



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 8.4
IJAR 2021; 7(10): 01-04
www.allresearchjournal.com
Received: 01-08-2021
Accepted: 03-09-2021

Dr. Baburaj Stephenson
Professor and HOD, Department
of Paediatrics, Dr. SM CSI
Medical College, Karakonam,
Thiruvananthapuram, Kerala,
India

Dr. Anup Narayanan
Associate Professor, Department
of General Medicine, Dr. SM CSI
Medical College, Karakonam,
Thiruvananthapuram, Kerala,
India

Dr. Suja Baby
Principal, CSI College of
Nursing, Karakonam,
Thiruvananthapuram, Kerala,
India

Sherlin
Assistant Professor, CSI College
of Nursing, Karakonam,
Thiruvananthapuram, Kerala,
India

Ajilaraj
Tutor, CSI College of Nursing,
Karakonam,
Thiruvananthapuram, Kerala,
India

Bijithra NC
Tutor, CSI College of
Nursing, Karakonam,
Thiruvananthapuram, Kerala,
India

Rani M Rose
Tutor, CSI College of
Nursing, Karakonam,
Thiruvananthapuram, Kerala,
India

Corresponding Author:
Dr. Baburaj Stephenson
Professor and HOD, Department
of Paediatrics, Dr. SM CSI
Medical College, Karakonam,
Thiruvananthapuram, Kerala,
India

Knowledge and attitude regarding face mask usage in preventing covid-19 among health care workers in a tertiary care centre in South Kerala

Dr. Baburaj Stephenson, Dr. Anup Narayanan, Dr. Suja Baby, Sherlin, Ajilaraj, Bijithra NC and Rani M Rose

DOI: <https://doi.org/10.22271/allresearch.2021.v7.i10a.8995>

Abstract

Background: The Corona Virus Disease-19 has increased alarmingly worldwide causing widespread mortality and morbidity. Use of facemask is considered as a cheap, effective and safe method with minimum disruption in day-to-day life. This study was aimed at assessing the knowledge and attitude of health workers regarding usage of face mask and its association with sociodemographic variables.

Methodology: A cross-sectional study was conducted among 125 health care workers of Dr. SMCSI Medical College Hospital, Karakonam, South Kerala. A predesigned pretested questionnaire was used to assess the levels of knowledge and Likert scale to assess the levels of attitude of health care workers. Data collection was done after obtaining HEC clearance and by obtaining an informed written consent. Data analysis was done by descriptive statistics using SPSS software.

Results: Among the healthcare workers 52% of them have adequate knowledge regarding usage of facemask and only 10.4% have inadequate knowledge. About (48.8%) of them showed moderately adequate towards usage of face masks. There is also a significant association between knowledge and attitude regarding usage of face masks with selected sociodemographic variables (P value <0.05*).

Conclusion: The results of this study provided a better insight in usage of facemasks in preventing COVID-19 among health workers which will in turn enable them to develop a positive attitude towards it which will in turn help the public to be compliant with a safe and cost effective method to comply bring this pandemic under control.

Keywords: knowledge, attitude, face mask, Covid 19, healthcare workers

Introduction

The World Health Organisation (WHO) declared an outbreak of Public Health Emergency of International Concern on 30th January 2020, after a cluster of unknown cases of pneumonia were reported from Hubei Province, Wuhan City in China in December ^[1]. WHO advised measures such as social distancing, lockdown through social isolation, and universal mask-wearing as protective measures to strengthen prevention efforts ^[2]. The wearing of face masks during the Covid-19 pandemic has receiving varying recommendations from the different public health agencies and governments. The World Health Organization and other public health organizations agree that masks can limit the spread of respiratory viral diseases such as Covid-19. However the topic has been a subject of debate, with some public health agencies and governments initially disagreeing on a protocol for wearing face masks ^[3].

The use of masks is part of a comprehensive package of the prevention and control measures that can limit the spread of certain respiratory viral diseases, including COVID-19. Masks can be used either for protection of healthy persons (worn to protect oneself when in contact with an infected individual) or for source control (worn by an infected individual to prevent onward transmission) ^[3]. Evidence indicates that wearing masks reduces the transmissibility per contact by reducing transmission of infected droplets. The most effective way to reduce the spread of the virus is by wearing a mask when compliance is high ^[4]. The decreased transmissibility could substantially reduce the death toll and economic impact while the cost of the intervention is low ^[5]. However, the use of a mask alone is insufficient to provide an

adequate level of protection or source control, and other personal and community level measures should also be adopted to suppress transmission of respiratory viruses. Wearing a facemask is certainly not an iron-clad guarantee that a person won't get sick [6]. Face mask are crucial for health care providers looking after patient and are also recommended for family members who need to care for someone who is ill- ideally both patient and caregiver should have a mask [3]. Fogging of vision while wearing masks, pain due to tight elastic bands, difficulty breathing through mask and excessive sweating in the masked area are the reasons for not using the mask. Despite enough beneficial evidence in favor of wearing masks, general population and the health care workers are hesitant in wearing it and needs to be convinced as very often law enforcement is required. Hence the researcher was interested to identify the knowledge and attitude regarding usage of facemask among health care workers

Methodology

The study was conducted among 125 health care workers in a tertiary care setting in South Kerala during the first wave in the month of August 2020. A descriptive cross sectional study design was amended for the current study and health workers were chosen by convenient sampling technique. Ethical clearance was obtained from the Institutional Review Board (No.....) For participants who gave the written consent, a pretested, predesigned self administered questionnaire was used to assess the knowledge and attitude of the study participants. Filled questionnaires were collected from the study participants after data collection. The overall session took 15 minutes

Demographic profile sheet contains data such as age, gender, residence, job profile, educational qualification, place of work and years of experience of the health care worker. The knowledge and attitude questionnaire was prepared by the researcher after literature review and each right option was given a score of one and wrong option was given a score of zero. Attitude was assessed using a five point likert scale and scoring of (1-5) was given. For negative statements reverse scoring was done. Tool validation was done by subject experts and the content validity index was 0.9. Pilot study was done on 10 samples and the study was found to be feasible. Data analysis was done by descriptive and inferential statistics using SPSS 18.0 software and p value of <0.05 was considered to be significant.

Scoring and Interpretation

The individual scores of knowledge and attitude were taken and score value is interpreted in percentage as follows

- 80-100% Adequate knowledge and attitude
- 40- 70% Moderately adequate knowledge and attitude
- 10-30% Inadequate knowledge and attitude

Results

Among the study participants majority (74.4%) of them were female and around (44%) of them belong to the age group of 20 – 30 years. There was a near equal distribution (31.2%) of doctors and nurses in the study group. Majority (52.8%) of them have nearly 2 – 10 years of experience and (51.8%) of them work in outpatient department as mentioned in Table 1

Table 1: Distribution of study subjects based on sociodemographic variables (N = 125)

Sl. No	Variables	Frequency	Percentage
1	Age		
	20 -30 years	55	44
	31 – 45 years	53	42.4
	46 – 60 years	15	12.6
	Above 60 years	2	1
2	Gender		
	Male	32	25.6
	Female	93	74.4
3	Residence		
	Urban	36	28.8
	Rural	89	71.2
4	Job Profile		
	Doctor	39	31.2
	Nurse	39	31.2
	Paramedical staff	26	20.8
	Support staff	21	16.8
5	Educational Qualification		
	Under Graduate	30	24
	Post graduate	35	24
	Diploma	48	38.4
	Others	12	9.6
5	Place of work		
	Outpatient Department	64	51.2
	Inpatient Department	61	48.8
6	Years of experience		
	0 -1 year	18	14.4
	2-10 years	66	52.8
	11– 20 years	30	24
	>20years	11	8.8

The first objective was to assess the knowledge and attitude regarding face mask usage among health workers. Majority of the health workers (52%) have adequate knowledge and

(48.2%) of them have adequate attitude towards facemask usage while only (10.40%) have inadequate knowledge and (8%) have inadequate attitude towards it as seen in figure 1

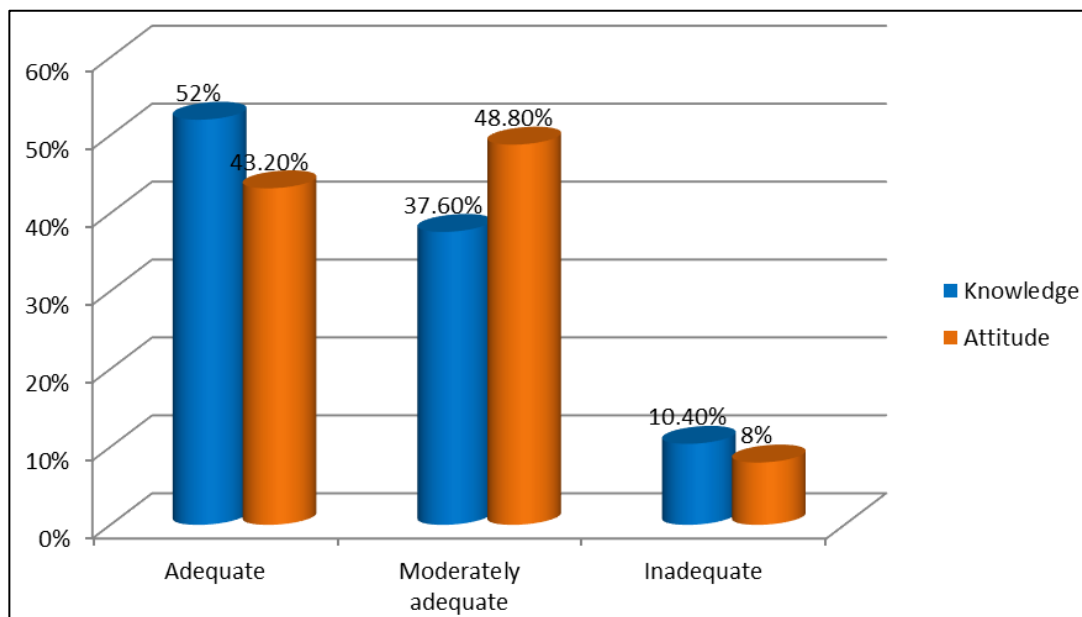


Fig 1: Distribution of study participants based on their knowledge and attitude level regarding facemask usage

The second objective was to identify the association of knowledge and attitude regarding face mask usage with selected sociodemographic variables. There is a significant association between knowledge level regarding facemask usage with selected sociodemographic variables such as age (0.000***), residence (0.071**), job profile (0.000***), educational qualification (0.000***) and place of work

(0.079*) at p value <0.01. as discussed in Table 2. There is a significant association between attitude level regarding face mask usage with selected sociodemographic variables such as job profile (0.028*), educational qualification (0.037*), residence (0.001**) and place of work (0.036*) at p value < 0.01.

Table 2: Distribution of study participants based on their knowledge level regarding face masks with selected sociodemographic variables (N = 125)

Sl. No	Variables	Moderately Adequate	Adequate	Inadequate	Chi Square	P Value
1	Age				33.665	0.000***
	20 -30 years	38	16	1		
	31 – 45 years	21	27	5		
	46 – 60 years	5	3	7		
	Above 60 years	1	1	0		
2	Gender				3.039	0.551
	Male	19	10	3		
	Female	46	37	10		
3	Residence				5.296	0.071*
	Urban	24	8	4		
	Rural	41	39	9		
4	Job Profile				32.171	0.000***
	Doctor	30	8	1		
	Nurse	17	20	2		
	Paramedical staff	12	12	2		
	Support staff	6	7	8		
5	Educational Qualification				28.406	0.000***
	Under Graduate	16	11	3		
	Post graduate	24	10	1		
	Diploma	24	21	3		
	Others	1	5	6		
5	Place of work				11.309	0.079*
	Outpatient Department	41	20	4		
	Inpatient Department	24	27	9		
6	Years of experience				14.507	0.069*
	0 -1 year	11	7	0		
	2-10 years	40	21	5		
	11– 20 years	8	16	6		
	>20years	6	3	2		

Discussion

The knowledge and attitudes plays a vital part in influencing the society's health seeking behaviors which focuses on preventive measures. The main goal of the present study was to measure the level of knowledge and attitude regarding facemask usage in preventing COVID-19, among health care workers, and the findings enabled to get a better understanding on its usage on prevention of COVID-19. Majority of the health workers have adequate knowledge and attitude regarding face mask usage in preventing COVID-19 and a highly significant association was seen with their job profile (0.000***) and educational qualification (0.000***). This can be due to near equal distribution of health professionals in these groups. provides evidence that states in the mandating use of facemask in public has a greater decline in daily COVID-19 growth rates. These findings enabled to identify areas of negative attitude towards facemask usage like 'facemasks can be used as a substitute for social distancing' into positive ones thereby promoting primary preventive measures in the society to abide with health and law enforcement agencies to bring this pandemic under control.

References

1. <https://www.who.int/csr/don/05-january-2020-pneumonia-of-unknown-cause-china/en/>
2. WHO Coronavirus disease(covid-19) advice for the public. Retrieved from World Health Organisation; <https://www.who.int/emergencies/diseases/novelcoronavirus-2019/advice-for-public> 2020.
3. Austin Hunag, Jeemy Howard, Helen. Facemask against COVID-19, Bangalore 2020.
4. Howard J *et al.* An evidence review of face masks against COVID-19. Proc Natl Acad Sci U S A. 2021;118(4):e2014564118. Doi: 10.1073/pnas.2014564118.
5. Cheng VC *et al.* The role of community-wide wearing of face mask for control of coronavirus disease 2019 (COVID-19) epidemic due to SARS-CoV-2. J Infect. 2020;81(1):107-114. doi: 10.1016/j.jinf.2020.04.024. Epub 2020 Apr 23. PMID: 32335167; PMCID: PMC7177146.
6. Mukhtar M, Bhat SN. Masks: usage during COVID-19 pandemic. International Journal of Community Medicine and Public Health 2020;7:2870. Retrieved from <https://doi.org/10.18203/2394-6040.ijcmph20203030>