

The Knowledge and Awareness on COVID-19 Among Rural Adults at Puducherry

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Abstract

Title: A Study to assess the knowledge and awareness on COVID 19 among Rural Adults at Puducherry.

Background and Aim: COVID-19 is the disease caused by a new coronavirus called SARS-CoV-2 most commonly present with fever, dry cough and fatigue other common symptoms are Loss of taste or smell, Nasal congestion, Conjunctivitis (also known as red eyes), Sore throat, Headache, Muscle or joint pain, Different types of skin rash, Nausea or vomiting, Diarrhea, Chills or dizziness¹. Knowledge and awareness of mode of disease transmission, basic hygiene principles and measures in public health crisis are vitally important for developing effective control measures⁴. This study aimed to identify the knowledge and awareness on COVID 19 among rural population in Puducherry to plan the control measures and training programme.

Materials and Methods: A cross sectional descriptive study was conducted in march 2023 among Rural adults in Puducherry, total of 173 study participants who gave consent to participate was employed purposively. One to one data was collected using interview method, Awareness and knowledge regarding COVID 19 includes Symptoms, Communicability, Prevention, Protective measures was assessed using structured reliability tested (Cronbach's Alpha method $r = 0.73$) questionnaire, collected data was analysed using SPSS version 23.0 and all the test were performed at a 5% significance level

Results: The mean age of study participants was 36.9 ± 15.8 and 52.6% were Females and 47.4% were males, awareness regarding the COVID 19 among rural adults was 91.9%, most of them are aware regarding the disease from to Television (66.5%) next to WhatsApp communication (31.2%) which shows both mass media and social medias plays a role in communicating health awareness in rural areas. In regards to level of knowledge 87.9% of them has Low level of knowledge and 12.1% of the had Moderate level of knowledge regarding COVID 19. Association was done between Level of knowledge and Age which is statistically highly significant at chi-square value 14.465 ($p = 0.001$) which suggest that age group 21-40 Years are more knowledgeable than others.

Conclusion: The present study conducted that among rural adults in Puducherry, awareness regarding COVID 19 was high but the level of knowledge regrading Symptoms, Communicability, Prevention, Protective measures are very low. This study suggest that mass media and social media communications are plays an important role in awareness and health communication, Strong public and health professional communication system through mass media and social media may create healthy environment and improve the health awareness among rural population.

Keywords: COVID 19, Level of Knowledge, Awareness, Rural Adults, Mass media Communication, Social Media Communication.

Introduction:

COVID-19 is the disease caused by a new coronavirus called SARS-CoV-2 most commonly present with fever, dry cough and fatigue other common symptoms are Loss of taste or smell, Nasal congestion, Conjunctivitis (also known as red eyes), Sore throat, Headache, Muscle or joint pain, Different types of skin rash, Nausea or vomiting, Diarrhea, Chills or dizziness¹.

Patients at risk were especially males, aged older than 60 years, suffering from cardiovascular comorbidities (e.g., arterial hypertension, diabetes, and chronic coronary artery disease), and affected by chronic pneumopathies or cancer and disease started spreading rapidly around the globe. The behavior of the general public will probably have an important bearing on the course of the coronavirus disease 2019 (COVID-19)². Human behavior is influenced by people's knowledge and perceptions³. However, on the one hand, doctors and other health workers multiplied their alarms relatively to this critical situation and to the related recommendations regarding behaviors to be followed and the hygienic conduct to be implemented; on the other hand, there were daily episodes of violation of such medical recommendations by the population, apparently only scarcely aware of the problem².

Knowledge and awareness of mode of disease transmission, basic hygiene principles and measures in public health crisis are vitally important for developing effective control measures⁴. This study aimed to identify the knowledge and awareness on COVID 19 among rural population to plan control measures and training programme.

Materials And Methods

Study design and setting

This was community based cross sectional descriptive study conducted among Rural adults in Puducherry.

Study population

The population was all the residents of Kurumbapet and Amaithi nagar village. We included all the general population who gave consent to participate in the study.

Sample size

The sample size was calculated based on Population Proportion ($n = N \cdot X / (X + N - 1)$), based on the survey conducted, the adult population of Kurumbapet and Amaithi nagar village was 255 and based on the formula calculated sample size was 154 with 95% confidence interval and 5% Significance and total of 173 study participants were given consent to participate and all of them were employed purposively.

Objectives

1. To assess the level of knowledge and awareness on COVID 19 among Rural adults in Puducherry.
2. To associate the level of knowledge on COVID with selected study variables among Rural adults in Puducherry.

Data collection

Informed consents were obtained from the study participants. One to one data was collected in march 2023 using interview method, Awareness and knowledge regarding COVID 19 includes Symptoms, Communicability, Prevention, Protective measures was assessed using structured reliability tested (Cronbach's Alpha method $r = 0.73$) questionnaire.

Data analysis

Collected data was entered in Microsoft Excel 365 and analysed using SPSS version 23.0. Categorical variables were presented as percentages (%) with figures and continues variables presented as mean and SD. Nonparametric test was done to associate the variables and presented as table and all the test were performed at a 5% significance level, thus, an association was significant if $P < 0.05$.

Results

A total of 173 study participants who gave consent was employed purposively in to the study mean age of study participants was 36.9 ± 15.8 and 52.6% were Females and 47.4% were males, awareness regarding the COVID 19 among rural population was 91.9% most of them are aware regarding the disease from to Television (66.5%) next to WhatsApp communication (31.2%) which shows both mass media and social medias plays a role in communicating health awareness in rural areas. In regards to level of knowledge 87.9% of them has Low level of knowledge and 12.1% of the had Moderate level of knowledge regarding COVID 19. In regards to Symptoms of COVID-19 74.6% of them had Low Level of Knowledge and 25.4% of them had Moderate Level of Knowledge. In regards to Communicability of the Disease 91.9% of them had Low Level of Knowledge and 8.1% of them had Moderate Level of Knowledge. In regards to prevention 97.1% of them had Low Level of Knowledge and 2.9% of them had Moderate Level of Knowledge. In regards to Protective measures to the disease 98.8% of them had Low Level of Knowledge and 1.2% of them had Moderate Level of Knowledge. Association was done between Level of knowledge and Age which is statistically highly significant at chi-square value 14.465 ($p = 0.001$) which suggest that age group 21-40 Years are more knowledgeable than others.

Figure 1: Level of Knowledge regarding COVID 19 among Rural adults in Puducherry

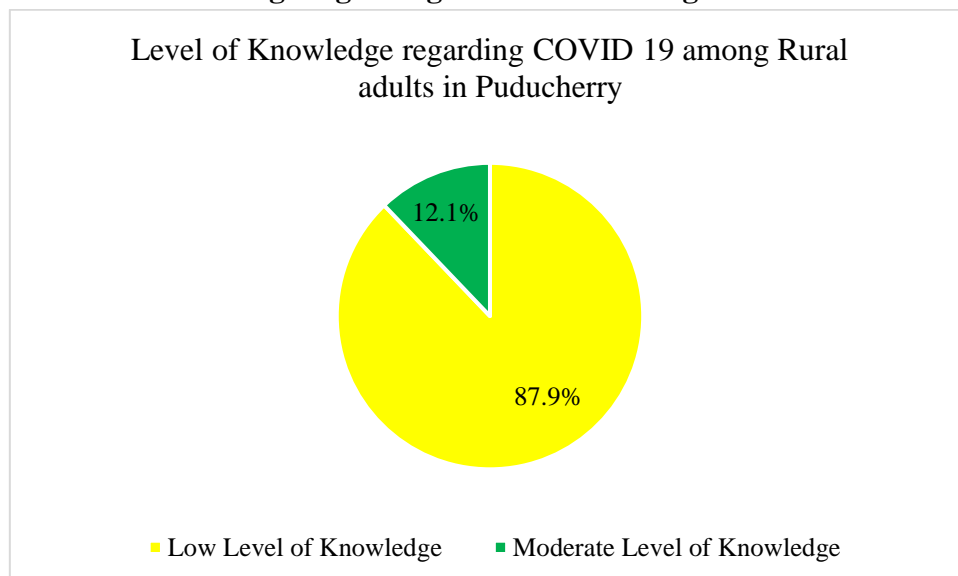


Figure 1 Shows that 87.9% of them has Low level of knowledge, 12.1% of the had Moderate level of knowledge and none of the study participants had adequate knowledge regarding COVID 19 Disease.

Figure 2: Percentage Distribution of Social and mass media Communication on Awareness regarding COVID 19 among Rural adults in Puducherry

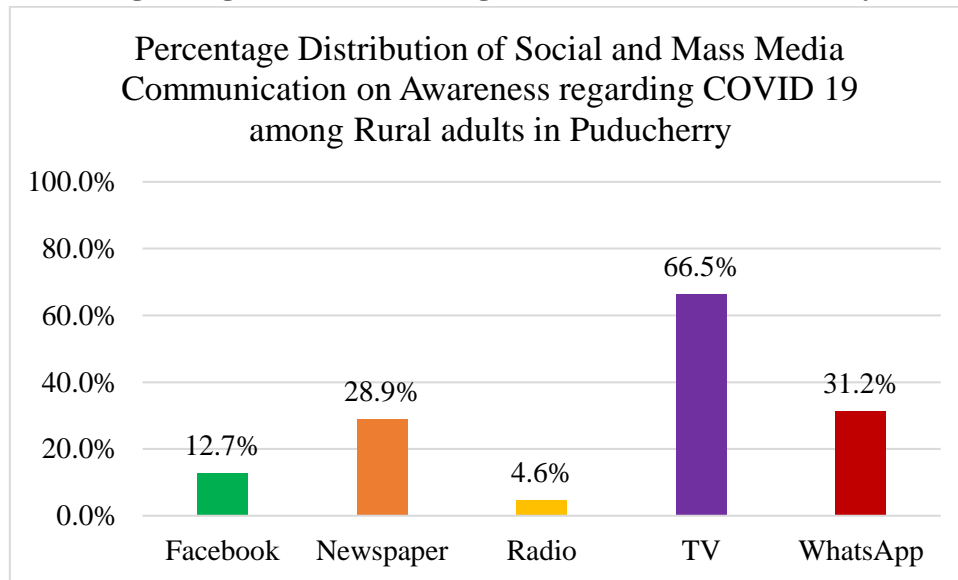


Figure 2 Shows individual mass media and social media impact on delivering information to the public. Percentage Distribution of Social and Mass Media Communication on Awareness are 66.5% of them has received information regarding COVID 19 from Television, 31.2% of received from WhatsApp, 28.9% of them received from Newspaper, 12.7% of them received from Facebook and only 4.6% of the received from Radio.

Table 1: Frequency and Percentage distribution of Level of Knowledge in Various Categories among Rural adults in Puducherry.

n = 173

| Knowledge Category | Frequency | Percentage |
|-----------------------------|-----------|------------|
| Symptoms | | |
| Low Level of Knowledge | 129 | 74.6% |
| Moderate Level of Knowledge | 44 | 25.4% |
| Communicability | | |
| Low Level of Knowledge | 159 | 91.9% |
| Moderate Level of Knowledge | 14 | 8.1% |
| Prevention | | |
| Low Level of Knowledge | 168 | 97.1% |
| Moderate Level of Knowledge | 5 | 2.9% |
| Protective measures | | |
| Low Level of Knowledge | 171 | 98.8% |
| Moderate Level of Knowledge | 2 | 1.2% |

Table 1 Shows that in regards to Symptoms of COVID 19 74.6% of them had Low Level of Knowledge and 25.4% of them had Moderate Level of Knowledge. In regards to Communicability of the Disease 91.9% of them had Low Level of Knowledge and 8.1% of them had Moderate Level of Knowledge. In regards to prevention 97.1% of them had Low Level of Knowledge and 2.9% of them had Moderate Level of Knowledge. In regards to Protective measures to the disease 98.8% of them had Low Level of Knowledge and 1.2% of them had Moderate Level of Knowledge.

Table 2: Association between Level of knowledge and Study Variables among Rural adults in Puducherry.

| Study Variables | Level of Knowledge | | Chi-Square value | p value |
|-----------------|------------------------|-----------------------------|------------------|----------------|
| | Low Level of Knowledge | Moderate Level of Knowledge | | |
| n = 173 | | | | |
| Gender | | | | |
| Male | 69 | 13 | 2.017 | 0.156 |
| Female | 83 | 8 | | |
| Age | | | | |
| <20 Years | 27 | 0 | 14.465 | 0.001** |
| 21-40 Years | 64 | 18 | | |
| 41-60 Years | 61 | 3 | | |

** statistically highly significant

Table 2 Shows that the Association between Level of knowledge and Age was statistically highly significant at chi-square value 14.465 (p = 0.001) which suggest that age group 21- 40 Years are more knowledgeable than others.

Discussion

The present study was aimed to identify the awareness and knowledge regarding COVID 19 among rural adults in Puducherry the result shows 91.9% of rural population was aware about COVID 19 Disease, 87.9% of them has Low level of knowledge regarding the disease. In regards to Symptoms 74.6% of them had Low Level of Knowledge, In regards to Communicability 91.9% of them had Low Level of Knowledge, In regards to Prevention 97.1% of them had Low Level of Knowledge, In regards to Protective measures 98.8% of them had Low Level of Knowledge, Awareness was created by various mass media and social media 66.5% of them has received information regarding COVID 19 from Television and med-age group (21-40 Years) are more knowledgeable than others.

Similar study was conducted on Knowledge, attitude, and practices regarding COVID-19 by Kumar, H., Gupta, P, et.all in a northern Indian District the result shows that Most (96%) of the participants knew that a pandemic due to coronavirus is going on and the most common source of information for them was through television (54.8%). A large (60%) proportion of the participants did not know that COVID-19 could spread from asymptomatic patients. It was evident that education was a significant predictor of knowledge about COVID-19 in the study population. Social media was found as a significant source of information in those who had higher education levels⁵.

Conclusion

The present study conducted that among rural adults in Puducherry, awareness regarding COVID 19 was high but the level of knowledge regarding Symptoms, Communicability, Prevention, Protective measures are very low. This study suggests that mass media and social media communications play an important role in awareness and health communication, Strong public and health professional communication system through mass media and social media may create a healthy environment and improve the health awareness among rural population.

Financial support and sponsorship

Nil

Conflicts of interest

There are no conflicts of interest

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