

**A DESCRIPTIVE STUDY TO ASSESS THE EFFECT OF COVID -19 EXPOSURE
ON THE PHYSICAL AND EMOTIONAL HEALTH STATE AMONG NURSES
WORKING IN SELECTED HOSPITAL OF PUNE CITY.**

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Abstract

As we know that covid-19 pandemic was very challenging for healthcare workers from the beginning. Due to the crisis of covid-19, healthcare workers faced several problems treating patients with covid-19. COVID-19 has affected the life and health of more than 1 million people across the world. Exploring the issues that nurses face during their battle will help support them and develop protocols and plans to improve their preparedness. Thus, this integrative review will explore the issues facing nurses during their response to the Covid-19 crisis. **Methodology:** The study design was non-experimental research design. Total 200 samples were selected for data collection. A Non-probability purposive sampling technique was used to collect data from the samples. Tool was constructed to identify the demographic variables, and a set of structured questionnaires Data collection was done from staff nurses of selected hospital. Each participant was provided data collection tool. **Result:** 93(46.5%) of nurses rarely having face any allergic reaction or skin problems like rash, itchy skin, pressure mark or dryness due to N-95 mask. 82(41%) are rarely suffered from urinary incontinence, burning micturition for holding urine for long time during Covid-19 pandemic because of PPE kit **Conclusion:** The results indicated that the majority of nurses claimed that employment during the COVID-19 crisis had a little influence on the physical and mental wellbeing. they having some problem like anxiety of new diseases, long standing work hours, dehydration, N 95 mask marks .But by the time they are positively deal with the Covid 19 situation.

Key Words: (Assess, Effect, Covid 19, Exposure, Physical Emotional health).

Introduction

Coronaviruses are zoonotic, which means they can spread from person to person. This means they begin their development in an animal before moving on to a human. Coronaviruses are a genus of viruses that can cause a range of illnesses, including that of the common cold or flu, SARS, and acute pneumo syndrome (APS) SARS (MERS). In late December 2019, an outbreak of a mysterious pneumonia characterized by fever, dry cough, and fatigue, and occasional gastrointestinal symptoms happened in a seafood wholesale wet market, the Huanan Seafood Wholesale Market, in Wuhan, Hubei, China. In 2019, a novel coronavirus was discovered as the

causative agent of a sickness epidemic in China. All the professionals caring for patients during infectious outbreak such as the Middle East respiratory syndrome, corona virus outbreak have reported negative psychological effect. However, very little information is known about how the experience influences their professional self-image.¹

In 2003, a new coronavirus, the etiology of a mysterious pneumonia, also originated from southeast China, especially Guangdong province, and was named SARS coronavirus that fulfilled the Koch's postulate.² The mortality rate caused by the virus was around 10%–15%.^{3,4} Through the years, the medical facilities have been improved; nevertheless, no proper treatment or vaccine is available for the SARS.⁴ The emergence of another outbreak in 2012 of novel coronavirus in Middle East shared similar features with the outbreak in 2003.⁵ Both were caused by coronavirus but the intermediate host for MERS is thought to be the dromedary camel and the mortality can be up to 37%.³ The initial clinical manifestations for both SARS and MERS are usually nonspecific except that the majority of patients presented with fever and respiratory symptoms. The goal of this study was to see how covid-19 affected the physical and emotional health the female nurses during covid-19 outbreak.

Need for the study

Nurses have critical roles and responsibilities during the COVID-19 pandemic. They will continue to be at the front line of patient care in hospitals and actively involved with evaluation and monitoring in the community. As nurses are at the front line of the COVID-19 outbreak response and are exposed to hazards that put them at risk of infection, it is vital that they are supported to protect themselves with specific infection prevention procedures and sufficient provision of protective gear at their practice settings, including ventilators, masks, robes, eye cover, face shields, and gloves. The nurses may worry about getting sick, how long this situation last.³ Currently, there has been substantial confusion about the methods of transmission of COVID-19, who is at risk of spreading or catching the virus, and where spreads originate.⁴ These misconceptions may circulate across mainstream media, on social networking platforms or in society, and they can conflict with attempts to respond to public health issues. Nurses hold a vital function, as one of the most distinguished health service teams, in delivering public awareness regarding disease prevention and in decreasing the dissemination of myths regarding the epidemic. This involves countering myths, guiding people to available health services, and supporting evidence-based patient management and infection reduction initiatives.⁷ During the covid 19nurses felt more stressed ,extra workload and less satisfied with their work. Researchers felt the need for the study as the work environment has been changing and becoming more challenging for healthcare workers. Negative physical and psychological effects have been reportedly seen. Effects of change in emotional status of healthcare providers can hamper the personal and the professional life of the healthcare providers.

The purpose of this study is to see how covid -19 radiations affect the physical and emotional health of nurses at a specific hospital in Pune.

Aim of the Study

“A descriptive study to assess the effects of covid -19 exposure on physical and emotionalhealth state among nurses working in selected hospital of Pune city.”

Material and Method

In this study we used quantitative research approach. It collects information from existing and potential samples of size 200 from population of staff nurses using non- probability purposive sampling technique. It was Non-experimental research design with descriptive design which was used to assess the effects of covid-19 exposure on physical and emotional health of nurses working in selected hospitals of Pune city. Self- structured questionnaire was prepared for data collection, the tools were divided into sections. Section-I containing demographic data, Section-II was consisting of 16 questions regarding effect of covid-19 exposure on physical health and Section-III included 14 questions regarding effect of covid-19 exposure on emotional health.

Result

The result is divided into two sections. (Section-I, Section-II-A and Section-II-B).

SECTION-I: DESCRIPTION OF SOCIODEMOGRAPHIC VARIABLES OF NURSES

The data shows that 136(68%) nurses were from age group of 23-30 years, 147(73.5%) nurses are female, 100(50%) are unmarried, and 102(51%) of nurses are working with covid-19 patient more than 1 year.

SECTION II:

Table 1: assess the effects of Covid-19 exposure of covid-19 on physical health state of nurses.

Item	Frequency	Percentage
1) Did you ever face any allergic reaction or skin problems like rash, itchy skin, pressure mark or dryness due to N-95 mask?		
1. Never	64	32
2. Rarely	93	46.5
3. Often	29	14.5
4. Every Time	14	7
2) Do you ever suffered from urinary incontinence, burning micturition for holding urine for long time during covid-19 pandemic because of PPE kit?		
1. Never	48	24
2. Rarely	82	41
3. Often	49	24.5
4. Every Time	21	10.5
3) Did you ever suffer from pain in the muscle of leg, back, neck and body ache due to long standing during duty?		
1. Never	14	7
2. Rarely	56	28

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3.Often	75	37.5
4.EveryTime	55	27.5
4) Do you ever felt suffocated, suffered from giddiness and irritability due to PPE kit?		
1. Never	36	18
2. Rarely	55	27.5
3.Often	61	30.5
4.EveryTime	48	24
5) Did you ever face increased thirst due to excessive sweating while on duty?		
1. Never	30	15
2. Rarely	56	28
3.Often	51	25.5
4.EveryTime	63	31.5
6) Did you ever face weakness, acidity and loss of energy due to unavailability of food and decreased water intake in duty hours?		
1. Never	67	33.5
2. Rarely	67	33.5
3.Often	29	14.5
4.EveryTime	37	18.5
7) Do you ever faced starvation or presence of hunger, thirst that led to stomach ache or unusual cough?		
1. Never	92	46
2. Rarely	62	31
3.Often	24	12
4.EveryTime	22	11
8) did you ever suffer from contact dermatitis/eczema due to material used in PPE and high friction and perspiration in areas such as chin, jaw, ears, eyelids and armpit?		
1. Never	105	52.5
2. Rarely	65	32.5
3.Often	22	11
4.EveryTime	8	4
9) Did you ever experience any impaired visibility due to deposition of		

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water vapours on eye goggles and face shield?		
1. Never	53	26.5
2. Rarely	65	32.5
3.Often	52	26
4.EveryTime	30	15
10) Do you ever suffered from headache due to prolong use of mask and face shield?		
1. Never	25	12.5
2. Rarely	82	41
3.Often	57	28.5
4.EveryTime	36	18
11) Do you ever experienced any breathing issue, fatigue and suffocation due to N-95 mask?		
1. Never	37	18.5
2. Rarely	80	40
3.Often	59	29.5
4.EveryTime	24	12
12) Did you ever feel pain at the root of pinna due to prolong use of mask?		
1. Never	94	47
2. Rarely	59	29.5
3.Often	27	13.5
4.EveryTime	20	10
13) Did you ever experience any falls due to slipperiness of shoe corners in PPE kit?		
1. Never	46	23
2. Rarely	90	45
3.Often	44	22
4.EveryTime	20	10
14) Do you ever suffered from infection like cold, cough, throat pain, fever while treating covid-19 patients?		
1. Never	27	13.5
2. Rarely	72	36
3.Often	55	27.5
4.EveryTime	46	23

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15) Did you feel physical exhaustion due to increase in patients and altered nurse-patient ratio?		
1. Never	67	33.5
2. Rarely	68	34
3. Often	33	16.5
4. EveryTime	32	16
16) did you suffer from dehydration features like vertigo, nausea, muscle cramp, dizziness and sweating in PPE?		
1. Never	15	7.5
2. Rarely	56	28
3. Often	75	37.5
4. EveryTime	54	27

Table 2: assess the effects of covid-19 exposure of covid-19 on emotional health state of nurses.

Item	Frequency	Percentage
1) Did you ever suffer from insomnia, loneliness, sleep disorder as a result of the workload?		
1. Never	94	47
2. Rarely	57	28.5
3. Often	30	15
4. EveryTime	19	9.5
2) Did you ever experience anxiety attacks as well as frustration due to environmental changes and fear of infection?		
1. Never	86	43
2. Rarely	53	26.5
3. Often	39	19.5
4. EveryTime	22	11
3) Do you ever felt psychological distress due to staying away from your family members to reduce risk of contagion?		
1. Never	75	37.5
2. Rarely	57	28.5
3. Often	37	18.5
4. EveryTime	31	15.5

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4) Did you ever use coping strategies such as meditation, relaxation, music therapy to reduce the stress?		
1. Never	82	41
2. Rarely	51	25.5
3. Often	37	18.5
4. Every Time	30	15
5) Did you ever receive any medical treatment for stress, anxiety?		
1. Never	158	79
2. Rarely	23	11.5
3. Often	9	4.5
4. Every Time	10	5
6) Do you ever feel emotional burst out due to workload and fear of infection to you or your family?		
1. Never	75	37.5
2. Rarely	57	28.5
3. Often	38	19
4. Every Time	30	15
7) Do you ever faced starvation or presence of hunger, thirst that led to stomach ache or unusual cough?		
1. Never	55	27.5
2. Rarely	68	34
3. Often	52	26
4. Every Time	25	12.5
8) did you ever suffer from contact dermatitis/eczema due to material used in PPE and high friction and perspiration in areas such as chin, jaw, ears, eyelids and armpit?		
1. Never	17	8.5
2. Rarely	47	23.5
3. Often	60	30
4. Every Time	76	38
9) Did you ever feel hopelessness during covid -19 pandemic due to increase in rate of covid- 19 patients?		
1. Never	33	16.5
2. Rarely	39	19.5
3. Often	75	37.5

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4. EveryTime	53	26.5
10) Do you ever suffered from headache due to prolong use of mask and face shield?		
1. Never	17	8.5
2. Rarely	28	14
3. Often	56	28
4. EveryTime	99	49.5
11) Did you ever feel hesitant or puzzled while answering patient's questions?		
1. Never	77	38.5
2. Rarely	61	30.5
3. Often	25	12.5
4. EveryTime	37	18.5
12) Do you ever feel frustrated or annoyed due to excessive work and improper time management?		
1. Never	50	25
2. Rarely	83	41.5
3. Often	45	22.5
4. EveryTime	22	11
13. Did you ever feel stress due to negative feedback from family for working in covid-19 pandemic?		
1. Never	89	44.5
2. Rarely	35	17.5
3. Often	37	18.5
4. EveryTime	39	19.5
14. Did you ever experience mood swings due to significant changes and challenges in work during covid-19?		
1. Never	66	33
2. Rarely	47	23.5
3. Often	35	17.5
4. EveryTime	52	26

Discussion

The findings of the present study have been discussed with references to the objectives and the hypothesis. The purpose of this research was to determine the effect of Covid -19 exposures on the physical and mental health of nurses employed at a chosen hospital. Natasha Shaukat (2020) conducted a scoping study on COVID-19's psychosocial effects on healthcare practitioners. We evaluated a total of 154 papers from Pub Med (126) and Scholarly Articles (28), excluding 58

that were deemed to be duplicates. Of the leftover 96 publications, 82 were eliminated due to ineligibility, while four did not have complete texts accessible. This study included ten full-text articles. Working in a high risk department, having a diagnosable mental family member, insufficient hand washing, suboptimal hand washing before and after interaction with infected, inappropriate PPE use, close contact with patients (12 times/day), long daily contact hours (15 h), and unprotected exposure were all identified as key risk factors for COVID-19-related health consequences. Fever (85%) was the most commonly reported symptom, followed by cough (70%) and weakness (60%) among Health Care Workers (70 %). Long-term PPE use (97%) caused 37 cutaneous symptoms and skin damage, with the nasal bridge (83%) being the most commonly affected area. Findings of the present study shows 63(31.5%) are every time face increased thirst due to excessive sweating while on duty . 53 (26.5 %) have anxiety episodes and frustration seldom as a consequence of natural changes & fear of infection. 31 (15.5 percent) have experienced psychological discomfort as a result of keeping apart from family members to limit the danger of spreading. 30(15%) are every time felt emotional burst out due to workload and fear of infection to you or your family.

Health Care Workers expressed high degrees of depression, anxiety, insomnia, and discomfort, feel sense of guilt.

Conclusion

The set of structured questionnaires was prepared to find out the effect of Covid 19 exposure on physical and emotional health of the nurses. The purpose of the study was to see how Covid -19 exposure affected nurses' health and wellbeing. The nurse is at danger of bodily and emotional harm as a direct result of delivering treatment to COVID-19 patients. The findings of our survey indicated that the majority of nurses claimed that employment during the COVID-19 crisis had a little influence on the physical and mental wellbeing. They having some problem like anxiety of new diseases, long standing work hours, dehydration, N 95 mask marks etc. But by the time they are positively deal with the Covid 19 situation.⁸

The majority of nurses said that their job during the COVID-19 epidemic had a little influence on the physical and mental wellbeing.

In present study, from the data analyzed, it is evident that majority of 136(68%) nurses were from age group of 23-30 years, 147(73.5%) nurses are female, 100(50%) are unmarried, 102(51%) of nurses are working with covid-19 patient more than 1 year and Most of nurses stated that working during the COVID-19 pandemic had rarely affect on their physical and emotional health state.

Conflict of Interest

All the authors of study “**A descriptive study to assess the effects of Covid -19 exposure on physical and emotional health state among nurses working in selected hospital of Pune city.**” are not involved in any organization or entity with any financial or non-financial interest in the subject matter or material discussed in this script.

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