



**A STUDY TO ASSESS THE KNOWLEDGE REGARDING THE PREVENTIVE MEASURES OF COVID 19 AMONG GERIATRIC PEOPLES IN SELECTED COMMUNITY AREA, KOLLAM**

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**ABSTRACT**

The research project undertaken was "A study to assess the knowledge regarding preventive measures of COVID-19 among geriatric people in selected community area, Kollam. ". The objectives of the study were to assess the knowledge regarding preventive measures of COVID-19 among geriatric people, and to find out the association between the knowledge regarding preventive measures of COVID-19 among geriatric people and selected demographic variables such as age, sex, education, source of information, previous history of same illness, COVID-19 vaccination status. Non experimental research design was adopted for this study. The study was conducted among 300 geriatric people in selected community area, Kollam. In order to assess the knowledge of geriatric people regarding preventive measures of COVID-19. non-probability purposive sampling technique was used. The tool used for the data collection consisted of demographic proforma and structured knowledge questionnaire basic introduction of the study was given to the subjects. The analysis of the data was based on the objectives of the study using descriptive and inferential statistics. The findings of the present study revealed that there was association between knowledge and demographic variables, such as age, education, source of information, previous history of same illness, and COVID-19 vaccination status. Based on the findings the investigator has drawn implications which were of vital concerns in the field of nursing practice, nursing administration, nursing pattern, nursing education for future development.

**KEYWORDS:** Assess, knowledge, structured questionnaire, preventive measures of 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 without requiring special treatment. However, some will become seriously ill and require medical attention. Older people and those with medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. Anyone can get sick with COVID-19 and become seriously ill or die at any age. The best way to prevent and slow down transmission is to be well informed about the disease and how the virus spreads. Protect yourself and others from infection by staying at least 1 meter apart from others, wearing a properly fitted mask, and washing your hands or using an alcohol-based rub frequently.<sup>[1]</sup>

There have been numerous investigations to determine the origins of SARS-CoV-2 but none has been conclusive. The coronaviruses behind Middle East

respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS) are developed from bats. The virus first appeared on a small scale in November 2019 with the first large cluster appearing in Wuhan, China in December 2019. It was first thought SARS-CoV-2 made the jump to humans at one of Wuhan, China's open-air "wet markets." Later theories voiced concern that it may have originated as a biological weapon in a lab in China. As SARS-CoV-2 spread both inside and outside China, it infected people who have had no direct contact with animals. That meant the virus is transmitted from one human to another. It's now spreading in the U.S. and around the globe, meaning that people are unwittingly catching and passing on the coronavirus. The worldwide transmission is what is now a pandemic.<sup>[2]</sup>

Currently, there are two hypotheses as to its origins, exposure to an infected animal or man-made in a laboratory. There is not enough evidence to support either argument. The latest intelligence reports agree that

the virus is not genetically engineered or developed as a biological weapon. Get vaccinated when it's your turn and follow local guidance. The virus can spread from an infected person's mouth or nose in small liquid particles 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, and to stay home and self-isolate until you recover if you feel unwell.<sup>[3]</sup>

### Statement of the Problem

A study to assess the knowledge regarding preventive measures of COVID- 19 among geriatric people in selected community area, Kollam.

### Objectives

The objectives of the study were

- To assess the knowledge regarding preventive measures of COVID- 19 among geriatric people in selected community area, Kollam.
- To find out association of knowledge regarding preventive measures of COVID- 19 among geriatric people with selected demographic variables. (Age, sex, education, source of information, previous history of same illness, COVID-19 vaccination status).

### Search Methodology

<b>Research approach</b>	: Quantitative research
<b>Research design</b>	: Non-Experimental research design
<b>Variables</b>	<b>Dependent variable:</b> knowledge regarding preventive measures of COVID 19 among geriatric people. <b>Demographic variables:</b> Age, sex, education, source of information, previous history of same illness, COVID-19 vaccination status.
<b>Setting of the study</b>	: pallithottom community area, Kollam.
<b>Population</b>	: geriatric people above 60 years.
<b>Sample</b>	: geriatric people in pallithottam community area Kollam.
<b>Sample Size</b>	: 300 geriatric people in pallithottam community area, Kollam
<b>Sampling Technique</b>	: Non probability purposive sampling technique

## RESULTS AND DISCUSSION

### 1. Section A: Knowledge of regarding preventive measures of COVID 19 among geriatric people.

#### 2. Table 1: Age

SL NO	VARIABLES (AGE)	NUMBER OF PEOPLE	KNOWLEDGE		
			ADEQUATE	MODERATE	INADEQUATE
1.	60-70	203	31	130	42
2.	71-80	72	4	33	35
3.	81-90	25	1	10	14
	TOTAL	300	36	173	91

Table 1 shows that among the 203geriatric people who were in the age group 60-70 years, 31 geriatric people had adequate knowledge, 130 had moderate knowledge and 24 had inadequate knowledge. Among the 72 geriatric people who were in the age group of 71-80 years 4 had adequate knowledge, 33 had moderate knowledge and 35 had inadequate knowledge. Among the 25 geriatric people who were in the age group of 81-

### Operational Definitions

#### Assess

In this study, it refers to determine the knowledge regarding preventive measures of COVID- 19 among geriatric people in selected community area, Kollam.

#### Knowledge

In this study, it refers to the information about preventive measures of COVID- 19 among geriatric people using a knowledge questionnaire.<sup>6</sup>

#### Preventive measures

It includes measures or steps taken for prevention of disease as opposed to disease treatment. In this study it refers to the usage of mask, sanitizer and social distancing.<sup>[7]</sup>

#### COVID- 19

Corona virus disease (COVID- 19) is an infectious disease caused by newly discovered Corona virus.

#### Geriatric people

It refers to people nearing or surpassing the life expectancy of human beings and is thus the end of human life cycle, in this study geriatric people refers to people above 60 years of age.

**Table 2: Sex.**

SL NO	VARIABLES (SEX)	NUMBER OF PEOPLE	KNOWLEDGE		
			ADEQUATE	MODERATE	INADEQUATE
1.	Male	142	15	79	48
2.	Female	158	21	91	46
	TOTAL	300	36	170	94

Table 2 shows that among 142 geriatric people, 15 had adequate knowledge, 79 had moderate knowledge and 48 had inadequate knowledge. Among the 158 female

geriatric people 21 had adequate, 91 had moderate knowledge and 46 had inadequate knowledge.

**Table 3: Education.**

SL NO	VARIABLES (EDUCATION)	NUMBER OF PEOPLE	KNOWLEDGE		
			ADEQUATE	MODERATE	INADEQUATE
1.	primary	233	14	135	84
2.	High school	40	2	31	7
3.	Pre Degree	6	3	3	0
4.	degree	21	17	4	0
	TOTAL	300	36	173	91

Table 3 shows that among the 233 geriatric people who had education up to primary level, 14 had adequate knowledge, 135 had moderate knowledge and 84 had inadequate knowledge. Among 40 geriatric people who had education up to high school level, 2 had adequate knowledge, 31 had moderate knowledge and 3 had

inadequate knowledge. Among 6 geriatric people who had education up to pre degree level, 6 had adequate knowledge, 3 had moderate knowledge and 3 of them had inadequate knowledge. 21 geriatric people who had education up to degree level, 17 had adequate knowledge and 4 had moderate knowledge.

**Table 4: Source of Information.**

SL NO	VARIABLES (SOURCE OF INFORMATION)	NUMBER OF PEOPLE	KNOWLEDGE		
			ADEQUATE	MODERATE	INADEQUATE
1.	Social media	168	30	83	55
2.	Health education	4	0	3	1
3.	Health workers	100	3	71	26
4.	Family members	28	3	16	9
	TOTAL	300	36	173	91

Table 4 shows that among 168 geriatric people who had information from social media, 30 had adequate knowledge, 83 had moderate knowledge and 55 had inadequate knowledge. Among the 4 geriatric people had information through health education, 3 had moderate knowledge, 1 had inadequate knowledge. Among the 100 geriatric people who get information by

health workers, 3 had adequate knowledge, 71 had moderate knowledge and 26 had inadequate knowledge. Among the 28 geriatric people who were get information through family members, 63 had adequate knowledge, 16 had moderate knowledge and 6 had inadequate knowledge.

**Table 5: previous history of same illness.**

SL NO	VARIABLES (PREVIOUS HISTORY OF SAME ILLNESS)	NUMBER OF PEOPLE	KNOWLEDGE		
			ADEQUATE	MODERATE	INADEQUATE
1.	Yes	261	31	157	73
2.	No	39	5	16	18
	TOTAL	300	36	173	91

Table 5 show that among the 261 geriatric people who had the history of COVID 19, 31 had adequate knowledge, 157 had moderate knowledge and 73 had inadequate knowledge. Among the 39 geriatric people who hadn't affected by COVID 19, 5 had adequate knowledge, 16 had moderate knowledge and 18 had inadequate knowledge.

**Table 6: COVID 19 vaccination status.**

SL NO	VARIABLES (COVID 19 VACCINATION STATUS)	NUMBER OF PEOPLE	KNOWLEDGE		
			ADEQUATE	MODERATE	INADEQUATE
1.	Not vaccinated	18	0	13	5
2.	Partially vaccinated	10	4	0	6
3.	Fully vaccinated	272	32	160	80
	TOTAL	300	36	173	91

Table 6 show that among the 18 geriatric people who were not vaccinated, 13 had moderate knowledge and 5 had inadequate knowledge. Among the 10 geriatric people who were partially vaccinated, 4 had adequate

knowledge and 6 had inadequate knowledge. Among 272 geriatric people who had fully vaccinated, 32 had adequate knowledge, 160 had moderate knowledge and 80 had inadequate knowledge.

**Table 8:**

Sl no	Variables	Adequate	Moderate	Inadequate	df	Chi square value	Table value	Level of significance
1	<b>age</b>				4	30.20	9.49	S
	60-70yrs	31	130	42				
	71-80yrs	4	33	35				
	81-90 yrs.	1	10	14				
2	<b>sex</b>				2	1.00	5.99	NS
	Male	15	79	48				
	Female	21	91	46				
3	<b>Education</b>				6	21.77	12.59	S
	Primary	14	135	84				
	High school	2	31	7				
	predegree	3	3	0				
	degree	17	4	0				
4	<b>Source of information</b>				6	17.80	15.51	S
	Social media	30	83	55				
	Health education	0	3	1				
	Health workers	3	71	26				
	Family members	3	16	9				
5	<b>Previous history of same illness.</b>				2	16.66	5.99	S
	Yes	31	157	73				
	No	5	16	18				
6	<b>COVID-19 vaccination status</b>				4	16.72	9.49	S
	Not vaccinated	0	13	5				
	Partially vaccinated	4	0	6				
	Fully vaccinated	32	160	80				

NS\*\* – Not significant at 0.05 level of significance.

S\* – Significant

## DISCUSSION

The present study was conducted to assess the knowledge regarding preventive measures of COVID 19 among geriatric peoples in selected community area, Kollam. In order to achieve the objectives of the study, descriptive method was adopted. The subjects were selected by purposive sampling. The sample consisted of 300 people, who belonged to the age group of 60-90 years. The findings of the study have been discussed in relation to objectives and similar studies.

## Objectives of the study

- To assess the knowledge regarding preventive measures of COVID- 19 among geriatric people in selected community area, Kollam.
- To find out association of knowledge regarding preventive measures of COVID- 19 among geriatric people with selected demographic variables. (Age, sex, education, source of information, previous history of same illness, COVID-19 vaccination status).

### Discussion of findings with other studies based on objectives

#### To assess the knowledge regarding preventive measures of COVID-19 among geriatric people in selected community area, Kollam.

The present study revealed that 12 % of geriatric people had adequate knowledge, 30.33% geriatric people had inadequate knowledge, 57.6% had moderate knowledge and regarding preventive measures of COVID-19.

The above findings are supported by a cross sectional study conducted from March 10 to April 25 2020. Data were collected with a semi-structured questionnaire to assess knowledge about preventive measures of COVID-19 among 436 geriatric people. The findings showed that only 21.6% of the respondents had good knowledge of COVID-19 preventive measures. The majority (67.2 %) of them knew that washing hands with soap could prevent the disease, but contrarily, the highest 72.5% did not know that avoidance of touching mouth, nose and eyes without washing hands was a preventive measure. Only 28.4% and 36.9% of the respondents knew that maintaining physical distancing and avoiding mass gatherings were measures of prevention of COVID-19 respectively.

#### To find out the association of level of knowledge of hypertensive patients with the selected demographic variables

In the case of age, chi square value is 30.2 which is greater than table value (9.49) at 0.05 level of significance. So, there is significant association between age and knowledge of participants. In the case of sex, chi square value is 1 which is less than table value (5.99) at 0.05 level of significance. So, there is no significant association between gender and knowledge. In the case of education, chi square value is 21.77 which is greater than table value (12.59) at 0.05 level of significance. So, there is significant association between education and knowledge. In the case of source of information, chi square value 17.806 which is greater than table value (15.51) at 0.05 level of significance. So, there is significant association between source of information and knowledge. In the case of previous history of same illness chi square value is 16.669 which is greater than table value (5.99) at 0.05 level of significance. So there is significant association between previous history of same illness and knowledge. In the case of COVID-19 vaccination status, chi square value is 16.72 is greater than table value (9.49) at 0.05 level of significance, so there is significant association between COVID-19 vaccination status and knowledge.

The above findings are supported by a convenient cross-sectional survey conducted to assess the knowledge and practice towards COVID-19 among people living in Mosul-Iraq. A cross sectional online survey of 909 participants was conducted among a sample of the Mosul-Iraq population between 20<sup>th</sup> June to 1<sup>st</sup> July 20. The study showed that the majority of 558 (61.4%) were

females, and 351 (38.6%) were males. More than half of the participants, 495 (54.5%), aged 30–49 years. Around 549 (60.4%) of respondents were married, while 288 (31.7%) and 72 (7.9%) were single, and others (divorced and widows), respectively. About 567 (62.4%) were holding a bachelor's degree, while 234 (25.7%), 108 (11.9%) were holding postgraduates and diploma or below, respectively. Moreover, almost 585 (64.4%) were employed, while a smaller number of participants, 198 (21.8%), 126 (13.9%), were unemployed and students, respectively. The results indicated that females had a higher mean score of knowledge ( $13.19 \pm 1.70$ ) and practice ( $21.85 \pm 2.61$ ) than males, aged group of participants above 50-years-old had the highest score of knowledge ( $14.11 \pm 0.87$ ) and practice ( $22.50 \pm 2.32$ ) compared with other age groups. Moreover, widows and divorced women's knowledge ( $13.37 \pm 1.32$ ) were higher than singles and married participants; however, there were no significant differences in practice. The mean score of knowledge ( $13.26 \pm 1.51$ ) and practice ( $21.75 \pm 2.77$ ) of participants with high education degrees were better than participants with lower educational degrees. Employed respondents showed a higher-level score of knowledge ( $13.12 \pm 1.61$ ) than non-employed and students' participants. While there were no significant differences in employment status in practice, neither education levels nor employment status had any significant differences in practice.

### CONCLUSION

The present study was aimed to assess the knowledge regarding preventive measures of COVID-19 among geriatric people in selected community area, Kollam. The study was conducted sample of 300 geriatric people.

Association between knowledge regarding preventive measures of COVID-19 among geriatric people and demographic variables analysed using chi-square test. There was no association between knowledge regarding preventive measures of COVID-19 among geriatric people and demographic variables like sex.

### REFERENCES

1. Patel A, Jernigan DB. Initial Public Health Response and Interim Clinical Guidance for the 2019 Novel Coronavirus Outbreak — United States, December 31, 2019–February 4, 2020. *MMWR Morb Mortal Wkly Rep*, 2020; 69: 140–146. <http://dx.doi.org/10.15585/mmwr.mm6905e1>.
2. Cucinotta, D., & Vanelli, M. WHO Declares COVID-19 a Pandemic. *Acta Biomed*, 2020; 91(1): 157-160. <https://doi.org/10.23750/abm.v91i1.9397>.
3. Centers for Disease Control and Prevention. CDC Methods for the Establishment and Management of Public Health Rapid Response Teams for Disease Outbreaks. Atlanta: Centers for Disease Control and Prevention. [https://www.cdc.gov/globalhealth/healthprotection/errb/pdf/RRTManagement\\_Guidance-508.pdf](https://www.cdc.gov/globalhealth/healthprotection/errb/pdf/RRTManagement_Guidance-508.pdf), 2020.