis H_{01} was rejected.

Findings related to single factor measure of ANOVA showing the variance in between variables fear, perceived stress and practice.

· The ANOVA test was applied to assess the variance in between the level of fear with selected demographic variables in survey group, there was

significance of variance in Workplace ($F=7.650$, $P=0.0005$) that found to be statistically significant at 0.05 level of significance.

· Workplace ($F=3.284$, $P=0.038$) was statistically showing the significance of variance at 0.05 level of significance of health care professionals with their level of perceived stress score except the workplace other demographic variables are found to be statistically non significant at 0.05 level.

· Thus, the level of practice score was found to be non significant with the all selected demographic variables at the 0.05 level of significance.

Findings related to single factor measure of ANOVA showing the variance in between variables fear, perceived stress and practice.

· There was a significant difference in between the three variable means that was statistically significant as evaluated by single factor measure of ANOVA (f value=40.164, p value=1.77). Hence, research hypothesis H_2 was accepted and null hypothesis H_{02} was rejected.

Discussion

To assess the Level of fear, perceived stress regarding novel coronavirus Covid-19 among

the health care professionals working in selected hospitals.

In the present study the Level of fear was 140(43.8%) had mild fear, 147(45.9%) had moderate fear, and 33(10.3%) had a severe fear, and the Level of perceived stress was 150(46.87%) had mild perceived stress, 141(44.06%) had moderate and 29(9.06%) had severe perceived stress regarding coronavirus covid-19 among health care professionals. In congruence with these findings some studies are conducted by **Shuai Liu, Lulu Yang, Chenxi Zhang et.al (2020)** was conducted a study on Online mental health services in China during the COVID-19 outbreak. The study result shows that the rapidly increasing numbers of confirmed cases and deaths, both medical staff and the public have been experiencing psychological problems, including anxiety, depression, and stress.

Zhou Zhu, Shabei Xu et.al (2020) was conducted a study on COVID-19 in Wuhan: Immediate Psychological Impact on 5062 Health Workers. The outbreak of COVID-19 has laid unprecedented psychological stress on health workers (HWs). The study shows the result as we received 5062 completed questionnaires (response rate, 77.1 percent). 1509 (29.8 percent), 681 (13.5 percent) and 1218 (24.1 percent) HWs reported stress, depression and anxiety symptoms. This study concluded that Women and those who have more than 10 years of working, concomitant chronic diseases, history of mental disorders, and family members or relatives confirmed or suspected are susceptible to stress, depression and anxiety among Health workers during the COVID-19 pandemic.²⁴

To assess the Level of practice regarding Novel coronavirus Covid-19 among the health care professionals working in hospitals.

The level of practice was 302(94.37%) had good practice and 18(5.62%) had weak practice regarding the prevention of novel coronavirus covid -19 among Health care professionals. In congruence with these findings some studies are conducted by **Ali Alfahan Samia Alhabib (2020)** 237 participants were included in the analysis. The study Result shows that Participant who received hand hygiene training within the last 3 years (2012-2014) scored higher on a knowledge scale. In the result found that there was an overall positive

attitude from participants toward hand hygiene practice. In total, 87.54% acknowledged that they routinely used alcohol-based hand rub, 87.4% had sufficiently decontaminated hands even under high work pressure, and 78.6% addressed that this practice was not affected by less compliant colleagues. **Haozheng Cai, Baoren Tu (2020)** was conducted a study on Psychological Impact and Coping Strategies of Frontline Medical Staff in Hunan Between January and March 2020 During the Outbreak of Corona virus Disease 2019 (COVID-19) in Hubei, China. Study questionnaires were completed by 534 frontline medical staff. The responses showed that they believed they had a social and professional obligation to continue working long hours. Medical staff was anxious regarding their safety and the safety of their families and reported psychological effects from reports of mortality from COVID-19 infection. This study concluded that the COVID-19 outbreak in Hubei resulted in increased stress for medical staff in adjacent Hunan province.

Conclusion

Novel coronavirus was affecting the psychological health like fear perceived stress of health care professionals those are working in hospitals but it will not affecting their practices in hospitals regarding prevention of covid-19.

Conflict of Interest: NIL

Source of Funding- Self

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