Attitude of Health Care Workers On COVID 19 Care In a Selected Hospital Setting

Smt. Chanu Bhattacharya[1], Dr. Neeraj J. Karandikar[2], Mr. Amit V. Kadu[3]

[1]Principal, [3]Assistant Professor, DVVPF's College of Nursing, Ahmednagar-414111, Maharashtra, India

[2]Associate Professor, Department of Psychiatry, DVVPF's Medical College & Hospital, Ahmednagar-414111, Maharashtra, India

Corresponding Author: Dr. Neeraj J. Karandikar

Email ID: karandikarneeraj@gmail.com

Address: Department of Psychiatry, DVVPF's Medical College & Hospital, Ahmednagar-414111, Maharashtra, India

Abstract :

Introduction: From the first week of March 2020 till Nov 2020 the attitude of HCWs, mental health or perceptions changing regularly as the COVID-19 pandemic changing its image. New treatment, new information new training and practice changing attitude towards positivity as the death rate reducing and patient recovery rate increasing. **Methods:** A cross sectional study was done by a Likert type five-point attitude scale by survey method and conveniently selected 120 health care workers from a single setting. Different categories of HCWs were participated namely doctors, nurses, physiotherapists, lab technicians and X-ray technicians. **Results:** result showed mean age of HCWs were 26.9. Female HCWs are more than male.80% HCWs attitude is favorable 20% neutral and no one have unfavorable attitude. Chai square test revealed that there is highly significant association of attitude with marital status and residence area, significant with age and year of experience. **Conclusion:** Generalization is not possible because this is single center data. But research showed maturity and better practice improves attitude. HCWs attitude improve care and recovery rates.

Key words: Attitude, COVID 19, Pandemic, Health care workers

Introduction:

As COVID-19, pandemic progresses and lockdown status progress worldwide attitude of health care workers is changing. From the first week of March till November end 279 research papers are published in PMC (pubmed.gov) about attitude of health care workers, showed that research designs are mostly cross sectional in nature, to contribute quick information's related pandemic care to plan better treatment and care. Among those 279, 225 contributed to world as free full text. Only two systematic reviews was available, one in the month of April and another in November 2020. The mental effect of the coronavirus disease 2019 reported in the month of November 2020, stated should be studied at large, and every country should implement the strategy to combat the disease to increase the level of practice.[1] This study reviewed 21 studies which showed positive attitude rate is 70-97% for the HCWs, attitude depends mostly on HCWs level of education, occupation, income, gender, age, residence, work experience, religion, having media, marital status, and race. In comparison to that the April 2020, a series of rapid reviews that Cochrane contributors had prepared to inform about 2020, COVID-19 pandemic. They analyzed ten studies from Asia, four from Africa, four from Central and North America and two from Australia. Healthcare workers point to several factors, like, how the diagnosis to be communicated, support from managers, workplace culture, training, physical space, access to and trust in personal protective equipment, and a desire to deliver good patient care. That influence their ability and willingness to follow IPC guidelines. These include factors tied to the guideline itself. The review also highlights the importance of including all facility staff, including support staff, when implementing IPC guidelines.[2] During the first week of March, ICMR had already initiated awareness and preparedness activities (COVID-19) but there was an unclear orientation of the disease among health care workers (HCWs), outbreak reached more than 100 countries with over 100,000 cases may result in delayed treatment and result in the rapid spread of the infection when it was critical to improve the attitude and perceptions of HCWs. Every study showed attitude of some category HCWs were somewhat positive, but it had taken a long time for all types of HCWs attitude and perception towards pandemic and care concept to change.

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Materials & Methods:

The aim and objectives of the present study is to assess the level of attitude of health care workers in different categories and also to assess the level of attitude associated with selected demographic variables.

A cross-sectional, descriptive survey study was conducted in selected hospital. As structured self-administered attitude questionnaire was delivered to HCWs in selected hospital.Thedependent variables were self-reported attitude in the area of COVID-19 related knowledge, practice; and environment. Where confounding factors were infection risk (risk of contact with suspected patients, high-risk department, and risk of affected area). Chi-square tests done for significant association where sample was selected conveniently; one-time data was collected. Informed consent was taken from HCWs work area, after authorities' permissions availed. Different work area and different categories of workers selected like, doctors, nurses, physiotherapists, lab-assistants and technicians.

Observation & Results:

Table No. 1: Demographic variable Frequency & Percentage of Health Care Worker (N= 120)

Sr. No.	Variables	Frequency	Percentage
1	**Age**		
1.1	15 to 25	54	45%
1.2	26 to 35	48	40%
1.3	36 to 45	12	10%
1.4	46 to 55	2	1.66%
1.5	56 to 65	4	3.34%
2	**Gender**		
2.1	Male	39	32.50%
2.2	Female	81	67.50%
3	**Marital Status**		
3.1	Married	51	42.50%
3.2	Unmarried	69	57.50%
4	**Qualification**		
4.1	MBBS	23	19.16%
4.2	BPTh	06	5%
4.3	Nursing	68	56.6%6
4.4	Lab. Tech	13	10.84%
4.5	X-Ray Tech	10	8.34%
5	**Year of Experience**		
5.1	0 to 5 Years	91	75.83%
5.2	6 to 10 Years	16	13.33%
5.3	11 to 15 Years	9	7.5%
5.4	16 to 20 Years	3	2.5%
5.5	21 & above	1	0.83%
6	**Residence**		
6.1	Urban	76	63.33%
6.2	Rural	44	36.66%
7	**Training on COVID care**		
7.1	Yes	75	62.5%
7.2	No	45	37.5%
8	**Number of COVID ward posting**		
8.1	0 to 5	118	98.34%
8.2	6 to 10	1	0.83%
8.3	11 to 15	1	0.83%
9	**Any other information you like to give**		
9.1	Yes	1	0.83%
9.2	No	119	99.17%

The demographic data was tabulated: mean age of HCW= 26.9 years.

Fig 1: Male (39) 31.90 % and Female (81) 68.1%Female HCWs ratio is more than male HCWs

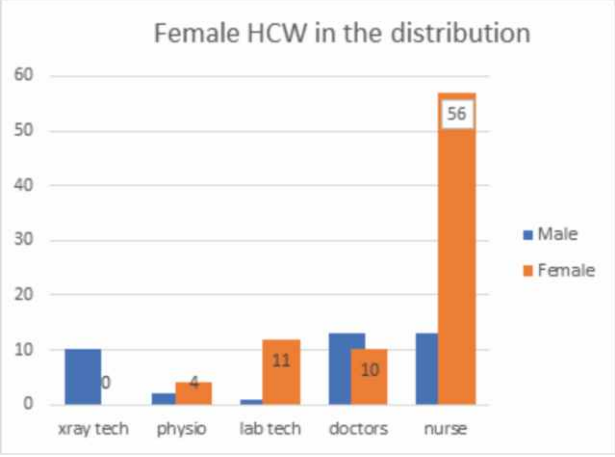

Table No. 2: Assessment of Attitude of Health Care Workers on CoVID-19 Patient Care (N=120)

Level of attitude	X-Ray Technician		Lab Technician		Physio therapists		Doctors		Nurses	
	f	P	f	P	f	P	f	P	f	P
Unfavourable	0	0	0	0	0	0	0	0	0	0
Neutral	4	40%	1	7.70	2	33.34	3	14.28	14	20
Favourable	6	60%	10	92.30	4	66.66	18	85.72	56	80
Total	10	100%	13	100%	6	100%	21	100%	70	100%

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No one have unfavorable attitude, 24 (25%) had neutral and 96 (75%) had favorable attitude.

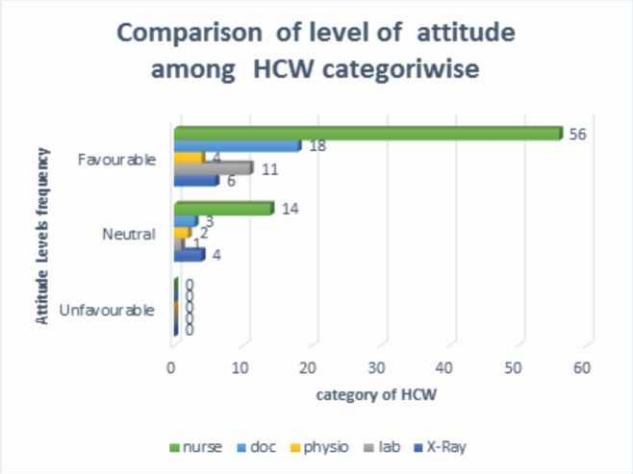

Fig 2: Lab technitians have higher positive level (90%)of attitude than other staff respecti0vely doctors 85%, nurses 82%, Physiotherapists 67% % and X ray technitian 60 %.No HCWs have unfavorable attitude. Minimum HCWs have neutral attitude level 24(25%).

Table No.3: Association between Attitudes of Health Care Worker with Selected Variables (N= 120)

Sr. No.	Variables	X^2 Value	Level of Significance
01	Age	**3.90***	**Significant**
02	Gender	0.03	Not Significant
03	Marital Status	**6.54***	**Highly Significant**
04	Qualification	3.06	Not Significant
05	Year of Experience	**4.49***	**Significant**
06	residence	**7.79***	**Highly Significant**
07	Training on COVID Care	0.88	Not Significant
08	Number of COVID Ward Posting	2.10	Not Significant
09	Any other Information you like to give	1.07	Not Significant

Df= 1, Table Value = 3.84, p> 0.05 * Significant

Table No. 4: Item analysis of attitude tool

Sr. No.	SCORE	Always		Sometimes		Uncertain		Rarely		Never	
	QUESTIONS	f	%	f	%	f	%	f	%	f	%
1	I think, I will be surely infected from COVID -19 patient if I care them	35	29.16	18	15	28	23.33	27	22.5	12	10
2	I think PPE kits are not safe	27	22.5	33	27.5	19	15.83	32	26.66	9	7.5
3	I think fever, dry cough, body ache and fatigue are main symptoms of patient	59	30.16	44	16	5	24.33	5	23.5	7	11
4	I think current COVID-19 treatments are effective	39	32.5	52	43.33	20	16.66	7	5.83	2	1.66
5	I think, current treatments are not effective	17	31.16	33	17	21	25.33	42	24.5	7	12
6	I think not all patients are severely ill	45	37.5	51	42.5	14	11.66	6	5	4	3.33
7	I believe only old person with chronic illnesses are severely ill	7	32.16	9	18	11	26.33	38	25.5	55	13
8	I think eating or touching wild animals give COVID -19 infection	53	44.16	26	21.66	20	16.66	12	10	9	7.5
9	I believe COVID -19 patient cannot infect others if they do not have fever	36	33.16	20	19	19	27.33	28	26.5	17	14
10	I believe COVID 19 virus spread via respiratory droplet; mask will prevent it	8	6.66	15	12.5	20	16.66	26	21.66	51	42.5
11	I think COVID -19 virus is airborne	14	34.16	6	20	26	28.33	37	27.5	37	15
12	I feel Ordinary people can prevent sometime disease by using masks	8	6.66	14	11.66	9	7.5	53	44.16	36	30
13	I think it is not necessary for children and young adult to prevent COVID19 by using masks	51	35.16	9	21	26	29.33	13	28.5	20	16
14	For prevention one should not go to crowd or talk to patient	13	10.83	18	15	22	18.33	32	26.66	35	29.16
15	For prevention one should not use public transport	22	36.16	12	22	19	30.33	23	29.5	44	17
16	Spread of virus control can be possible by isolation of infected patient	82	68.33	27	22.5	9	7.5	0	0	2	1.66
17	Effective infection control is via treatment of COVID positive patient until they get negative PCR	68	37.16	38	23	8	31.33	3	30.5	3	18

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18	RT PCR negative reports are always not correct	27	22.5	44	36.66	14	11.66	9	7.5	26	21.66
19	If a person come in contact of infected patient immediately proper isolation should be done	76	38.16	30	24	5	32.33	5	31.5	4	19
20	Isolation period should be 14 days	71	59.16	34	28.33	12	10	3	2.5	0	0
21	I think those patients are infected they are careless about their safety	18	39.16	21	25	22	33.33	37	32.5	22	20
22	I am scared I will be infected as I take care of COVID-19 patient	26	21.66	25	20.83	19	15.83	34	28.33	16	13.33
23	I feel there is no need to do RT-PCR after each COVID ward duty	30	40.16	40	26	14	34.33	6	33.5	30	21
24	I think it is necessary to be sure that a HCW to do RT-PCR after COVID ward duty.	56	46.66	39	32.5	19	15.83	5	4.16	1	0.83
25	I think PPE devices are very good protecting measure for me.	59	41.16	47	27	5	35.33	6	34.5	3	22

Discussion:

There was a negative correlation between knowledge scores and attitude scores ($r=-0.21$, $P<0.001$). Additionally, healthcare workers predominately used social media to inform themselves about COVID-19 (91.1%).This study published beginning month of pandemic and showing a negative correlation between knowledge and attitude of HCWs. This study's findings are against the present time studies.[3]

In the present pandemic situation as the HCW's were the most important participants so, they must have proper knowledge, attitude and practicing skills. Our results showed positive outcome still the awareness should be created by conducting educational campaigns, journal clubs and continuous professionals programs for more positive outcome. Regarding attitude, findings revealed only few have positive attitude. Regarding practice, 74.9% have good practice and 25.1% have poor practice. By calculated the Chi-square test gives the statistical significance at 95% CI. Logistic regression analysis was done using gender versus knowledge ($p<0.0001$), age versus knowledge ($p<0.0001$) and area of residence versus knowledge ($p<0.438$) hence. Whereas gender versus practice ($p<0.0001$), age versus practice ($p<0.402$) and area of residence versus practice ($p<0.0001$) at 95% CI.This study highly supporting present study where significant associations are there with age, gender, marital status, residence and experience.[4]

The results obtained from the evaluation of HCWs attitudes revealed that when managing people with severe symptoms some workers believed that protective and preventive measures needed. Finally, there was a significant difference in behavior and adherence to protective and preventive measures between the participants when facing patients with severe symptoms and without symptoms of COVID-19 ($P=0.05$).this study highly supporting with item analysis of present study.[5]

Fear of transmitting the disease to their families, and social stigma were the most frequently reported reasons for increased risk perception.[6] About 29.16% of our participants reported that they were afraid of being infected with COVID-19, and 10% stated that they were more susceptible to COVID-19 infection as compared to others. PPE kit is a very good protecting measure 41.16 % agreed on this.

Overall favorable attitude was respectively 60% for X-ray technician, 92.30% lab technicians, 66.6% physiotherapists, 85.72 % doctors and 80% nurses. A cross sectional online survey was conducted during the month of May. The questionnaire was designed and validated and it was administered among 581 participants only 21% ($n = 29$) had positive attitude.[7]

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This is a study from Egypt. The overall knowledge level of HCWs was generally good especially among physicians. A positive attitude was detected among allied health professionals more than physicians.[8] This study highly supported our study

This study is from Uganda. HCWs are defined as all people engaged in activities whose primary intention is to improve health. For the purpose of this study, healthcare professionals in primary contact with patients were enrolled. These included nurses, midwives, intern doctors, medical officers, senior house officers, and specialists.9 which supports our study continued professional education is advised among HCWs in Uganda to improve knowledge of HCWs hence averting negative attitudes and promoting positive preventive and therapeutic practices. They recommend follow up studies involving teaching and non-teaching hospitals across the country.[9]

Results showed that HCWs in Nigeria had excellent knowledge and possessed a positive attitude and good practice towards COVID-19 this study is from Nigeria.[10] However; there were areas where poor knowledge, negative attitudes and unacceptable practices were observed. Study recommends continuous public health education of HCWs on SARS-COV-2 infection control and prevention. Similar result is found out in the present study also.

Conclusions:

Attitude of HCW s are important for their mental health promotion. World Health Organization (WHO) declared that corona virus disease (COVID-19) a global pandemic,

there is no proper direction for adequate treatment for the disease, the only way to control the pandemic is to prevent it through adherence to the standard precautions, increasing social distance, and washing hands. Changes of attitude with knowledge and practice are showing prominent for all the studies around the world. Now studies should be concentrate related training on mental health for the health care workers, patient and public.

Ethical Aspects:

Ethical clearance: proposal presented in Institutional ethics committee and clearance obtained. Informed written consent: obtained from Heath care workers before data collection and study was explained, confidentiality assured

Conflict of interest: Nil

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