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## Knowledge and attitude regarding prevention and management of Covid-19 infection among people of selected rural areas of Kalaburgi district

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### Abstract

**Background:** People are becoming panicked, emotionally unsecured, depressed, and in a stage of confusion because they are unaware of the facilities provided by the government, regarding reliable news sources, symptoms of COVID-19 and its prevention with the cure. It is now very clear that COVID-19 is creating very disaster effects globally with India.

**Methodology:** A quantitative approach with exploratory descriptive survey design was adopted for the study. The samples from the selected rural areas of Kalaburgi district were selected using convenient sampling technique. The sample consisted of 60 rural people. The tools used for data collection was knowledge questionnaire and structured attitude scale.

**Results:** The study result reveal that, with respect to knowledge (6.7%) respondents were had poor knowledge, 40(66.7%) were had moderate knowledge and 16(26.7%) were had good levels of knowledge. With regard to attitude, 11(18.3%) respondents were had Non favorable attitude, 42(70%) were had favorable attitude and 7(11.7%) were had positive attitude. The correlation between knowledge and attitude scores of rural people regarding prevention and management of Covid-19 infection is found not significant at  $p < 0.05$  levels.

**Conclusion:** There is a need for the education for the rural people for the prevention and management of Covid-19 infection among rural people and promote their health during pandemic situation.

**Keywords:** Knowledge, attitude, prevention and management of Covid-19 infection, rural people, rural areas

### Introduction

The novel Corona virus 2019 (also known as SARS-CoV-2) is responsible for the worldwide pandemic of Corona virus disease in 2019. (COVID- 19). COVID-19 was first recognized as a cluster of cases of pneumonia in late December 2019 in China <sup>[1]</sup>, and it quickly spread to other countries around the world. The definitive modes of SARSCoV-2 transmission are not yet completely known; however, health officials suggest that it could primarily spread through droplets when an infected person coughs or sneezes, as well as by direct contact with other people who are infected with the virus <sup>[2]</sup>.

Regrettably, no drugs or vaccines have yet been officially approved for the treatment of COVID-19 however, several drugs, including hydroxychloroquine and remdesivir, are currently undergoing clinical investigation. Consequently, the only method available for preventing the further spread of COVID-19 is to become familiar with the universal precautions for safety (USPs) and to adhere to them. During the pandemic, putting into practise the following non-pharmacological USPs would reduce the strain on overburdened healthcare systems as well as the concerns of the general public <sup>[3]</sup>.

Observing proper personal hygiene is one of the most important preventative measures that can be taken against respiratory illnesses of any kind, including COVID-19. Hand washing and maintaining social and physical distance are both effective methods for preventing the transmission of an illness from one person to another <sup>[4]</sup>.

Isolation and quarantine are also important preventative measures, and they should primarily be applied to people who are exhibiting symptoms or who have been confirmed to have COVID-19. Community containment would be implemented in the event that the measures described above are insufficient in preventing the wide spread of the infection. In this strategy, an entire community or neighborhood would be restricted in order to reduce the number of personal interactions, with the exception of circumstances that are unavoidable.

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Another precautionary control measure that can be taken is the use of personal protective equipment (PPE), which can include things like face masks, gloves, and hand sanitizers. However, this control measure is not as effective as other control measures<sup>[5]</sup>.

People are becoming panicked, emotionally unsecured, depressed, and in a stage of confusion because they are unaware of the facilities provided by the government, regarding reliable news sources, symptoms of COVID-19 and its prevention with the cure. It is now very clear that COVID-19 is creating very disaster effects globally with India.

People in many regions of India view having a Corona virus infection as a social stigma, and as a result, those affected are more likely to conceal their illness and be reluctant to seek medical attention. In this context, the World Health Organization (WHO) is making every effort to provide the public with technical guidance and answers to their questions in an effort to allay their concerns about COVID-19-related social discrimination and stigma. On the other hand, the government of India is working to raise awareness among its citizens by disseminating information through a variety of trustworthy sources, as well as by providing medical facilities and making an effort to cut down on the financial damage caused by the coronavirus<sup>[6]</sup>.

### Objectives

1. To assess the knowledge and attitude of rural people regarding prevention and management of Covid-19 infection
2. To find out an relationship between knowledge and attitude scores regarding prevention and management of Covid-19 infection
3. To find an association between pretest level of knowledge and attitude regarding prevention and management of Covid-19 infection with their selected socio demographic variables.

### Hypothesis

**H<sub>01</sub>:** There will be no significant statistical relationship between knowledge and attitude scores of rural people related to prevention and management of Covid-19 infection at 0.05 level of significance

**H<sub>02</sub>:** There is no statistical significant association between pretest levels of knowledge of rural people regarding prevention and management of Covid-19 infection and their selected socio demographic variables.

**H<sub>03</sub>:** There is no statistical significant association between pretest levels of attitude of rural people regarding

prevention and management of Covid-19 infection and their selected socio demographic variables.

### Methodology

Research Approach: Quantitative Research Approach

Research Design : Exploratory descriptive design

Sampling technique: Non-Probability, Convenient Sampling Technique

Sample size: 60

Setting of study: Selected rural areas of Kalaburgi district

Method of data collection: Interview technique

Period of data collection: October to December 2020

### Tools used

#### Section I: Socio-demographic variables of Participants

#### Section II: Structured Knowledge questionnaire

Structured knowledge consisted of 30 multiple choice questions related to prevention and management of Covid-19 infection. There were four alternative answers, from which the participants have to choose one best option by encircling it. The total knowledge scores ranged from 0–30. The score is further divided arbitrarily as follows; Poor knowledge (<10), Moderate knowledge (11-20), Good knowledge (21-30).

#### Section III: Structured attitude scale

A structured attitude scale consisted of 14 statements regarding prevention and management of Covid-19 infection. There are five alternative response columns; strongly agree, agree, uncertain, disagree and strongly disagree. The total score ranged from 14 to 70. The score is further divided arbitrarily as follows; Non favorable attitude (14-32), Favorable attitude (33-52), Positive attitude (53-70).

### Procedure of data collection

Data was collected after obtaining administrative permission from selected primary health centers of Kalaburgi district. The investigator personally explained the participants the need and assured them of the confidentiality of their responses. Data was collected by face to face interview by researcher. The data analysis was done by using both descriptive and inferential statistics.

### Results

**The findings related to socio-demographic variables of participants:** Study comprised of 60 participants. The socio demographic variables are presented in following table.

**Table 1:** Frequency & Percentage Distribution of participants according to socio demographic variables N=60

Sl No	Demographic variables	Frequency (f)	Percentage (%)
1	Age (in yrs)		
	20-30	16	26.7
	31-40	23	38.3
	41-50	13	21.7
	51-60	8	13.3
2	Gender		
	Male	32	53.3
	Female	28	46.7
3	Religion		
	Hindu	37	61.7
	Muslim	14	23.3
	Christian	6	10

	Others	3	5
<b>Educational qualification</b>			
4.	No formal education	13	21.7
	Primary school	23	38.3
	High school	10	16.7
	PUC	9	15
	Degree and above	5	8.3
<b>Type of family</b>			
5.	Nuclear	31	51.7
	Joint	22	36.7
	Extended	7	11.7
<b>Marital status</b>			
6.	Married	24	40
	Unmarried	33	55
	Widowed/Divorced	3	5
<b>History of Covid-19 infection in family</b>			
7.	Yes	37	61.7
	No	23	38.3
<b>Previous exposure to educational program related to Covid-19</b>			
8.	Yes	31	51.7
	No	29	48.3
<b>Source of information</b>			
9.	Formal education	16	26.7
	Books/Journals	24	40
	Mass media	16	26.7
	Seminar/Workshop	4	6.7

### Findings Related To Knowledge on prevention and management of Covid-19 infection

**Table 2:** Mean, median, mode, standard deviation and range of knowledge and attitude scores of participants N = 60

Area	Mean	Median	SD	Mode	Range
Knowledge scores	16.71	16	4.40	12	9-25
Attitude scores	39.76	38	9.05	34	23-57

**Table 3:** Frequency and Percentage distribution of participants according to level of Knowledge and attitude regarding prevention and management of Covid-19 infection N=60

Level of Knowledge			Level of Attitude		
Poor (0-10)	Moderate (11-20)	Good (21-30)	Non favorable (14-32)	Favorable (33-52)	Positive (53-70)
4 (6.7%)	40 (66.7%)	16 (26.7%)	11 (18.3%)	42 (70%)	7 (11.7%)

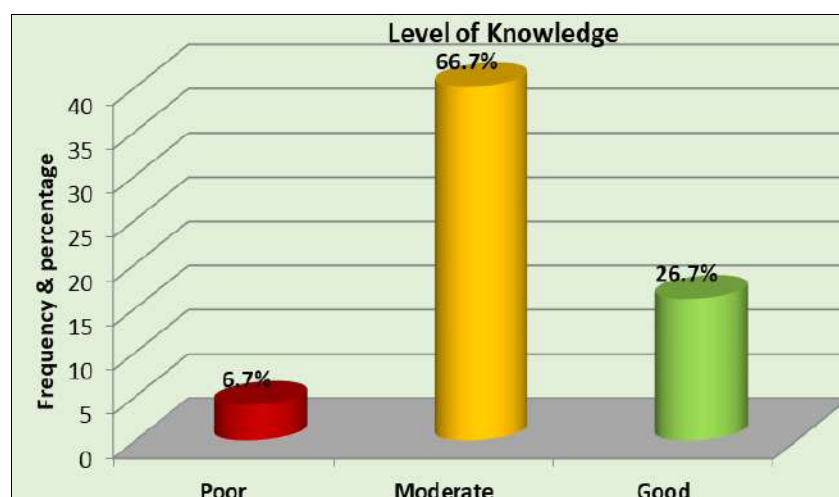
The data presented in the Table 3 depicts the participants level of knowledge and attitude regarding prevention and management of Covid-19 infection, it reveals that; 4(6.7%) respondents were had poor knowledge, 40(66.7%) were had moderate knowledge and 16(26.7%) were had good levels

Table 2 reveals knowledge score of participants regarding prevention and management of Covid-19 infection, it shows that, with regard to knowledge mean was 16.71, range was 9-25, standard deviation was 4.40, mode was 12 and median was 16.

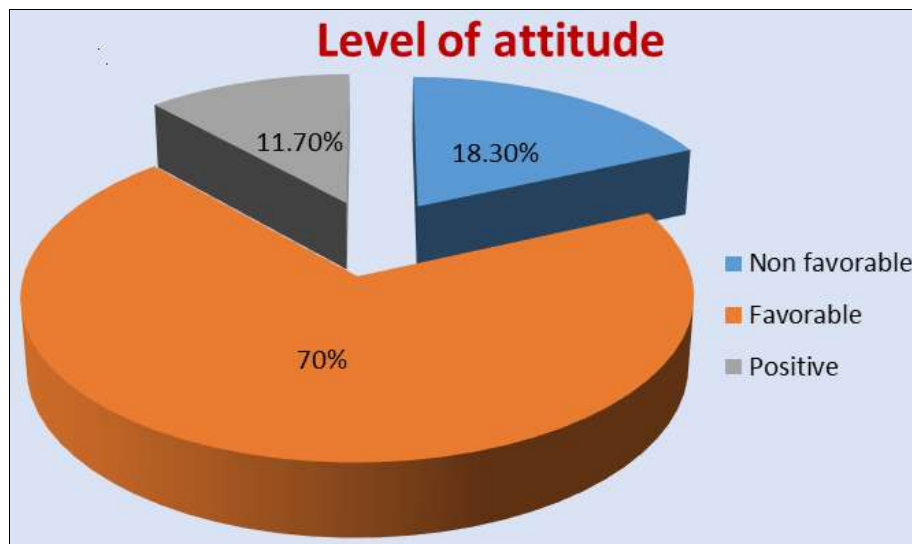
With regard to attitude mean was 39.76, range was 23-57, standard deviation was 9.05, mode was 34 and median was 38.

of knowledge.

With regard to attitude, 11(18.3%) respondents were had Non favorable attitude, 42(70%) were had favorable attitude and 7(11.7%) were had positive attitude regarding prevention and management of Covid-19 infection.



**Fig 1:** Levels of knowledge among participants



**Fig 2:** Levels of attitude among participants

### Findings related to relationship between knowledge and attitude scores regarding prevention and management of Covid-19 infection

**Table 4:** Correlation coefficient of knowledge and attitude scores of rural people regarding prevention and management of Covid-19 infection N=60

Score	Total scores	Mean score	Correlation coefficient
Knowledge scores	1003	16.71	
Attitude score	2316	39.76	-0.25

'Y' (58) = 0.17 P<0.05

The data presented in Table 4 shows that the correlation between knowledge and attitude scores of rural people regarding prevention and management of Covid-19 infection is found not significant at  $p < 0.05$  levels. Thus the hypothesis  $H_{01}$  is accepted, indicating no correlation between knowledge and attitude scores.

### Findings Related Association between levels of knowledge and attitude with selected socio demographic variables of participants

#### Knowledge

The computed Chi-square value for association between level of knowledge of rural people regarding prevention and management of Covid-19 infection is found to be statistically significant at 0.05 levels only for religion of participants and is not found significant at 0.05 level for other selected socio demographic variables. Therefore, the findings partially support hypothesis  $H_{02}$ , hence  $H_{02}$  is partially accepted inferring that rural people level of knowledge regarding prevention and management of Covid-19 infection is significantly associated with their religion.

#### Attitude

Computed Chi-square value for association between levels of attitude of participants regarding prevention and management of Covid-19 infection is not found statistically significant for any of the selected socio demographic variables. Hence null hypothesis  $H_{03}$  is accepted indicating no significant statistical association between level of attitude of participants and their selected socio demographic

variables.

### Conclusion

The findings revealed that rural people were had moderate level of knowledge and favorable attitude towards prevention and management of Covid-19 infection. This suggests that, there is a need for the education for the rural people for the prevention and management of covid-19 infection and its related areas.

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