



# “A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE AND ATTITUDE REGARDING COVID-19 VACCINE AMONG THE ADULTS RESIDING AT SELECTED VILLAGES OF GOKAK TALUKA”

**Bhagyashree Betageri<sup>1</sup>, Nasrin banu<sup>2</sup>, Manjunath Nilavani<sup>3</sup>,**

Gayatri Parab Gaonkar<sup>4</sup>, Harsha Nesargi<sup>5</sup>, Mehendi Gudawale<sup>6</sup>, Shrinivas Kamble<sup>7</sup>, Mr.  
Praveen Kumar koti<sup>8</sup>, Mr. Emmanuel.Balekundri<sup>9</sup>, Mr. Siddusingh Hajeri<sup>10</sup>, Mr. Prakash  
Hiremath<sup>11</sup>.

B.Sc Nursing students Shri J.G.Co-Op Hospital Society's College Of Nursing Ghataprabha-  
591306 Karnataka, India.

E-mail id: [bhagyashreebetageri4@gmail.com](mailto:bhagyashreebetageri4@gmail.com)

<sup>8</sup>Assoc Professor Department of Community Health Nursing, Shri J.G Co-Operative  
Hospital Society's College of Nursing Ghataprabha.

Email id: pavi.com3@gmail.com

<sup>9</sup>Assistant Prof. Department of Mental Health Nursing, Shri J.G Co-Operative Hospital  
Society's College of Nursing Ghataprabha

<sup>10</sup>Principal College of Nursing, Shri J.G Co-Operative Hospital Society's College of Nursing  
Ghataprabha.

<sup>11</sup>Assoc Prof. Department of Community Health Nursing, Shri J.G Co-Operative Hospital  
Society's College of Nursing Ghataprabha

## AN ABSTRACT

A COVID-19 vaccine is a vaccine intended to provide acquired immunity against severe acute respiratory syndrome corona virus 2 (SARS-CoV-2), the virus causing corona virus disease 2019 (COVID-19). Corona virus (covid-19) is an infectious disease caused by newly discovered corona virus. The corona outbreak become known on 31<sup>st</sup> December 2019 when china informed the WHO (world Health Organization) of a cluster of case of pneumonia of an unknown cause in WUHAN city in Hu bei province.

### Objectives of the study are to:

- To assess the knowledge regarding Covid-19 vaccine among the adults of selected villages of Gokak Taluka.
- To assess the attitude regarding Covid-19 vaccine among the adults of selected villages of Gokak Taluka.
- To assess the co-relation between knowledge and attitude regarding Covid-19 vaccine.
- To find out the association between knowledge and attitude with selected demographic variables.

### Methodology :

To achieve the Objective of the study with descriptive survey approach Descriptive co-relation research design was adapted for the study. The subjects were selected by applying Non-probability convenient sampling technique to

participate in the study. The tool prepared for data collection comprised of structured knowledge questionnaire and attitude scale. Data analyzed using descriptive and inferential statistics appreciate to achieve the set of objectives.

### Results:

The mean knowledge score of adults is 19.06, Median 19.5, Standard Deviation is 4.5 and Mean % score is 63.53%. The mean Attitude score of the adults is 71.72, Median 73.5 and Standard Deviation is 7.76 and mean % score is 79.68%. The calculated chi-square value for all demographic variables of adults was lesser than the table value, except for education and occupation. Hence, it reveals that occupation ( $X^2 = 17.06$  Df = 5) and education ( $X^2 = 11.97$  Df = 4) was found having significant association between knowledge on covid-19 vaccine. The calculated chi-square value for all demographic variables of adults was lesser than the table value, except gender. Hence it reveals that only gender ( $X^2 = 6.62$  Df = 1) was found having significant association between attitude on Covid-19 vaccine. The Co-relation coefficient was found to be  $p = 0.06$  which shows that there is statistically significant positive Co-relation between knowledge and attitude.

### Interpretation and Conclusion:

The result of the study clearly indicate that, from all the sample (50) majority of adults i.e. 56% have average knowledge about covid-19 vaccine and about 60% of adults have favorable attitude towards the vaccine.

**Keywords:** Attitude, Knowledge, Descriptive study, COVID-19 Vaccine.

## INTRODUCTION

*“We will distribute a vaccine, we will defeat virus, we will end the pandemic”*

*President Donald J Trump*

COVID-19 is the name given by the World Health Organization (WHO) on February 11, 2020 for the disease caused by the novel corona virus SARS-CoV2. It started in Wuhan, China in late 2019 and has since spread worldwide. COVID-19 is an acronym that stands for corona virus disease of 2019[1]. When china informed the WHO (world Health Organization) of a cluster of case of pneumonia of an unknown cause in WUHAN city in Hubei province. Subsequently the disease spread to more provinces in CHINA, and to rest of the world. The WHO has now declared it as pandemic. The virus has been named SARS-coV-2 and the disease is now called as Covid-19.[2]

## MATERIALS AND METHODS

**Research approach:** Descriptive research approach

**Research design:** Quantitative research design

**Sample:** The samples will be adults with the age group of 20-59 years in selected villages of Gokak Taluka.

**Sampling technique:** Non-probability convenient sampling technique

**Sample size:** 50 adults residing at selected village of Gokak Taluka.

**Tool:** The data was collected by Structured knowledge questionnaire and attitude scale

**Plan for data analysis:** Descriptive statistics ( frequency, percentage, range, mean, median and

Prior to the COVID-19 pandemic, there was an established body of knowledge about the structure and function of corona viruses causing diseases like severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), which enabled accelerated development of various vaccine technologies during early 2020.[3]

Prior to COVID-19, a vaccine for an infectious disease had never been produced in less than several years and no vaccine existed for preventing a corona virus infection in humans. However, vaccines have been produced against several animal diseases caused by corona viruses, including (as of 2003) infectious bronchitis virus in birds, canine corona virus, and feline coronavirus.[4]

standard deviation) and inferential statistics ( chi-square test) were used for the analysis and interpretation of data.

**Setting for the study:** The study will be conducted in the selected village of Gokak taluka.

**Sampling criteria**

**Inclusive criteria:**

Adults who are available at the time of data collection.

Adults who can understand and speak Kannada and English.

**Exclusive Criteria:**

Adults who are not willing to participate in the study.

## DATA COLLECTION INSTRUMENTS

The tool used for data collection was structured knowledge questionnaire and attitude scale.

## REVIEW OF LITERATURE

Review of literature is a broad, systematic and critical collection and evaluation of important scholarly published literature as well as unpublished materials. The review serves as an essential background for any research.

A literature review helps to lay the foundation for a study, and can also inspire new research.

A study was conducted on “covid-19 vaccine hesitancy worldwide: a concise systematic review of vaccine acceptance rates”. The aim of this review was to provide an up-to-date assessment of COVID-19 vaccination acceptance that rate worldwide. Results from 31 peer-reviewed published studies met the inclusion criteria and formed the basis for the final COVID-19 vaccine acceptance estimates. Survey studies on COVID-19 vaccine acceptance rates were found from 33 different countries. Among adults representing the general public, the highest COVID-19 vaccine acceptance rates were found in Ecuador (97.0%), Malaysia (94.3%), Indonesia (93.3%) and China (91.3%). However, the lowest COVID-19 vaccine acceptance rates were found in Kuwait (23.6%), Jordan (28.4%), Italy (53.7), Russia (54.9%), Poland (56.3%), US (56.9%), and France (58.9%).[5]

A cross-sectional study was conducted on “Assessment of the knowledge, preferences and concern regarding the prospective COVID- 19

vaccine among adults residing in New Delhi, India”. The study was carried out to assess the present state of knowledge people have about the probable vaccine for COVID-19, to know the preferences of respondents about this vaccine and to learn the expectations and apprehensions of people about features of this prospective COVID-19 vaccine residing in the capital city of India.[6]

A cross-sectional study was conducted on “Knowledge, attitudes, and practices (KAP) toward COVID-19 in South Korea”. This study examines the public’s knowledge, attitudes, and practices (KAP) related to COVID-19 and their relationships and identified the pandemic’s vulnerable populations to provide recommendations for behavioral interventions and policies. Data collection took place over 3 days (June 26–29) via an online survey 5 months after the Korea Centers for Disease Control and Prevention (KCDC) confirmed the first COVID case in South Korea; 970 subjects were included in the statistical data analysis. The study concluded that, to increase precautionary behaviors among the public, health officials and policymakers must promote knowledge and efficacy belief. Future interventions and policies should also be developed in a ‘person-centered’ approach, targeting vulnerable subgroups, embracing them, and closing the gap of KAP toward COVID-19.[7]

## RESULTS:

Data was analyzed by using descriptive and inferential statistics.

The analysis of the data organized under the following section.

**SECTION A:**

**Frequency and percentage distribution of subjects according to the demographic variables**

**TABLE NO.1: Classification of respondents based on demographic characteristics.**

SI.NO	DEMOGRAPHIC	VARIABLES	FREQUENCY	PERCENTAGE
1	Age	20-29 years	28	56%
		30-39 years	08	16%
		40-49 years	08	16%
		50-59 years	06	12%
2	Gender	Male	29	58%
		Female	21	42%
3	Education	Illiterate	11	22%
		Primary	11	22%
		Secondary	07	14%
		PUC	20	40%
		Graduation	01	2%
4	Income	Less than 5000	06	12%
		5001-10000	06	12%
		10001-15000	20	40%
		More than 15000	18	36%
5	Occupation	Student	14	28%
		Agriculture	11	22%
		Business	04	08%
		House wife	07	14%
		Private Job	03	06%
		Govt. Job	11	22%
6	Religion	Hindu	38	76%
		Muslim	07	16%
		Christian	04	08%
		Others	01	02%
7	Marital status	Married	32	64%
		Unmarried	18	36%
8	Previous source Of information	Family members	18	36%
		Friends	04	08%
		Health workers	15	30%

	Mass media	12	24%
	Others	01	02%

The data presented in the above table revealed that, Majority (58%) of the study participants were males and (56%) were in the age group of 20 –29 years. Most of the participants (40%) have done PUC. Majority of participants (40%) have family income of 1000-15000 and 28% were students. Most of the participants (76%) were Hindu. Most of the participants (64%) were married. Majority of participants (36%) previous source of information were family member.

### SECTION B:

**Findings of knowledge and attitude score of adults regarding COVID 19 vaccine.**

**TABLE NO 2: Mean, Standard deviation, and Mean percentage of Knowledge and Attitude score.**

ASPECTS	RANGE		MEAN	MEDIAN	SD	MEAN %
	Max	Min				
<b>KNOWLEDGESCORE</b>	9	27	19.06	19.5	4.5	63.53%
<b>ATTITUDE SCORE</b>	49	85	71.72	73.5	7.76	79.68%

The data depicted in the **Table no.2** reveals that the mean knowledge score of adults is 19.06, Median 19.5, SD is 4.5 and Mean % score is 63.53%. And Mean Attitude score of the adults is 71.72, Median 73.5, SD is 7.76 and mean % score is 79.68%.

**TABLE NO 3: Classification of respondents based on level of Knowledge**

**N=50**

Knowledge level	Score	Frequency	Percentage
Poor	0-10	03	6%
Average	11-20	28	56%
Good	21-30	19	38%

The data depicted in the Table no.3 reveals that majority i.e. (56%) of the adults had average level of Knowledge regarding COVID -19 vaccine followed by (38%) of adults had good knowledge and (6%) of adults had poor knowledge regarding COVID-19 vaccine.

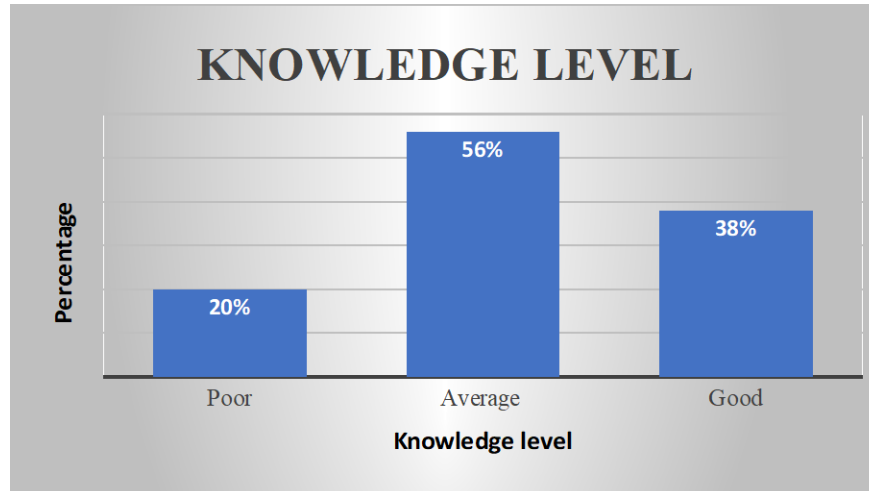


Fig. No: 1

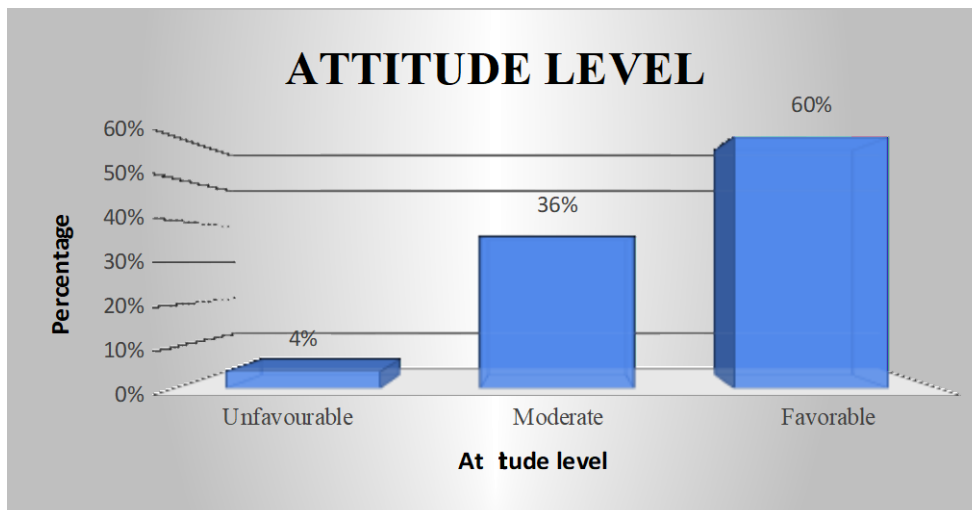
N=50

**Fig no 1:** The column diagram represents classification of respondents based on the level of Knowledge of the adults. The graph reveals that (56%) of adults had average level of knowledge

**TABLE NO. 4: Classification of respondents based on levels of attitude.**

ATTITUDE LEVEL	SCORE	FREQUENCY	PERCENTAGE
Unfavorable	30 – 50	02	4%
Moderate	51 – 70	18	36%
Favorable	71 – 90	30	60%

The data Depicted in Table no.4 reveals that majority i.e.(60%) of the adults have favorable level of attitude towards COVID -19 vaccine.Followed by (36%) of the adults had moderate and (4%) of adults had unfavourable level of attitude regarding Covid -19 Vaccine.



**Fig no: 2** **N=50**

**Fig no.2:** The column diagram represents classification of respondents based on the level of attitudes of the adults. The graph reveals that (60%) of adult had favorable level of attitude regarding Covid -19 vaccine.

**SECTION C:**

**Chi-square test showing association between knowledge score of the students with selected demographic variables.**

**Table no.5:** Chi- square test showing association between knowledge score of the adults with selected demographic variables.

DEMOGRAPHIC	VARIABLES	KNOWLEDGE SCORE		DF	X <sup>2</sup>	INFERENCE
		Below median	Above median			
AGE	20-29 Years	11	17	3	2.95	NS
	30-39 years	5	3			
	40-49 years	5	3			
	50-59 years	4	2			
GENDER	Male	15	14	1	0.084	NS
	Female	10	11			
EDUCATION	Illiterate	7	4			
	Primary	10	1			



	Secondary	4	3	04	11.97	S
	PUC	3	17			
	Graduation	1	0			
INCOME	Less than 5000	3	3	3	0.88	NS
	5001-10000	5	1			
	10001-15000	10	10			
	More than 15000	7	11			
OCCUPATION	Student	2	12	5	17.06	S
	Agriculture	7	4			
	Business	3	1			
	House wife	7	0			
	Private job	2	1			
	Govt. job	4	7			
RELIGION	Hindu	17	21	3	5.56	NS
	Muslim	3	4			
	Christian	4	0			
	Others	1	0			
MARITAL STATUS	Married	25	12	1	5.4	NS
	Unmarried	5	13			
PREVIOUS SOURCE OF INFORMATION	Family members	10	8	4	2.12	NS
	Friends	2	2			
	Health workers	6	9			
	Mass media	7	5			

NS = not significant

S = significant

The above table summarizes the Chi-square test value to find out association between knowledge regarding the covid-19 vaccine with selected demographic variables. The calculate chi-square value for all demographic variables of adults was lesser than table value, except education and occupation. Hence, it reveals that occupation ( $X^2 = 17.06$  Df = 5) and education ( $X^2 = 11.97$  Df = 4) was found having significant association between knowledge on covid-19 vaccine.

**SECTION D:**

Chi- square test showing association between attitude score of adults with selected demographic variables.

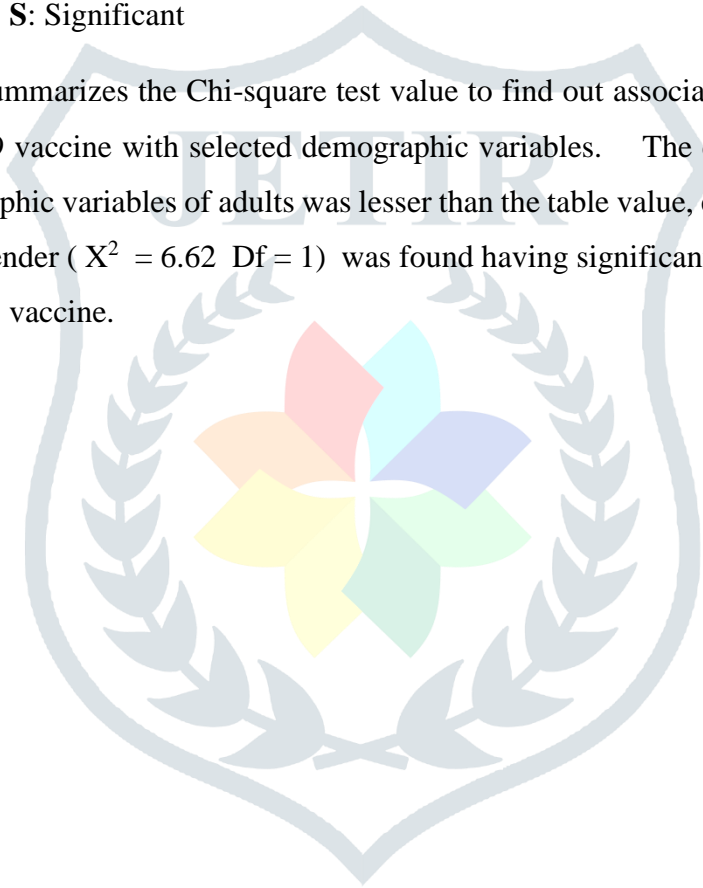
**TABLE NO: 6 Chi-square test showing association between attitude score of adults with selected demographic variables.**

DEMOGRAPHIC	VARIABLES	ATTITUDE SCORE		Df	X <sup>2</sup>	INFERENCE
		BELOW MEDIAN	ABOVE MEDIAN			
AGE	20-29 Years	12	16	3	5.46	NS
	30-39 years	5	3			
	40-49 years	5	3			
	50-59 years	4	2			
GENDER	Male	19	10	1	6.62	S
	Female	6	15			
EDUCATION	Illiterate	1	0	04	2.44	NS
	Primary	7	4			
	Secondary	5	6			
	PUC	3	4			
	Graduation	9	11			
INCOME	Less than 5000	4	2	3	0.59	NS
	5000-10000	3	3			
	10001-15000	10	10			
	15001-20000	9	9			
	More than 20000					
OCCUPATION	Student	5	9	5	5.8	NS
	Agriculture	7	4			
	Business	2	2			
	House wife	2	5			
	Private job	1	2			
	Govt. job	8	3			
RELIGION	Hindu	19	19	3	3.28	NS
	Muslim	2	5			
	Christian	3	1			
	Others	1	3			

MARITAL STATUS	Married	19	13	1	3.12	NS
	Unmarried	6	12			
PREVIOUS SOURCE OF INFORMATION	Family	11	7	4	3.26	NS
	Members	1	3			
	Friends	8	7			
	Health workers					
	Mass media	5	7			
	Others	0	1			

**N S:** not significant    **S:** Significant

The above table summarizes the Chi-square test value to find out association between attitude regarding COVID-19 vaccine with selected demographic variables. The calculated chi-square value for all demographic variables of adults was lesser than the table value, except gender. Hence it reveals that only gender ( $X^2 = 6.62$  Df = 1) was found having significant association between attitude on Covid-19 vaccine.



**SECTION E:****Findings related to association between knowledge and attitude of the adults with their demographic variables.**

Table no. 7: Correlation of knowledge and attitude regarding COVID-19 Vaccine among adults of selected villages of Gokak Taluka.

	Correlation coefficient	P value
Correlation between knowledge and attitude of the adults regarding COVID-19 Vaccine	$\rho = 0.06$	$>0.05$

The above table indicates Co-relation coefficient between knowledge and attitude regarding Covid-19 vaccine among adults. Karl's Co-relation coefficient formula was used to work out the Co-relation between knowledge and attitude. The Co-relation coefficient was found to be  $p = 0.06$  which shows that there is statistically significant positive Co-relation between knowledge and attitude.

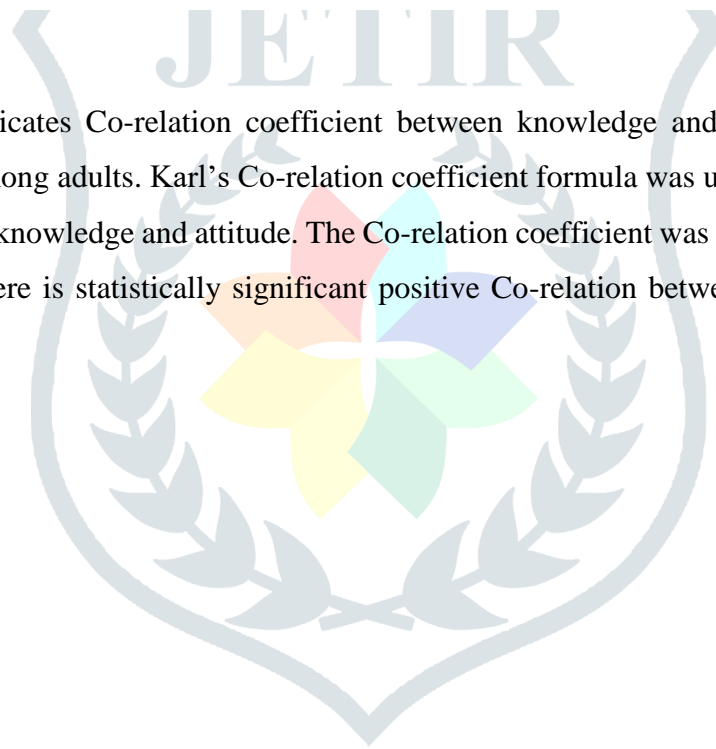


Fig no:3

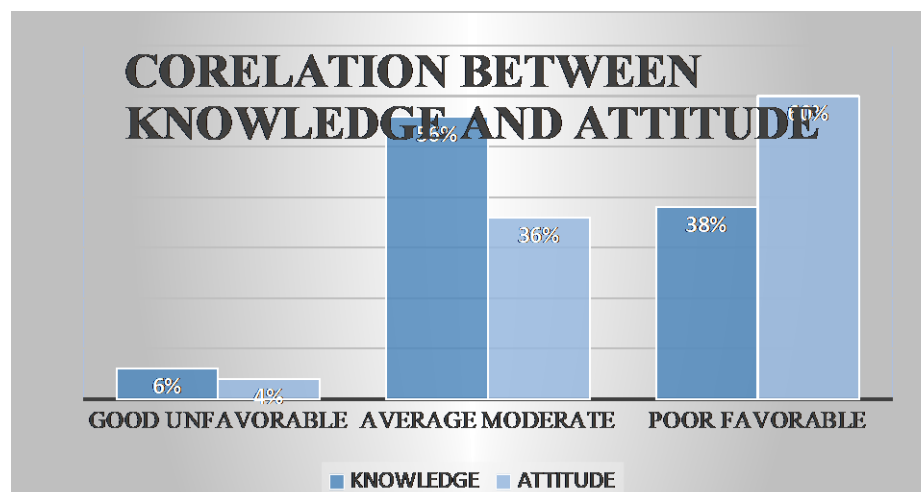


Fig no 3: The above column diagram represents the co-relation between knowledge and attitude regarding Covid-19 vaccine among adults.

## DISCUSSION

**The first objective was to assess the knowledge regarding Covid-19 vaccine among the adults of selected areas of Gokak Taluka.**

The study findings shows that majority of adults (56%) have average knowledge about covid-19 vaccine. 38% have good knowledge and only 6% have poor knowledge regarding covid-19 vaccine.

**The second objective was to assess the attitude regarding Covid-19 vaccine among the adults of selected villages of Gokak Taluka.**

The study findings shows that majority of adults (60%) have favorable attitude towards the covid-19 vaccine. 36% have moderate attitude towards covid-19 vaccine and 4% of adults have unfavorable attitude towards covid-19 vaccine.

**The third objective was to assess the co-relation between knowledge and attitude regarding Covid-19 vaccine**

Karl's Co-relation coefficient formula was used to work out the Co-relation between knowledge and attitude. The Co-relation coefficient was found to be  $p = 0.06$  which shows that there is statistically significant positive Co-relation between knowledge and attitude

**The fourth objective was to find out the association between knowledge and attitude with selected demographic variables.**

The chi-square value for knowledge shows that there is significant association between knowledge with education and occupation. The chi-square value for attitude shows that there is significant association between attitude with gender.

**H1:- There will be significant association between knowledge and selected demographic variables.**

The calculated chi-square value for all demographic variables of adults was lesser than the table value, except education and occupation hence it reveals that occupation ( $X^2 = 17.06$  Df = 5) and education ( $X^2 = 11.97$  Df = 4) was found having significant association between knowledge on covid-19 vaccine.

**H2:- There will be a significant association between Attitudes with selected demographic variables.**

The calculated chi-square value for all demographic variables of adults was lesser than the table value, except gender. Hence it reveals that only gender ( $X^2 = 6.62$  Df = 1) was found having significant association between attitude on Covid-19 vaccine.

**CONCLUSION**

This descriptive study reveals that, from all the sample (50) majority of adults i.e. 56% have average knowledge about covid-19 vaccine and about 60% of adults have favorable attitude towards the vaccine. We suggest that awareness about covid-19 disease and its prevention should be given to the general public.

**NURSING IMPLICATIONS**

A Structured Knowledge Program (STP) or Video Assisted program can be use to enhance the knowledge and attitude regarding covid-19 vaccine among adults.

**REFERENCE**

1. Sophie Vergnaud, MD, is the clinical expert on the GoodRx Research Team. She specializes in pulmonology and all things internal medicine. Medicine and Health October 23, 2020, (PT)[<https://www.goodrx.com/blog/what-does-covid-19-mean-who-named-it/>]
2. Simon James Fong, NilanjanDey, and JyotismitaChaki, An Introduction to COVID-19[<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7307707/>]
3. Padilla ,TB COVID-19 vaccine, Wikipedia, (24 February 2021). “No one is safe unless everyone is safe”. BusinessWorld. Retrieved 24 February 2021[[https://en.m.wikipedia.org/wiki/COVID-19\\_vaccine](https://en.m.wikipedia.org/wiki/COVID-19_vaccine)]
4. So AD, Woo J . Wikipedia, COVID-19 vaccine “Reserving coronavirus disease 2019 vaccines for global access: cross sectional analysis”(December 2020) [[https://en.m.wikipedia.org/wiki/COVID-19\\_vaccine](https://en.m.wikipedia.org/wiki/COVID-19_vaccine)]
5. [Archana Kumari Piyush Ranjan Sakshi Chopra Divjyot Kaur](#) et al, What Indians Think of the COVID-19 vaccine: A qualitative study comprising focus group discussions and thematic analysis. Received 15 March 2021, Accepted 21 March 2021, Available online 26 March 2021. [[www.sciencedirect.com/science/article/pii/S1871402121000953](http://www.sciencedirect.com/science/article/pii/S1871402121000953)]
6. [ArchanaKumari,PiyushRanjan, Arunangshu Bhattacharyya, Mehak Arora](#) et al. Development and validation of a questionnaire

to assess knowledge, attitude, practices, and concerns regarding COVID-19 vaccination among the general population. Received 27 March 2021, Accepted 4 April 2021, Available online 20 April 2021 [<https://www.sciencedirect.com/science/article/pii/S1871402121001168>]

7. [Minjung Lee, Bee-Ah Kang&Myoungsoon You](#), Knowledge, attitudes, and practices (KAP) toward COVID-19: a cross-sectional study in South Korea Received:09 September 2020, Accepted: 20 January 2021, Published: 05 February 2021 [<https://doi.org/10.1186/s12889-021-10285-y>]

