

Attitude and Response of Health Professionals Towards Escalating COVID-19 Mortality Rates in Peshawar City

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Abstract

Background: In coronavirus pandemic, misconception, distrust, uncertainty, and fear have emerged within the general public. Amidst this environment, health professionals were the primary bearers of accurate information regarding the causes of death, the severity of infections, and the intensity of disease transmission.

Objective: To assess the attitude and responses of health professionals working in tertiary care hospitals of city Peshawar during pandemic regarding corona infection and related deaths.

Study type, settings & duration: This descriptive cross sectional study was conducted at tertiary care hospitals of Peshawar, from March to May 2020.

Methodology: The sample size of 126 health professionals were taken at the peak of pandemic in Pakistan. A predesigned online questionnaire was shared with individual health professional after taking telephonic consent. Each health professional filled the online questionnaire and resubmitted. The data was collected, analyzed using SPSS version 21.

Results: A total 126 health professionals participated in the study, 61 (48.4%) were doctors, 58 (46%) nurses and 7 (5.6%) were allied health professionals. Total 46 (54.1%) health professionals agreed, that old age with comorbidities, stigma and late approach to health facilities, comorbidities and spread asymptomatic cases were associated with increased mortality of COVID patients in city Peshawar. About 54 (42.9%) health professionals agreed with the existence of false perception of public that corona do not exist, and 13 (10.3%) disclosed about lack of proper facilities and ignorance in provision of care in Hospitals.

Conclusion: Health professionals were in agreement that comorbidities, older age, late approaching to Hospital, stigma, false perception and lack of health facilities were the factors behind the increased corona infected deaths in Peshawar.

Key words: COVID-19, comorbidities, attitude, response, health professionals, old age, stigma, health facilities.

Introduction

The COVID-19 was first reported in Wuhan city of china on December 2019.¹ A series of pneumonia cases were reported with undetermined

etiology among the vendors and dealers in the Hunaun sea food market of Wuhan city. The Chinese authorities reported about the cases and subsequently world health organization declared the etiological agentas Novel Corona Virus (2019-nCoV).^{1,2} The diseases spread so rapidly, that within a few weeks covered several countries across the globe.³

An infodemic prevailed during the early declaration of pandemic of COVID-19. The burden of information and locked environment created anxiety and stress among health care workers and to some extent general public denied to accept the pandemic.⁴ As the pandemic unfolds, understanding the attitudes and responses of health professionals becomes imperative for devising effective strategies to mitigate its impact.

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Authors Contribution

AK conceptualized the project and performed the statistical analysis. US, AA & SG did the data collection. IA & A did the literature search. Drafting, revision & writing of manuscript were done by AK & IA.

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All the health professionals throughout the world played an important role during this COVID-19 pandemic and still struggling to combat the diseases.⁵ The most COVID-19 affected group in term of physical and mental health was the health professionals working in health care facilities.⁶

In Pakistan Corona virus first infection was reported on February 26, 2020 in Karachi. Later the virus spread throughout the country. Karachi, Lahore, Islamabad and Peshawar having the dense population settlement reported high magnitude of COVID related deaths.⁷ During the pandemic March 2020 to August 2020 COVID-19 related death rate were comparatively high in Peshawar than other cities of Pakistan.⁸

Peshawar City, the capital of Khyber Pakhtunkhwa province, were among the focal points in Pakistan's battle against COVID-19. With its dense population and intricate urban fabric, the city presents unique challenges in managing the pandemic. The increased mortality of COVID-19 in city Peshawar compared with other cities of Pakistan were high and it posed concern to public health specialists and policy makers. Amidst this environment and during the peak of pandemic health professionals (Doctors, nurses, and allied health professionals facilitating COVID-19 patients directly or indirectly) were the primary bearers of accurate information regarding the causes of death, the severity of infections, and the intensity of disease transmission. Therefore this study was designed to determine the attitude and responses of health care workers directly involved in the care of these patients.

Methodology

This was a descriptive cross sectional study carried out among a total 126 health professionals (Doctors, nurses, Allied health science workers) working in all public and private Tertiary care Hospitals of Peshawar and involved in care and facilitation of corona virus infected patients during COVID-19 pandemic (April to August 2020). For collection of dynamic and multi experience information we included all categories of health professionals rather to focus on a single group. The sample size of the study 126 health professionals was based on availability, technically and consent of professionals during pandemic. Due to its online mode of data collection the sampling technique was selected as non-probability purposive sampling technique. The data obtained using an online designed questionnaire shared through email after taking informed consent. Two time reminders were sent to those health professionals who did not

responded on time. However a total 200 health professionals were approached for data, among them 126 health professionals voluntarily provided the data. All the other health professionals were left who did not provided data even after two time reminders. The questionnaire was validated by public health experts and pilot tested on 20 health professionals initially. Based on validity and reliability score the questionnaire was approved to use for this study. The questionnaire included questions regarding demography, relevant experiences, practices/facilitation of COVID-19 patients, the attitude of health professionals (facilitation, experience, causes of deaths, affirmation of high COVID-19 related deaths) and responses of health professionals (readiness, validation of existing perception/factors regarding COVID-19 infection and actual witnesses) about corona infection and its increased mortality rate in city Peshawar. Data was collected and analyzed using SPSS version 16. Frequency and percentage was used for numerical variables and cross tabulation was used to cross check the frequency with different parameters of attitude and responses of health professionals and to validate the association of causes with mortality.

The ethical approval was obtained from the Institutional Research and Ethics Board of Postgraduate Medical Institute, Peshawar vide letter no. 11709.

Results

A total 126 health professionals participated in the study, among them 61 (48.4%) were doctors, 58 (46%) nurses and 7 (5.6%) were allied health professionals. The frequency of young health professionals (20-40 years age and > 5 years experiences) participated in the study were high 82 (65%) (Table-1). It was found that 46 (54.1%) health professionals directly and 16 (39%) health professionals were indirectly involved in facilitations of corona infected patients. These health professionals provided 'old age with cardiac issues & diabetes (34/126), stigma & late approach to health facilities (5/126), associated comorbidities (12/126), ignorance in provision of care (6/126) and widely spread asymptomatic cases (7/126) were the causes of increased mortality of COVID patients in Peshawar (Table-2). The greater proportion of health professionals 54 (42.9%) were agreed with age and 51 (40.5%) health professionals were in favor of absence of comorbidity as the major difference they found between corona infected patients who died and recovered (Table-3). The stigma and late approaching health care facilities

were the leading factors of mortality when compared with other factors of mortality as endorsed by health professionals 53 (42.1%) (Table-4). About 54 (42.9%) health professionals were agreed that there is a false perception among public that corona do not exist, patients going Hospitals are sustained to

Table 1: Demographic parameters of health professionals participated in the study.

Work experience in current Position			Profession (%)				Total
			Doctor	Nurse	Paramedics	Any other	
< 5 Year	Age range	20-30 Year	31 (41.9)	42 (56.8)	0 (0)	1 (1.4)	74 (100)
		31-40 Year	7 (87.5)	1 (12.5)	0 (0)	0 (0)	8 (100)
	Total		38 (46.3)	43 (52.4)	0 (0)	1 (1.2)	82 (100)
5-10 Year	Age range	20-30 Year	6 (60)	3 (30)	1 (10)	0 (0)	10 (100)
		31-40 Year	8 (36.4)	10 (45.5)	0 (0)	4 (18.2)	22 (100)
	Total		14 (43.8)	13 (40.6)	1 (3.1)	4 (12.5)	32 (100)
11-20 Year	Age range	31-40 Year	0 (0)	2 (100)	0 (0)	0 (0)	2 (100)
		41-50 Year	1 (100)	0 (0)	0 (0)	0 (0)	1 (100)
	Total		1 (33.3)	2 (66.7)	0 (0)	0 (0)	3 (100)
> 20 Year	Age range	31-40 Year	0 (0)	0 (0)	0 (0)	1 (100)	1 (100)
		41-50 Year	3 (100)	0 (0)	0 (0)	0 (0)	3 (100)
		51-60 year	5 (100)	0 (0)	0 (0)	0 (0)	5 (100)
	Total		8 (88.9)	0 (0)	0 (0)	1 (11.1)	9 (100)
Net Total			61 (48.4)	58 (46)	1(0.8)	6 (4.8)	126 (100)

Table 2: Perception of health professionals regarding the causes of corona infected mortalities.

Treated or directly involved in the care of COVID 19 patient?			Causes N (%)					Total	
			Old age with cardiac issues and diabetes	Stigma and late approach to health facility	All death cases were with comorbid conditions	Ignorance in provision of care	It is widely spread in the city with mostly asymptomatic cases		All of the above
Yes	Profession	Doctor	11 (26.8)	2 (4.9)	6 (14.6)	0 (0)	1 (2.4)	21 (51.2)	41 (100)
		Nurse	13 (30.2)	1 (2.3)	0 (0)	1 (2.3)	3 (7)	25 (58.1)	43 (100)
		Paramedics	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (100)
	Total		25 (29.4)	3 (3.5)	6 (7.1)	1 (1.2)	4 (4.7)	46 (54.1)	85 (100)
No	Profession	Doctor	3 (15)	1 (5)	3 (15)	2 (10)	2 (10)	9 (45)	20 (100)
		Nurse	5 (33.3)	0 (0)	2 (13.3)	2 (13.3)	0 (0)	6 (40)	15 (100)
		Any other	1 (16.7)	1 (16.7)	1 (16.7)	1 (16.7)	1 (16.7)	1 (16.7)	6 (100)
	Total		9 (22)	2 (4.9)	6 (14.6)	5 (12.2)	3 (7.3)	16 (39)	41 (100)

Table 3: Health professionals perceptions regarding the difference observed between corona patients recovered and died.

Profession	Difference observed between corona patients recovered and died					p value
	Age	Absence of comorbidity	Stress	Other	Total	
Doctors	20	38	0	3	61	0.000
	32.8%	62.3%	.0%	4.9%	100.0%	
Nurses	31	10	12	5	58	100.0%
	53.4%	17.2%	20.7%	8.6%	100.0%	
Paramedics	1	0	0	0	1	100.0%
	100.0%	.0%	.0%	.0%	100.0%	
Any other	2	3	1	0	6	100.0%
	33.3%	50.0%	16.7%	.0%	100.0%	
Total	54	51	13	8	126	100.0%
	42.9%	40.5%	10.3%	6.3%	100.0%	

Table 4: Perception of health professionals regarding the attitude of Peshawar citizens regarding corona virus infection.

Profession	Attitude of Peshawar citizens that have made them sensitive toward the lethal effect of corona virus					Total	p value
	Unhealthy and oily diets, lack of exercise	Stigma and late approaching health care facilities	Stress with low immunity	All of the above	Other		
Doctors	16 26.2%	32 52.5%	10 16.4%	1 1.6%	2 3.3%	61 100.0%	0.00
Nurses	8 13.8%	19 32.8%	27 46.6%	2 3.4%	2 3.4%	58 100.0%	
Paramedics	0 .0%	0 .0%	1 100.0%	0 .0%	0 .0%	1 100.0%	
Any other	2 33.3%	2 33.3%	0 .0%	2 33.3%	0 .0%	6 100.0%	
Total	26 20.6%	53 42.1%	38 30.2%	5 4.0%	4 3.2%	126 100.0%	

Table 5: Qualitative analysis of health professionals regarding the increased corona death rate in Peshawar as compare to other cities of KPK.

Perception regarding the increased corona deaths rate in Peshawar	Profession				Total
	Doctors	Nurses	Paramedics	Any other	
Higher proportion of Comorbidity with old age	1 1.6%	0 .0%	0 .0%	1 16.7%	2 1.6%
Late approaching to health care due to fear and stigma	3 4.9%	2 3.4%	0 .0%	0 .0%	5 4.0%
Unhealthy diet, poverty, comorbidity, lack of exercise	1 1.6%	1 1.7%	0 .0%	1 16.7%	3 2.4%
The increased spread of diseases mostly asymptomatic in Peshawar	3 4.9%	1 1.7%	0 .0%	1 16.7%	5 4.0%
Lack of testing and facilitation	1 1.6%	0 .0%	0 .0%	0 .0%	1 .8%
Stress, and comorbidity	1 1.6%	1 1.7%	0 .0%	0 .0%	2 1.6%
False perception of public that corona do not exist, patients going hospital are sustained to death, carelessness of public, not following SOPS	33 54.1%	19 32.8%	1 100.0%	1 16.7%	54 42.9%
Lack of proper facilities and SOPs in hospitals, ignorance in provision of care	6 9.8%	7 12.1%	0 .0%	0 .0%	13 10.3%
Not given any personal view about the diseases spread	12 19.7%	27 46.6%	0 .0%	2 33.3%	41 32.5%
Total	61 100.0%	58 100.0%	1 100.0%	6 100.0%	126 100.0%

death, carelessness of public, not following SOPS and 13 (10.3%) health professional disclosed that lack of proper facilities, violation of SOPs in hospitals, and ignorance in provision of care are the causes of increased deaths rate in city Peshawar (Table-5).

Discussion

This study described the attitude and responses of health professionals working in tertiary

care Hospitals of city Peshawar during the peak of COVID-19 pandemic regarding the increased corona associated deaths in Peshawar. The participated health professionals were mainly young because in the peak of pandemic most of the young doctors were on duties and also young doctors were motivated and responded well to the online surveys, social media intervention compared to seniors professionals.⁹ The daily reports, print media and official statements highlighted that city Peshawar was leading in corona infection mortalities.^{10,11}

The old age and comorbidities were the main causes of increased death in city Peshawar according to the findings of present study, which is in consistence with many other studies where these two factors were the leading cause of mortality of COVID-19 infection.

The present study provided that 42.9% health professionals responded that public are non-serious toward this infection and considering it as false and fabricated agenda. Similar kind of study was conducted in Nigeria where it is mentioned that majority of public considered COVID-19 as a mere scam even when they have knowledge and have seen that it is actually killing.¹² This study also highlighted that a significant proportion of health professionals 10.3% agreed that Hospitals are lacking the facilities to handle corona infections and ignorance and substandard practices are the causes of increased deaths in Peshawar. The Government and health department must have to give the priorities to provide maximum facilities to health professionals and infected patients to combat this pandemic. There need an awareness among public that COVID-19 is a serious public health concern, it really exist and threatening.

Health professionals working in tertiary care Hospital of Peshawar agreed that comorbidities, older age, late approaching to Hospitals, stigma, false perception regarding corona infections and lack of health facilities were the predominant associated factors of increased frequency of corona infected deaths in Peshawar. This study provided a way forward that primarily the health professionals were the key informants in case of any kind of pandemic and health related mortalities in hospitals. The data provided by the health professionals during COVID-19 pandemic regarding the increased mortality in Peshawar provided base line information for policy makers to work on the contributing factors to make strategy and to prevent COVID-19 related deaths. Furthermore interventional studies are needed in this particular population to reduce these contributing factors and barriers to develop a healthy community that can stand with any kind of health issues.

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