



A study to assess the Knowledge, Attitude and Practice in prevention of COVID-19 among Elderly at Nellore, Andhra Pradesh.



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Abstract: Objectives: 1. To assess the knowledge, attitude and practice in prevention of COVID-19 among elderly. 2. To correlate between the knowledge, attitude and Practice in prevention COVID-19 among elderly. 3. To determine the association between the knowledge, attitude and practice in prevention of COVID-19 among elderly with selected demographic variables. 4. To provide an information booklet on prevention of COVID-19 to elderly. Methodology: The research design applied for the study was descriptive research design. 100 elderly from Varigonda village, T.P Guduru mandal, Nellore, Andhra Pradesh were selected by simple random sampling technique. Structured interview questionnaire, likert scale, rating scale were used to assess the knowledge, attitude and practice on prevention of COVID-19 among elderly . Results: 100 elderly were assessed regarding knowledge, attitude and practice on prevention of COVID-19. Among 100 respondents 48(48%) had poor knowledge score in prevention of COVID-19, 43 (44%) had poor attitude score, 53 (53%) had poor practice score in prevention of COVID-19. Karl Pearson's co-efficient of correlation indicates that there was a good positive correlation ($r=0.80$) existing between knowledge and attitude, and there was a positive correlation ($r=0.48$) existing between knowledge and practice and there was a good positive correlation ($r=0.71$) between attitude and practice in prevention of COVID-19. There was an association between knowledge score of the respondent in prevention of COVID-19 with marital status at 0.01 level of significance. There was an association between attitude score of the respondent on prevention of COVID-19 with age, gender, occupation at 0.01 level of significance. There was an association between practice score of the respondent in prevention of COVID-19 with educational status, occupation at 0.01 levels of significance. Conclusion: The study concluded that if elderly have adequate knowledge on COVID-19 they can improve the attitude and practice in prevention of COVID-19. **Key words: Assess, Knowledge, Attitude, Practice, Prevention, COVID-19, Elderly.**

Introduction:

Corona virus 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 underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or COVID-19 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. 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.

The COVID-19 pandemic has had huge effects on the daily lives of most individuals in the first half of 2020. Widespread lockdown and preventative measures have isolated individuals, affected the world economy, and limited access to physical and mental healthcare. While these measures may be necessary to minimize the spread of the virus, the negative physical, psychological, and social effects are evident. In response, technology has been adapted to try and mitigate these effects, offering individuals digital alternatives to many of the day-to-day activities which can no longer be completed normally. However, the elderly population, which has been worst affected by both the virus, and the lockdown measures, has seen the least benefits from these digital solutions. The age based digital divide describes a longstanding inequality in the access to, and skills to make use of, new technology. While this problem is not new, during the COVID-19 pandemic it has created a large portion of the population suffering from the negative effects of the crisis, and unable to make use of many of the digital measures put in place to help. This paper aims to explore the increased negative effects the digital divide is having in the elderly population during the COVID-

19 pandemic. It also aims to highlight the need for increased attention and resources to go toward improving digital literacy in the elderly, and the need to put in place measures to offer immediate solutions during the COVID-19 crisis, and solutions to close the digital divide for good in the long-term.

Amudha Aravindhan, Alfred Tau Liang Gan et al (2021) Conducted a study on knowledge, attitudes, and practice (KAP) about COVID-19 and related preventive measures in Singaporeans aged = 60 years. Methods: This was a population-based, cross-sectional, mixed-methods study (13 May 2020- 9 June 2020) of participants aged =60 years. Self-reported KAP about ten COVID-19 symptoms and six government-endorsed preventive measures were evaluated.

Multivariable regression models identified socio demographic and health-related factors associated with knowledge, attitudes and practices in our sample. Associations between knowledge/ attitude scores, and practice categories were determined using logistic regression. 78 participants were interviewed qualitatively about practice of additional preventive measures and data were analysed thematically. Results: Mean awareness score of the symptoms was 7.2/10.

Fever (93.0%) and diarrhea (33.5%) were the most- and least - known symptoms, respectively. Most knew all six preventive measures (90.4%), perceived them as effective (78.7%), and practiced 'wear a mask' (97.2%). Indians, Malays, and those in smaller housing had poorer mean knowledge of COVID-19 symptoms scores. Older participants had poorer attitudes towards preventive measures. Compared to Chinese, Indians had lower odds of practicing 3/6 recommendations. A one-point increase in knowledge of and attitudes towards preventive measures score had higher odds of always practicing 3/6 and 2/6



measures, respectively.

Qualitative interviews revealed use of other preventive measures, e.g. maintaining a healthy lifestyle.

Conclusion: Elderly Singaporeans displayed high levels of KAP about COVID-19 and related preventive measures, with a positive association between levels of knowledge/attitude, and practice. However, important ethnic and socioeconomic disparities were evident, suggesting key vulnerabilities remain, requiring immediate attention.

Need for the Study:

Globally, as of 6:04pm CEST, 16 May 2022, there have been 519,105,112 confirmed cases of COVID-19, including 6,266,324 deaths, reported to WHO. As of 15 May 2022, a total of 11,660,363,722 vaccine doses have been administered and In India, from 3 January 2020 to 6:04pm CEST, 16 May 2022, there have been 43,123,801 confirmed cases of COVID-19 with 524,241 deaths, reported to WHO. As of 10 May 2022, a total of 1,906,551,885 vaccine doses have been administered.

Krithika Murali, Nitya Balagopalan et al (2022) conducted a cross sectional survey on Knowledge, attitude, and practices related to COVID-19 among poor and marginalized communities in central India.

The objective of this study was to know about the knowledge, attitude and practices towards COVID-19 among poor and marginalized communities in central India and the factors associated with them so that effective risk communication messages can be designed and community engagement needs and strategies can be identified. A cross-sectional survey was conducted using an Interactive Voice Response System as part of the NISHTHA Swasthya Vani intervention, which is a platform for dissemination of key messages related to COVID-19, social welfare schemes, national health programs and

other important information. A total of 1673 respondents participated in the survey. The mean knowledge, attitude and practice scores of the respondents was 4.06 (SD = 1.67) out of 8, 2.46 (SD = 1.18) out of 4 and 3.65 (SD = 0.73) out of 4 respectively. More than 50% respondents exhibited stigma towards recovered COVID-19 patients (n = 347) and towards health workers (n = 384) catering to COVID-19 patients. The factors associated with higher KAP scores were education, occupation, age and primary source of information on COVID-19.

There was a positive correlation between knowledge and attitude (co-efficient: 0.32) and a negative correlation between knowledge and stigma (co-efficient: - 0.28). The knowledge, and attitude scores related to COVID-19 were low among the poor and marginalized communities, while the prevalence of stigma was high.

Therefore, there is a need for effective risk communication for these communities through alternate channels.

Objectives:

1. To assess the knowledge, attitude and practice in prevention of COVID-19 among elderly.
2. To correlate between the knowledge, attitude and Practice in prevention COVID-19 among elderly.
3. To determine the association between the knowledge, attitude and practice in prevention of COVID-19 among elderly with selected demographic variables.
4. To provide an information booklet on prevention of COVID-19 to elderly.

Assumptions:

Elderly has inadequate knowledge unfavorable attitude and practice on prevention of COVID-19.

Operational Definitions:

Assessment: Assessment refers to a method of



identification of knowledge, attitude, and practice on prevention of COVID-19.

Knowledge: Knowledge is referred as awareness about factual information regarding COVID-19 as measured by the knowledge questionnaire.

Attitude: refers to the individual person's inner most conviction about prevention of COVID - 19 measured by 3 - point likert scale.

Practice: Practice refers to regular performance of COVID-19 preventive precautions.

Prevention: Prevention refers to any action directed to preventing COVID-19, promoting health to eliminate the problem the need of primary health care.

COVID-19: refers to A highly contagious respiratory disease caused by the SARS-CoV-2 virus.

Elderly: The person who have above 60 years.

Limitations:

The study was limited to Varigonda Village, T.P Gudur mandal, Nellore district Andhra Pradesh only.

The study was limited to 100 elderly only.

Materials and Methods:

Research Approach: An quantitative research approach was adopted to conduct the study Research design: descriptive design was adopted to conduct the present study.

Setting: The study setting of the study was selected in rural areas Varigonda village, T.P Gudur mandal at Nellore district, Andhra Pradesh. It is located 12 Kilometers away from Sree Narayana Nursing College. The total geographical area of village is 1332 hectares. Varigonda has a total population of 5,676 peoples, out of which male population is 2,841 while female population is 2,835. There are about 1,583 houses in varigonda village.

Sample of the study: Elderly of rural community at Nellore.

Sampling procedure: Probability Simple random

sampling technique was used for the selection of elderly.

Sample size: In this study the sample size was 100 elderly who were fulfill the inclusion criteria.

Criteria for selection of elderly Population.

Inclusion criteria

- Elderly above the age 60 years
- Elderly who were willing to participate in the study.
- Elderly who were able to read or communicate Telugu or English.

Exclusion criteria

- Elderly who were not available at the time of data collection.

Instruments used for data collection

Part-1 Demographic variables of elderly include Age, Gender, and Marital status, level of education, occupation, Socio economic status and Type of family.

Part-2 Structured Interview Questionnaire

It was used to Assess the knowledge in prevention of COVID-19 among elderly and it consist of 15 multiple choice questions and has 4 choices. Question related to COVID-19 (Signs and symptoms, Risk factors, Preventive method) each correct response carried one mark and wrong answer was given zero mark. Minimum score given zero and Maximum score was 15.

Part- 3 Assessment of Attitude scale (Likert scale- 3 Point scale)

It was developed by the Investigator identify the Attitude on Prevention of COVID-19 among elderly. It consists of 14 questions and scaled as Agree, Uncertain, and Disagree. The responses were scored from 3 to 1.

Positive Question		Negative Question	
Agree	- 3	Disagree	- 3
Uncertain	- 2	Uncertain	- 2
Disagree	- 1	Agree	- 1

The Maximum Score was 42 and Minimum Score was 14.



Part-4: Assessment of practice in prevention of COVID-19 (Rating scale) It was developed by the investigator to identify the practice of elderly. It consists of 10 Questions. It consists of 5 positive questions, 5 negative questions. The responses were scored from Positive Question Negative Question

Positive Question	Negative Question
Yes - 1	Yes - 1
No - 0	No - 0

The Maximum Score 10 and Minimum Score were 0.

Booklet was prepared by the researcher which contains of signs and symptoms, risk factors, preventive measures in prevention of COVID-19. The booklet issued to the elderly people and individual health education was given to them.

Data collection Procedure

The researcher got formal permission from the Medical Officer, Primary Health Center Varigonda. The data collection was done for a period of six weeks. The Investigator introduced herself to the elderly and brief explanation was given about the purpose of the study. Each elderly person was assured for the data collected from them will be utilized only for the purpose of the study and will be kept as confidential. The investigator obtained informed consent and used structured interview method to collect the data of the sample. The time taken for interviewing each respondent was about 20-25 minutes. Each day around 5 to 8 elderly persons were interviewed. By using 3-point likert scale, the Investigator knows about the attitude regarding COVID-19. By using self measured rating scale, The Investigator will know the practice regarding prevention of COVID-19. A Booklet of COVID-19 was prepared which includes knowledge prevention of COVID-19. In addition to create awareness on prevention of COVID-19 booklet was given to each elderly person.

Data Analysis was done based on the objectives of the study by using Descriptive and Inferential Statistics.

Table.1

Data Analysis	Method	Objectives
Descriptive statistics	Frequency Percentage	Distribution of demographic distribution variables
	Mean, Standard Deviation	To assess the knowledge, attitude and practice in prevention of COVID-19 among elderly.
Inferential statistics	Correlation co-efficient	To correlate between the knowledge, attitude and Practice in prevention COVID-19 among elderly.
	Chi-square test	To determine the association between the knowledge, attitude and practice in prevention of COVID-19 among elderly with selected demographic variables

Results and Discussion:

Table - 1: Frequency and percentage distribution based on Age among elderly (N=100)

Age in years	F	%
a) 60-69 years	44	44
b) 70-79 years	21	21
c) 80 years & Above	35	35
Total	100	100

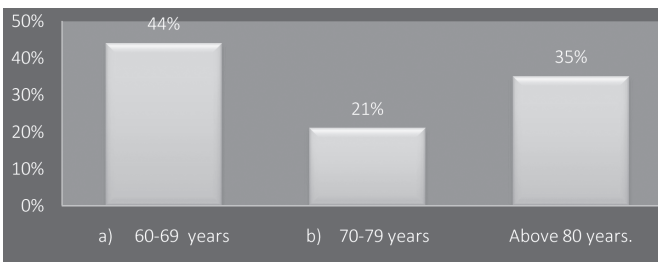


Fig - 1: Percentage distributions of age in years among elderly.

Table.2: Frequency and percentage distribution of Gender among elderly (N =100)

Type of Family	F	%
a) Male	40	40
b) Female	60	60
Total	100	100

The above table shows with regard to gender of elderly Population 40 (40 %) were male and 60 (60 %) elderly Population were female.

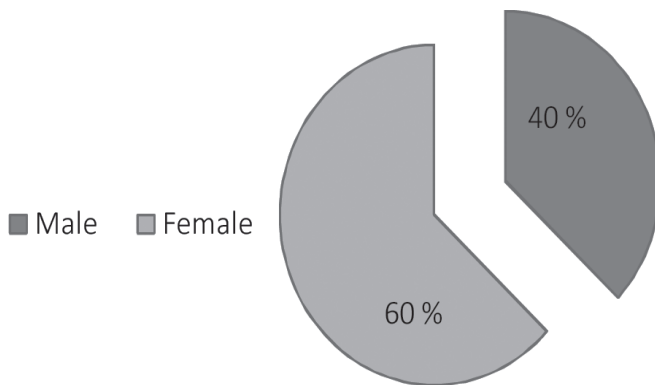


Fig-2: Percentage distribution of gender among elderly.

Table.3: Frequency and percentage distribution of Marital status among elderly (N=100)

Type of Family	F	%
a) Married	47	47
b) Widowed/Widower	53	53
Total	100	100

The above table shows with regard to marital status of elderly Population 47 (47 %) were married and 53 (53 %) elderly Population were Widowed/Widower.

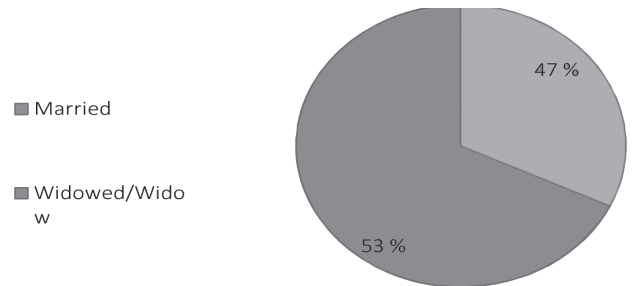


Fig - 3: Percentage distribution of Marital Status among elderly.

Table.5: Frequency and percentage distribution of level of education among elderly. (N=100)

Educational status	F	%
a) Illiterate	29	29
b) Primary education	30	30
c) Secondary education	33	33
d) Higher secondary education	8	8
Total	100	100

The above table shows that about educational status 29(29 %) were illiterate, 30 (30 %) were completed their primary education, 33(33 %) were completed secondary education, eight (8%) elderly Population were completed their higher secondary education.

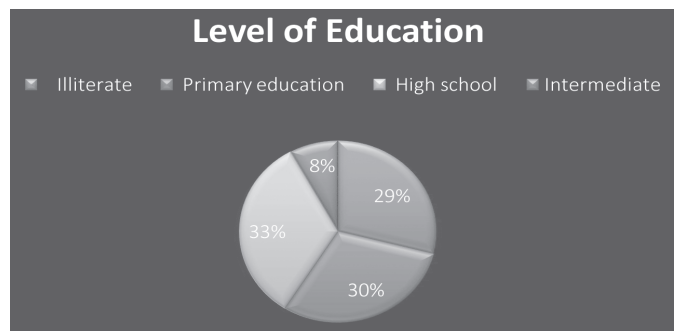


Fig-4: Percentage distribution based on level of education among elderly.

Table.4: Frequency and percentage distribution of Occupation among elderly (N =100)

Occupation	F	%
a) Employee	56	56
b) Un employed	44	44
Total	100	100



Table 6 shows with regard to occupation of elderly population 56 (56%) were employee, 44 (44%) were unemployed.

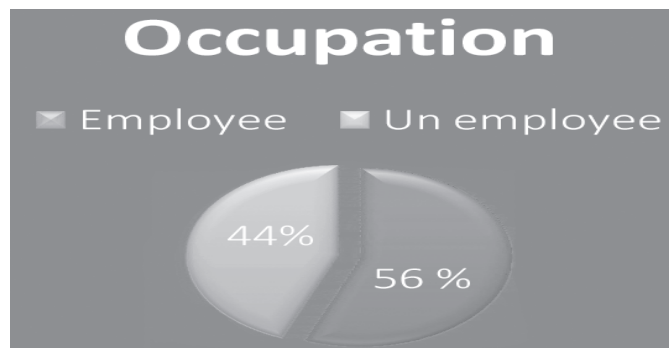


Fig - 5: Percentage distribution of Occupation among elderly.

Table.5: Frequency and percentage distribution of Socio economic status among elderly Population (N =100)

Socio economic status	F	%
a) Low	52	52
b) Moderate	46	46
c) High	2	2
Total	100	100

The above table shows with regard to Socio economic status of elderly Population 52 (52 %) were from low socio economic status, 46 (46 %) elderly Population were from Moderate socio economic status and two (2%) were from low socio economic status.

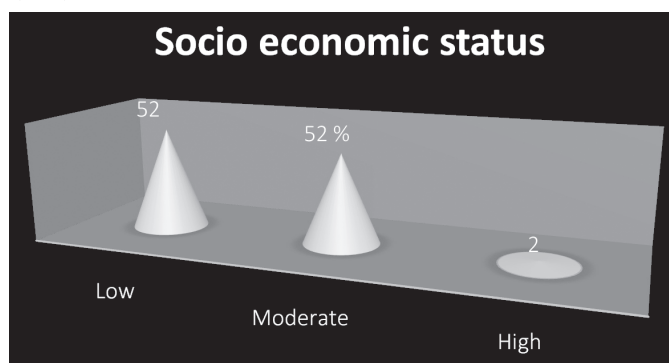


Fig - 6 Percentage distribution of Socio economic status among elderly.

Table.6: Frequency and percentage distribution of type of family among elderly (N =100)

Type of Family	F	%
a) Nuclear family	46	46
b) Joint family	51	51
c) Extended family	3	3
Total	100	100

The above table shows with regard to type of family among elderly Population 46 (46 %) were from nuclear family 51 (51 %) elderly Population were living with joint family and three(3%) elderly population were from extended family.

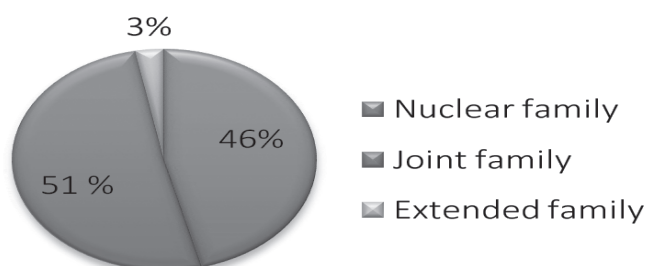


Fig - 7: Percentage distribution of type of family among elderly Populations women.

Table-7: Frequency and percentage distribution of levels of knowledge among elderly. (N=100)

Knowledge Score	Frequency	Percentage
A	48	48
B	40	40
C	12	12
Total	100	100

The above table 9 shows about the levels of knowledge among elderly on prevention of COVID-19 48(48 %) elderly Population had grade knowledge 40 (40 %) hadB grade knowledge and 12 (12%) elderly had C grade knowledge.

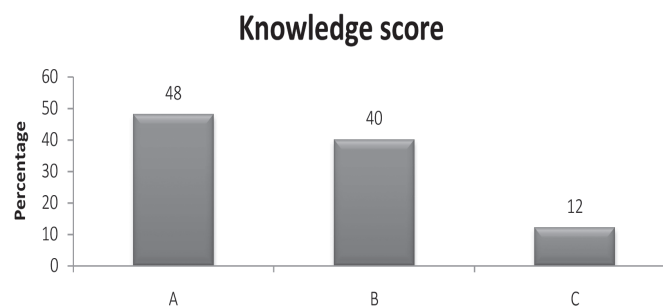




Fig - 8: Distribution of elderly respondents according to their mean knowledge score.

Table - 8: Description of respondents according to mean attitude score in prevention of COVID-19. (N=100)

Attitude score	No of respondents	Per (%)
Up to 22 (Poor)	43	43
23 to 26 (Average)	35	35
27 and above (Good)	22	22

The above table shows that distribution of elderly respondents according to their mean attitude score in prevention of COVID-19. Among 100 respondents 43(43%) had poor attitude, 35 (35%) had average attitude, and 22 (22%) had good attitude score.

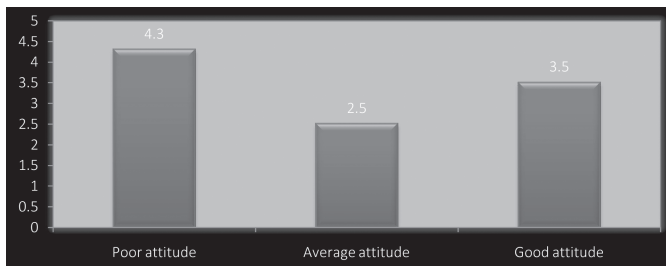


Fig - 9: Distribution of elderly respondents according to their mean attitude score

Table No 9: Description of elderly respondents according to mean practice score in prevention of COVID-19 (N=100)

Practice Score	No of respondents	Per(%)
Up to 3(Poor)	53	53
4 and above(Good)	47	47

In the above table shows that distribution of respondents according to their mean practice score 4.15 in prevention of COVID-19. Among 100 respondents 53(53%) had poor practice score, 47 (47%) had good practice score.

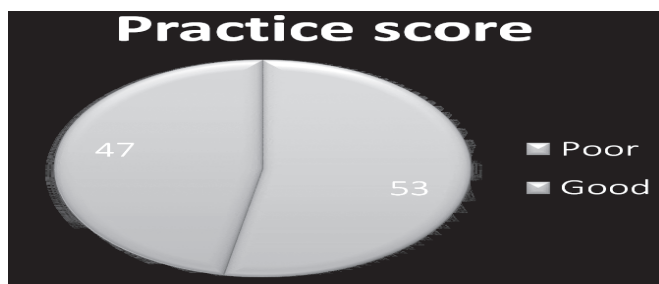


Fig-10: Distribution of respondents according to their mean practice score.

Table no 12: Correlation of knowledge and attitude in prevention of COVID-19 (N=100)

Aspects	No of respondents	Mean	“r”
Knowledge	100	4.56	0.80
Attitude	100	23.51	

In the above table No.12 shows the correlation value for knowledge and attitude and score is 0.80. It is evident that there is a good positive relationship between knowledge and attitude scores. It can be assumed that attitude on prevention of COVID -19 will improve as they gain knowledge.

Table no 10: Correlation of knowledge and practice score in prevention of COVID-19 (N=100)

Aspects	No of respondents	Mean	“r”
Knowledge	100	4.56	0.48
Practice	100	4.15	

In the above table No.13 shows that correlation value for knowledge and practice score of the respondents is 0.48. It is evident that there is a positive relationship between knowledge and practice scores. It can be assumed that practice of prevention of COVID-19 will improve as they gain knowledge.

Table No :11 Correlation of attitude and practice in prevention of COVID-19 (N=100)

Aspects	No of respondents	Mean	“r”
Attitude	100	23.51	0.71
Practice	100	4.15	

In the above table No.14 shows that correlation value for the attitude and practice score of the respondents



is 0.71. It is evident that there is a good positive relationship between attitude and practice scores. It can be assumed that attitude of prevention of COVID-19 will improve as they gain practice.

There was an association between knowledge score of the respondent in prevention of COVID-19 with marital status at 0.01 level of significance. There was an association between attitude score of the respondent on prevention of COVID-19 with age, gender, occupation at 0.01 level of significance. There was an association between practice score of the respondent in prevention of COVID-19 with educational status, occupation at 0.01 levels of significance

Recommendation

On the basis of finding of the study recommendation are being made.

- A similar study can be conducted urban area.
- A comparative study can be done among the rural and urban population.
- A similar study can be conducted with large sample size.
- A comparative study can be done to assess the knowledge on COVID -19 among elderly population.

Conclusion:

Among 100 respondents 48(48%) had poor knowledge score in prevention of COVID-19, 43 (44%) had poor attitude score, 53 (53%) had poor practice score in prevention of COVID-19. Karl Pearson's co-efficient of correlation indicates that there was a good positive correlation ($r=0.80$) existing between knowledge and attitude, and there was a positive correlation ($r=0.48$) existing between knowledge and practice and there was a good positive

correlation ($r=0.71$) between attitude and practice in prevention of COVID-19. There was an association between knowledge score of the respondent in prevention of COVID-19 with marital status at 0.01 level of significance. The study concluded that if elderly have adequate knowledge on COVID-19 they can improve the attitude and practice in prevention of COVID-19.

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