



A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE AND AWARENESS ON COVID-19 AMONG GENERAL PUBLIC AT SELECTED AREA, COIMBATORE

Nursing

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ABSTRACT

This study was aimed to assess the knowledge and awareness about Covid-19 among general public. It is an infectious disease caused by a newly discovered corona virus (SARS, Cov-2). Non-Experimental descriptive research design and Non-probability convenience sampling technique was used to select 100 participants. Demographic profile and structured knowledge and awareness questionnaire were used to collect the data based on World Health Organization (WHO) and Ministry of Health & Family Welfare (MOFW) guidelines. Data was analyzed in terms of percentage distribution, mean, standard deviation. Correlation was computed between the knowledge and awareness of general public about Covid-19. More than half of the participants had good knowledge and awareness with mean and standard deviation score of 10.31 ± 3.66 and 18.98 ± 5.08 respectively. Moderate positive correlation observed between knowledge and awareness ($p > 0.05$). In India, general public had good knowledge and awareness about Covid-19. In future accurate details related to disease should be dispelled by government health agencies, health care workers and the media.

KEYWORDS

Knowledge, Awareness, Covid – 19

INTRODUCTION

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover from disease without any special treatment. However, some will become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness.

The virus can spread from an infected person's mouth or nose when they cough, sneeze, speak, sing or breathe. These particles range from larger respiratory droplets to smaller aerosols. It is important to practice respiratory etiquette, for example by coughing into a flexed elbow, staying at least 1 meter apart from others, wearing a properly fitted mask, and washing hands or using an alcohol-based rub frequently. Get vaccinated when it's your turn and follow local guidance.

The best way to prevent and slow down transmission is to be well informed about the disease and how the virus spreads. Knowledge and awareness regarding Covid 19 among general public in India may have a great impact on the course of disease. The behavior of general public is likely to be influenced by their knowledge and awareness about the disease. Therefore, an online survey was conceptualized.

NEED FOR THE STUDY

Amidst the chaotic environment of a new virus intruding into the life of humanity, only less information is available to the general public regarding the precautions, prevention and treatment. It becomes essential to have the knowledge and awareness regarding the Covid-19 so that the facts can be disseminated and myths dispelled. Very less literature is available on the same.

We operationally defined knowledge as the fact of knowing about Covid-19 and awareness as consciously or interestingly knowing about the disease without having any myths. In view of the important role of general public in coping with Covid-19, the researchers felt the need to explore on this aspect and disseminate findings of the present study and factual information related to Covid-19 among the general public.

OBJECTIVES

To assess the level of knowledge and awareness about Covid-19 among general public.

To find out the correlation between knowledge & awareness and Covid-19 among general public.

MATERIALS AND METHODS

In a cross-sectional survey, conducted on an online platform, 100

people responded to a pre-tested and validated structured questionnaire. Inclusion criteria for the participation in the study included the age of the participant more than 18 years, willing to participate and computer literate. The tool consisting of the demographic profile (6), knowledge (15) and awareness (25) was circulated. Demographic profile included age, gender, education, occupation, residence and sources of information about Covid-19. The structured knowledge and awareness questionnaire was developed based on World Health Organization (WHO) and Ministry of Health & Family Welfare (MOFW) guidelines. Prior to filling up the questionnaire, the participants were requested to give their consent.

The collected data was converted to an excel sheet and the responses were entered as correct and incorrect responses. A score '1' was given for correct and '0' for the incorrect responses. The possible knowledge and awareness scores were ranged from 0-15 and 0-25 respectively. Knowledge and awareness scores were categorized as good, average and poor. The knowledge interpreted scores were 11-15 (good), 6-10 (average), <6 (poor) and awareness interpreted scores were 21-25 (good), 15-20 (average), <15 (poor).

Descriptive statistics such as mean, standard deviation, frequency and percentage were computed and correlation between knowledge and awareness scores was studied using coefficient of correlation at a set p value of 0.05.

RESULTS

The demographic profile of the general public is mentioned in Table 1.

Table 1: Demographic Profile Of General Public (n= 100)

Variables		%
Age (Years)	18-28	45%
	29-38	22%
	39-48	13%
	49-58	17%
	Above 58	3%
Gender	Male	44%
	Female	56%
Educational Status	Illiterate	7%
	Primary Education	12%
	Secondary Education	19%
	Graduate	62%
Residence	Rural	49%
	Urban	51%
Occupation	Student	47%
	Employed	34%
	Unemployed	19%

Sources of information about Covid-19	Newspaper	12
	TV	14
	Social media	34
	Family and Trends	12
	Health care providers	28

Majority of participants (45%) were in the age group of 18-28 years, more than half of the participants (56%) were females, 62% were graduate and residing in urban areas (51%). Nearly half of the participants were students and 34% of participants were dependent on social media for gaining Covid-19 related information.

Table 2: Overall Knowledge And Awareness Scores Of General Public About Covid-19 (N= 100)

Variables	%	Mean $\pm$ SD
Knowledge	Good(11-15)	63%
	Average(6-10)	23%
	Poor(<6)	14%
Awareness	Good(21-25)	57%
	Average(15-20)	19%
	Poor(<15)	24%

Overall mean and standard deviation of knowledge and awareness scores of the general public about Covid-19 were 10.31 ± 3.66 and 18.98 ± 5.08 respectively. More than half of the subjects had good knowledge (63%) and good awareness (57%) about Covid-19.

Item wise knowledge and awareness regarding Covid-19 among general public was assessed as shown in table 3 and 4

Table 3: Item Wise Knowledge Analysis Of General Public About Covid-19 (n=100)

Statement	Knowledge	Scores (%)
State the full form of Covid 19	Correctly stated (Yes)	67%
	Incorrectly stated (No)	33%
In which city the first case of Covid-19 detected	Shanghai	3%
	Beijing	4%
	Wuhan	93%
	Tianjin	-
What's a safe distance to stay apart from someone who's sick?		
For COVID-19, the period of quarantine is ____ from the last date of exposure, because this is the longest incubation period (the span of time during which people have developed illness after exposure) seen for similar coronaviruses	At least 1 foot (30cm)	3%
	At least 3 feet (1meter)	97%
The main mode of transmission of virus from person to person is via	5 days	2%
	7 days	8%
	14 days	78%
	21 days	12%
Antibodies are useful for the treatment of Covid-19	Respiratory droplets	14%
	Spread from contact with contaminated surface	-
	All the above	86%
Respiratory Etiquettes	Yes	72%
	No	28%
How long should I wash my hands during Covid-19 pandemic	Sneezing or coughing without hand kerchief	26%
	Spitting on the road	-
	Sneezing on the inner aspects of elbow, coughing, covering nose and mouth with handkerchief	-

What are the common symptoms of Covid-19	10 sec	74%
	20 sec	
	More than 20 sec	
Name a clinical trial in which blood is transfused from recovered Covid 19 patients to a coronavirus patient who is in critical condition	Fever	14%
	Dry cough	46%
	Shortness of breath	40%
	All the above	
What happens to a person suffering from covid-19		1%
	Plasma therapy	-
	Remedesivir	1%
	Hydroxychloroquine	98%
		56%
		20%
		22%
In which age group the Covid-19 spreads		8%
	Around 80% of the people will require no treatment as such and will recover on their own	
	Around 20% or a small proportion may need hospitalization	4%
	A very small proportion basically suffering from chronic illness may need admission in an Intensive Care Unit (ICU)	4%
	All the above	
	Covid-19 occurs in all age group	84%
	Corona virus infection is mild in children	18%
	Older person and person with pre existing medical condition are at high risk to develop serious illness	
	All the above are correct	4%
Which of the following organ is most affected by Covid-19 disease	Brain	
	Heart	14%
How long does the virus remain viable on plastic and stainless steel		
	Lungs	
	Liver	64%
	72 hours	
	24hours	-
	4hours	2%
What is the duration of gap between first and second dose of Covishield vaccine	8hours	98%
		-
	28 days	
	56 days	40%
	84 days	30%
		16%
		14%
		4%
		4%
		92%

As shown in Table 3, more than half of the participants (67%) had written correctly the full form of Covid-19, majority of the participants knew the correct mode of transmission (86%), social distancing (97%), hand washing steps and duration (46%) common signs and symptoms of Covid (98%), proper respiratory etiquettes (74%), covid management (56%) and had good knowledge about covid vaccines (92%).

Table 4 : Awareness Related To Facts And Myths Of Covid-19 Among General Public (n=100)

Statement	Responses	
	True	False
Covid 19 cannot spread in countries having hot and humid weather	24%	76%
Social distancing is maintaining distance of one meter between two persons	90%	10%
Cold weather and snow can kill the Covid -19	2%	98%
Taking a hot bath prevents Covid- 19	46%	64%
Covid 19 can be transmitted through mosquito bite	12%	88%
Hand dryers effective in killing new Corona Virus	68%	32%
Ultraviolet lamp disinfection can kill Covid- 19	83%	17%
Thermal scanner is effective in detecting Covid -19	52%	48%
Spraying alcohol or hypochlorite solution all over the body for killing then new corona virus is a good practice	28%	72%
Vaccine against pneumonia is effective against new Coronavirus	35%	65%
Regularly rinsing one's nose with saline can help prevent infection with new Corona virus	8%	92%
Eating garlic can help in preventing the Covid- 19 injection	54%	46%
Drinking warm water every 15 minutes can prevent us from getting infected with Covid 19	64%	36%
Covid- 19 infects older people more than children	93%	7%
Antibiotics are effective in controlling Covid- 19	70%	30%
N95 face mask will protect you from getting Covid -19	92%	8%
One should visit the hospital in case of cough or fever	93%	7%
Only people with symptoms can spread the Covid- 19	74%	26%
Pets at home can spread Covid -19	30%	70%
Tab. Chloroquine can prevent Covid -19 infection	40%	60%
Hand washing with soap and water or alcohol rub can prevent the spread of Covid- 19	79%	21%
Spitting in public can prevent Covid -19	11%	89%
There is definite treatment for Covid -19	16%	84%
A vaccine stimulates your immune system to produce antibodies,like it would if you were exposed to the virus	88%	12%
Covid 19 spread through foods and water	5%	95%

Table 4 shows that majority of the participants were aware that social distancing , frequent hand hygiene, and wearing face mask are the preventive measures to protect an individual from contacting the disease and having good awareness about the covid-19 and its management aspects.

Table 5: Correlation Between The Knowledge And Awareness About Covid-19 Among General Public (N= 100)

Variables	r value	P value
Knowledge	0.747	P > 0.05
Awareness		

Moderate positive correlation was observed between the knowledge and awareness of general public about Covid-19 ($r=0.747$) at $P>0.05$.

DISCUSSION

Findings of the present study suggest that majority of participants had good knowledge and awareness about the disease, its mode of transmission and preventive measures to protect an individual from getting the disease. Covid-19 was expressed by relatively few participants. Covid-19 is a new disease and everyday new body of knowledge is generating. The probable reason for participants could be the old guidelines issued by MOHFW in which use of face mask was recommended for suspected and confirmed Covid cases. However, the new guidelines recommend the use of triple layer surgical mask for patients and ordinary cloth mask for the general public.

In the present study, many participants were holding myths about the disease. Therefore, there is a need to clarify myths of general public. They should be informed about the facts related to Covid-19. Social media plays a very important and crucial role in providing the factual information. General public should also be cautioned about the myths being circulated in social media. They must check authenticity of the social media before trusting and forwarding the circulated

information. Similar findings were reported by Geldsetzer (2020). In the present study, one of the important sources for Covid information was social media including Whatsapp, facebook which might led to misinformation.

Findings of the present study could be used to decide the priorities in providing information Covid-19. In addition, planned behavior education counseling (BEC) programmes could help to dispel the myths related to Covid-19, which would help the general public to practice the safe measures to protect themselves from contracting the disease. Non compliance with the recommended government guidelines could prove to be disastrous for the nation. Therefore, mass education campaign programme would act as a guiding framework in improving the knowledge and awareness of general public about the disease Covid-19 and further help them to maintain the health related behaviours.

In resource- constrained country like India, prevention is the only way to control the disease as we cannot afford to have testing and screening for the entire population. Treatment of Covid-19 is quite expensive. Simple cost-effective measure like social distancing, use of N95 face mask, practicing cough etiquettes, hand washing and avoiding close contact with people who are sick could help in controlling the spread of infection among the general public. Government health agencies, health care workers and the media can play crucial role in dispelling the myths of the general public about the disease.

Online survey during the outbreak is the most cost effective, rapid and trustworthy method of assessing the knowledge and awareness of general public during fast evolving infectious disease without having any direct contact with the participants and insuring the safety of the general public. The possibility of the participants to explore the correct responses through internet might be there which was the extraneous variable and beyond the control of the researchers. However, this act of exploring the correct responses by the participant might have helped them in improving their knowledge and awareness related to Covid-19 with selected variables to identify the less knowledgeable group. This would help in using the targeted approach in improving the knowledge and awareness among general public.

RECOMMENDATIONS

- Similar study can be repeated in community setting where more patients can be assessed to check the knowledge, practices and its association with other variables.
- Similar study can be done on a larger sample size to establish the generalisability.
- General information can be circulated via online platforms for the public awareness of various doubts and clarification.

NURSING IMPLICATIONS

- Nurses should take charge to provide need based care education to the general public.
- Nurses should be able to convince the public to bust the myths related to Covid-19
- Nurse administrators should ascertain that all the nurses have undergone training related to Covid-19 and the infection control practices.
- Research related to the Covid-19 should be disseminated to create an awareness among general public and significant others.

CONCLUSION

The general public in India have good knowledge and awareness about Covid-19. Myths related to the disease; need to be dispelled by providing information campaign by the government health agencies, health care workers and the media.

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