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Awareness on The Impact of Religious Gathering on The Spread of Covid-19 - A Cross Sectional Survey

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Abstract: COVID -19 is a harmful virus. It is caused by SARS-CoV2 that is Severe Acute Respiratory Syndrome. Coronaviridae is the family to which it belongs. The study report says that SARS will also lead to complications such as MERS that is middle east respiratory syndrome. Worship places should be cleaned frequently if people are allowed to enter the holy places during the pandemic situation. The aim of the study is to find out whether COVID-19 patients attending religious gatherings lead to communal riots or not. A survey-based study consisting of self structured questionnaires was prepared and circulated through social networking. The results were collected and then analysed through SPSS software. Descriptive statistical analysis was carried out and chi square test was used and p value was calculated. From the results obtained, we came to know that COVID-19 patients attending religious gatherings will pave the mark for the communal riots and people should avoid contact with the devotional objects and avoid contact with people attending religious faith services. Therefore we conclude that COVID 19 patients attending religious gatherings will be marked by the communal riots.

Keywords: COVID-19, SARS, worship, religious-gatherings, complications, pandemic disease, communal riots, treatment.

INTRODUCTION

Coronavirus is a basic human and animal virus. The defilement that causes COVID-19 is the Severe Acute Respiratory Syndrome that is (SARS-CoV2)(Shenoy and Brundha, 2016). Before it was known as 2019 - nCoV (McIntosh, 2003)(Mp, Brundha and Nallaswamy, 2019). Coronavirus belongs to the family Coronaviridae and distinctive Nidovirales, a family that solidifies pollutants that causes infirmity running from the fundamental cold to phenomenal genuine respiratory condition that is (Severe Acute Respiratory Syndrome) (Timothy, Samyuktha and Brundha, 2019)SARS and it moreover prompts Middle East Respiratory Syndrome (MERS)(Brundha and Pathmashri, 2019)(Prashaanthi and Brundha, 2018)(Kumar, Ashok Kumar and Brundha, 2016). COVID -19 is a RNA type of virus which causes major damage to human beings. They contain the single-abandoned, RNA sense genomes, starting in size from 27 to 32KB long(Brundha, 2015)(Sowbaraniya, Preejitha and Brundha, 2020)(Akshaya, Preejitha and Brundha, 2020).SARS - CoV, at 29 Kb, encodes (ORF) (Menachery, Graham and Baric, 2017)(Hannah *et al.*, 2019)(Preethikaa and Brundha, 2018). Hydroxychloroquine, which is an commonly used antimalarial drug is used to treat the novel coronavirus (Nikpour *et al.*, 2020)(Shreya and Brundha, 2017)(Kalaiselvi and Brundha, 2016). Remdesivir is furthermore used for the treatment of the coronavirus as it is an antiviral prescription (Popoola, 2020)(Harsha and Brundha, 2017)(Ravichandran and Brundha, 2016)(Balaji, Brundha and Path, 2016). Coronavirus causes Acute Respiratory Distress Syndrome in adults which further leads to Cytokine Storm Disorder [(Saha *et al.*, 2020)(Varshini, Rani and Brundha, 2020)(Akash, Rani and Brundha, 2020)(*Website*, no date). Orientation programs can be conducted so that people will get to know about the harmfulness of the virus. People started migrating from one place to another to keep themselves secured from the spread of the COVID - 19. There was an economical crisis, food deficiency, and various challenges faced by the people as a result of the pandemic illness(Ghosh, Sharma and Sinha, no date)(Ananya, Rani and Brundha, 2020)(Naveenaa, Rani and Brundha, 2020).

The huge potential for the religious gathering events were to bring a severe disaster to the crowd. Mixing high crowd density, restricted access points, poor crowd control and lack of complete information on areas and

activities can lead to disaster situations (Soomaroo and Murray, 2012). There are always more people attending religious meetings than those attending political events. There are repeated stamped incidents in the same place, which proves that adequate crowd risk management strategies are needed to prevent future stamped incidents (Illiyas *et al.*, 2013). Historical patterns from India and other countries indicate that the stampedes occur in mass gatherings, especially in religious events, often stressing the importance of more scientifically examining crowd behavior. In planning crowd control measures and providing early warning systems at mass gatherings, this is required to support appropriate and timely crowd management principles (Ebrahim and Memish, 2020b) Our team has rich experience in research and we have collaborated with numerous authors over various topics in the past decade (Deogade, Gupta and Ariga, 2018; Ezhilarasan, 2018; Ezhilarasan, Sokal and Najimi, 2018; Jeevanandan and Govindaraju, 2018; J *et al.*, 2018; Menon *et al.*, 2018; Prabakar *et al.*, 2018; Rajeshkumar *et al.*, 2018, 2019; Vishnu Prasad *et al.*, 2018; Wahab *et al.*, 2018; Dua *et al.*, 2019; Duraisamy *et al.*, 2019; Ezhilarasan, Apoorva and Ashok Vardhan, 2019; Gheena and Ezhilarasan, 2019; Malli Sureshbabu *et al.*, 2019; Mehta *et al.*, 2019; Panchal, Jeevanandan and Subramanian, 2019; Rajendran *et al.*, 2019; Ramakrishnan, Dhanalakshmi and Subramanian, 2019; Sharma *et al.*, 2019; Varghese, Ramesh and Veeraiyan, 2019; Gomathi *et al.*, 2020; Samuel, Acharya and Rao, 2020)

The author in his study has mentioned that acute respiratory infection is a common respiratory infection that causes high risk among travelers. There is said to be an increase in the amount of influenza for the travelers when compared to the non-travelers. 296 travelers were considered in the study which was done by Mrudula.O (Mrudula, 2020). In a study done by Ebrahim S.H, the incident which happened in Hajj in 2012 created an interest among the researchers to know more about the cost of the consequences due to attending religious gatherings (Ebrahim and Memish, 2020b). This study aims to find out whether COVID - 19 patients attending religious gatherings lead to Communal riots or not.

MATERIALS AND METHODS

A cross sectional questionnaire study was conducted among 100 participants in the month april, 2020 in Chennai. The set of questionnaires includes the age of the participants, awareness on COVID-19, awareness on public gatherings, communal riots.The verification of validity of the questionnaire was carried out in a standardized manner. The statistical analysis used in our study will be the descriptive analysis and the statistical software used will be the SPSS. The sample method used is a simple random sampling method. The statistical test used here is descriptive analysis. The participants were asked to fill the Google forms. The obtained results are converted into pie charts and graphs accordingly. The study setting is the type of university setting. Some of the PRO'S are : collection of data is made very easy and awareness is brought among the dental students. Some of the CONS's are: views of the people outside the university cannot be known and also opinions for sure will vary in the future use of the University.

RESULTS AND DISCUSSION

The results show that the majority of COVID-19 patients attending religious gatherings will lead to communal riots.Majority of the students have told that the religious then in India have been aggravated by the COVID-19. 59.6% t of students were said to be male and 40.4% of the students were said to be female. **(FIG-1).** 76.1% of the students were said to be in undergraduate and 23.9% of students were said to be in postgraduate. **(FIG-2).** 53.2 % of students have told that the religious tension in India has been aggravated by the coronavirus. 27.5 percent of the students have told that religious tension does not cause the Coronavirus to aggravate. 19.3 % of students have told that the Coronavirus might aggravate due to religious tension. **(FIG-3).** 52.3% of students think that the Coronavirus has spread mostly in India due to the religious gathering. 26.6% of students think that the Coronavirus will not spread in India due to religious gatherings. 21.1% of students think that maybe the coronavirus might spread due to the religious gathering in India. **(FIG-5).** 49.5% of the students think that the families of the persons who participated in the religious gatherings are majorly affected by the COVID 19. 18.3% of the students think that maybe the families of the persons who participate in the religious gathering might be affected by the COVID-19. 32.1% of the students think that the families of the persons who participated in the religious gathering were not affected by the COVID-19. **(FIG-7).** 50.5% of students told that religious gathering leads to communal riots. 25.7% of students told that religious gathering will not lead to communal riots. 33.9% of students told that religious gatherings might lead to communal riots. **(FIG-9).** 31.2% of students told that communal riots will start after flattening the curve of the spread of the COVID-19. 34.9 percent of students told that the communal riots will not start after flattening the curve of the spread of the COVID-19. 33.9% of students told that communal riots might start after flattening the curve of the spread of the COVID-19. **(FIG-11).** 25.7% of students still prefer to worship at the holy places during the pandemic situation. 50.5% of students after knowing the consequences of COVID 19, do not want to visit the holy places during the pandemic. 23.9% of students, maybe they still prefer to worship at the holy places during the pandemic situation. **(FIG-13).**

Interim guidance for communities of faith

Millions of Americans regard adoration as a necessary part of life. For many traditions of faith, gathering together for worship is at the heart of what it means to be a community of faith. But, as Americans now know, gatherings present a risk of increasing the spread of COVID-19 during this Public Health Emergency. CDC (Centre for Disease Control and Prevention) is offering these suggestions to the faith communities to consider and accept, reject(Abdalqadir, 2020).

Scaling up operations

Provides security from COVID-19 for workers and congregants at a higher risk for serious disease. Offer options for employees at higher risk of serious illness (including older adults and people of all ages with certain underlying medical conditions) that limit their risk of exposure. Offer options for congregants at increased risk for serious diseases that limit their risk of exposure (e.g. remote service involvement).(Xue *et al.*, no date). COVID-19 has been caused by pneumonia in which it automatically leads to acute respiratory distress syndrome.

Safety actions

Encourage employees and religious leaders to scarf coughs and sneezes with tissue or use their elbows to cover their face. We should throw tissues into the garbage and wash the face. People should be advised to use face masks in order to secure themselves against the virus (Alfraji *et al.*, 2020).

The religious community sprays disinfectant to remove the contamination of the virus. The place should be locked down for a few days, disinfectant should be sprayed before the usage of the place (Ebrahim and Memish, 2020a). Promote social distance between services and other gatherings, ensuring that staff, volunteers and service participants follow social distances, as circumstances and faith traditions allow them to reduce their risk (Narain *et al.*, 2020). Our study is a cross-sectional survey study in which the data was collected online. The opinions of people from different countries would vary from one country to another. In the future, awareness of COVID-19 patients attending religious gatherings can be generated through the study, and safety measures can also be taken. This study contributes to the creation of proper knowledge among the broad population.

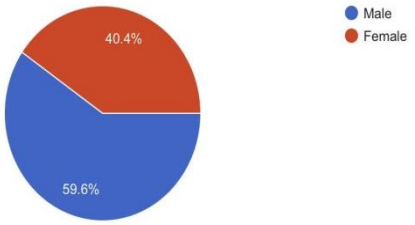

Fig.1: pie chart showing responses to the question, " Which gender do you belong to ?". Majority of the respondents reported were Male (56%). Blue represents Male and red represents female.

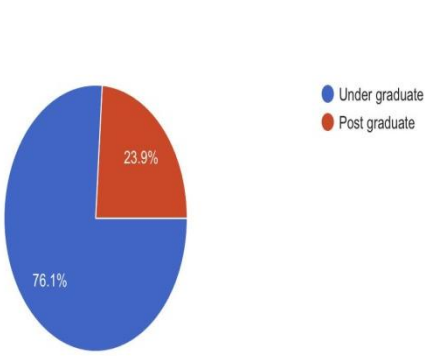

Fig.2: pie chart showing responses to the question, " Year of study". Majority of the respondents reported were Undergraduates (76%). Blue represents undergraduate and red represents post graduate.

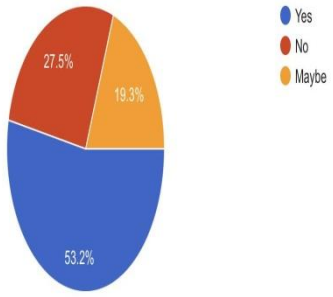

Fig.3: pie chart showing responses to the question, " Does aggravation of tension in India occur due to the religious gathering?". Majority of the respondents (53.2%) reported yes . Blue represents yes, red represents no, yellow represents maybe.

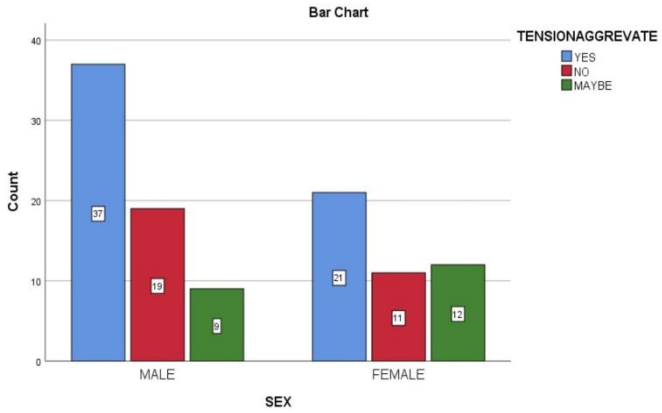

Fig.4: depicts the bar chart showing comparison of responses based on the gender to the question, "Does aggravation of tension in India occur due to the religious gathering?". Higher number of males (37) reported yes. There is no significant difference in responses between males and females. (chi square test; p value : 0.218 >0.05 - indicating statistically non significant) X axis represents Gender of each individual and Y axis represents Count of individual. Blue represents yes, red represents no, green represents maybe.

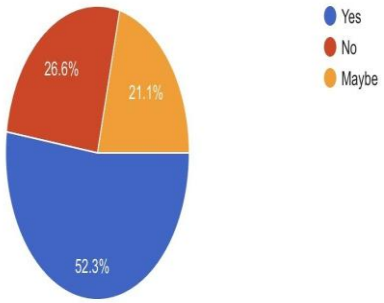

Fig.5: pie chart showing responses to the question, "Do you think the corona virus has spread mostly in India due to the religious gathering?" Majority of the respondents (52.3%) reported yes. Blue represents yes, red represents no, yellow represents maybe.

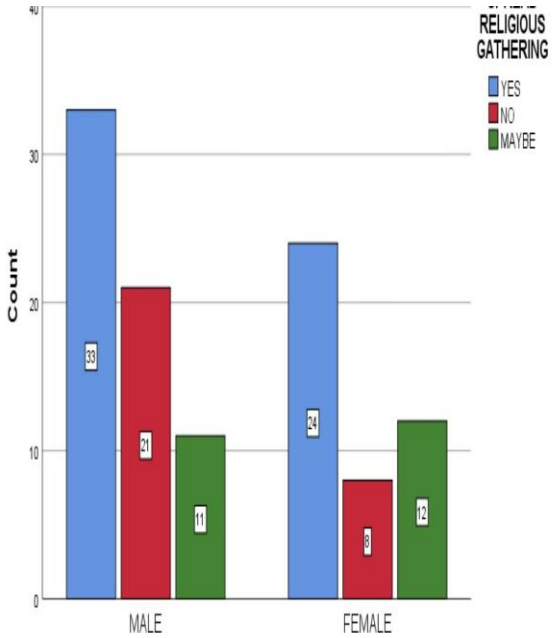

Fig.6: depicts the bar chart showing comparison of responses based on the gender to the question, "Do you think the corona virus has spread mostly in India due to the religious gathering?". Higher number of males reported (33) reported yes. There is no significant difference in responses between males and females.(chi square p value : 0.218 >0.05 - indicating statistically non significant). X axis represents Gender of each individual, Y axis represents Count of individual. Blue represents yes, red represents no, green represents maybe.

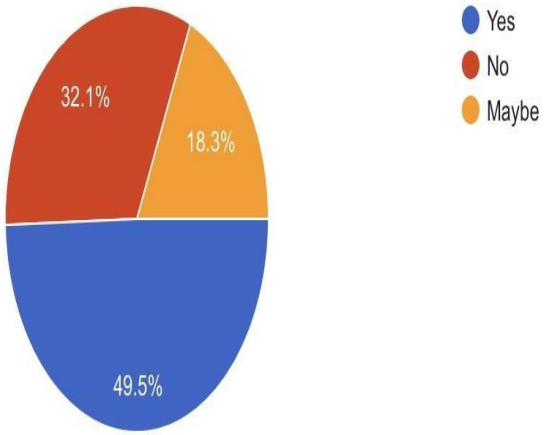

Fig.7: pie chart showing responses to the question " Does the families of the persons who participated in the religious gathering are majorly affected by the COVID- 19?". Majority of the respondents (49.5%) reported yes. Blue represents yes, red represents no, yellow represents maybe.

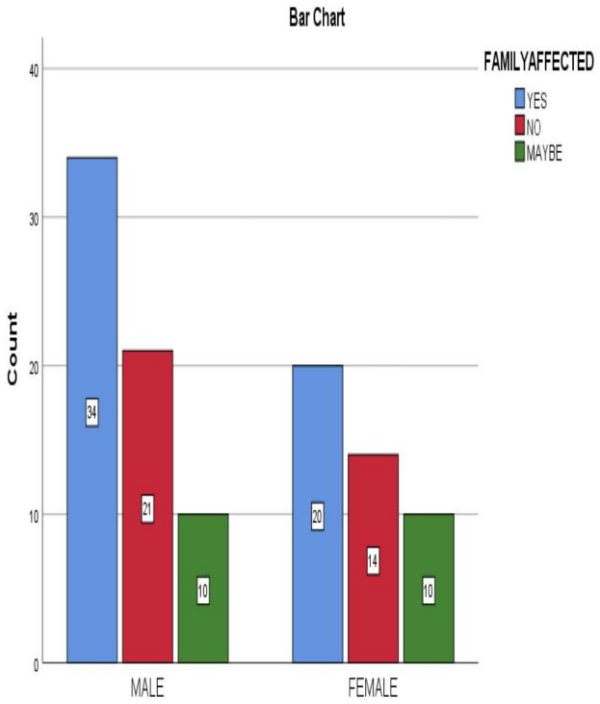

Fig.8: depicts the bar chart showing comparison of responses based on the gender to the question, "Does the families of the persons who participated in the religious gathering are majorly affected by the COVID- 19?". Higher number of males (34) reported yes. There is no significant difference in responses between males and females. (chi square p value : 0.600>0.05 indicating statistically non significant.) X axis represents the Gender of each individual, Y axis represents the Count of individuals. Blue represents yes, red represents no, green represents maybe.

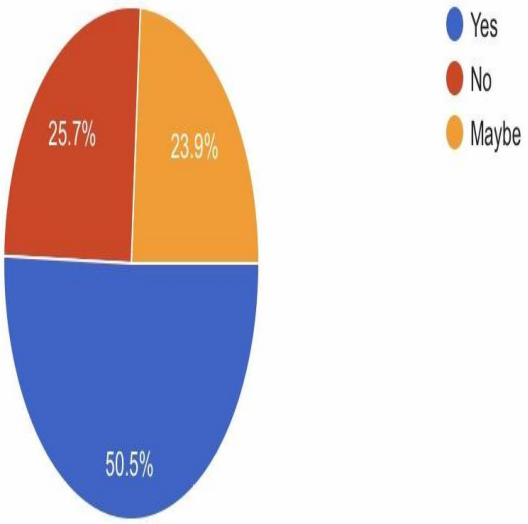

Fig.9: pie chart responses to the question, " Do religious gatherings have a major impact on the spread of COVID-19 leading to communal riots?". Majority of the respondents (0.5%) reported yes. Blue represents yes, red represents no, yellow represents maybe.

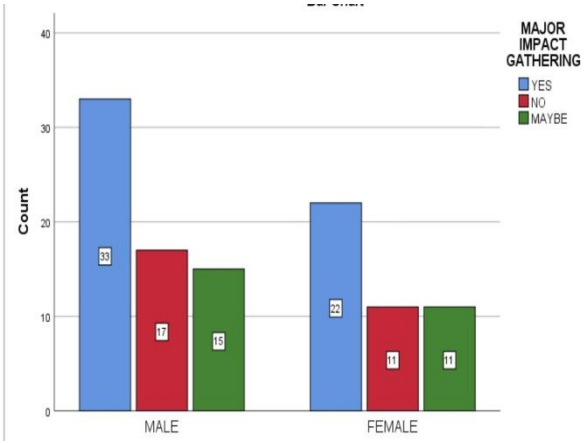

Fig.10: depicts the bar chart showing comparison of responses based on the gender to the question, " Do religious gatherings have a major impact on the spread of COVID-19 leading to communal riots?". Higher number of males (33) reported yes. There is no significant difference in response between males and females. (chi square p value : 0.972>0.05 indicating statistically non significant) X axis represents the Gender of each individual and Y axis represents the Count of individuals. Blue represents yes, red represents no, green represents maybe.

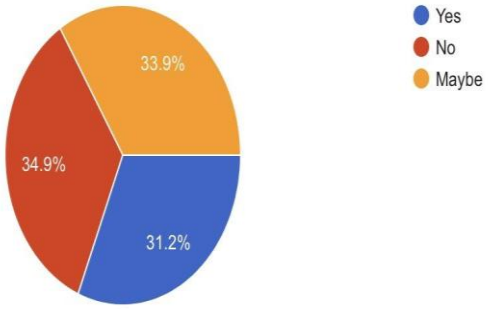

Fig.11: pie chart responses to the question, " Will the communal riots get started after flattening the curve of the spread of the COVID-19?". Majority of the respondents (34.9%) reported no. Blue represents yes, red represents no, yellow represents maybe.

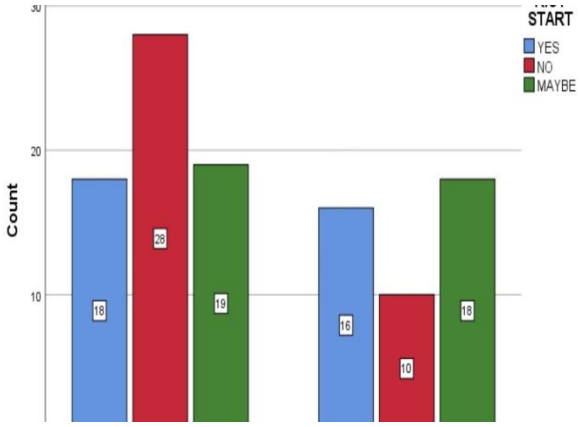

Fig.12: depicts the bar chart showing comparison of responses based on the gender to the question, " Will the communal riots get started after flattening the curve of the spread of the COVID-19?". Higher number of males (18) reported yes. There is no significant difference in responses between males and females. (chi square p value : 0.091>0.05 indicating statistically non significant) X axis represents Gender of each individual and Y axis represents Count of individual. Blue represents yes, red represents no, green represents maybe.

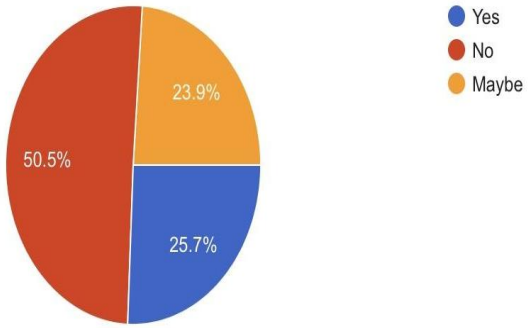

Fig.13: Pie chart responses to the question, " After knowing the consequences of the religious gathering, do they still prefer to worship at the holy places during the pandemic situation?". Majority of the respondents (50.7%) reported no. Blue represents yes, red represents no, yellow represents maybe.

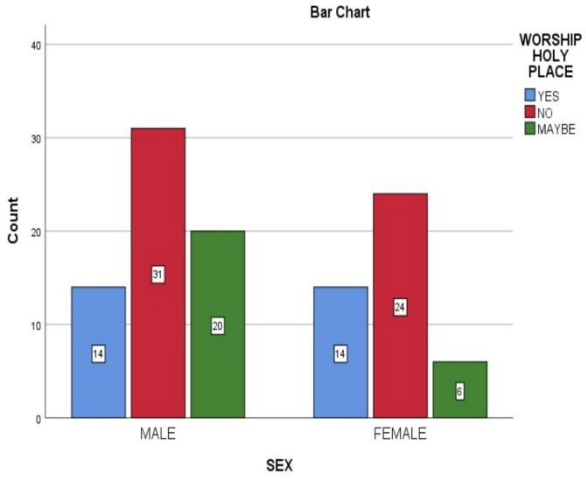

Fig.14: depicts the bar chart showing comparison of responses based on the gender to the question, " After knowing the consequences of the religious gathering, do they still prefer to worship at the holy places during the pandemic situation?". Higher number of males (31) reported no. There is no significant difference in responses between males and females. (chi square p value : 0.103>0.05 indicating statistically non significant) X axis represents Gender of each individual and Y axis represents Count of individual. Blue represents yes, red represents no, green represents maybe. Our institution is passionate about high quality evidence based research and has excelled in various fields ((Pc, Marimuthu and Devadoss, 2018; Ramesh et al., 2018; Vijayashree Priyadharsini, Smiline Girija and Paramasivam, 2018; Ezhilarasan, Apoorva and Ashok Vardhan, 2019; Ramadurai et al., 2019; Sridharan et al., 2019; Vijayashree Priyadharsini, 2019; Chandrasekar et al., 2020; Mathew et al., 2020; R et al., 2020; Samuel, 2021)

CONCLUSION

The findings of this study proves that, COVID-19 patients attending religious gatherings will lead to communal riots. Inorder to stay free from the COVID-19, it is our duty to take preventive measures and avoid going to temples during the pandemic situation.

REFERENCES

1. Abdalqadir, M. T. (2020) 'COVID-19 Outbreak: Routes of Transmission, Precautions, and Economic Impact on Dentistry-A Review Article', Kurdistan Journal of Applied Research, pp. 23–30. doi: 10.24017/covid.3.
2. Akash, N., Rani, S. L. and Brundha, M. P. (2020) 'Awareness on benefits of chia seeds among college students', Drug Invention Today, 14(2).
3. Akshaya, R., Preejitha, V. B. and Brundha, M. P. (2020) 'A survey study of gender-related anxiety and fear

on dental care among the patients visiting Saveetha Dental College and Hospital', Drug Invention Today, 13(2).
4. Alfraji, N. et al. (2020) 'bacteremia in an elderly healthy male', IDCases, 21, p. e00807. doi: 10.1016/j.idcr.2020.e00807.
5. Ananya, B., Rani, S. L. and Brundha, M. P. (2020) 'Knowledge and attitude of probiotics among outpatients visiting dental operatory', Drug Invention Today, 14(2).
6. Balaji, S., Brundha, M. P. and Path, D. N. B. (2016) 'Awareness of About Breast Cancer among Dental Surgeons', Research journal of pharmaceutical, biological and chemical sciences, 8(8), p. 797. Available at: https://pdfs.semanticscholar.org/63f4/4173d90b35bffa33eed0aeb52ac547ef1567.pdf.
7. Brundha, M. P. (2015) 'A Comparative Study-The Role of Skin and Nerve Biopsy in Hansen's Disease', Research journal of pharmaceutical, biological and chemical sciences, 7(10), p. 837. Available at: https://www.researchgate.net/profile/Brundha_Mp/publication/283561218_A_comparative_study-_the_role_of_skin_and_nerve_biopsy_in_hansen's_disease/links/5892ba5d458515aeac946451/A-comparative-study-the-role-of-skin-and-nerve-biopsy-in-hansens-disease.pdf.
8. Brundha, M. P. and Pathmashri, V. P. (2019) 'Quantitative Changes of Red Blood cells in Cancer Patients under Palliative Radiotherapy-A Retrospective Study', Research Journal of. Available at: http://www.indianjournals.com/ijor.aspx?target=ijor:rjpt&volume=12&issue=2&article=041.
9. Chandrasekar, R. et al. (2020) 'Development and validation of a formula for objective assessment of cervical vertebral bone age', Progress in orthodontics, 21(1), p. 38. doi: 10.1186/s40510-020-00338-0.
10. Deogade, S., Gupta, P. and Ariga, P. (2018) 'Effect of monopoly-coating agent on the surface roughness of a tissue conditioner subjected to cleansing and disinfection: A Contact Profilometric In vitro study', Contemporary Clinical Dentistry, p. 122. doi: 10.4103/ccd.ccd_112_18.
11. Dua, K. et al. (2019) 'The potential of siRNA based drug delivery in respiratory disorders: Recent advances and progress', Drug development research, 80(6), pp. 714–730. doi: 10.1002/ddr.21571.
12. Duraisamy, R. et al. (2019) 'Compatibility of Nonoriginal Abutments With Implants: Evaluation of Microgap at the Implant-Abutment Interface, With Original and Nonoriginal Abutments', Implant dentistry, 28(3), pp. 289–295. doi: 10.1097/ID.0000000000000885.
13. Ebrahim, S. H. and Memish, Z. A. (2020a) 'COVID-19: preparing for superspreader potential among Umrah pilgrims to Saudi Arabia', The Lancet, 395(10227), p. e48. doi: 10.1016/S0140-6736(20)30466-9.
14. Ebrahim, S. H. and Memish, Z. A. (2020b) 'COVID-19 - the role of mass gatherings', Travel medicine and infectious disease, 34, p. 101617. doi: 10.1016/j.tmaid.2020.101617.
15. Ezhilarasan, D. (2018) 'Oxidative stress is bane in chronic liver diseases: Clinical and experimental perspective', Arab journal of gastroenterology: the official publication of the Pan-Arab Association of Gastroenterology, 19(2), pp. 56–64. doi: 10.1016/j.ajg.2018.03.002.
16. Ezhilarasan, D., Apoorva, V. S. and Ashok Vardhan, N. (2019) 'Syzygium cumini extract induced reactive oxygen species-mediated apoptosis in human oral squamous carcinoma cells', Journal of oral pathology & medicine: official publication of the International Association of Oral Pathologists and the American Academy of Oral Pathology, 48(2), pp. 115–121. doi: 10.1111/jop.12806.
17. Ezhilarasan, D., Sokal, E. and Najimi, M. (2018) 'Hepatic fibrosis: It is time to go with hepatic stellate cell-specific therapeutic targets', Hepatobiliary & pancreatic diseases international: HBPD INT, 17(3), pp. 192–197. doi: 10.1016/j.hbpd.2018.04.003.
18. Gheena, S. and Ezhilarasan, D. (2019) 'Syringic acid triggers reactive oxygen species-mediated cytotoxicity in HepG2 cells', Human & experimental toxicology, 38(6), pp. 694–702. doi: 10.1177/0960327119839173.
19. Ghosh, S., Sharma, G. and Sinha, J. K. (no date) 'The pandemic of COVID-19 needs awareness and preparedness instead of stigma and panic'. doi: 10.35543/osf.io/gy2t7.
20. Gomathi, A. C. et al. (2020) 'Anticancer activity of silver nanoparticles synthesized using aqueous fruit shell extract of Tamarindus indica on MCF-7 human breast cancer cell line', Journal of Drug Delivery Science and Technology, p. 101376. doi: 10.1016/j.jddst.2019.101376.
21. Hannah, R. et al. (2019) 'Liquid Paraffin as a Rehydrant for Air Dried Buccal Smear', Research Journal of Pharmacy and Technology, 12(3), pp. 1197–1200. Available at: http://www.indianjournals.com/ijor.aspx?target=ijor:rjpt&volume=12&issue=3&article=038.
22. Harsha, L. and Brundha, M. P. (2017) 'Prevalence of dental developmental anomalies among men and women and its psychological effect in a given population', Journal of pharmaceutical sciences. Available at: http://search.proquest.com/openview/1f488cc6e377096f44a87e509aceab79/1?pq-origsite=gscholar&cbl=54977.
23. Illiyas, F. T. et al. (2013) 'Human stampedes during religious festivals: A comparative review of mass gathering emergencies in India', International Journal of Disaster Risk Reduction, pp. 10–18. doi: 10.1016/j.ijdrr.2013.09.003.
24. Jeevanandan, G. and Govindaraju, L. (2018) 'Clinical comparison of Kedo-S paediatric rotary files vs manual instrumentation for root canal preparation in primary molars: a double blinded randomised clinical

trial', European Archives of Paediatric Dentistry, pp. 273–278. doi: 10.1007/s40368-018-0356-6.
25. J, P. C. et al. (2018) 'Prevalence and measurement of anterior loop of the mandibular canal using CBCT: A cross sectional study', Clinical implant dentistry and related research, 20(4), pp. 531–534. doi: 10.1111/cid.12609.
26. Kalaiselvi, R. and Brundha, M. P. (2016) 'Prevalence of hysterectomy in South Indian population', Research Journal of Pharmacy and Technology, p. 1941. doi: 10.5958/0974-360x.2016.00398.x.
27. Kumar, M. D. A., Ashok Kumar, M. D. and Brundha, M. P. (2016) 'Awareness about nocturia-A questionnaire survey', Research Journal of Pharmacy and Technology, p. 1707. doi: 10.5958/0974-360x.2016.00344.9.
28. Malli Sureshbabu, N. et al. (2019) 'Concentrated Growth Factors as an Ingenious Biomaterial in Regeneration of Bony Defects after Periapical Surgery: A Report of Two Cases', Case reports in dentistry, 2019, p. 7046203. doi: 10.1155/2019/7046203.
29. Mathew, M. G. et al. (2020) 'Evaluation of adhesion of Streptococcus mutans, plaque accumulation on zirconia and stainless steel crowns, and surrounding gingival inflammation in primary molars: Randomized controlled trial', Clinical oral investigations, pp. 1–6. Available at: https://link.springer.com/article/10.1007/s00784-020-03204-9.
30. McIntosh, K. (2003) 'The SARS coronavirus: rapid diagnostics in the limelight', Clinical chemistry, pp. 845–846. doi: 10.1373/49.6.845.
31. Mehta, M. et al. (2019) 'Oligonucleotide therapy: An emerging focus area for drug delivery in chronic inflammatory respiratory diseases', Chemico-biological interactions, 308, pp. 206–215. doi: 10.1016/j.cbi.2019.05.028.
32. Menachery, V. D., Graham, R. L. and Baric, R. S. (2017) 'Jumping species-a mechanism for coronavirus persistence and survival', Current opinion in virology, 23, pp. 1–7. doi: 10.1016/j.coviro.2017.01.002.
33. Menon, S. et al. (2018) 'Selenium nanoparticles: A potent chemotherapeutic agent and an elucidation of its mechanism', Colloids and Surfaces B: Biointerfaces, pp. 280–292. doi: 10.1016/j.colsurfb.2018.06.006.
34. Mp, B., Brundha, M. P. and Nallaswamy, D. (2019) 'Hide and seek in pathology- A research on game-based histopathology learning', International Journal of Research in Pharmaceutical Sciences, pp. 1410–1414. doi: 10.26452/ijrps.v10i2.606.
35. Mrudula, O. (2020) 'Impact of Corona Virus – A Statistical Evaluation', Journal of Advanced Research in Dynamical and Control Systems, pp. 399–407. doi: 10.5373/jardcs/v12i3/20201207.
36. Narain, D. S. et al. (2020) 'Corona Virus Outbreak', Journal of Medical Science And clinical Research. doi: 10.18535/jmscr/v8i4.63.
37. Naveenaa, N., Rani, S. L. and Brundha, M. P. (2020) 'Knowledge, attitude, and perception on the importance of hematological report among general population', Drug Invention Today, 14(2).
38. Nikpour, M. et al. (2020) 'Correspondence regarding research letter to the editor by Mathian , "Clinical course of coronavirus disease 2019 (COVID-19) in a series of 17 patients with systemic lupus under long-term treatment with hydroxychloroquine"', Annals of the rheumatic diseases. doi: 10.1136/annrheumdis-2020-217827.
39. Panchal, V., Jeevanandan, G. and Subramanian, E. M. G. (2019) 'Comparison of post-operative pain after root canal instrumentation with hand K-files, H-files and rotary Kedo-S files in primary teeth: a randomised clinical trial', European archives of paediatric dentistry: official journal of the European Academy of Paediatric Dentistry, 20(5), pp. 467–472. doi: 10.1007/s40368-019-00429-5.
40. Pc, J., Marimuthu, T. and Devadoss, P. (2018) 'Prevalence and measurement of anterior loop of the mandibular canal using CBCT: A cross sectional study', Clinical implant dentistry and related research. Available at: https://europepmc.org/article/med/29624863.
41. Popoola, J. (2020) 'Faculty Opinions recommendation of Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro', Faculty Opinions – Post-Publication Peer Review of the Biomedical Literature. doi: 10.3410/f.737311964.793572693.
42. Prabakar, J. et al. (2018) 'Comparative Evaluation of Retention, Cariostatic Effect and Discoloration of Conventional and Hydrophilic Sealants - A Single Blinded Randomized Split Mouth Clinical Trial', Contemporary clinical dentistry, 9(Suppl 2), pp. S233–S239. doi: 10.4103/ccd.ccd_132_18.
43. Prashaanthi, N. and Brundha, M. P. (2018) 'A Comparative Study between Popplet Notes and Conventional Notes for Learning Pathology', Research Journal of Pharmacy and Technology, 11(1), pp. 175–178. Available at: http://www.indianjournals.com/ijor.aspx?target=ijor:rjpt&volume=11&issue=1&article=032.
44. Preethikaa, S. and Brundha, M. P. (2018) 'Awareness of diabetes mellitus among general population', Research Journal of Pharmacy and Technology, p. 1825. doi: 10.5958/0974-360x.2018.00339.6.
45. Rajendran, R. et al. (2019) 'Comparative Evaluation of Remineralizing Potential of a Paste Containing Bioactive Glass and a Topical Cream Containing Casein Phosphopeptide-Amorphous Calcium Phosphate: An in Vitro Study', Pesquisa Brasileira em Odontopediatria e Clínica Integrada, pp. 1–10. doi: 10.4034/pboci.2019.191.61.

46. Rajeshkumar, S. et al. (2018) 'Biosynthesis of zinc oxide nanoparticles usingMangifera indica leaves and evaluation of their antioxidant and cytotoxic properties in lung cancer (A549) cells', Enzyme and microbial technology, 117, pp. 91–95. doi: 10.1016/j.enzmictec.2018.06.009.
47. Rajeshkumar, S. et al. (2019) 'Antibacterial and antioxidant potential of biosynthesized copper nanoparticles mediated through Cissus arnotiana plant extract', Journal of photochemistry and photobiology. B, Biology, 197, p. 111531. doi: 10.1016/j.jphotobiol.2019.111531.
48. Ramadurai, N. et al. (2019) 'Effectiveness of 2% Articaine as an anesthetic agent in children: randomized controlled trial', Clinical oral investigations, 23(9), pp. 3543–3550. doi: 10.1007/s00784-018-2775-5.
49. Ramakrishnan, M., Dhanalakshmi, R. and Subramanian, E. M. G. (2019) 'Survival rate of different fixed posterior space maintainers used in Paediatric Dentistry - A systematic review', The Saudi dental journal, 31(2), pp. 165–172. doi: 10.1016/j.sdentj.2019.02.037.
50. Ramesh, A. et al. (2018) 'Comparative estimation of sulfiredoxin levels between chronic periodontitis and healthy patients - A case-control study', Journal of periodontology, 89(10), pp. 1241–1248. doi: 10.1002/JPER.17-0445.
51. Ravichandran, H. and Brundha, M. P. (2016) 'Awareness about personal protective equipments in hospital workers (sweepers and cleaners)', International Journal of Pharmaceutical Sciences Review and Research, 40(1), pp. 28–29.
52. R, H. et al. (2020) 'CYP2 C9 polymorphism among patients with oral squamous cell carcinoma and its role in altering the metabolism of benzo[a]pyrene', Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology, pp. 306–312. doi: 10.1016/j.oooo.2020.06.021.
53. Saha, A. et al. (2020) 'Tocilizumab: A Therapeutic Option for the Treatment of Cytokine Storm Syndrome in COVID-19', Archives of medical research. doi: 10.1016/j.arcmed.2020.05.009.
54. Samuel, S. R. (2021) 'Can 5-year-olds sensibly self-report the impact of developmental enamel defects on their quality of life?', International journal of paediatric dentistry / the British Paedodontic Society [and] the International Association of Dentistry for Children, 31(2), pp. 285–286. doi: 10.1111/ipd.12662.
55. Samuel, S. R., Acharya, S. and Rao, J. C. (2020) 'School Interventions-based Prevention of Early-Childhood Caries among 3-5-year-old children from very low socioeconomic status: Two-year randomized trial', Journal of public health dentistry, 80(1), pp. 51–60. doi: 10.1111/jphd.12348.
56. Sharma, P. et al. (2019) 'Emerging trends in the novel drug delivery approaches for the treatment of lung cancer', Chemico-biological interactions, 309, p. 108720. doi: 10.1016/j.cbi.2019.06.033.
57. Shenoy, P. B. and Brundha, M. P. (2016) 'Awareness of polycystic ovarian disease among females of age group 18-30 years', Journal of pharmaceutical sciences. Available at: http://search.proquest.com/openview/a8a09e7b2e9d2f967bf3fee479c7018a/1?pq-origsite=gscholar&cbl=54977.
58. Shreya, S. and Brundha, M. P. (2017) 'Alteration of Haemoglobin Value in Relation to Age, Sex and Dental Diseases-A Retrospective Correlation Study', Research Journal of Pharmacy and Technology, p. 1363. doi: 10.5958/0974-360x.2017.00241.4.
59. Soomaroo, L. and Murray, V. (2012) 'Disasters at mass gatherings: lessons from history', PLoS currents, 4, p. RRN1301. doi: 10.1371/currents.RRN1301.
60. Sowbaraniya, S. M., Preejitha, V. B. and Brundha, M. P. (2020) 'Knowledge, awareness, and attitude on dental post-operative complications in diabetes among general population', Drug Invention Today, 13(2).
61. Sridharan, G. et al. (2019) 'Evaluation of salivary metabolomics in oral leukoplakia and oral squamous cell carcinoma', Journal of oral pathology & medicine: official publication of the International Association of Oral Pathologists and the American Academy of Oral Pathology, 48(4), pp. 299–306. doi: 10.1111/jop.12835.
62. Timothy, C. N., Samyuktha, P. S. and Brundha, M. P. (2019) 'Dental pulp Stem Cells in Regenerative Medicine – A Literature Review', Research Journal of Pharmacy and Technology, p. 4052. doi: 10.5958/0974-360x.2019.00698.x.
63. Varghese, S. S., Ramesh, A. and Veeraiyan, D. N. (2019) 'Blended Module-Based Teaching in Biostatistics and Research Methodology: A Retrospective Study with Postgraduate Dental Students', Journal of dental education, 83(4), pp. 445–450. doi: 10.21815/JDE.019.054.
64. Varshini, A., Rani, S. L. and Brundha, M. P. (2020) 'Awareness of annual doctor checkups among general population', Drug Invention Today, 14(2).
65. Vijayashree Priyadharsini, J. (2019) 'In silico validation of the non-antibiotic drugs acetaminophen and ibuprofen as antibacterial agents against red complex pathogens', Journal of periodontology, 90(12), pp. 1441–1448. doi: 10.1002/JPER.18-0673.
66. Vijayashree Priyadharsini, J., Smiline Girija, A. S. and Paramasivam, A. (2018) 'In silico analysis of virulence genes in an emerging dental pathogen A. baumannii and related species', Archives of oral biology, 94, pp. 93–98. doi: 10.1016/j.archoralbio.2018.07.001.
67. Vishnu Prasad, S. et al. (2018) 'Report on oral health status and treatment needs of 5-15 years old children

with sensory deficits in Chennai, India', Special care in dentistry: official publication of the American Association of Hospital Dentists, the Academy of Dentistry for the Handicapped, and the American Society for Geriatric Dentistry, 38(1), pp. 58–59. doi: 10.1111/scd.12267.
68. Wahab, P. U. A. et al. (2018) 'Scalpel Versus Diathermy in Wound Healing After Mucosal Incisions: A Split-Mouth Study', Journal of oral and maxillofacial surgery: official journal of the American Association of Oral and Maxillofacial Surgeons, 76(6), pp. 1160–1164. doi: 10.1016/j.joms.2017.12.020.
69. Website (no date). Available at: Ferdioz. J, Brundha MP.(2016) Awareness of International journal of pharmaceutical sciences review and research 40(1) Available from: http://globalresearchonline.net/journalcontents/v40-1/08.pdf (Accessed: 8 June 2020).
70. Xue, X. et al. (no date) 'Correlation between hypophosphatemia and the severity of Corona Virus Disease 2019 patients'. doi: 10.1101/2020.03.27.20040816.