

Original Research Article

Perception and attitude of COVID-19 health workers and their family members

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ABSTRACT

Background: Work and family environment play important role in coping with stressful conditions due to COVID-19. This study was conducted to identify the perception and attitude of health workers engaged in management of COVID-19 along with the family members.

Methods: A cross-sectional study was conducted at tertiary care center through a self-administered online survey among health worker engaged in management of COVID-19 and with their family members. Data through Google forms were collected from 150 participants who consented to participate in the study. The study guaranteed anonymity and consent was sought from participant prior to participation.

Results: A total 150 participants surveyed, out of them 75 [42 (56.2%) females and 33 (43.8%) males] were healthcare workers and 75 [38 (50.7%) females and 37 (49.3%) males] were family members. Around 50% of healthcare workers agreed that they were facing interference in daily routine as a result of involvement in COVID-19 related duties and 31% were afraid that they might get COVID-19 infection as result of current posting or duties. Around 35% of family members agreed that their other family members will also get COVID-19 infection because COVID-19 posting. Comparative mean perception towards healthcare workers and their family members showed non-significant difference ($t=0.0739$; $p=0.4714$).

Conclusions: This study illustrated the concerns of health workers engaged in COVID-19 management and their family members. Strategies for providing health education and necessary support for plummeting perception of the fear of infection can be planned for improving psychological and social wellbeing of HCW and their family members.

Keywords: Attitude, COVID-19, Family members, Frontline healthcare workers, Perception, Stigma

INTRODUCTION

Novel corona virus disease (COVID-19) which originated from China rapidly became pandemic and infected people across the continents including India.^{1,2}

This disease has crippled health, welfare and economy of the countries and has caused confusion, anxiety and fear among the general public.³ It has also caused changes in humanitarian perception and attitudes. Social stigma has also resulted in targeting health workers, their families

and other vulnerable groups of people as being the reason for spreading this disease.⁴⁻⁶

This pandemic has strained and exhausted healthcare infrastructure, work force and resources. There is unprecedented situation which demand increase in healthcare facilities including manpower to operate effectively.^{7,8} Front line workers are important pillars to combat against COVID-19 and their perception should be well understood so that they are able to deliver their services efficiently.⁹ When these workers are involved in providing services to potentially infectious patients there

is possibility of considerable stigmatization.⁴ The contagion brings out a wide spectrum of attitudes, perceptions and stigmas. Moreover, work and family environment play important role in coping with stressful conditions. It is therefore essential to understand the effects of stigma, related to the perception of front-line workers and their family members in this unprecedented time. Though there are paucity of studies in this context but various literatures suggest that it is important to know perception of health workers and their family members to understand their coping skills with stressful conditions. As COVID-19 is a highly infectious disease, health worker engaged in management of COVID-19 are at risk and this might have impact on their various life dimensions. Spillover effects of COVID-19 duties on health workers and their family members of can be substantial.¹⁰ Therefore, this study was conducted with an objective to identify the perception and attitude of health workers engaged in management of COVID-19 along with the family members.

METHODS

A cross-sectional study was conducted among health workers engaged in the management of COVID-19 at a tertiary care center of Jodhpur city along with their family members, through a self-administered online survey. After the due permission from the Institutional Ethical Committee of AIIMS Jodhpur, questionnaire in form of google forms were circulated to include all healthcare workers and family members of the healthcare workers in the months of March to May 2020.

Inclusion criteria

All the people who consented and filled the google forms, and were directly involved in COVID-19 patient related duties were included in the study.

The questionnaire was framed after extensive literature search and piloting was done to check feasibility of the questionnaire. Questionnaire consisted of basic demographic details, knowledge, perception and attitude towards COVID-19 duties of health workers. The study guaranteed anonymity and consent was sought from participant prior to participation. The data was presented as mean, standard deviation, numbers and percentages. Difference in characteristics was evaluated using t-test. The statistical analysis was performed using SPSS (version 23) and the p value less than 0.05 was considered significant.

RESULTS

Out of the total 150 participants surveyed, 75 were healthcare workers and 75 were family members of health workers. Out of all health workers, 42 (56.2%) were female with mean age of 35.3 ± 13.20 years and 33 (43.8%) were males with mean age of 34.9 ± 11.01 years. Table 1 illustrates the socio-demographic characteristics

of healthcare workers engaged in management of COVID-19.

Table 1: Socio-demographic characteristics of the healthcare workers (n=75).

Demographic characteristics	N (%)
Gender	
Female	42 (56.2)
Male	33 (43.8)
Age group (years)	
Below 39	58 (77.3)
40-59	8 (10.7)
Above 60	9 (12)
Professional group	
Frontline workers	50 (67.2)
Medical professionals	21 (28.1)
Paramedical professionals	4 (4.7)
Frequency of duty	
Daily	25 (32.8)
Weekly	15 (20.4)
Fortnightly	11 (14.8)
Monthly	10 (13.2)
Emergency call based	14 (18.2)
Health facility	
Medical college hospital	57 (76.2)
CHC/PHC	4 (4.8)
District hospital	2 (3.2)
Private hospital	6 (7.9)
Health administration department	6 (7.9)

Table 2: Socio-demographic characteristics of family members of healthcare workers (n=75).

Demographic characteristics	N (%)
Gender	
Female	38(50.7)
Male	37 (49.3)
Age group (years)	
Below 39	40 (53.3)
40-59	19 (25.7)
Above 60	16 (21.4)
Education	
Secondary	12 (16)
Under graduate	26 (34.7)
Post graduate	34 (45.3)
Others	3 (4)
Occupation	
Government job	29 (38.7)
Private job	17 (22.7)
Housewife	13 (17.3)
Businessman	6 (8)
Other	10 (13.3)

Out of 75 family members of healthcare workers 38 (50.7%) were female with mean age of 37.4 ± 12.78 years

and 37 (49.3%) were male with mean age of 37.9 ± 11.63 years. Most of the respondents (53.3%) were below 39 years of age. Table 2 shows the socio-demographic

characteristics of family members of healthcare workers engaged in management of COVID-19.

Table 3: Perception of healthcare workers towards engagement in COVID-19 management (n=75).

Perception of healthcare workers	N (%)						Mean±SD
	Very afraid (1)	Afraid (2)	Neutral (3)	Not much afraid (4)	Totally unafraid (5)	Somewhat afraid (6)	
Are you afraid that you might get COVID-19 infection as a result of your current duties or postings?	8 (10.7)	23 (30.7)	19 (25.3)	17 (22.7)	4 (5.3)	4 (5.3)	2.9±1.2
Are you afraid that any one of your family members may get COVID-19 infection as a result of your duties or postings?	20 (26.7)	22 (29.3)	7 (9.3)	14 (18.7)	9 (12)	3 (4)	2.7±1.5
		Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)	
Do you agree that you are not that comfortable or feeling low during these postings in comparison to working before COVID-19?		8 (10.7)	12 (16)	22 (29.3)	26 (34.7)	7 (9.3)	3.1±1.1
Do you face interference in your daily routine as a result of your current or expected involvement in COVID-19 related duties?		0 (0)	13 (17.3)	11 (14.7)	37 (49.3)	14 (18.7)	3.7±0.9
Do you agree that your relationship with your family members has suffered because of your current or expected duties related to COVID-19?		11 (14.7)	19 (25.3)	13 (17.3)	24 (32)	8 (10.7)	2.9±1.2
Do you agree that your relationship with your friends and neighbors has suffered because of your duties related to COVID 19?		7 (9.4)	16 (21.3)	11 (14.6)	34 (45.3)	7 (9.4)	3.2±1.1

Table 4: Perception of family members of healthcare workers engaged in COVID-19 management (n=75).

Perception of family members	N (%)					Mean±SD
	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)	
Are you comfortable with his/ her posting?	0 (0)	7 (9.4)	13 (17.3)	34 (45.3)	21 (28)	3.9±0.9
Do you have fear that you will also get COVID-19 infection because of him/ her?	14 (18.7)	11 (14.7)	20 (26.7)	26 (34.7)	4 (5.2)	2.9±1.2
Do you have fear that any of your family member will also get COVID-19 infection because of him/her?	12 (16)	13 (17.3)	20 (26.7)	26 (34.7)	4 (5.3)	2.9±1.1
Do you feel interference in your daily life because of his/her posting?	16 (21.3)	23 (30.8)	16 (21.3)	16 (21.3)	4 (5.3)	2.6±1.1
Do you feel that your relationship with him/her has suffered because of his/ her posting?	21 (28)	23 (30.7)	12 (16)	13 (17.3)	6 (8)	2.5±1.2
Do you feel that your relationship with your neighbors has suffered because of his/her posting?	20 (26.7)	18 (24)	16 (21.3)	19 (25.3)	2 (2.7)	2.5±1.2

Order of best strategy for preventing COVID-19 infection perceived by 49.3% (n=75) health workers was: hand hygiene, social distancing, use of masks, drug prophylaxis. Order for effectiveness for preventing COVID-19 infection perceived by 64% (n=75) family

members was: social distancing, use of masks, hand sanitization and drug prophylaxis. Figure 1 illustrates the perception of healthcare workers and their family members towards preventing COVID-19 infection.

Table 5: Comparative mean of perception of the healthcare workers and their family members.

Perception regarding engagement in COVID-19 management	Healthcare workers Mean (\pm SD)	Family members Mean (\pm SD)	t-test	P value
Fear about self	2.9 (1.2)	2.9 (1.2)	0.0739	0.4714
Fear about family members	2.7 (1.5)	2.9 (1.1)		
Comfort with duty	3.1 (1.1)	3.9 (0.9)		
Relationship suffering with family members	2.9 (1.2)	2.5 (1.2)		
Relationship suffering with friends	3.2 (1.1)	2.5 (1.2)		

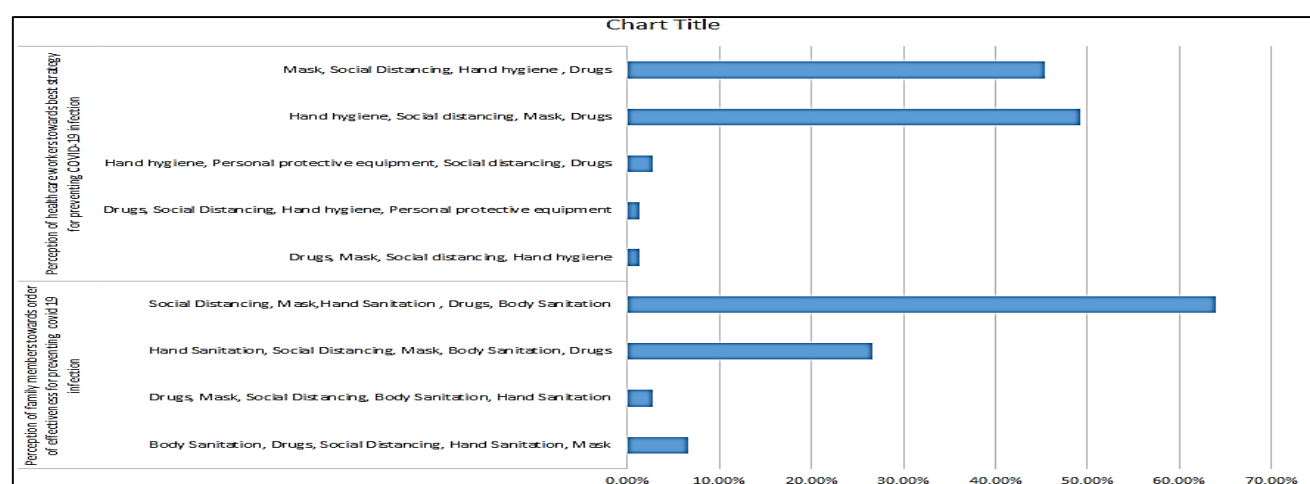


Figure 1: Perception towards the best strategy for preventing COVID-19 infection in correct order among the healthcare workers and Order for effectiveness for preventing COVID-19 infection among their family members.

Table 5 illustrate comparative mean perception of healthcare workers engaged in COVID-19 duties and their family members. There was a non-significant difference ($t=0.0739$; $p=0.4714$) between mean Likert values of perception of healthcare workers and their family members.

Around 50% of healthcare workers agreed that they were facing interference in daily routine as a result of involvement in COVID-19 related duties. Around 31% were afraid that they might get COVID-19 infection as result of current postings and duties. Table 3 illustrate the perception of healthcare workers regarding engagement in management of COVID-19.

Around 45% of family members of healthcare workers engaged in COVID-19 management agreed that they are comfortable with COVID-19 posting of their family member. Around 35% agreed that their other family members will also get COVID-19 infection because COVID-19 posting. Table 4 illustrate the perception of family members regarding engagement in management of COVID-19.

DISCUSSION

Knowledge about perception of healthcare workers in context to pandemics is of utmost importance because fear, stigma and home environment largely play role in determining work outcomes.¹¹ Stigma and poor family environment are one of the underline determinant of compromised psychological and physical health.¹² Several studies have been conducted on whether stigma, work and home environment can affect healthcare worker's behaviour and quality of life.^{4,13,14} Jodhpur is an unceasing hotspot for COVID-19 in Rajasthan and is solely depended on efforts of healthcare workers deployed at various levels to mitigate and prevent the pandemic. Considering the fact that psychological well-being of healthcare workers is an important aspect for delivering efficient job outcomes, this study was conducted to provide an overview of the domains of health workers and family member perception and attitude in context to COVID-19 duty.

It was observed that around 40% family member agreed that they or their family person could get infection due to

their family member involved in COVID-19 duties. They seem to be neutral (mean =2.9) when they were asked whether COVID related duties have hampered their family relationship. This might be due to their hesitation to speak about their personal relationship or they were actually unsure about how their relationship will be maintained. It was interesting to note that only 25% family members relationship reported suffering because of posting of family member engaged in management of COVID-19. Healthcare workers also felt that their relationship with family member (53%) and society (55%) has suffered. These finding suggest that this unprecedented pandemic has impacted the life of healthcare workers in one or another way, similar findings were also demonstrated study done by various studies that stigma and distress are important predictors of reduce work efficiency and pose a threat to well-being quality of healthcare workers.^{4,11-14}

As the data was self-reported a potential limitation of the study is the probability of the participants' responses getting influence by "social desirability."

CONCLUSION

This study illustrated the concerns of health workers and their family members engaged in COVID-19 management. Strategies for providing health education and necessary support for plummeting perception of the fear of infection can be planned for improving psychological and social wellbeing of healthcare workers and their family members.

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