
An inquiry on mental health of hospital personnel during pandemic

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Abstract: The Chinese-born Novel Corona infection disease (COVID-19) It has crossed borders exponentially, infecting individuals around the world. Health care staff face an unparalleled level of emotional pressure associated with COVID-19 across technical and personal realms. The goal of this study was to find the impact of mental health on hospital personnel particularly in Andaman and Nicobar Islands government and private medical care frameworks. The examination consisted of 61 participants. Survey questionnaire was provided digitally and manually in person to the respondent. The pervasiveness of stress (37.2%), worry about relatives (41.0%) and isolation (36.1%) were accounted for in the study as an outcome. Protective measures while taking care of patients, checking manifestations, awareness programs, and strategic planning at hospitals should be done. Innovation should be implemented in the healthcare setting to improve the mental health of hospital personnel during pandemic.

Keywords: COVID-19, health care workers, mental health, infection, isolation, Andaman and Nicobar Islands, Innovation.

INTRODUCTION

An episode of a worldwide pandemic causes misery and dread among numerous and apparently impacts the physical and mental prosperity of each person. 2003 episode Severe acute respiratory condition (SARS) was the primary flare-up in the twenty-first century. It began in China and influenced less than 10,000 people. It was first sent to the WHO on 31 December 2019. Coronavirus had spread to numerous different nations by February 2020 after causing enormous dread and mortality in China. Novel coronavirus was declared a worldwide pandemic on January 30 by WHO, the flare-up took over Asia, Europe and the Middle East and North America. As of September 15, 2020 absolute confirmed cases are 3,03,40,853, dynamic cases 7,35,917 complete passing 9,50,449 cases across 216 Countries, regions or domains around the globe.

In India, Public wellbeing offices devoted for COVID-19 case the board, testing and treatment was made free under Ayushman Bharat PM Yojana (AB-PM JAY) in open offices. Different measures including 'lockdown' on 23 March 2020 with 'social removing' and 'self-seclusion' procedures and suggested protection of endangered people. In Andaman and Nicobar Islands high pinnacle of case was seen during July and it got expanded more than 20 times. In August cases went up to 3500 or more cases 40-50 deaths. Issues seen all over India were expected absence of legitimate office, lack of individual defensive hardware (PPE), staff, deferring of administration, brutality against clinical staff. As of September 15, According to the IMA, till August 21, an aggregate of 1,953 specialists have been tainted, 264 specialists have kicked the bucket of Covid-19 so far the nation over. Medical services laborers are confronting phenomenal measures of COVID-19-related mental pressure across expert and individual spaces. Medical care laborers are significant to any medical services framework. During the continuous COVID-19 pandemic, medical care laborers and their families are at a significantly expanded danger of turning out to be tainted Covid. Our research idea is based on the rich knowledge acquired by our peer teams across the university. (A.C.Gomathi, S.R.Xavier Rajarathinam, A.Mohammed Sadiq, Rajeshkumar, 2020; Danda et al., 2009; Danda and Ravi, 2011; Dua et al., 2019; Ezhilarasan et al., 2019; Krishnan and Chary, 2015; Manivannan, I., Ranganathan, S., Gopalakannan, S. et al., 2018; Narayanan et al., 2012, 2009; Neelakantan et al., 2013, 2011; Neelakantan and Sharma, 2015; Panchal et al., 2019; Prasanna et al., 2011; Priya S et al., 2009; Rajeshkumar et al., 2019; Ramadurai et al., 2019; Ramakrishnan et al., 2019; Ramesh et al., 2016; Venugopalan et al., 2014)

REVIEW OF LITERATURE

(Cai et al., 2020) proposed that strategies should be provided for psychological problems with long term surveillance for both frontline & non-frontline medical workers, help-seeking behavior and actions. Mental health issues were recorded for the study. (Hacimusalar et al., 2020) evaluated the factors affecting the anxiety &

hopelessness level of HCW & to correlate with those of non-HCW. Outcome revealed negative change in the working conditions, increased working hours, direct contact patients, with Individuals with low-income & those who can't take care of their children, for high risk individuals for COVID 19. (Shah et al., 2020) study re-forced the need for providing mental health support by – providing online teaching sessions, improving Support from colleagues, initiatives from department leaders updating guidelines, protocols & also to improve Individual roles to reduce the impact on mental health among O&G doctors during pandemic. (Roy et al., 2020) inspected that populations suffering from Anxiety illness were due to getting infected with coronavirus, worried about their close ones, sleeping difficulty, government restrictions, information from electronic and print media about pandemic. Increased anxiety causes panic buying which leads to exhaustion of resources. (Grover et al., 2020) inspected that the population is experiencing more mental health issues than the physical impact of COVID 19. Healthcare workers are also facing mental health issues causing illness and disputes. (Lai et al., 2020) In China, the severity of psychological effects and factors associated with health care staff handling patients who are subjected to Novel coronavirus in China was investigated, resulting in a high prevalence of psychological distress. Author suggested introducing special interventions to encourage mental well-being.

(W.-R. Zhang et al., 2020) During pandemic, hospital staff were found to have more psychosocial concerns than non-medical health workers. The outcome for different signs of mental health disturbance was reflected by higher grades of psychological variables. (Nochaiwong et al., 2020) In Thailand, the ongoing short-and long-term impact on mental well-being and problems have been studied. In response to the pandemic, the emphasis is on documenting the early (April 2020) and late (wave 4 2021) mental health predictors. (Shechter et al., 2020) Investigated on health care staff during a surge in inpatient admissions in NYC (April 9th-April 24th 2020). The outcome showed that positive screening for psychological symptoms was common; psychological distress associated with COVID-19 is experienced by nurses and advanced practise providers. (Barzilay et al., 2020) Short resilience study depicted investigating self-sufficiency, emotional control, dynamics of social relationship and neighborhood-environment. Results showed distress among hospital workers over family contracting Novel coronavirus COVID-19 infection. (Talaee et al., 2020) The Scale-21 Depression, Anxiety and Tension measured stress and exhaustion in hospital staff during the pandemic provides appropriate standard validity and reliability. (C. Zhang et al., 2020) the insomnia incident rate along with associated social psychological variables were confirmed among health care workers. One third of the medical workers experienced signs of insomnia as a result.

(Wu et al., 2009) It portrays the psychological effects on hospital workers in the national capital, China, of the 2003 irruption of SARS. analysis was conducted in 2006 regarding their exposure to the 2003 respiratory disease irruption and also the forms within which their psychological state was laid low with the irruption. (Bielicki et al., 2020) During the Novel coronavirus outbreak 2019, this study portrayed the implementation of local policy relevant to health-care worker exposure and management. Infection control, unique provisions, risk stratification, etc. were recommended by the author. (Tan et al., 2020) The purpose of this analysis was to figure the necessity for governments and business managers to remember the degree and variables related to anxiety disorder symptoms within the force has been shown by psychological criteria. (Spoorthy et al., 2020) Study evidence showed that Novel coronavirus 2019 outbreak is a stress risk issue among hospital staff, measures to resolve this by setting up a multi-disciplinary team to deal with mental health concerns and regular assessment to provide therapeutic support. (Greenberg, 2020) A comment on a realistic approach to maintaining HCW's mental health based on contemporary evidence was presented. He listed the reasons for HCW's mental health problems and proposed 6 main elements to protect health care workers' mental health. (Shaukat et al., 2020) Implementing measures to bring down the danger of virus, workload, and steps to support mental well-being might decrease acute and chronic health conditions among hospital staff. (Koksal et al., 2020) The study shows disturbances and causative factors among healthcare professionals working during pandemics in operational theatres.

RESEARCH METHODOLOGY

This study will help hospital personnel to find out factors related to mental disturbance like mental stress, anxiety, lack of sleep, emotional disturbance during COVID-19 pandemic due to increased daily activity, fear of getting infected and isolation from family members. A questionnaire including demographic profile and situational influences was used for the study. The sample size of the study is 61 total percent is 37.9% . The response was collected from government and private health care workers in Andaman and Nicobar islands. The frequency analysis of respondents is displayed in the pie chart below. The frequency analysis consists of five variables associated with the demographic profile of the respondents such as gender, age group, job title, annual income and job profile.

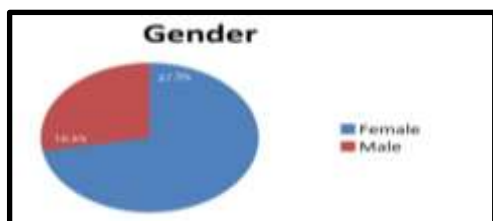


Fig.1: This pie chart depicts the percentage of gender in the sample. 27.3% of the sample were female and 10.6% were male health care workers.

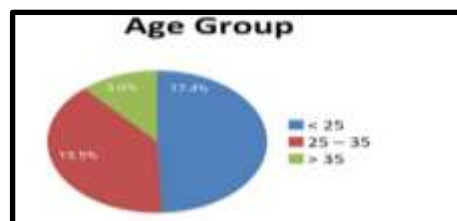


Fig.2: This pie chart describes the age of the health care workers. 17.4% of staff are below 25 years followed by 15.5% are between 25-35 years and above 5.0% are above 35 years.

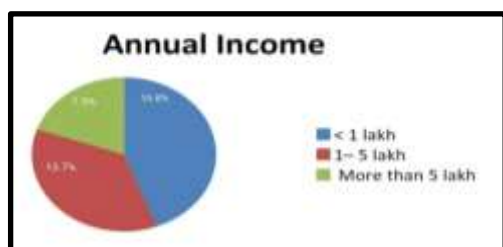


Fig.3; This pie chart describes the annual income of the health care workers. 16.8% of staff were earning less than Rs.1 lakh followed by 13.7% were earning Rs.1-5 lakhs and 7.5% were earning above Rs.5 lakhs.

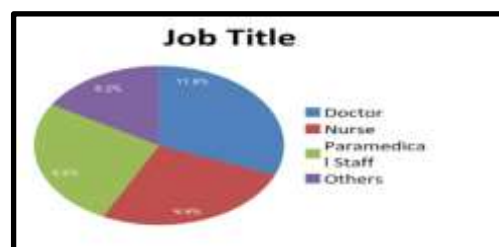


Fig.4: This pie chart depicts the job title of the health care workers. 11.8% of the hospital staff are Doctors followed by 9.9% of Nurses and 9.9% of Paramedical Staff followed by 6.2% of others.

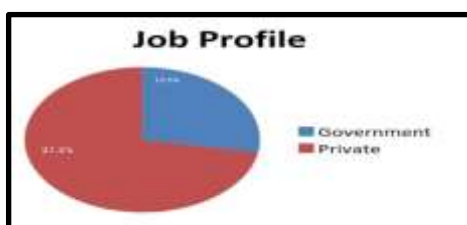


Fig.5: This pie chart describes the job profile of the hospital staff. 27.3% of the hospital staff in the private and 10.6% in Government hospitals.

Table 1 examines the pandemic's effect on the mental health of hospital workers with support of 10 variables such as stress, workload, daily activity, physical health, emotional health, anxiety and mental stress, sleep routine, virus, family members and isolation. The mean analysis is performed to measure the view about mental health of hospital personnel during pandemic.

Table 1: Mean Analysis

S.No	A study on mental health of hospital personnel during pandemic	Mean	Rank
1	I feel stressed about the global pandemic (stress)	3.72	2
2	My occupation requires extended period of work due to COVID-19 and I am stressed due to over workload (workload)	3.41	6
3	I face difficulty in managing daily activity due to the current situation (daily activity)	3.46	5
4	My physical health is not doing well since past few months (physical health)	2.90	10
5	My emotional health is disturbed due to this pandemic (emotional health)	3.30	8
6	My job during pandemic creates anxiety and mental stress (anxiety)	3.33	7
7	I cannot sleep properly during these days (sleep)	3.03	9
8	I worry about getting infected from COVID 19 virus (infection)	3.51	4
9	I worry about my family members , friends getting sick as a result of my exposure (family members)	4.10	1
10	I miss my family as I am isolated due to the reason that I work with COVID patients (isolation)	3.61	3

Table 1 displays analysis displays the mean values for 10 variables. It is evident from the mean analysis table that the concern about family member variables possesses highest mean value followed by other variables such as stress, isolation, infection, daily activity, workload, anxiety and mental stress, emotional health, sleep and physical health. So it is implied, that the health care workers worry about their family members, friends getting sick as a result of exposure from COVID-19 virus.

Table 2 depicts factor analysis is performed to measure the relationship among variables within the assumed constructs. In this section, we examine the data adequacy for conducting factor analysis by using KMO and Bartlett's test.

Table 2: KMO and BARLETTE'S test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.819
Bartlett's Test of Sphericity	Approx. Chi-Square	160.904
	Df	45
	Sig	.000

Table 2 demonstrates KMO and Significance value. If the KMO value is >0.6 and significant level is at 1%, it indicates that the given data is acceptable for conducting factor analysis. Here KMO value is 0.819 and therefore, provided data is acceptable for conducting factor analysis.

Table 3: Total Variance Explained

Component	Initial Eigen values			Rotated Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.926	39.262	39.262	2.440	24.398	24.368
2	1.122	11.224	50.487	1.910	19.099	43.497
3	1.096	10.956	61.443	1.795	17.946	61.443
4	.825	8.248	69.691	-	-	-
5	.686	6.860	76.551	-	-	-
6	.579	5.791	82.343	-	-	-
7	.555	5.546	87.888	-	-	-
8	.486	4.859	92.747	-	-	-
9	.372	3.720	96.467	-	-	-
10	.353	3.533	100.00	-	-	-

Table 3 twenty variables have been collected into three variables with the aid of factor analysis and they all describe 61.4% of variance together.

Table 4: Rotated Component Matrix

S.no	A study on mental health of hospital personnel during pandemic	Components		
		1	2	3
1	I cannot sleep properly during these days (sleep)	.815	-	-
2	I face difficulty in managing daily activity due to the current situation (daily activity)	.740	-	-
3	My physical health is not doing well since past few months (physical health)	.691	-	-
4	My emotional health is disturbed due to this pandemic (emotional health)	.629	-	-
5	My occupation requires extended period of work due to COVID-19 and I am stressed due to over workload (workload)	-	.844	-
6	I feel stressed about the global pandemic (stress)	-	.723	-
7	I worry about getting infected from COVID 19 virus (virus)	-	.489	-
8	I miss my family as I am isolated due to the reason that I work with COVID patients (isolation)	-	-	.854
9	I worry about my family members , friends getting sick as a result of my exposure (family member)	-	-	.524
10	My job during pandemic creates anxiety and mental stress (anxiety)	-	-	.495

It is observed from table 4 that the variables are categorized into three components and they are health aspects, COVID-19 and family. The health aspects component comprises stress, daily activity, physical and mental health. The COVID-19 component comprises workload, stress and infection. The family component comprises isolation, family member, anxiety. Table 5 measures health aspects, COVID-19 and family with the demographic profile of the respondent using ANOVA.

Table 5: ANOVA

S.No	VARIABLES	F	SIG
1.	Age Group vs Health Aspects	0.325	0.724
2.	Age Group vs COVID-19	5.699	0.226
3.	Age Group vs Family	2.543	0.087
4.	Job Title vs Health Aspects	1.325	0.275
5.	Job Title vs COVID-19	0.287	0.834
6.	Job Title vs Family	0.297	0.827
7.	Annual Income vs Health Aspects	0.031	0.987
8.	Annual Income vs COVID-19	1.688	0.914
9.	Annual Income vs Family	1.951	0.514

Table 5 shows F and Significance values. It is clear from the table that significant value is $>0.05\%$. Hence, accept null hypothesis. i.e there is no difference between health aspects, COVID-19 and family with the demographic profile.

CONCLUSION

In Andaman, were taken for mental well-being among health care workers exposed to the Novel coronavirus 2019 outbreak has to be introduced. Regular screening of health care staff to be done to gauge infection symptoms, stress, depression and anxiety. Andaman lacks better leadership in the hospital sector which has caused many problems in the past and more during this pandemic, many complaints, protests related to hospital service on the islands were in the news. The health sector of Andaman needs proper effective and efficient tangible support to healthcare workers. General public should be given regular communication about healthcare aspects.

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