AWARENESS OF VARIOUS MEASURES TAKEN BY DIFFERENT GOVERNMENTS IN CONTROLLING COVID-19 PANDEMIC-A SURVEY

Thirukumaran¹, Ganesh Lakshmanan², R.Gayatri Devi³

¹Saveetha Dental Colleges and Hospital, Saveetha Institute of Medical and Technical Science, Saveetha University, Chennai, India

²Senior Lecturer, Department of Anatomy, Saveetha Dental Colleges and Hospital, Saveetha Institute of Medical and Technical Science, Saveetha University, Chennai, India

³Assistant professor, Department of physiology, Saveetha Dental College and Hospital, Saveetha Institute of medical and technical sciences, Saveetha University, Chennai, India.

¹151901043.sdc@saveetha.com

ABSTRACT:

Coronavirus is a newly discovered infectious disease, most people infected by coronavirus experience respiratory illness and require special treatment for recovery. Older people underlying medical problems like cardiovascular disease diabetes chronic respiratory disease develop serious illness. National responses to the COVID-19 pandemic have been varied, and have included containment measures such as lockdowns, quarantines, and curfews. More than 6.15 million cases of COVID-19 have been reported in more than 188 countries and territories, resulting in more than 371,000 deaths. More than 2.63 million people have recovered from the virus. The most affected countries in terms of confirmed cases are the United States, Spain, Italy, France, Germany, the United Kingdom, Turkey and China. The main aim of this study is to determine and rank the measures adopted by each country to fight against covid 19. An online survey was conducted with a self-structured questionnaire comprising 10 questions that were distributed through the google docs. The sample size of this study was 100. The results were analysed by performing the statistical software "SPSS VERSION 20". The data was represented in the pie chart form. From this study population, 88% of the study population agreed that Covid 19 has to be controlled by all means. Nearly 70% of the population follows social distancing and 56% of them follow self isolation if they have symptoms and every country is working hard to contain it and minimise its impact. It is very important to prevent covid-19, because there is no vaccine found for treatment, preventive methods vary, and have measurements like quarantine, lockdown, curfews, sanitising our hands after coming home, using personal protective equipment. This study helps us to get knowledge about the measurements taken by different countries to control covid-19 and creates awareness on how to prevent covid-19.

KEYWORDS: Covid 19, controlling measures, countries, prevention, quarantine

INTRODUCTION:

COVID-19 is an infectious disease caused by severe acute respiratory Coronavirus 2(SARS COV2). First identified in December 2019 in Wuhan, China and has since spread globally. Symptoms of COVID-19 or fever, cough, Fatigue, shortness of breath, loss of smell (Hui *et al.*, 2020). It has severe complications like pneumonia, viral sepsis, acute respiratory distress syndrome, kidney failure and cytokine release syndrome. The virus is primarily spread between people during close contact. More often via small droplets produced by coughing, sneezing and talking (Velavan and Meyer, 2020)(Narain *et al.*, 2020). People may become infected by touching a contaminated surface and touching their face. It is most contagious during the first three days after the onset of symptoms. Covid 19 patients have symptomatic and asymptomatic (Cao, Cai and Xiong, 2020). Recommended measures to prevent infection include

²ganesh.sdc@saveetha.com

³gavatridevi@saveetha.com

frequent washing, maintaining physical distance from others, quarantine, covering cough and keeping unwashed hands away from the face. Use of a face covering is recommended for those who suspect they have the virus and their caregivers. According to the World health Organisation there are no available vaccines and specific antiviral treatment for COVID-19. Management in walls the treatment of symptoms, supportive care, isolation and experimental measures.WHO declared the COVID-19 a public health emergency of international concern on January 2020 and a pandemic on 11 March 2020(Potey, no date; Roy and Kar, no date). Several testing protocols released by WHO Standard method of testing real time reverse transcription polymerase chain reaction is. The test is done typically on respiratory samples obtained by Nasopharyngeal swabs. National responses to the COVID-19 pandemic have been varied, and have included containment measures such as lockdowns, quarantines, and curfewsAs of 1 June 2020, more than 6.15 million cases of COVID-19 have been reported in more than 188 countries and territories, resulting in more than 371,000 deaths (Cervoni, no date). More than 2.63 million people have recovered from the virus. The most affected countries are the United States, Spain, Italy, France, Germany, the United Kingdom, Turkey and China. In South Africa, complete lockdown was implemented. This drastic measure was intended to help keep the viral infection rate as low as possible and save lives. In India, the Indian government airlifted 324 of its citizens from China. After Pakistan's refusal to evacuate its students from Wuhan, the Indian government offered to support them with evacuation along with citizens of other neighbouring countries. India announced a special C-17 Globemaster flight carrying medical supplies to support China in Wuhan and evacuating citizens of India and neighbouring countries. In Iran, early measures announced by the government included the cancellation of concerts and other cultural events, sporting events, and Friday prayers, closure of universities, higher education institutions and schools and allocated 5 trillion rials to combat the virus(Choi et al., 2020; Shanes et al., 2020). In Germany, the first cases occurred in Bavaria in direct connection with the outbreak in Wuhan, China. After initial stagnation, several other cases were reported in different locations. During carnival in February, Heinsberg in Northrhine Westphalia was most affected, and case numbers steadily increased. By the second week of March, all federal states were affected and the first fatality was reported. As of 28 March 2020 the incidence was highest in the city state of Hamburg, followed by Baden-Württemberg and Bavaria

Previously much research was done by our team on RNA(Johnson *et al.*, 2020)(Sekar *et al.*, 2019), osteology of bones and advances in technology (Choudhari and Thenmozhi, 2016; Hafeez and Thenmozhi, 2016),(Sriram, Thenmozhi and Yuvaraj, 2015; Subashri and Thenmozhi, 2016)(Thejeswar and Thenmozhi, 2015) (Keerthana and Thenmozhi, 2016; Pratha, Ashwatha Pratha and Thenmozhi, 2016)(Samuel and Thenmozhi, 2015; Menon and Thenmozhi, 2016)(Seppan *et al.*, 2018)(Krishna, Nivesh Krishna and Yuvaraj Babu, 2016)(Nandhini *et al.*, 2018) (Kannan and Thenmozhi, 2016). but currently the world is under lockdown due to COVID-19. So the main aim of this study is to create awareness about the controlling measures taken by different countries.

MATERIALS AND METHOD:

A prospective descriptive study was done through google docs, for the survey a self structured questionnaire was created with 10 questions among 100 general population. The questionnaire was approved by SRB of Saveetha Dental College. The sampling method used was non-probability convenient sampling. Minimizing the errors in the questioning, planning the questions in simple language and avoiding irrelevant questions were the steps taken to reduce the bias. The results were collected and analysed using SPSS software and represented in the form of pie-chart.

RESULT AND DISCUSSION:

The (figure 1)represents the age of the study population who participated in this study. There were about 55% falls in the 15-25 age group, 39% falls in the 25-35 age group and 6% falls above 40 years. The

(figure 2) represents the gender, 52% were male and 48% female. Around 93% responded that they have an idea of COVID-19 pandemic and 7% responded that they don't have any idea (figure 3). 76% were aware of the controlling measures on COVID-19 and 24% were not aware of the control of COVID-19 (figure 4). Around 70% responded that they were following the lock down and 30% or not following lock down (figure 5). 56% agreed that they follow self isolation if they get any symptoms and 44% disagreed that they won't follow self isolation (figure 6). In (figure 7), 86% agreed that lockdown was necessary to control COVID-19 and 14% disagreed. The figure 8 represents the association between gender and the idea about covid 19, it was found statistically significant. The figure 9 represents the association between gender and awareness on covid 19 controls, it was found statistically significant. The figure 10 represents the association between gender and following social distancing, it was found statistically not significant. The figure 11 represents the association between gender and following self-isolation if any symptoms found, it was found statistically significant

According to (Mohanta *et al.*, no date), the majority of the population were aware of covid-19 and its controlling methods which was similar to our study. (Halperin, no date), this study explains the necessity of lockdown and its importance to control covid-19 spread which was similar to this study. Another study (Goren *et al.*, 2020), they have explained about the safety measures to control covid-19 which was homogeneous to our study.(Patel, no date)This study explains about the different policies implicated by different countries on covid-19. Another country(Dhenain, no date) gives the estimation of covid-19 cases in different countries.(Almarayeh, no date)this study explains the problems faced by developing countries due to covid-19. Another study(Verelst, Kuylen and Beutels, no date; Oecd and OECD, 2007; Heimann, 2017) which explains the different strategies used by different countries to fight covid-19.

The limitation of this study is that a minimum number of articles have been included in this study. This study has limited study population and results may vary with a larger population. The future scope of this study helps in creating awareness about the important situation, it helps us to understand the public's perception and to know the role played by the temperature and humidity during the pandemic disease.

Author contribution: All the authors contributed equally in concept, design, carrying out the research and analysis of the study.

Conflict of interest: All authors declare no conflict of interest in the study.

REFERENCE:

- [1] Almarayeh, T. (no date) 'Developing Countries vs COVID-19. A Commentary from MENA Countries', SSRN Electronic Journal. doi: 10.2139/ssrn.3570073.
- [2] Cao, Y., Cai, K. and Xiong, L. (2020) 'Corona Virus Disease 2019: A new severe acute respiratory syndrome from Wuhan in China', Acta virologica. doi: 10.4149/av_2020_201.
- [3] Cervoni, E. (no date) 'COVID19 LOCK-DOWN IMPACT ON PREVALENCE OF ACUTE OTITIS MEDIA'. doi: 10.22541/au.159127119.92204982.
- [4] Choi, J.-Y. et al. (2020) 'Altered COVID-19 receptor ACE2 expression in a higher risk group for cerebrovascular disease and ischemic stroke', Biochemical and biophysical research communications. doi: 10.1016/j.bbrc.2020.05.203.
- [5] Choudhari, S. and Thenmozhi, M. S. (2016) 'Occurrence and Importance of Posterior Condylar Foramen', Research Journal of Pharmacy and Technology, p. 1083. doi: 10.5958/0974-360x.2016.00206.7.

- [6] Dhenain, M. (no date) 'ESTIMATION OF COVID-19 CASES IN FRANCE AND IN DIFFERENT COUNTRIES: HOMOGENEISATION BASED ON MORTALITY'. doi: 10.1101/2020.04.07.20055913.
- [7] Goren, A. et al. (2020) 'Safety Measures in Dermatology Help Minimize Spread of COVID-19', Dermatologic therapy. doi: 10.1111/dth.13773.
- [8] Hafeez, N. and Thenmozhi (2016) 'Accessory foramen in the middle cranial fossa', Research Journal of Pharmacy and Technology, p. 1880. doi: 10.5958/0974-360x.2016.00385.1.
- [9] Halperin, D. (no date) 'The Covid-19 Lockdown "Natural Experiment" That Has Already Been Conducted'. doi: 10.31235/osf.io/jzhe2.
- [10] Heimann, F. (2017) 'Different Strategies for Different Countries', Oxford Scholarship Online. doi: 10.1093/oso/9780190458331.003.0023.
- [11] Hui, D. S. et al. (2020) 'The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health The latest 2019 novel coronavirus outbreak in Wuhan, China', International journal of infectious diseases: IJID: official publication of the International Society for Infectious Diseases, 91, pp. 264–266.
- [12] Johnson, J. et al. (2020) 'Computational identification of MiRNA-7110 from pulmonary arterial hypertension (PAH) ESTs: a new microRNA that links diabetes and PAH', Hypertension Research, pp. 360–362, doi: 10.1038/s41440-019-0369-5.
- [13] Kannan, R. and Thenmozhi, M. S. (2016) 'Morphometric Study of Styloid Process and its Clinical Importance on Eagle's Syndrome', Research Journal of Pharmacy and Technology, p. 1137. doi: 10.5958/0974-360x.2016.00216.x.
- [14] Keerthana, B. and Thenmozhi, M. S. (2016) 'Occurrence of foramen of huschke and its clinical significance', Research Journal of Pharmacy and Technology, p. 1835. doi: 10.5958/0974-360x.2016.00373.5.
- [15] Menon, A. and Thenmozhi, M. S. (2016) 'Correlation between thyroid function and obesity', Research Journal of Pharmacy and Technology, 9(10), p. 1568.
- [16] Mohanta, Y. K. et al. (no date) 'Higher Alcohol Consumption Is Not Linked To Higher SARS CoVid19 Infection and Death'. doi: 10.21203/rs.3.rs-30073/v1.
- [17] Narain, D. S. et al. (2020) 'Corona Virus Outbreak', Journal of Medical Science And clinical Research. doi: 10.18535/jmscr/v8i4.63.
- [18] Krishna, R. N. and Babu, K. Y. (2016) 'Estimation of stature from physiognomic facial length and morphological facial length', Research Journal of Pharmacy and Technology. A & V Publications, 9(11), pp. 2071–2073. Available at: http://www.indianjournals.com/ijor.aspx?target=ijor:rjpt&volume=9&issue=11&article=052.
- [19] Nandhini, J. S. T., Babu, K. Y. and Mohanraj, K. G. (2018) 'Size, Shape, Prominence and Localization of Gerdy's Tubercle in Dry Human Tibial Bones', Research Journal of Pharmacy and Technology. A & V Publications, 11(8), pp. 3604–3608. Available at: http://www.indianjournals.com/ijor.aspx?target=ijor:rjpt&volume=11&issue=8&article=068.
- [20] Oecd and OECD (2007) 'Different Countries, Different Needs: The role of Private Health Insurance in Developing Countries'. doi: 10.1787/9789264027596-8-en.
- [21] Seppan, P. et al. (2018) 'Therapeutic potential of Mucuna pruriens (Linn.) on ageing induced damage in dorsal nerve of the penis and its implication on erectile function: an experimental study using albino rats', The aging male: the official journal of the International Society for the Study of the Aging Male.

<u>Taylor</u> & Francis, pp. 1–14. Available at:

https://www.tandfonline.com/doi/abs/10.1080/13685538.2018.1439005.

- [22] Patel, N. (no date) 'Lessons and Challenges to be learned from different countries policy implication on COVID 19 recovery cases- A cross-sectional descriptive study'. doi: 10.21203/rs.3.rs-21447/v1.
- [23] Potey, A. (no date) 'COVID19 vaccine: Time to go the Jennerian Way'. doi: 10.22541/au.158921689.97134381.
- [24] Pratha, A. A., Ashwatha Pratha, A. and Thenmozhi, M. S. (2016) 'A Study of Occurrence and Morphometric Analysis on Meningo Orbital Foramen', Research Journal of Pharmacy and Technology, p. 880. doi: 10.5958/0974-360x.2016.00167.0.
- [25] Roy, A. and Kar, S. (no date) 'Nature of transmission of Covid19 in India'. doi: 10.1101/2020.04.14.20065821.
- [26] Samuel, A. R. and Thenmozhi, M. S. (2015) 'Study of impaired vision due to Amblyopia', Research Journal of Pharmacy and Technology, p. 912. doi: 10.5958/0974-360x.2015.00149.3.
- [27] Sekar, D. et al. (2019) 'Methylation-dependent circulating microRNA 510 in preeclampsia patients', Hypertension Research, pp. 1647–1648. doi: 10.1038/s41440-019-0269-8.
- [28] Shanes, E. D. et al. (2020) 'Placental pathology in COVID-19', medRxiv: the preprint server for health sciences. doi: 10.1101/2020.05.08.20093229.
- [29] Sriram, N., Thenmozhi and Yuvaraj, S. (2015) 'Effects of Mobile Phone Radiation on Brain: A questionnaire based study', Research Journal of Pharmacy and Technology, p. 867. doi: 10.5958/0974-360x.2015.00142.0.
- [30] Subashri, A. and Thenmozhi, M. S. (2016) 'Occipital Emissary Foramina in Human Adult Skull and Their Clinical Implications', Research Journal of Pharmacy and Technology, p. 716. doi: 10.5958/0974-360x.2016.00135.9.
- [31] The jeswar, E. P. and Thenmozhi, M. S. (2015) 'Educational Research-iPad System vs Textbook System', Research Journal of Pharmacy and Technology, p. 1158. doi: 10.5958/0974-360x.2015.00208.5.
- [32] Velavan, T. P. and Meyer, C. G. (2020) 'The COVID- 19 epidemic', Tropical Medicine & International Health, pp. 278–280. doi: 10.1111/tmi.13383.
- [33] Verelst, F., Kuylen, E. J. and Beutels, P. (no date) 'Indications for healthcare surge capacity in European countries facing an exponential increase in COVID19 cases'. doi: 10.1101/2020.03.14.20035980.

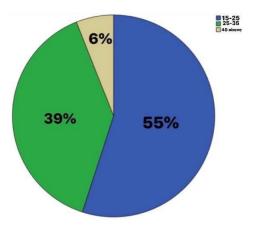


Figure 1: Pie charts representing the percentage distribution of age group of study participants. Majority of the participants 55% falls in the 15-25 age group (blue), 39% falls in the 25-35 age group (green) and 6% falls above 40 years (yellow)

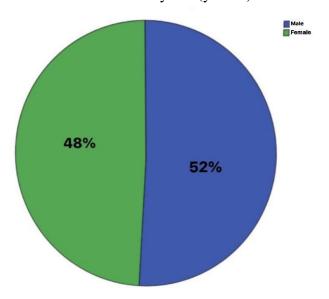


FIGURE 2: Pie chart representing the percentage distribution of gender. Majority of the participants 52% were male (blue) and 48% were female(green)

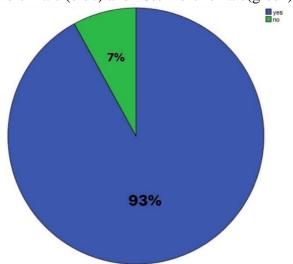


FIGURE 3: Pie chart representing the percentage distribution of ideas on covid-19. Majority of the participants 93% answered yes (blue) and 7% answered no (green)

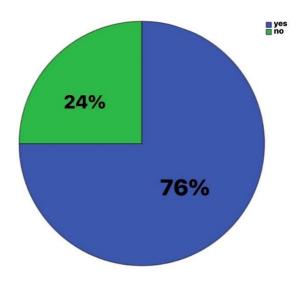


FIGURE 4: Pie Chart representing the percentage distribution of awareness on covid-19 controls. Majority of the participants 76% answered yes(blue) and 24% answered no(green)

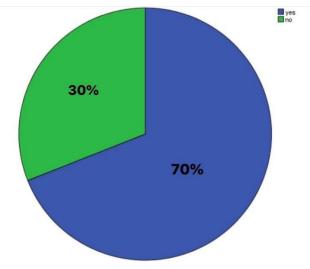


FIGURE 5: Pie Chart representing the percentage distribution of awareness of social distancing. Majority of the participants 70% answered yes (blue) and 30% answered no(green)

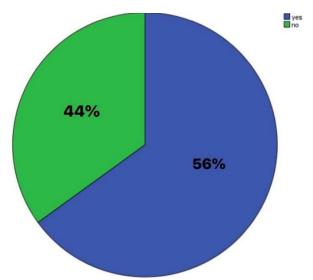


FIGURE 6: Pie Chart representing the percentage distribution of awareness of self isolation if any symptoms are found. Majority of the participants 56% answered yes(blue) and 44% answered no(green)

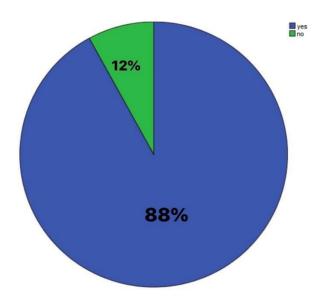


FIGURE 7: Pie Chart representing the percentage distribution of awareness of lockdown is necessary to control covid-19. Majority of the participants 88% answered yes(blue) and 12% answered no(green)

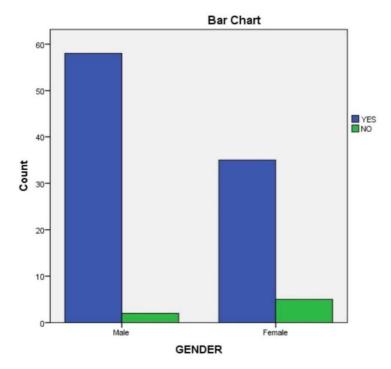


Figure 8: Bar graph representing association between gender and idea about covid 19. X axis represents gender of the participant and Y axis represents number of participants who were aware (blue) and not aware (green). Out of 100 participants who are aware about the idea of covid 19, 58% constitutes males and 35% constitutes females. Males were more aware about the idea of covid 19 than females. Pearson Chi Square analysis-26.889, P value-0.000, hence significant.

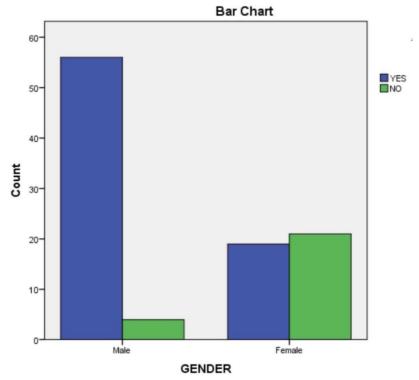


Figure 9: Bar graph representing association between gender and awareness on covid19 controls. X axis represents gender of the participant and Y axis represents number of participants. who were aware (blue) and not aware (green). Out of 100 participants 54% of male and 19% of females have awareness on covid

19 controls. Males were more aware about the idea of covid 19 than females. Pearson Chi Square analysis-9.722, P value-0.002, hence significant

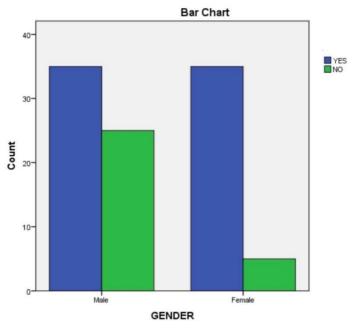


Figure 10: Bar graph representing association between gender and following social distancing. X axis represents gender of the participant and Y axis represents number of participants who were aware (blue) and not aware (green). Out of 100 participants 35% of male and 35% of females are following social distancing. Males were more aware about the idea of covid 19 than females. Pearson Chi Square analysis-0.027, P value-0.869, hence not significant

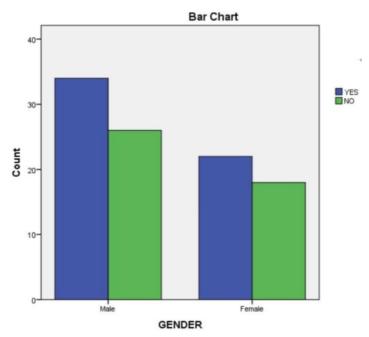


Figure 11: Bar graph representing association between gender and following self isolation if any symptoms are found. X axis represents gender of the participant and Y axis represents number of participants. who were aware (blue) and not aware (green). Out of 100 participants 34% of male and 22% of females are following self isolation if any symptoms are found. Males were more aware about the idea of covid 19 than females. Pearson Chi Square analysis-1.910, P value-0.167, hence not significant