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Knowledge and Attitude to Information Gathering Practices Related to Covid-19: A Cross Sectional Study of Health Care Workers in Kerala

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Abstract
SARS-CoV 2 is the most recently discovered coronavirus that causes Coronavirus Disease 2019 (COVID19). The World Health Organization declared COVID19 as a pandemic on 11th March 2020.The number of cases and mortality associated with it is increasing day by day. Various measures have been deployed by the competent authorities in order to optimally educate healthcare workers.
Along with assessment of the prevailing knowledge among healthcare workers to identify critical gaps that need to be addressed, my study also aimed to gather insight into the resources used and efforts made by healthcare workers to keep up with the latest developments taking place related to the pandemic.

Materials and Methods

Design

A web based cross sectional study was conducted in June 2020 using a self designed survey after reviewing guidelines issued by the Indian Council of Medical Research (ICMR) and MoHFW of India.

Tool

The self administered questionnaire consisted of 38 questions of which 24 were used to assess knowledge about COVID-19, namely, the epidemiology, its diagnosis and clinical features, prevention and personal protection equipments (PPE) and treatment and complications. The remaining 14 questions were directed at evaluating the attitude for information gathering practices, the resources used by healthcare workers and to assess the satisfaction of healthcare workers with the available sources.

Sample

Healthcare workers (physicians, interns, medical students, dentists and nurses) were approached using online communication platforms. Convenience sampling was used. Informed consent was obtained from all the participants and their responses were kept confidential.

Analysis

Data was analysed using SPSS version 24."t-test" was performed to compare independent variables (such as gender, age, designation) against dependent variables (such as % correct scores). The differences was considered statistically significant if p value was <0.05.

Table 1 : Demographic Characteristics of the HCWs

Characteristics	Subgroups	Number (N)	Percentage (%)
Gender	Male	159	57.8
	Female	116	42.2
Age	Less than 20 yrs	27	9.8
	21-25	158	57.5
	26-30	51	18.5
	31-35	11	4.0
	36-40	7	2.5
	40-45	6	2.2
	More than 45	14	5.1

Table 2 - Distribution of Knowledge amongst HCWs

Characteristic	Knowledge (mean % correct responses)	P -value
Actively involved in Patient care		
Yes	54.96 +/- 10.77	0.001
No	50.78 +/- 8.82	
Designation		
Medical Students	50.33 +/- 8.54	0.001
Interns	58.15 +/- 8.71	
Medical Students	50.33 +/- 8.54	0.001
PG Residents	56.13 +/- 9.35	
Medical Students	50.33 +/- 8.54	0.048
SRs	55.65 +/- 12.06	
Medical Students	50.33 +/- 8.54	0.009
Consultants	56.57 +/- 12.01	
Data Gathering Practices		
Govt Websites	53.81 +/- 8.76	0.006
Social Media	47.08 +/- 9.57	
Online Courses	56.21 +/- 7.75	0.015
Social Media	47.08 +/- 9.57	
Covid 19 Training in Institution		
Yes	54.80 +/- 9.82	0.003
No	50.81 +/- 10.26	

Results

Demographics

Response rate was 40.1% and completion rate was 97.8%.Table 1 show,57.5% of the responders were 21-25 years old (n=158). Males included 57.8%(n=159).

Knowledge about COVID 19

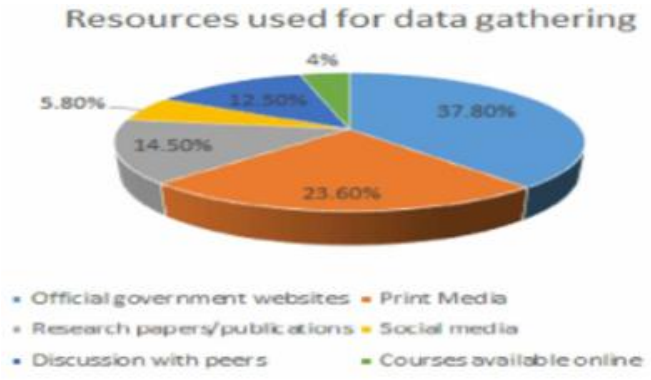
Respondents showed suboptimal knowledge. Noteworthy findings were-

- Only 53.1% knew which patients were eligible for COVID 19 testing as per ICMR guidelines.
- Mere 48% were aware of the correct order of donning PPE.
- Participants also had insufficient knowledge about the pertinent common lab investigation findings for COVID 19.
- While 92.7% knew ARDS to be a potential complication of COVID 19, poor knowledge was observed regarding other complications.

As shown in table 2, knowledge was assessed based on % correct responses. Mean of % correct responses in the study sample was found to be 52.89% (SD +/- 9.83%). Healthcare workers currently involved in providing patient care had significantly higher mean % compared to those who weren't (p=0.001). Healthcare workers who had received formal training or guidelines from their institution reported significantly higher knowledge (p=0.003).

Attitude

The amount of effort put by respondents to gather knowledge significantly co-related with % correct responses (p=0.043).



Resources

Individuals using social media reported significantly lower % correct responses as compared to official government websites (p=0.006), research papers (0.019) and online courses (p=0.015). 91.5% felt the need for responsible authorities to provide a more uniform, readily available sources of information.

Discussion

- My findings suggest that standardised education interventions by institutions can have a remarkable impact on the awareness of healthcare workers.
- My results offer compelling evidence for further evaluation of knowledge amongst healthcare workers at a larger scale.
- Greater motivation is needed for healthcare workers to access official sources of information instead of social media platforms as they may not be reliable. This was also observed by Bhagavathula et al in their study done in UAE.

Conclusion

As COVID 19 pandemic unfolds, healthcare workers play a pivotal role in promptly diagnosing and treating cases. The world has been hard hit and it is the need of the hour to identify and bridge critical knowledge gaps in healthcare workers in providing proper training and authentic sources of information to improve the understanding of this novel disease.

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