PUBLIC PERCEPTION ON LOCKDOWN FOR COVID-19 - A SURVEY

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ABSTRACT:

COVID-19 is a respiratory syndrome affecting countless numbers of lives all over the world. It is reportedly caused due to the SARS-CoV-2 virus which is known to impair the lower respiratory tract causing distress. Available evidence suggests that COVID-19 is to have natural origin and is transmitted by inhaling the droplets expelled from the sputum of infected patients. As governments have put down mandatory lockdown as a strategy to mitigate the COVID 19 pandemic, this study aims to view the public perception of imposed lockdown on them. A questionnaire was distributed through an online google forms link to about 100 people of South Indian population, belonging mostly to age groups >10 years of age. The study population were asked to fill out the online form after reading each question thoroughly. The results were collected and the data was analysed using SPSS version 20. From the study population, the whole of 100% of the participants gave a positive response when asked if they were aware of COVID-16 and were also aware of the lockdown situation. 100% of the population think that the lockdown for COVID-19 is highly essential in order to completely eradicate the virus. This study gives an insight on the positive public perception towards lockdown imposed on them for COVID-19.

KEYWORDS: COVID-19, lockdown, public perception, social distancing, survey

INTRODUCTION:

COVID-19 is a respiratory syndrome affecting countless numbers of lives all over the world. It is reportedly caused due to SARS-CoV-2 virus which is known to impair the lower respiratory tract causing distress (Uddin *et al.*, 2020). Available evidence suggests that COVID-19 is to have natural origin and is transmitted by inhaling the droplets expelled from the sputum of infected patients (Andersen *et al.*, 2020). The major clinical characteristics associated with COVID-19 disease as reported by patients from China (Xie *et al.*, 2020), (Yang *et al.*, 2020), South Korea (Prevention *et al.*, 2020), and the United States (Team *et al.*, 2020) have mentioned dry cough, fever, and shortness of breath being the most common clinical features. The diagnosing tests for detection of COVID-19 includes detecting the genetic material RNA in a nasopharyngeal swab or by a sputum sample (Wang *et al.*, 2020), antibody tests (Li *et al.*, 2020) and detecting viral proteins (antigens) (Stadlbauer *et al.*, 2020).

According to Ying Ying Zheng et al (2020), COVID-19 is a severe acute respiratory syndrome recognised by the ACE-2 receptors present predominantly in the lungs causing acute myocardial injury and complications to the cardiovascular system (Zheng *et al.*, 2020). A study by Dr. James Weinberg (2020), proves that women are more cooperative when compared to men and also proves that the middle aged

population is more cooperative when compared to those under 30 years of age when talking about the lockdown perception among the population (Weinberg, 2020).

This study is done in order to spread awareness about the COVID-19 situation and its effects on the public health and well-being. It mainly focuses on analysing the general public's perspective about the lockdown rule put forth by the government. This study hopes at fulfilling the deficiency by spreading effective awareness among the local South Indian population and also assess their thoughts, opinions and views towards this pandemic. Previously our team had conducted numerous advanced studies (Johnson *et al.*, 2020)(Thejeswar and Thenmozhi, 2015); (Krishna and Babu, 2016); (Nandhini, Babu and Mohanraj, 2018); (Sekar *et al.*, 2019); (Johnson *et al.*, 2020)(Sekar *et al.*, 2019), forensic studies (Subashri and Thenmozhi, 2016)(Choudhari and Thenmozhi, 2016); (Hafeez and Thenmozhi, 2016); (Kannan and Thenmozhi, 2016); (Keerthana and Thenmozhi, 2016); (Pratha and Thenmozhi, 2016); (Subashri and Thenmozhi, 2016), survey based studies (Sriram, Thenmozhi and Yuvaraj, 2015) and *in-vitro* studies (Samuel and Thenmozhi, 2015)(Menon and Thenmozhi, 2016); (Samuel and Thenmozhi, 2015); (Seppan *et al.*, 2018)(Samuel and Thenmozhi, 2015) by students over the past 5 years. Now we are focussing on epidemiological surveys. The aim of the study is to analyse the public perception about the lockdown rule for COVID-19 and thereby spread awareness among the local South Indian population.

MATERIALS AND METHODS:

A questionnaire was distributed through an online google forms link to about 100 people of South Indian population, belonging mostly to age groups of above 10 years of age. The inclusion criteria included general public, age and education. The questionnaire contained various awareness and knowledge based questions about the assorted effects of COVID-19 and questions regarding the general public perception about the lockdown rule. The questionnaire was validated in a standard manner. Measures such as selecting participants randomly,steps to prevent asking irrelevant questions to the participants group and age groups are taken to minimize the bias occurring to sampling. The study population were asked to fill out the online form after reading each question thoroughly. The results were collected and the data was analysed by performing chi square test (statistical test) using SPSS version 20.

RESULTS AND DISCUSSION:

Among the study population, the whole of the population (100%) answered positively when asked a question about the essentiality of the lockdown for eradicating COVID-19 virus (Fig.1). From this result, we can infer that the population has a positive perception regarding the lockdown. According to another study by (Lau *et al.*, 2020), it proves that COVID-19 spread has become weaker predominantly after following effective lockdown.

About 100% of the population answered positively regarding the awareness about COVID-19 outbreak (Fig.2). According to an article, only 22.6% of the respondents were aware of the virus outbreak (Qazi *et al.*, 2020). Another article shows that the response time to COVID-19 awareness was different across different countries even though the overall duration of public response was short (Hu *et al.*, 2020).

When asked about the study population about their knowledge on the symptoms pertaining to COVID-19, about 100% of the participants answered positively (Fig.3). A study proves that 84.6% of the study population were aware about the COVID-19 symptoms (Geldsetzer, 2020). When asked about the highly contagious nature of COVID-19 was asked, about 99.02% of the respondents answered positively (Fig.4). According to a study (Assadi et al., 2020), the COVID-19 virus is highly contagious and another study shows that 93.02% of the study populations were aware of the highly contagious nature of the COVID-19 virus (Al-Awadhi *et al.*, 2020). The study population were asked a question about practising effective self

isolation for preventing the acquisition of the virus to which about 92.16% of the population answered positively (Fig.5). A study proved that ethnic minority backgrounds were less able to self isolate when compared to white backgrounds (Atchison *et al.*, 2020). When a question was raised about the effective practising of social distancing among the study population, about 97.06% of the total respondents answered positively (Fig.6). According to a study by Atchison *et al.* (2020), the adaptation to social distancing measures were found to be higher in those aged over 70 years of age than compared to younger adults (Atchison *et al.*, 2020).

A question was asked about the inconveniences faced due to the lockdown, for which about 88.24% of the study population answered positively. Chi square analysis shows that the majority of both males (48.28%) and females (32.76%) have answered positively to facing inconveniences. Pearson's Chi square value = 1.942 and P value = 0.163 (> 0.05). Hence, it is considered to be statistically insignificant (Fig.7). According to the article (Li et al., 2020), it has been stated that the patients facing psychological distress and the patients who require psychological demands are finding it difficult to survive the lockdown. Another study (Branley-Bell and Talbot, 2020) tells that a profound negative impact has been observed in patients with experience of eating disorders.

About 93.14% of the population answered positively when asked about the effective use of proper PPE (Personal Protective Equipment) in order to stay safe and prevent the acquisition of the virus. Chi square analysis shows that the majority of both males (55.17%) and females (37.93%) have responded positively to making proper use of PPE. Pearson's Chi square value = 5.288 and P value = 0.021 (<0.05). Hence, it is considered to be statistically significant (Fig.8). A study (Weinberg, 2020) had stated that PPE such as face masks are ineffective apart from clinical usage and that they only protect to a certain extent.

When asked if the participants think that there had been a decline in the COVID-19 cases after the lockdown rule had been implied, about 96.08% of the population had answered positively. Chi square analysis shows that the majority of both males (50%) and females (43.10%) have responded positively about decline in COVID-19 cases since the lockdown rule. Pearson's Chi square value = 0.683 and P value = 0.409 (>0.05). Hence, it is considered to be statistically insignificant (Fig.9). According to an article by Lau *et al.* (2020), it proves that the COVID-19 spread has been decreased since the lockdown rule had been put forth. (Lau *et al.*, 2020)

The future scope of this study focuses on helping the population in understanding the public perception regarding the lockdown rule put forth by the government to eradicate the COVID-19 virus. It also focuses on ensuring the knowledge of various preventive measures that can be taken in order to prevent the acquisition of the virus thereby leading to betterment of health and lifestyle of the population.

CONCLUSION:

COVID-19 is a serious pandemic prevailing all over the world affecting lives and causing distress among the entire world population. This study gives an insight on the public perception towards the lockdown for COVID-19. From this study, in spite of the hardships faced by the people in terms of financial constraints, restricted mobility and deprivation of some essential goods, nevertheless it could be seen that a positive perception has been attained among the public on the imposed lockdown.

AUTHOR CONTRIBUTIONS :

All the authors contributed equally in concept, design, carrying out the research and analysis of the study.
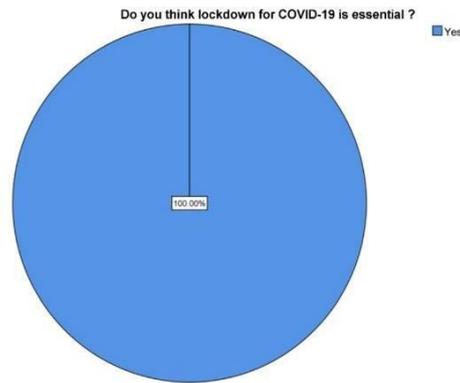
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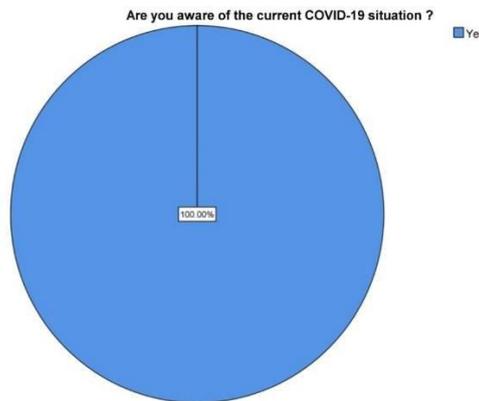
The authors have none to declare.

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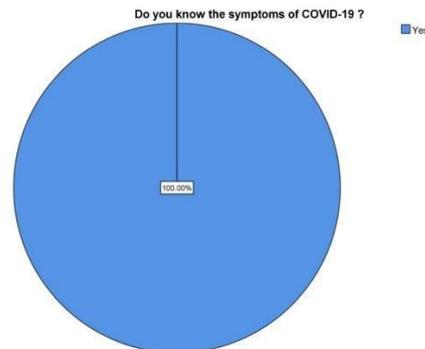
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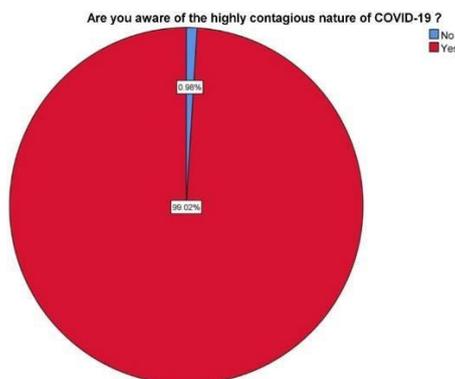
Figure 1: Pie chart representing the percentage distribution of public perception on essentiality of a lockdown for COVID-19. 100% of the participants answered 'yes' (blue).
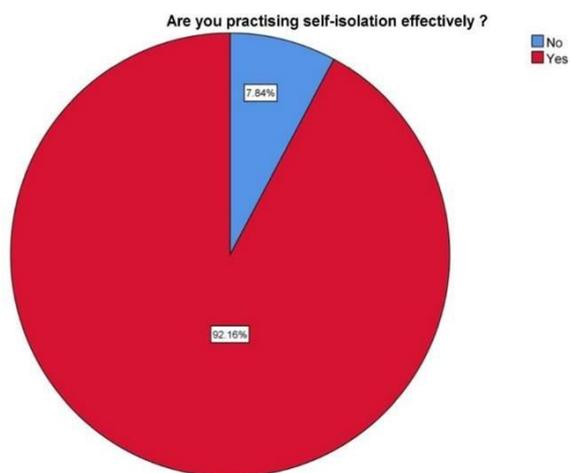

Figure 2: Pie chart representing the percentage distribution of awareness on the COVID-19 situation among the population. 100% of the participants answered 'yes' (blue).
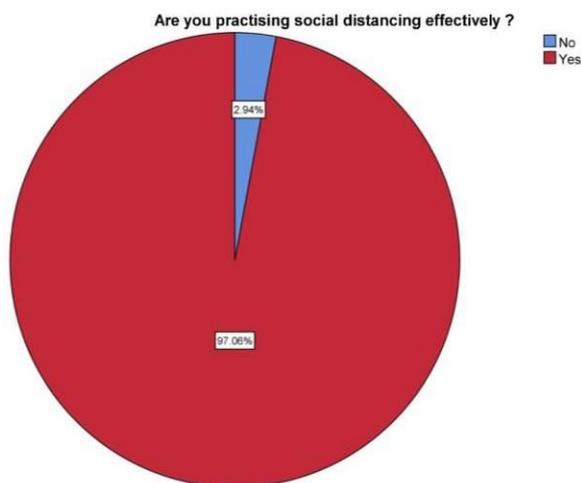

Figure 3: Pie chart representing the percentage of distribution about the knowledge on symptoms of COVID-19 among the population. 100% of the participants answered 'yes' (blue).
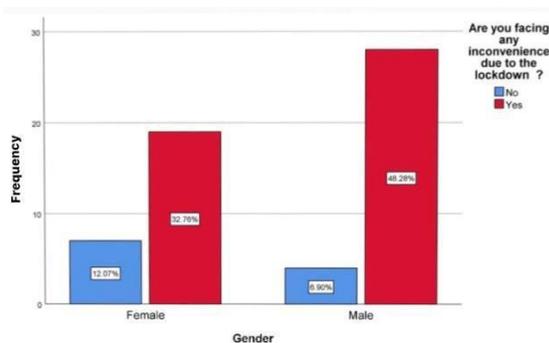

Figure 4: Pie chart representing the percentage distribution of awareness on the contagious nature of COVID-19 among the population. Majority of the population, 99.02% answered 'yes' (red) and 0.98% answered 'no' (blue).
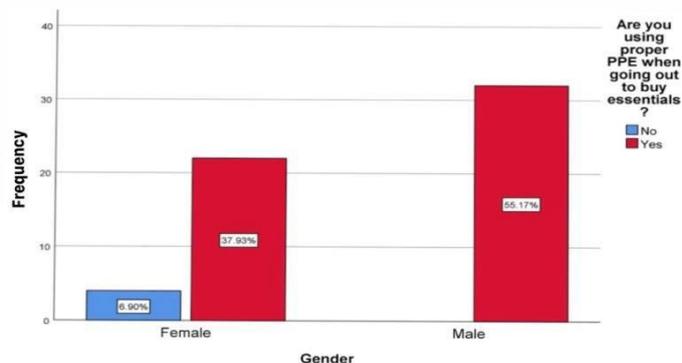
Figure 5: Pie chart representing the percentage of distribution regarding the effective practice of self isolation among the population. Majority of the population, 92.16% answered 'yes' (red) and 7.84% answered 'no'(blue).
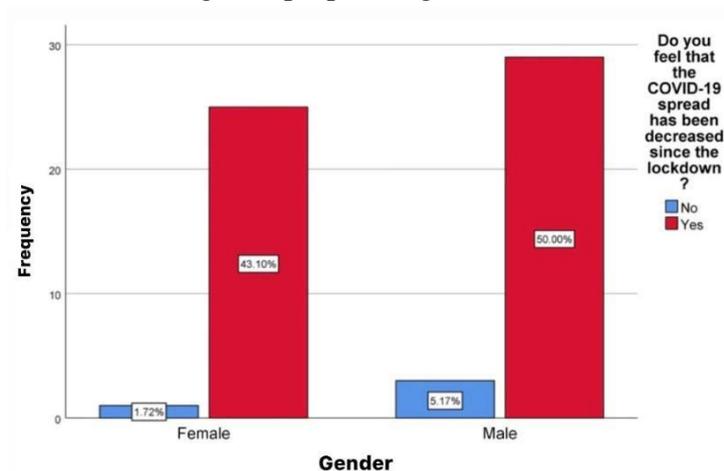

Figure 6: Pie chart representing the percentage distribution regarding the practice of effective social distancing among the population. Majority of the population, 97.06% answered 'yes' (red) and 2.94% answered 'no' (blue).

Figure 7: Bar graph representing the correlation between gender and the public perception of inconvenience faced due to the lockdown where red denotes 'yes' and blue denotes 'no'. X axis represents the gender and Y axis represents the frequency of facing inconvenience.The figure shows that the majority of both males (48.28%) and females (32.76%) have answered positively to facing inconveniences however when the association between the variables were analyzed using the Chi-square test (Pearson's Chi-square value - 1.942; df-1,P-value -0.163) at 95% confidence interval and it was found to be statistically not significant which signifies no difference among males and females in the perception of inconvenience faced due to lockdown.

Figure 8: Bar graph representing the correlation between gender and awareness of benefits of lockdown against usage of PPE en masse where red colour denotes 'yes' and blue colour denotes 'no'. X axis represents the gender and Y axis represents the frequency of responses. The figure shows that the majority of both males (55.17%) and females (37.93%) have responded positively in favour of lockdown over proper use of PPE in masses. The association between the variables were analyzed using the Chi-square test (Pearson's Chi-square value - 5.288; df-1, P-value -0.021) at 95% confidence interval and was found to be statistically significant which reveals that males are more aware than females of the benefits of lockdown against proper usage of PPE in masses.

Figure 9: Bar graph representing the correlation between gender and the perception of the public that lockdown can reduce the number of COVID-19 cases where red colour denotes 'yes' and blue colour denotes 'no'. X axis represents the gender and Y axis represents the frequency of public perception about decline in cases. The graph shows that the majority of both males (50%) and females (43.10%) have responded positively but when the association between the variables were analyzed using the Chi-square test (Pearson's Chi-square value - 0.683; df-1, P-value -0.409) at 95% confidence interval, it was found to be statistically not significant which reveals that no difference among males and females in the perception of reduction of number of COVID-19 cases due to lockdown .