



PRECAUTIONS TAKEN BY THE GENERAL PUBLIC DURING COVID-19 PANDEMIC ASSOCIATED LOCKDOWN PERIOD IN THE SUBURBS OF CHENNAI CITY - A SURVEY

Dr. Nandini Palanivel

Saveetha Dental College And Hospitals
Saveetha Institute of Medical and Technical Sciences ,
Saveetha University, Chennai ,
Tamilnadu ,India

Email ID : 151901034.sdc@saveetha.com

Dr. Keerthi Sasanka,

Department of Prosthodontics ,
Saveetha Dental College
Saveetha Institute of Medical and Technical Science
Saveetha University ,Chennai
Tamilnadu, India

Email ID : keerthis.sdc@saveetha.com

Dr. S. Gheena

Department of Oral Pathology,
Saveetha Dental College
Saveetha Institute of Medical and Technical Science
Saveetha University, Chennai,
Tamilnadu, India

Email ID : gheena@saveetha.com

Dr. Dhanraj Ganapathy

Head of Prosthodontics,
Saveetha Dental College
Saveetha Institute of Medical and Technical Science,
Saveetha University, Chennai,
Tamilnadu, India

Email ID : ghanraj@saveetha.com

Corresponding author,

Dr. Keerthi Sasanka
Assistant Professor ,
Department of Prosthodontics ,
Saveetha Dental College
Saveetha Institute of Medical and Technical Science
Saveetha University ,Chennai
Tamilnadu, India

Email ID : keerthis.sdc@saveetha.com

Phone : 8374691106



ABSTRACT:

At the beginning of december in 2019, Coronavirus (COVID -19) outbreak had become a major public health issue and self-isolation is among the suggestions to reduce the spread of the infection. A self structured questionnaire was distributed through an online google forms link to about 100 individuals residing in suburban areas in south India without any restrictions in age and gender. The responses from the people were collected and the data was analysed using SPSS software version 20. The data shows a majority of the suburban population were aware of COVID -19 and also about maintaining proper health and precautions to avoid the spread of COVID 19 . The results of the survey conclude that village people are concerned and aware of the precautions taken during covid 19 outbreak, a further campaign can be done to make the suburban people more aware about the severity of COVID-19. This survey was done to know the precautions followed by the suburban residents to avoid the spread of COVID 19.

Keywords : Coronavirus; Precautions; Prevention; Survey.

INTRODUCTION:

COVID-19 is an infectious disease caused by a novel virus which belongs to Coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. The best way to prevent and slow down transmission is to be well informed about the COVID-19 virus, the disease it causes and how it spreads. It is better to protect themselves and others from infection by washing their hands or using an alcohol based rub frequently and not touching their face. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it's important that you also practice respiratory etiquette (for example, by coughing into a flexed elbow).

Presently, there are no specific vaccines available for treating COVID-19. However, there are many ongoing clinical trials evaluating vaccination potential in treating the infection. The World Health Organization (WHO) will continue to provide updated information as soon as the clinical findings become available(Broutet *et al.*, 2016)((Dick, Kitchen and Haddow, 1952).

Globally, 142,320 people are infected and 5,388 dead (Dick, 1952).((Smithburn, 1952)). ((Faye *et al.*, 2014)(Samuel *et al.*, 2018)). The World Health Organization (WHO) declared the outbreak of the novel coronavirus disease (COVID-19) to be a pandemic on March 11, 2020, with the WHO director-general stating, "This is not just a public health crisis, this is a crisis that will touch every sector. So every sector and every individual must be involved in the fights,". In the absence of a vaccine, tools such as isolation and quarantine, social distancing, and community containment become vital in preventing the person-to-person spread of disease by separating people to interrupt transmission(Heymann, 2004)(Wylie *et al.*, 2016)(Osimitz and Murphy, 1997). COVID-19



preventive measures like sanitizing all the buildings of government institutions like Schools, colleges, within the corporation limits and also in suburban and rural areas ((Kennedy *et al.*, 2005) Awareness meetings are conducted at the district level all over the state. Training on Covid 19 Protocol has been delivered through media to all the people ((McAllister *et al.*, 2020)((Jhirad, 1997)((St. Georgiev, 2009) The town panchayat took preventive actions against COVID- 19 proactively before the lockdown in the entire country. The practices include following social distancing protocol and restricting non-essential visitors. Avoiding crowds and large social gatherings, Increasing the frequency of rigorous cleaning and sanitizing common community areas. Visitors were not allowed, unless medically necessary. Eliminating all on-site group social events like temple functions and recreational activities were temporarily postponed. Staying in their own home if they are showing some symptoms or sick with respiratory illness, including fever, and coughing are the measures advocated in this particular article(House, 1982). They were advised to use the reusable masks after washing thoroughly and sun drying for a couple of days. According to an official of the state rural development department, all the workers under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) have also been advised to wear masks and maintain social distancing. Though the state's villages have not reported any corona positive cases so far, there is a possibility of someone returning home carrying the virus. "Till testing becomes more widespread, they are advised to the local residents, especially farmworkers to take these precautions since only if they are fit they can go to work"

The aim of the study was to report on the awareness levels and the precautions followed among people in suburban areas against the spread of COVID 19.

MATERIALS AND METHODS:

Study Setting

A cross sectional online survey was conducted among 100 participants on the precautions taken during lockdown period by the Suburban population. The study was conducted in the month of May, 2020. Ethical approach was obtained from the institutional review board and informed consent from the participants was obtained.

Sampling Method

In present study, the sampling was done using a random sampling method

Data Collection and Tabulation

The number of questions distributed was 10. The close ended yes and no type of questions were asked. The software used for the data collection in the online survey website 'google forms

Data Manipulation



The data from google forms was analysed and then tabulated into excel sheet. The representation of the data is through the pie chart or bar graph

Analytics

The statistical software used was IBM SPSS V20. Type of analytics used were descriptive analysis, demographic data. The independent variables of the present study are the gender and educational qualification. (Duraishamy *et al.*, 2019) (Ganapathy, 2016) (Ranganathan, Ganapathy and Jain, 2017) (Ashok and Suvitha, 2016) (Ashok and Suvitha, 2016; Ajay *et al.*, 2017)

RESULT AND DISCUSSION:

The data received was tabulated, statistically analysed and represented as Pie Charts. The following figures of pie charts represent the data from the survey

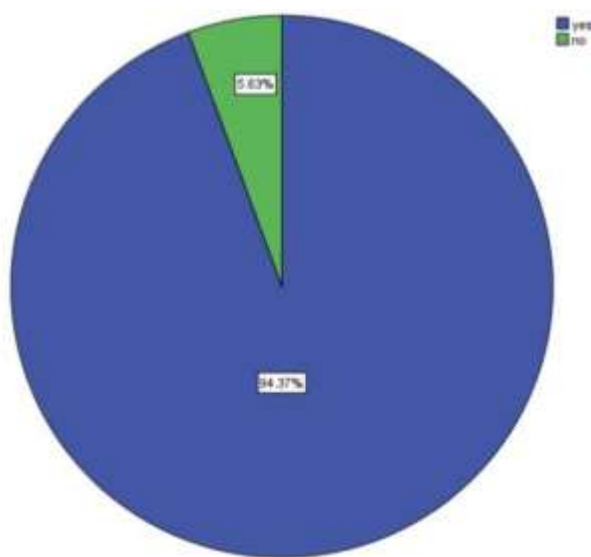


Fig 1: The above pie chart shows the awareness about covid 19 pandemic disease, 94.4 % responded positively (Blue) and 5.6% responded negatively (Red)

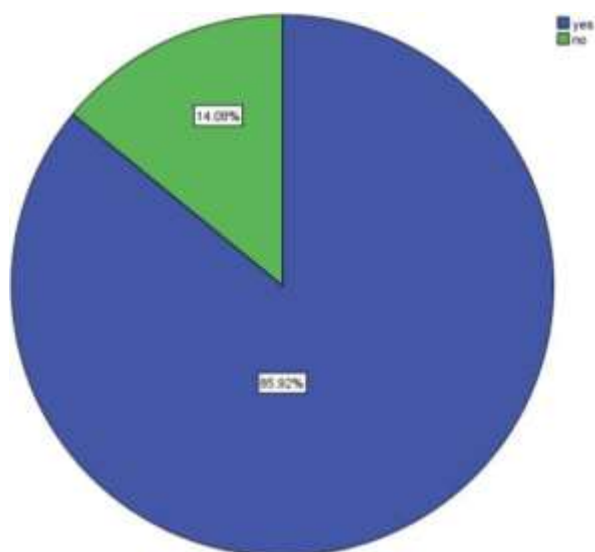


Fig 2 : The above pie chart shows the information about the awareness of the COVID 19 symptoms 85.9% (Blue) responded positively and 14.1 % (red)responded negatively

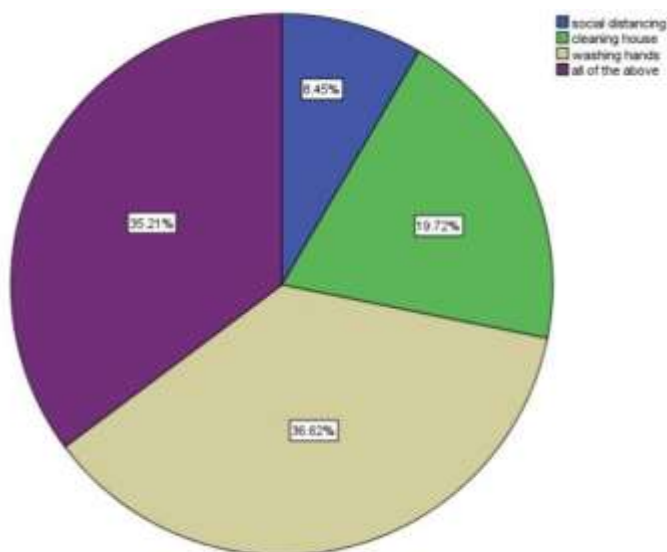


Fig 3: The above pie chart gives information about how to prevent spread of covid 19. In 100 participants 35.2 %(blue) of them washed hands , 19.7%(red) said that the preventive measure used was through social distancing and 8.5%(orange) said through cleaning house and 35.2%(red) said all the above.

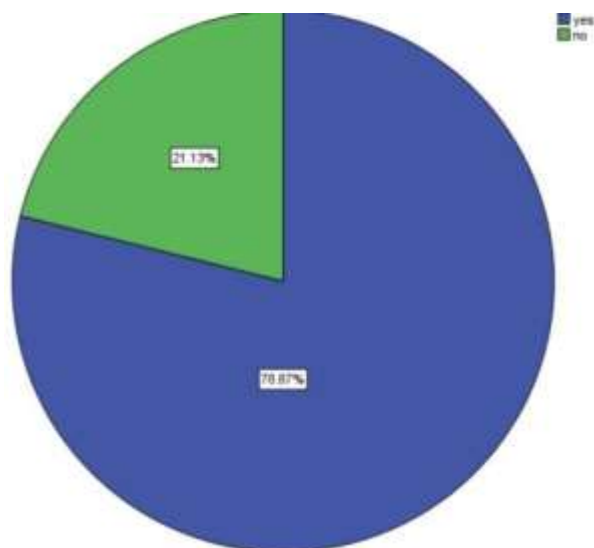


Fig 4 : The above pie chart gives information about drinking milk to improve immunity power and 76.15% (blue) responded positively and 21.13% (red) responded negatively

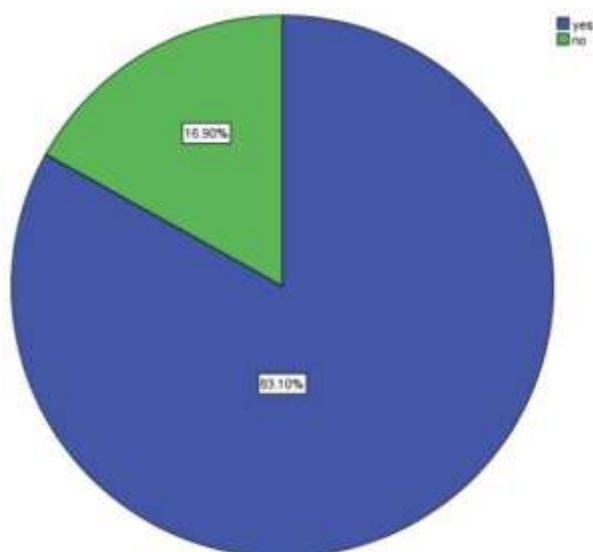


Fig 5: The pie chart shows responses for adding immune boosting ingredients like ginger and pepper to their diet 83.10% (blue) adds immune boosting ingredients like ginger and pepper to their diet and 16.90% (red) are not aware about these immune boosting ingredients

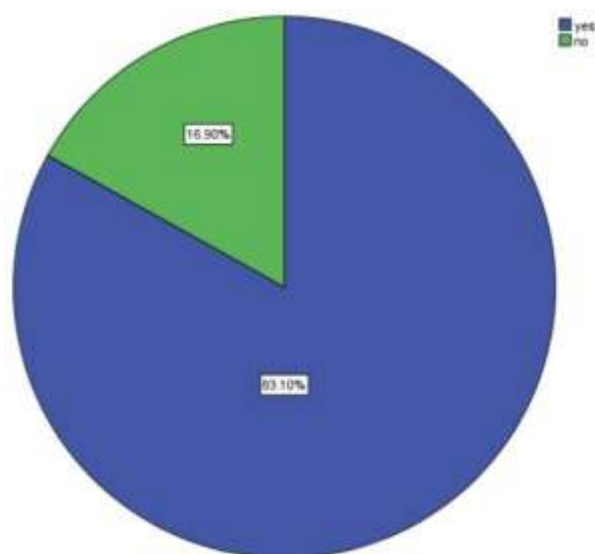


Fig 6 : The pie chart shows the responses for washing their hands at regular intervals, 84.5% (blue) responded that they wash their hands at regular intervals and 15.5%(red) respondent that they don't wash their hands at regular intervals

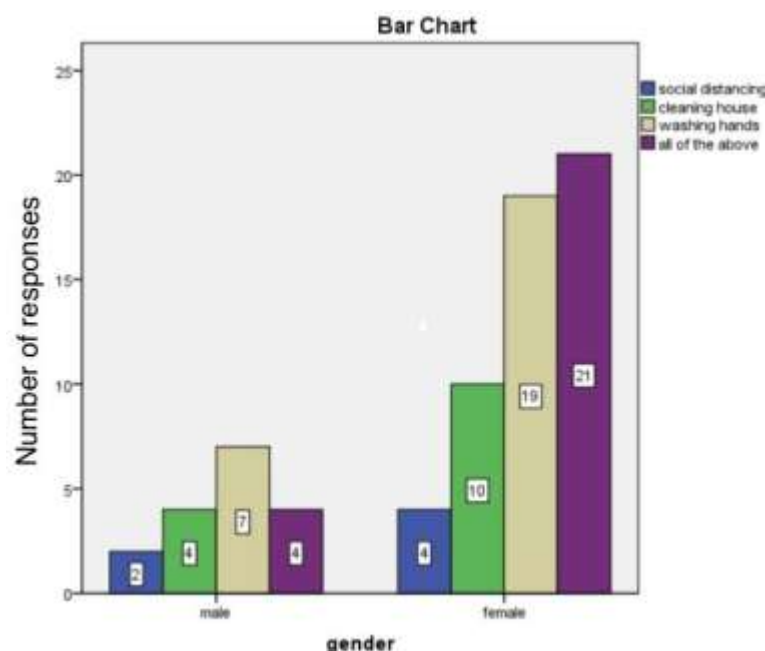


Figure 7 : Bar chart representing association between gender and precaution taken for COVID 19. X axis represents gender and Y axis represent the number of responses about precautions. social distancing, cleaning of houses, washing hands and all the above. Chi square association test was done and found to be statistically non significant. Pearson's chi square value : 1.731 DF -, P value 0.340 (p value >0.05) statistically not significant. Although statistically not significant it is implied that the majority of the female participants (21%) are aware that following all the protocols listed is the best way to prevent infections rather than male participants.

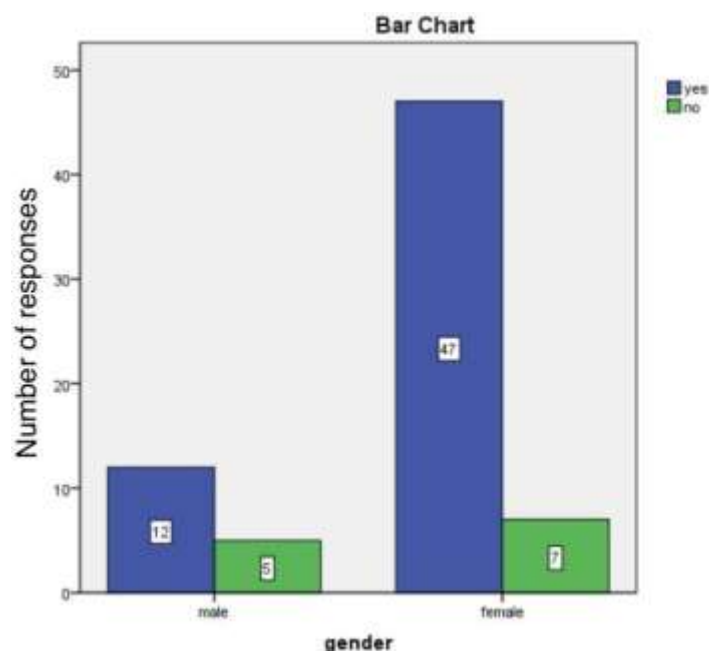


Figure 8: Bar chart representing association between individual opinions on whether suburban people know the symptoms of the covid -19 with gender. X axis represents Chi square value : 2.491 DF -1, P value = 0.115 (p value >0.05) statistically not significant. Although statistically not significant it is implied that the majority of the female participants (41%) are aware that following all the protocols listed is the best way to know the symptoms of the covid -19 rather than male participants.

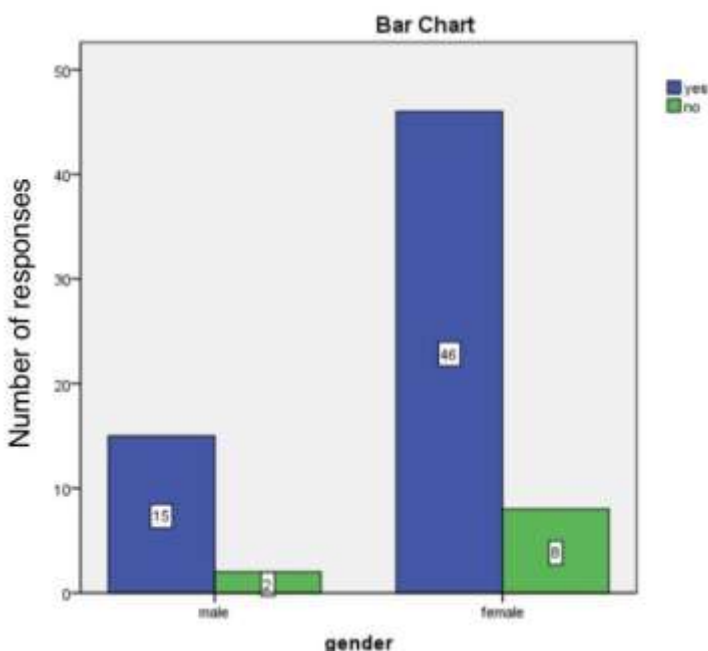


Figure 9: Bar chart representing association between gender and opinion on whether the suburbs include a lot of immunity booster food like ginger , pepper etc. X axis represents Gender, Y axis represents individuals who include a lot of immunity booster ingredients and they don't include. Pearson's Chi square value : 0.161,DF - 1, P value = 0.687 (p value >0.05), hence statistically not significant. Although statistically not significant it is implied that the majority of the female participants (46%) include a lot of immunity booster foods like ginger , pepper etc rather than male participants.

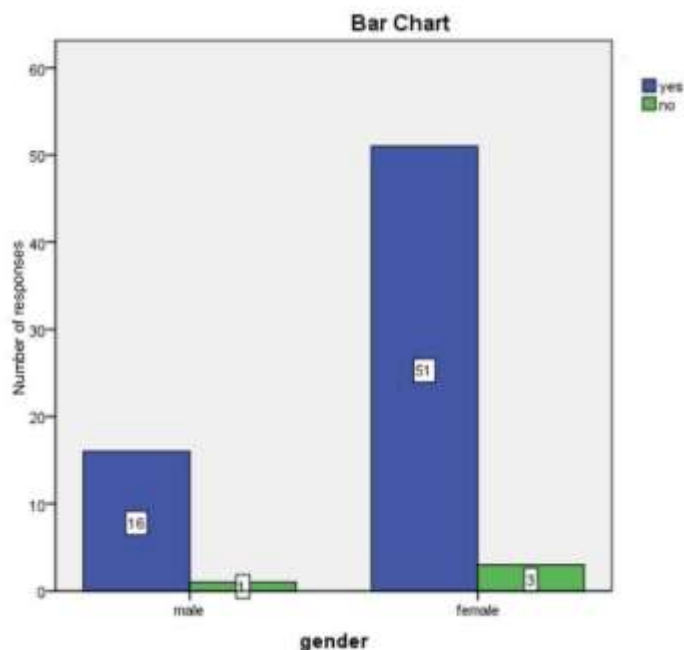


Figure 10: Bar chart representing association between the opinion on whether suburban people are aware of the masks to avoid the covid -19 spread based on gender. X axis represents Gender, Y axis represents individuals who are aware covid -19 (blue) aware, and (green) unaware. Pearson's Chi square test was done. Pearson's Chi square value :0.003 ,DF -1, P value = 0.959 ($P > 0.05$) statistically significant. Although statistically significant, it is implied that the majority of the females (51%) are aware that wearing a mask can prevent spread of infection of covid 19 disease than male participants.

The study shows that the precautions taken by the suburban population are precautionary and helpful and they know how to protect themselves from coronavirus. In this study, there are specific limitations linked to the data and gathering method. Online surveys are cost-effective, simple to set up, and don't require physical contact with the participants and the interviewers which were mandatory during the COVID -19 lockdown. However the online survey raises the limit of sampling methods, they cannot reach people that are not affordable with the technologies or the internet facilities. Moreover, online surveys do not allow a depth analysis of the results and in this study there are 100 participants out of them 94.4 % of respondents are aware of coronavirus and they take precautions to avoid coronavirus in similar study out of 250 participants 99% of participants are aware of the pandemic diseases, a study by WHO in eastern mediterranean annual report of the regional direction 1994 by Alexander Eastern Medittarian Region of Operations EMRO (Urso, 2020). In this study the precautions taken for preventing Covid was assessed, out of 100 participants 35.2% of the participants do all the above ie, washing hands, social distancing, cleaning house and the 19.7% they wash their hands and maintain social distancing 8.5 % they are cleaning house and there is a study which is similar to the study done by E Johnson in 1996



turnover costs 75% do cleaning and social distancing and 35% and all (Glass *et al.*, 2006). In this study out of 100 participants 84.5% of the participants clean their hands for every 30-40 mins and 15.5% they don't. In a similar study i.e in Maniacs E Aitken c do gestures in 2015 out of 250 participants 98.8% of them use sanitizer to prevent the virus and 2.2 % they don't use sanitizer to protect from virus ('Pandemics and Beyond', no date). In this study out of 100 participants 47.6% of them eat only healthy vegetable fruits and 26.8% they eat snacks and similar study out of 200 participants ie; Debra Rose Wilson Ph.D. MSN RN Nov 18, 2018; 65% they eat healthy vegetables and fruits and 45% they eat junk food. (Jee *et al.*, 2013) The present research interest has origins from previous studies where the investigators involved in studies based on clinical reports, interventional studies in vitro studies ((Ariga *et al.*, 2018) (Jyothi *et al.*, 2017) (Kanna *et al.*, 2017) (Subasree, Murthy Kumar and Dhanraj, 2016)), Reviews ((Ganapathy, Kannan and Venugopalan, 2017) (Basha, Ganapathy and Venugopalan, 2018; Kannan and Venugopalan, 2018) (Selvan and Ganapathy, 2016) (Subasree, Murthykumar and Dhanraj, 2016) (Vijayalakshmi and Ganapathy, 2016) in vivo studies (Ashok *et al.*, 2014), (Venugopalan *et al.*, 2014). The major limitations of this study was the study population, where a small population was chosen and people who have access to smartphones and literacy in English, where it cannot be generalised to the whole population living in the suburban areas. The future research can be executed by including all the educated and uneducated people and collecting data from different geographical locations.

CONCLUSION:

Within the limitations of this study, the following conclusions can be drawn. This study reports that there are no significant differences between both males and females about the precautions taken during covid-19 pandemic lockdown period in the suburbs of Chennai city. Majority of the suburban populations were aware of the present situation of Pandemic COVID-19 that was faced by the entire nation. The residents in suburban areas were taking adequate measures, precautions and adapting new changes in their habits to reduce the spread of infection by making the use of masks, sanitizers, and hand hygiene were routinely followed by most of the respondents.

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