

Awareness of COVID-19 Pandemic: A study among rural population in Kanyakumari District, South India

¹Dr. Nadar Anthonu Selva Pinky Amuldas, Post Graduate, Department of Orthodontics, Thai Moogambigai Dental College And Hospital, Chennai

²Dr. R.Saravanan, Professor, Department of Orthodontics, Thai moogambigai Dental College And Hospital, Chennai

³Dr. Sabiha Naaz, Post Graduate, Department of Orthodontics, Thai moogambigai Dental College And Hospital, Chennai

Corresponding Author: Dr. Nadar Anthonu Selva Pinky Amuldas, Post Graduate, Department of Orthodontics, Thai Moogambigai Dental College And Hospital, Chennai

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Introduction

COVID-19 was declared as a ‘Public Health Emergency of International Concern’ by WHO on 30 January 2020. The disease was first reported in Wuhan of Hubei, a province of China in December 2019¹. The COVID-19 is caused by Novel Coronavirus, which is transmitted through the respiratory droplets produced as a result of coughing or sneezing of a COVID-19 infected person. The symptoms of the disease are fever, dry cough, and tiredness¹. Coronaviruses, so designated due to the outer fringe of envelope proteins resembling crown (‘corona’ in Latin), are a family of enveloped RNA viruses. They are generally pathogenic to mammals and birds and cause mild upper respiratory tract infections in humans. They infrequently can be transmitted to a more immensely colossal human population and can cause rigorous respiratory illnesses exemplified by Rigorous Acute

Respiratory Syndrome (SARS) and Middle-East Respiratory Syndrome (MERS) in 2003 and 2012 respectively^{1,2}. In the current pandemic era, many factors play a key role in preventing the spread of the disease. The knowledge and attitudes of the public are expected to largely influence the degree of adherence to the personal protective measures and ultimately the clinical outcome. Since Kanyakumari a district in Tamilnadu which is near kerala². In India kerala was the first state affected by Covid-19^{2,3}. Later the state manage to control the spread of the disease². Therefore, the aim of the study is to determine the knowledge and attitude among the rural population in kanyakumari district

Methodology

The people in rural areas of Kanyakumari district, Tamilnadu, India were selected for the study. An online Questionnaire were engendered in Google forms and the

link of questionnaire was sent through emails, WhatsApp and other social media to the contacts of the investigators.

Participants voluntarily participated in the study and were thus considered exempt from written informed consent.

20 questions were framed are as follows

Q1] Are you aware of the current pandemic spread?
<ul style="list-style-type: none">• Yes
<ul style="list-style-type: none">• No
<ul style="list-style-type: none">• Not Aware
Q2] From where did you heard about covid-19?
<ul style="list-style-type: none">• Newspaper
<ul style="list-style-type: none">• Television
<ul style="list-style-type: none">• Community
<ul style="list-style-type: none">• Media
Q3] Which country Covid-19 originated from?
<ul style="list-style-type: none">• China
<ul style="list-style-type: none">• USA
<ul style="list-style-type: none">• Japan
<ul style="list-style-type: none">• Iran
Q4] Which animal is the cause of the spread of the corona virus?
<ul style="list-style-type: none">• Cow
<ul style="list-style-type: none">• Sheep
<ul style="list-style-type: none">• Bat
<ul style="list-style-type: none">• Fish
Q5] Which state recorded the first case in India?
<ul style="list-style-type: none">• Tamil Nadu
<ul style="list-style-type: none">• Andhra Pradesh
<ul style="list-style-type: none">• Karnataka
<ul style="list-style-type: none">• Kerala

Q6) Which state is the worst affected ?
<ul style="list-style-type: none">• Maharastra
<ul style="list-style-type: none">• Tamil Nadu
<ul style="list-style-type: none">• Uttarpradesh• Kerala
Q7) Which district is most affected in Tamil Nadu ?
<ul style="list-style-type: none">• Coimbatore
<ul style="list-style-type: none">• Chennai
<ul style="list-style-type: none">• Tirunelveli
<ul style="list-style-type: none">• Erode
Q8) How many positive cases recorded in Kanniyakumari till date (May 31st)?
<ul style="list-style-type: none">• 10-20
<ul style="list-style-type: none">• 50-70
<ul style="list-style-type: none">• 100-200
<ul style="list-style-type: none">• 250-300
Q9) What are the symptoms of corona virus ?
<ul style="list-style-type: none">• Running nose
<ul style="list-style-type: none">• Fever
<ul style="list-style-type: none">• Cough
<ul style="list-style-type: none">• All the above
Q10) Which organ is the worst affected ?
<ul style="list-style-type: none">• Brain
<ul style="list-style-type: none">• Lungs
<ul style="list-style-type: none">• Kidney
<ul style="list-style-type: none">• Heart
Q11) Are you aware of any medicine for Corona Virus till date ?
<ul style="list-style-type: none">• Yes
<ul style="list-style-type: none">• No
<ul style="list-style-type: none">• Not Aware
Q12) What is the mode of transmission of Corona Virus ?

<ul style="list-style-type: none">• Droplet
<ul style="list-style-type: none">• Urine
<ul style="list-style-type: none">• Sweat
<ul style="list-style-type: none">• Faeces
Q13) What is the personnel Hygiene should be followed in this pandemic ?
<ul style="list-style-type: none">• Washing hands frequently
<ul style="list-style-type: none">• Cleanliness in home
<ul style="list-style-type: none">• Avoid touching your eyes frequently
<ul style="list-style-type: none">• All of the above
Q14) Social distancing Means ?
<ul style="list-style-type: none">• 1 Feet
<ul style="list-style-type: none">• 1 Meter
<ul style="list-style-type: none">• 2 Feet
<ul style="list-style-type: none">• 6 inches
Q15) Corona virus test is taken from ?
<ul style="list-style-type: none">• Urine
<ul style="list-style-type: none">• Blood
<ul style="list-style-type: none">• Throat swab
<ul style="list-style-type: none">• Faeces
Q16) The Quarantine period advocated for the pandemic virus is
<ul style="list-style-type: none">• 7 Days
<ul style="list-style-type: none">• 14 Days
<ul style="list-style-type: none">• 21Days
<ul style="list-style-type: none">• 30Days
Q17) Which of the following should be added in day to day cooking in today pandemic era?
<ul style="list-style-type: none">• Ginger
<ul style="list-style-type: none">• Garlic

<ul style="list-style-type: none">• Lime
<ul style="list-style-type: none">• All of the above
Q18) Which is the best way to greet people here afterwards ?
<ul style="list-style-type: none">• Vanakkam[Joining both the hands]
<ul style="list-style-type: none">• Shake hands
<ul style="list-style-type: none">• Hug each other
<ul style="list-style-type: none">• Kissing
Q19) Which is the herbal drink advocated by Government of Tamilnadu to boost the immunity?
<ul style="list-style-type: none">• Tamarind water
<ul style="list-style-type: none">• Green tea
<ul style="list-style-type: none">• Kabasura kudineer
<ul style="list-style-type: none">• Turmeric Milk
Q20) APP developed by Government on information of Corona Virus ?
<ul style="list-style-type: none">• Arogya Jeevan
<ul style="list-style-type: none">• Arogya Setu
<ul style="list-style-type: none">• Arogya Shanthi
<ul style="list-style-type: none">• Arogya Raju

Results

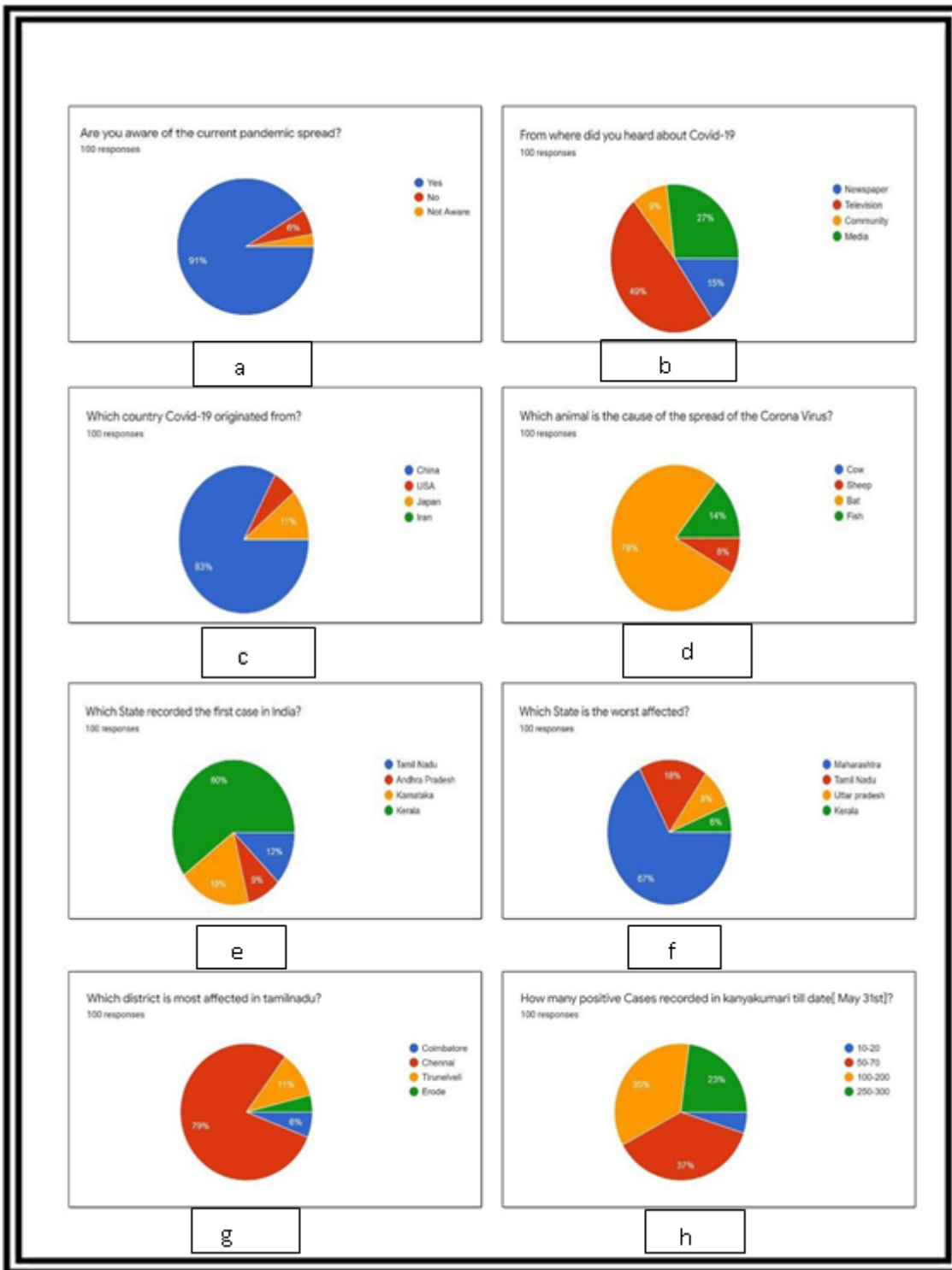


Fig 1: Awareness of the participants during Covid-19 pandemic.

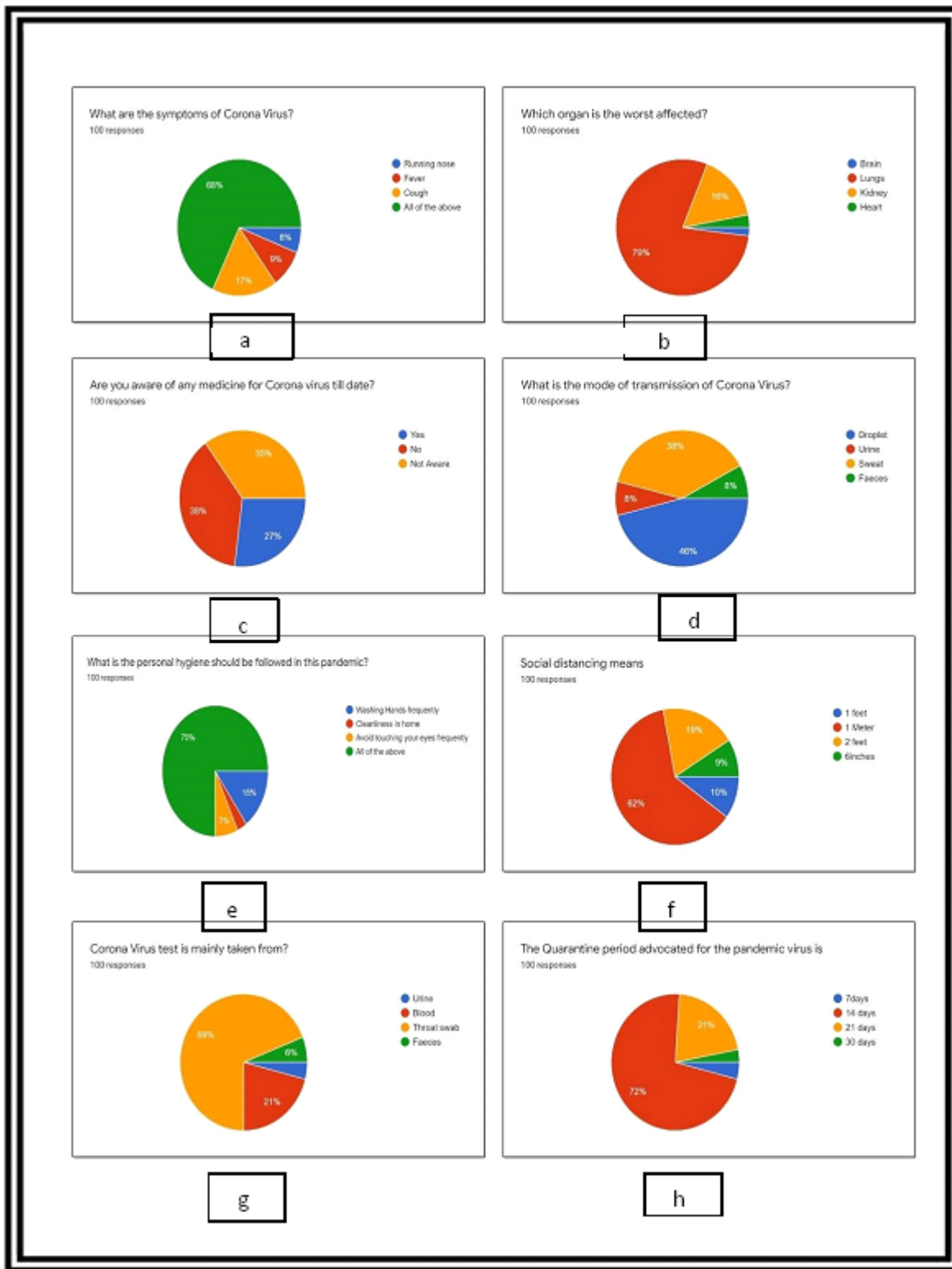


Fig 2: Awareness of participants during Covid-19 pandemic.

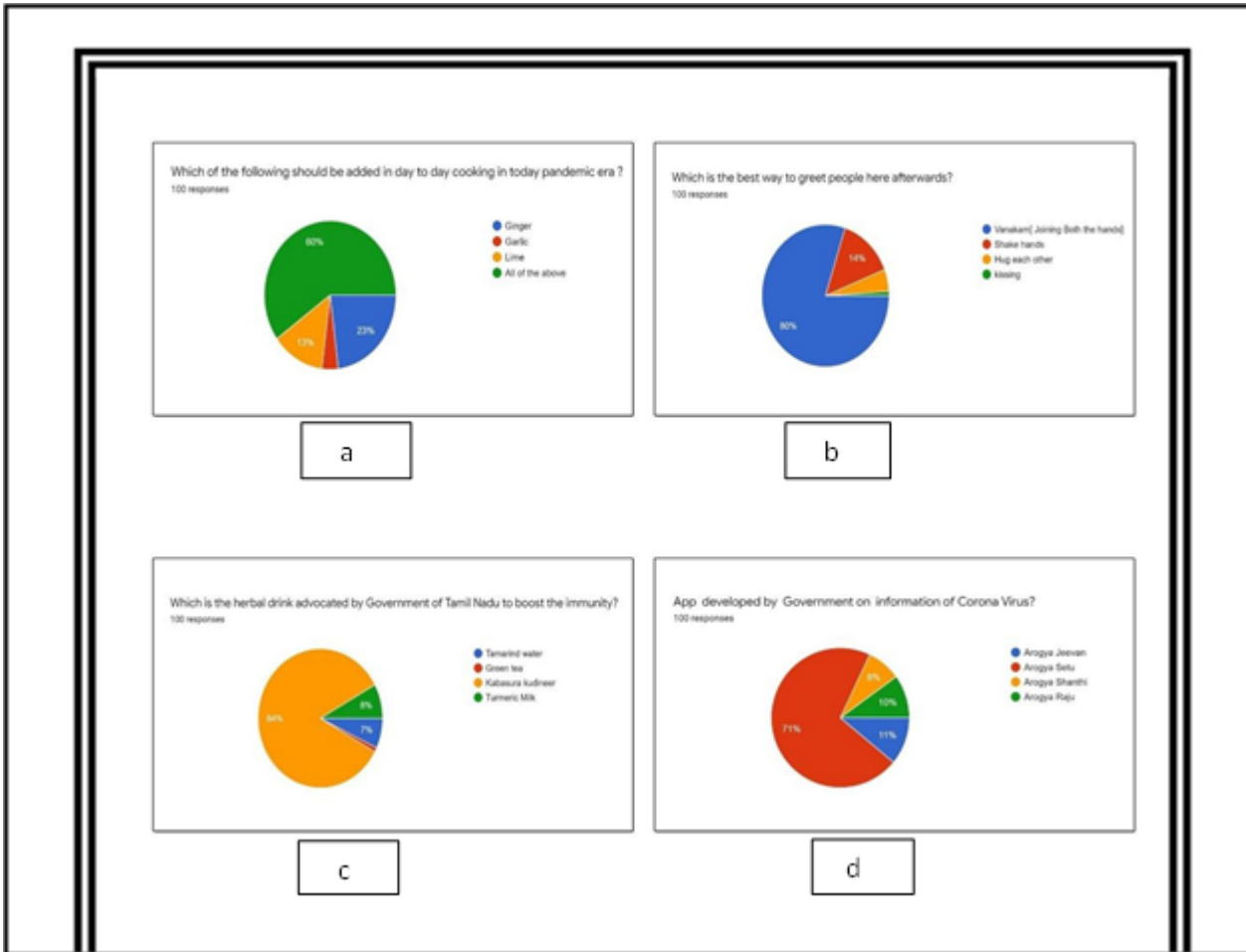


Fig 3: Awareness of participants during Covid-19 pandemic.

Discussion

Epidemic and pandemic are a periodic phenomenon. People in a community face several challenges during such periods⁴. Lack of awareness often lead to an unconcerned attitude, which may adversely affect the preparedness to meet these challenges^{5,6}. In this pandemic era, Awareness plays a key role in controlling the spread of the disease since in rural areas people lack resources so our aim of this study were to determine the knowledge and attitude of a person living in rural areas near Kanyakumari district, Tamilnadu. Due to lockdown many people had an access to smartphones as Government announced online classes for students. Most of the participant who participated in study had a medium level

of understanding, regarding English language. Based on the results obtained 91 % (fig 1.a) of them were aware of the ongoing pandemic of which 49% of them heard it from the television, 15% from the newspaper, 9% from the community and the rest from media (fig 1.b). The origin of the pandemic was correctly chosen as China by 83%, whereas 11% chose Japan and the rest chose USA (fig 1.c). 78% of the people correctly identified the causative animal as bat while the others 14% thought its fish while 8 % thought it was sheep (fig 1.d). The first case recorded in India was Kerala, 60% participants answered correctly (fig 1.e). The most affected state was chosen as Maharashtra 67% followed by Tamilnadu which was 18% (fig 1.f) In Tamilnadu the most affected district was chosen as

Chennai 79% followed by Tirunelveli 11%(fig 1.g). The number of positive cases in Kanyakumari till may 31st was recorded as 50-70 as per the majority of answers obtained (fig 1.h).About 68%(fig 2.a) of the people knew what the symptoms of Corona virus were and the most affected organ was lungs 79% responded(fig 2.b). 38% of them are not aware of the medicine (fig 2.c). The mode of transmission of Corona virus is majorly by droplets which 46% of them agreed (fig 2.d) . 75% of them are aware that for practicing personal hygiene they must avoid touching eyes, wash hands frequently and also keep the surrounding clean(fig 2.e). For social distancing 62% of them chose 1meter distance, 19% 2 feet, 10% 1 feet and the remaining 6 inches(fig2.f).For the Coronavirus test, 69% chose throat swab, 21% choose blood,6% faeces and the remaining urine(fig2.g) The quarantine period was 14 days which 72% correctly responded while the other 21% chose 21 days(fig 2.h) For increasing the immunity and other health benefits 60% of them chose that all three ginger, garlic and lime must be added to day to day cooking and 84% of people correctly guessed that the herbal drink name was Kabasura kudineer which was advocated by the government of Tamilnadu(fig 3.a,c).80% chose that here after it's best to greet people by doing vanakam which is by joining both the hands while 14% chose to shake hands(fig 3.b). Also 71% chose the app name which was developed by the government as Arogya Sethu which was the correct answer (fig 3.d).

Limitation

Due to Lockdown, the study is limited to the people who had smartphones, e- mail IDs and who knows English. This represents the educated population of the district in Kanyakumari, Tamilnadu.

Conclusion

Majority of the participants in rural areas of Kanyakumari district, Tamilnadu were aware of the pandemic occurring

in the world. It was possibly due to the government and media emphasizing more on the preventive measures. The study participants had a better knowledge about the Coronavirus as well the cause of the spread of disease.

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