Knowledge on COVID 19 Among Adults in the Selected Urban Community, Chennai

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Abstract

COVID 19 is a newly emerged disease affecting the respiratory system and resembling the SARS disease. It has become a pandemic not less than 3 months from its first case reported in China. The study was carried out with the objectives to assess the knowledge on COVID 19 among adults in urban area of Chennai, Tamil Nadu. The study was conducted using quantitative approach with descriptive study design. 100 Adult men and women between 18 – 59 years of age willing to participate in the study were included using non probability convenient sampling. 65% of the participants were women, 49% were graduate and 46% of the participants were employed. Results of the study showed that about 55% of the participants had adequate knowledge and none of the demographic variables were associated with the level of knowledge on COVID 19 at $p \leq 0.05$

Keywords: Covid-19; Adults; Pandemic; Disease.

Introduction

Novel coronavirus had halted the whole world, brought rest to the busy cities and placed every human in the freeze mode. A new virus originated in the Wuhan city of China had travelled the whole world and made the health sector busy. The novel disease is termed as Corona Virus Infectious Diseases - COVID-19 also named as SARS-CoV-2. SARS-CoV-2 shares 79% sequence identity with SARS-CoV, the virus which caused a major outbreak in 2002–2003.[1-3] The most common symptoms of the current pandemic includes the fever, chest tightness and dyspnea and most of the patients experienced mild illness coarse.[4] The disease commonly spread by the respiratory route through contact with the infected person. Virus has also been detected in patient stool samples.[5] The incidence and the mortality rates are being the breaking news everyday. Globally it has reached 61 million cases of which USA is the worst affected nation. India has reported its first case in Kerala on 30th January 2020 and slowly had its berth in other states from March 2020. In India, the active COVID positive cases has reached to the peak of 45,000 at an average per day during the month of September 2020. Free and rapid access to high quality information from verifiable sources is valuable to optimise the medical response to crises such as the current COVID 19 pandemic.[6] There is a need to intensify

the awareness and address the mental health issues of people during this COVID-19 pandemic. More than 80 % of the people were preoccupied with the thoughts of COVID-19 and 72 % reported the need to use gloves, and sanitizers.[7]

The health education intervention would be more effective if it targets certain demographic groups, for example, the COVID-19 knowledge may be greatly increased if the health education programs are specifically designed for men and persons with a low level of education.[8] Online-based cross-sectional study conducted among Bangladeshi residents aged 12–64 years, recruited via social media, of which 69.8% living in urban areas revealed that 48.3% of participants had more accurate knowledge.[9] A cross sectional web based study was conducted among the health care workers to find the knowledge on COVID has revealed that about 61% had adequate knowledge.[10]

The present study aimed to assess the knowledge on COVID 19 among urban adults was conducted when the Italy was hopeless in managing the disease and Tamil Nadu has not yet reported a single case of COVID 19. By seeing the daily hit cases of COVID 19 worldwide, the researcher has planned to create an awareness among the people in the prevention of the worst pandemic disease thereby made to conduct the study as the baseline information.

Objectives of the Study

- To assess the knowledge on COVID-19 among the adult population.
- To associate the knowledge on COVID-19 with selected demographic variables.

Null Hypothesis

NH0 - There is no significant association between the knowledge on COVID-19 with selected demographic variables.

Methodology

A quantitative research approach using descriptive research design was used in the study. Research variable of the study includes knowledge on COVID 19 and demographic variables included in the study were age, gender, education, income and occupation. The study was conducted in the urban areas of Pazhavanthangal, Chennai, Tamil Nadu. All the adult men and women between 18 – 59 years

of age available at the time of data collection and willing to participate in the study were included in the study. The study was conducted among 100 adults selected using a non probability convenient sampling.

Description of data collection tool

The self- structured questionnaire consists of two sections A and B was used in the study.

Section A: Demographic data such as age, gender, education, occupation and monthly income.

Section B: Semi-structured questionnaire to assess the knowledge on COVID-19 consists of 20 simple statements of closed ended questions (yes/no type) which were self explanatory. The questionnaire covered statements on all the aspects of COVID 19 developed by the investigator. The tool was validated by the experts of the research committee in Hindu Mission College of Nursing and the reliability of the tool was assessed using test re test method at the correlation coefficient value r = 0.83 which was found to be higher and the tool wasfound more reliable for the study.

Ethical Consideration

The study was approved by the research committee of Hindu Mission College of Nursing, West Tambaram, Chennai. The purpose of the study was explained to the participants and informed consent was obtained.

Data Collection

The data was collected for a period of 2 weeks during the month of March 2020. The semi structured questionnaire was administered to the participants. The participants were allowed to read the questionnaire and mark their answer in the column given aside. Each participant took approximately 15 minutes to complete the tool.

Results

Data was coded and entered in the excel sheet and analysed using the descriptive and inferential statistics. Distribution of demographic variables and level of knowledge were described using the mean and percentage values and the association of knowledge with the selected demographic variables was found using the chi square.

Table 1: Frequency and percentage distribution of the demographic variables.

| S. No.	Demographic variables N=100	Frequency (n)	Percentage
1	Age		
	18-27years	36	36%
	28-37years	32	32%
	38-47years	24	24%
	48-57years	8	8%
2	Sex		
	Male	35	35%
	Female	65	65%
3	Educational Qualifications		
	Illiterate	8	8%
	Primary education	24	24%
	Secondary education	19	19%
	Graduate	49	49%
4	Working Status		
	Working	56	56%
	Not working	44	44%
5	Monthly Income		
	Rs. 5000-10000	29	29%
	Rs. 11000-15000	29	29%
	Rs. 16000-20000	17	17%
	Above Rs. 21000	10	10%

Table 1 describes the distribution of demographic variables which shows that about 36% of the participants belong to 18 – 27 years of age 65% are women and about 56% are employed.

Table 2 describes that 42% of the participants have adequate knowledge on the signs and symptoms of COVID 19, 55% had adequate knowledge on the causes or risk factors of COVID 19, 40% had adequate knowledge on the management of COVID 19 and 48% of the participants had adequate knowledge on the preventive aspects of COVID 19

Table 2: Distribution of level of knowledge based on the categories of questions on COVID 19.

S. No.	Category	Level of knowledge					
		Inadequate		Moderate		Adequate	
		n	%	n	%	n	%
1	Signs and symptoms of COVID 19	25	25%	13	13%	52	52%
2	Causes/Risk groups of COVID 19	32	32%	23	23%	55	55%
3	Management of COVID 19	27	27%	23	23%	50	50%
4	Preventive aspects of COVID 19	40	40%	12	12%	48	48%

The overall knowledge of the participants is found to be adequate among 55% of the participants and moderate among 44% and inadequate among 1% of the participants. The same was described in Figure 1
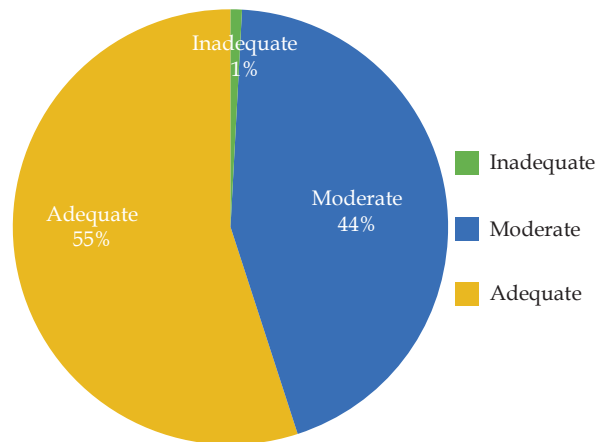
Figure 1: Knowledge of adults on covid- 19 outbreak.

The overall knowledge on COVID 19 was not associated with any of the demographic variables at the 5% level of significance and p≤0.05 which is described in table 3

Table 3: Association of knowledge of COVID 19 with the selected demographic variables.

Demographic Variables	Levels of Functions						Chi Square
	Inadequate Knowledge		Moderate Knowledge		Adequate Knowledge		
	F(n)	%	F(n)	%	F(n)	%	
AGE							$X^2 = 2.75$
18-27years	0	0	14	14	22	22	P = 15.75 NS
28-37years	1	1	15	15	16	16	
38-47years	0	0	11	11	13	13	
48-57years	0	0	4	4	4	4	

Gender							
Male	0	0	14	14	21	21	$X^2 = 9.77$
Female	1	1	30	30	34	34	P = 3.84 NS
Education							
Illiterate	1	1	3	3	4	4	$X^2 = 16.92$
Primary Education	0	0	13	13	11	11	p = 12.59 NS
Secondary Education	0	0	12	12	7	7	
Graduate	0	0	16	16	33	33	
Working Status							
Employed	0	0	28	28	28	28	$X^2 = 3.89$
Unemployed	1	1	16	16	27	27	p = 3.84 NS
Monthly Income							
Rs. 5000 – 10000	0	0	16	16	28	28	$X^2 = 9.74$
Rs. 10001 – 15000	1	1	14	14	14	14	p = 12.59 NS
Rs. 15001 – 20000	0	0	6	6	11	11	
>Rs. 20001	0	0	8	8	2	2	

N=100, p ≤ 0.05, NS – non significant, S - Significant

Discussion

The present study describes that about n=55(55%) of the study participants had adequate knowledge regarding the COVID 19 and no demographic variables were found to be associated with the knowledge which may be due to the very less number of samples participated in the study. The present study is supported by the study done by Bao Liang Zhung et al in China who conducted a descriptive study on the knowledge attitude and practice had showed that about 90% of the participants had adequate knowledge on COVID 19 and age, education and working status of the participants were associated with the knowledge level at p ≤ 0.01 which supports the present study.[8]

Conclusion

The results of the present study showed that the participants had moderate to adequate knowledge on COVID 19. The study was limited to the assessment of the knowledge level.

The level of knowledge among the participants may be good due to the extraneous variables like awareness and advertisements. The study can be done along with the assessment of attitude and practice with more number of participants involved in the study. Various educative materials can be prepared on COVID 19 and can be tested for their effectiveness to improve the knowledge and practices to prevent COVID 19 and its effects.

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