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Attitude And Perception Towards Risk Of Covid-19 Transmission Among Parents Of Children Visiting Dental OPD In Private Dental Institution

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ABSTRACT
Introduction: The COVID-19 pandemic started in late 2019 and it is still prevailing. It has become a strain on today's condition. More importantly, it has affected the healthcare utilization behavior of people and it also increased the level of anxiety and stress in parents. When compared to adults children have a healthy respiratory system and an active innate immune system which play an important role. Due to dental treatment nature, procedures produce splatters and aerosols which contain more blood or saliva from patients and carry the risk of high chances of transmission of the virus on a large - scale.
Aim: The study aims to evaluate the attitude and perception towards the risk of COVID transmission among parents of children visiting dental OPD in a private dental institution.
Materials and methods: This is a cross-sectional study containing a sample size of 115. A pre-validated questionnaire is prepared and uploaded in Google forms. This standard questionnaire in Google forms has been circulated. At the end of the survey, all the data were collected and tabulated. The frequency and percentage were calculated and the data is being analyzed by using Chi-square analysis. The Chi-square analysis was done by using the IBM SPSS software version 23.
Results: The findings indicate that (90.29%) of parents of children visiting dental OPD would take their child to the dental department if their child had a toothache and (89.14%) of parents reported that the various measures are taken in the dental department give them confidence. (22.33%) of parents aged 40-49 reported that the various measures are taken in the dental department give them confidence which is higher compared to the parents aged 30-39 (18.45%). Chi-square analysis was done and the association was found to be statistically significant, p-value: 0.015($p<0.05$). Hence statistically significant.
Conclusion: In summary, The attitude and perception of parents about COVID-19 in children are good and in further studies, some measures can be taken to treat the emergency treatment patient with low risk.

Keywords: COVID-19, Attitude, Perception, Dental treatment, innovative analysis.

INTRODUCTION

The new fatal disease called Coronavirus (COVID-19) spread from Wuhan, China, and Southeast Asia in late 2019, and then it was found to spread almost all over the world (1)(2). According to reports by an authoritative organization in China, 1,393,797 people were affected by COVID-19 globally (3). The WHO announced that the outbreak of COVID-19 had become an international concern by January 31, 2020(3), and later it was categorized as a pandemic in March(4). All the patients with severe COVID-19 were suffering from pneumonia(5).
Recent reports for disease control and prevention from the Chinese Centre indicate that children were rarely attacked by COVID-19(6)(7) and Children having higher resistance to infectious disease are still unclear. When compared to adults, children have a healthy respiratory system and an active innate immune system which play an important role(8)(9). The other explanations for having a lesser amount of infection to COVID-19 in children may be due to lesser international travel and also due to minimal participation in outdoor activities which have lower chances of catching the virus(9)(10). A lesser number of pediatric patients at the pandemic start doesn't

mean that children have a lesser chance of the disease, In the future, there can be an increase in the number of pediatric patients(9).
The infectious agent of COVID-19 is identified as 2019-nCoV. The detected method to COVID-19 is confirmed by the existence of 2019-nCoV in bodily fluids, saliva, and feces. The virus spread especially through respiratory droplets by the close contact between people(9). The important measures taken were protecting the patients with chronic disease, low immunity, and also protecting the older people to avoid rapid virus propagation, social isolation measures were taken(9,11).
Due to dental treatment nature, procedures produce splatters and aerosols which contain more blood or saliva from patients which carries the risk of high chances of transmission of the virus(12).
Therefore, many health departments suggested dental departments follow strict measures like providing only emergency treatment, aerosol operation restriction, and screening patients. However, some reports say that carriers do not have any symptoms (13). Our team has extensive knowledge and research experience that has translated into high-qualitychildrenis publications(14-33). To add to the list, a study with significance to the current issue was done to evaluate the attitude and perception of COVID-19 transmission among patients of children visiting dental OPD in private dental institutions.

MATERIALS AND METHODS

Study Design
A cross-sectional questionnaire survey

Study Setting
OPD Department in a private dental institution in Chennai

Sample Size
115 outpatients attending the OPD department

Sampling and Scheduling
Owing to the nature of the study design and setting, a convenience sampling method was used. And the data was collected over one month.

Survey Instrument
A pretested and validated questionnaire was used to measure the baseline of Attitude and Perception towards the risk of COVID-19 transmission among parents of children visiting dental OPD in a private dental institution.

Inclusion and Exclusion Criteria
All those who were willing to participate were included in the study. Those who were not willing and those who had a language barrier in answering the English version of the questionnaire were excluded from the study

Ethical Clearance
Before the start of the study, ethical clearance was obtained from the institutional ethical committee of Saveetha university

Statistical Analysis
The responses from the google sheet was transferred into excel and were then exported to SPSS software, version 25. Descriptive statistics were done using frequency and percentage. Inferential statistics were done using the Chi-square test. The interpretation was based on a p-value less than 0.05, which was considered statistically significant. Comparisons were done between independent variables like age, gender, occupation and knowledge, attitude practice responses by the participants.

RESULTS
A cross-sectional questionnaire study containing a sample size of 115. Among 115 sample sizes, the study population contains 43.69% male participants and 56.31% female participants In our study 68.67% of parents of children visiting dental OPD paid attention to the COVID-19 and 66.99% of parents explained COVID-19 to their children often. 28.16% of parents thought the dental department is more dangerous than that of other public places and even 21.36% of parents thought that the dental department could cause their child to become infected by a virus. 90.29% of parents of children visiting dental OPD reported that they would take their child to dental OPD if their child had a toothache. At the same time, 9.71% of parents said that they would not take their child to dental OPD even if their child had a severe toothache. 89.14% of parents reported that the various measures are taken in the dental department give them confidence. 22.33% aged 40-49 years reported that they had gained confidence from the various measures taken by the dental department. In our study, we observed that 21.21% of

females paid more attention to COVID-19 than males 11.11%. The Chi-square analysis was done and the association was found to be statistically not significant, p-value: 0.113(p>0.05). 22.33% of females don't think the dental department is more dangerous than that of other public places than males 15.53%. The Chi-square analysis was done and the association was found to be statistically not significant, p-value: 0.911(p>0.05). 49.51% of females said that they would take their child to dental OPD if their child had a toothache than male 40.78%. The Chi-square analysis was done and the association was found to be statistically not significant, p-value: 0.358(p>0.05). 22.33% of parents aged 40-49 reported that the various measures taken in the dental department give them confidence and 18.45% of parents aged 30-39 gained confidence by the various measures taken in the dental department. The Chi-square analysis was done and the association was found to be statistically significant, p-value:0.015(p<0.05).

Distribution of study subjects based on their response towards explaining their children regarding pandemic

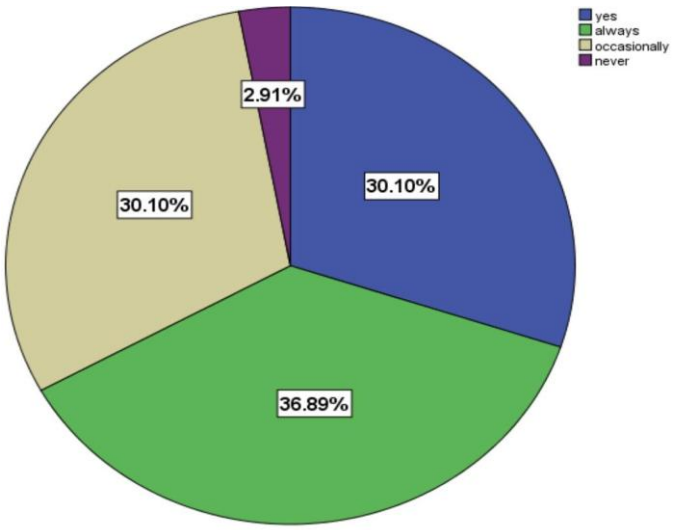

Figure-1: Pie chart showing the percentage of parents according to how often they explain the pandemic to their child. wherein, green color represents always (36.89%), the blue color represents yes (30.10%), beige color represents occasionally (30.10%) and violet represents never (2.91%).

Distribution of study subjects based on their response towards the transmission of infection during dental treatment.

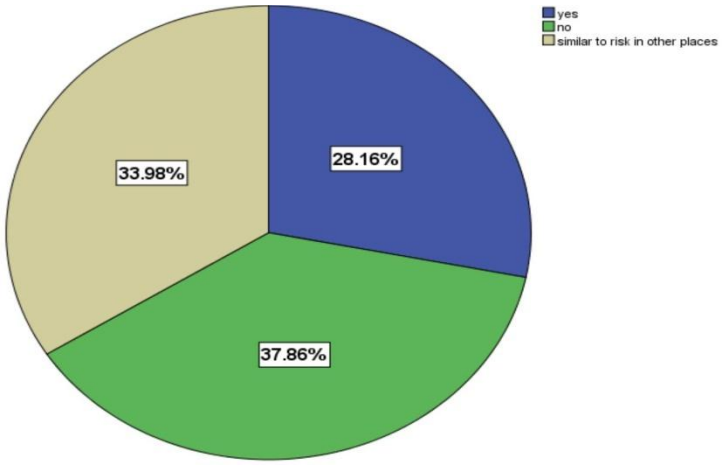

Figure-2: Pie chart showing the percentage distribution about considering dental treatment could cause their child to become infected by a virus. wherein, green color represents no (37.86%), beige color represents a riquality children'ssk in other places(33.98%) and blue color represents yes (28.16%).

Distribution of study subjects based on their attention towards the COVID-19.

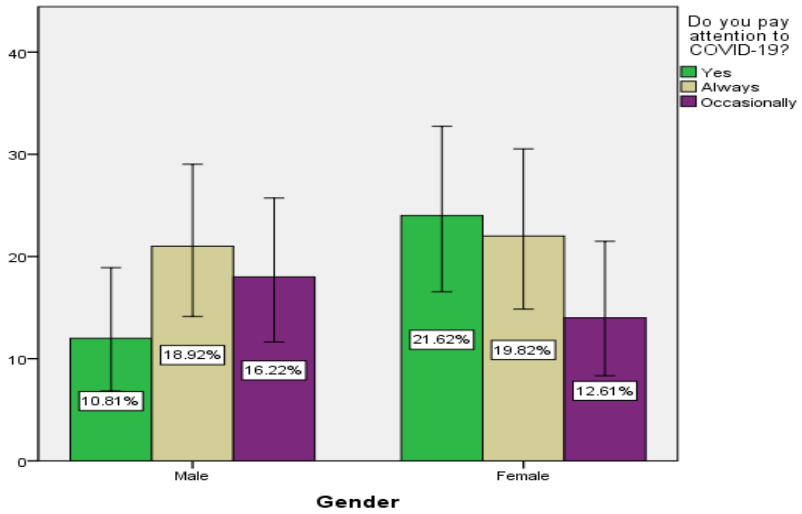

Figure-3: Bar graph showing an association between gender and frequency of attention to COVID-19. The X-axis represents the gender and the Y-axis represents the percentage of participants who paid attention to COVID-19. (19.82%) reported always and (21.62%) reported yes. Green denotes yes, beige denotes always and violet denotes occasionally. We observed that (21.62%) of females paid more attention to COVID-19 than males (10.81%). Chi-square analysis was done and the association was found to be statistically not significant, p-value: 0.067 (p>0.05). Hence statistically not significant.

Distribution of study subjects based on their confidence level in getting treated.

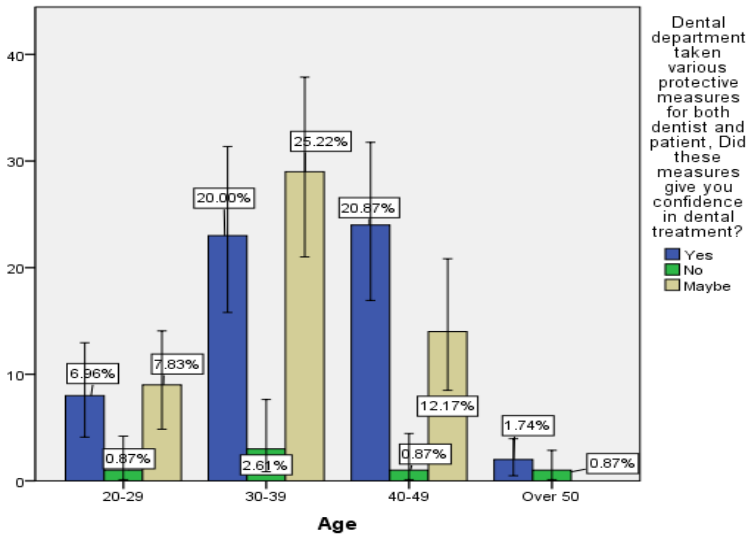

Figure-4: Bar graph showing an association between age and frequency of various measures taken in the dental department. The X-axis represents age and Y-axis represents the percentage of participants who gained confidence by the various measures taken in the dental department. (7.83%) aged 20-29 reported maybe, (25.22%) aged 30-39 reported maybe, (20.87%) aged 40-49 reported yes, and (1.74%) aged over 50 reported yes. Blue denotes yes, green denotes no and beige denotes maybe. (20.87%) of parents aged 40-49 reported that the various measures are taken in the dental department give them confidence which is higher compared to the parents aged 30-39(20%). Chi-square analysis was done and the association was found to be statistically significant, p-value: 0.015(p<0.05). Hence statistically significant.

DISCUSSION

In our study, parents explained COVID-19 to their children was 68.7% which is higher compared to Jin Sun et al where 45.95% of parents explained COVID-19 to their children because of spending more time with their children and talking about COVID-19(11). 21.7% of parents believe that their child might be infected during dental treatment which is lesser compared to Sawsan Abuhammad where 61% of parents believe that their child might be infected due to high confidence in the prevention and control policies of government and hospitals (34).

89.5% of parents take their child to the dental department if they had a severe toothache which is higher compared to Yan xu et al study where 83.78% of parents take their child to the dental department because of preventive measures taken in the dental department like strengthening the environment of the hospital by disinfecting, providing special protective equipment for both patients and dentist(11). 71.9% of parents paid attention to COVID-19 which is lesser compared to Yan xu et al which is 94.59% because of busy periods of life and work. 27% of parents think the dental department is more dangerous than other public places which is less compared to Jin Sun et al which is 66.22%.

According to Jin Sun et al study, parents aged 40-49 years or above 50 years explained COVID-19 to their children was significantly higher when compared to parents aged 30-39 years. In our study, 28.16% of parents of children visiting dental OPD thought that the dental department is more dangerous than other public places which are lesser compared to Yan xu et al study where more than two-thirds of parents of children thought that the dental department is dangerous. Among them, parents aged 40-49 years thought the environment of the dental department was more dangerous and it was significantly higher when compared to the parents aged 20-29 years.

In our study, only a short period of data collection was used and the number of questions in the questionnaire was limited. Lack of dental staff and limitations in treatment projects were found. There will be possibilities of bias because some responders don't have access to the internet to participate in the online survey. Finally, the online survey is limited. Further studies involve more efforts in informing the public to avoid contamination in the dental offices.

CONCLUSION

Even though parents were worried about COVID-19, a considerable percentage of parents of children would take their child to dental OPD, if their child had a toothache and 94.8% of parents reported that the various protective measures taken in the dental department gives them more confidence in the dental treatment and also some measures can be taken in further studies to treat the urgent cases with low risk.

Author Contributions

Rakshitha V S - Study design, Data collection, Data analysis, Manuscript writing.
Sri Sakthi D - Study concept, Data verification, Data analysis, Manuscript drafting, and correction.

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Conflict Of Interest

The authors reported the conflict of interest while performing this study to be nil.

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REFERENCE

1. Zhu N, Zhang D, Wang W, Li X, Yang B, Song J, et al. A Novel Coronavirus from Patients with Pneumonia in China, 2019 [Internet]. Vol. 382, New England Journal of Medicine. 2020. p. 727–33. Available from: http://dx.doi.org/10.1056/nejmoa2001017
2. Althiabi Y. Attitude, anxiety and perceived mental health care needs among parents of children with Autism Spectrum Disorder (ASD) in Saudi Arabia during COVID-19 pandemic [Internet]. Vol. 111, Research in Developmental Disabilities. 2021. p. 103873. Available from: http://dx.doi.org/10.1016/j.ridd.2021.103873

3. China NHC of TPR of, National Health Commission of the People's Republic of China. Technical guidance for laboratory testing of 2019-nCoV infection (Third Edition) [Internet]. Vol. 2, Biosafety and Health. 2020. p. 3–5. Available from: http://dx.doi.org/10.1016/j.bsheal.2020.02.001
4. Kodvanj I, Homolak J, Virag D, Trkulja V. World Health Organization (WHO) COVID-19 Database: WHO Needs It? [Internet]. Available from: http://dx.doi.org/10.20944/preprints202007.0051.v1
5. Rothan HA, Byrareddy SN. The epidemiology and pathogenesis of coronavirus disease (COVID-19) outbreak [Internet]. Vol. 109, Journal of Autoimmunity. 2020. p. 102433. Available from: http://dx.doi.org/10.1016/j.jaut.2020.102433
6. Yang J, Zheng Y, Gou X, Pu K, Chen Z, Guo Q, et al. Prevalence of comorbidities and its effects in patients infected with SARS-CoV-2: a systematic review and meta-analysis [Internet]. Vol. 94, International Journal of Infectious Diseases. 2020. p. 91–5. Available from: http://dx.doi.org/10.1016/j.ijid.2020.03.017
7. Le HT, Nguyen DN, Beydoun AS, Le XTT, Nguyen TT, Pham QT, et al. Demand for Health Information on COVID-19 among Vietnamese. Int J Environ Res Public Health [Internet]. 2020 Jun 18;17(12). Available from: http://dx.doi.org/10.3390/ijerph17124377
8. Wang D, Hu B, Hu C, Zhu F, Liu X, Zhang J, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus–Infected Pneumonia in Wuhan, China [Internet]. Vol. 323, JAMA. 2020. p. 1061. Available from: http://dx.doi.org/10.1001/jama.2020.1585
9. Wang C, Pan R, Wan X, Tan Y, Xu L, McIntyre RS, et al. A longitudinal study on the mental health of general population during the COVID-19 epidemic in China [Internet]. Vol. 87, Brain, Behavior, and Immunity. 2020. p. 40–8. Available from: http://dx.doi.org/10.1016/j.bbi.2020.04.028
10. Li Q, Guan X, Wu P, Wang X, Zhou L, Tong Y, et al. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus–Infected Pneumonia [Internet]. Vol. 382, New England Journal of Medicine. 2020. p. 1199–207. Available from: http://dx.doi.org/10.1056/nejmoa2001316
11. Sun J, Xu Y, Qu Q, Luo W. Knowledge of and attitudes toward COVID-19 among parents of child dental patients during the outbreak. Braz Oral Res [Internet]. 2020 Jun 8;34:e066. Available from: http://dx.doi.org/10.1590/1807-3107BOR-2020.vol34.0066
12. Harrel SK, Molinari J. Aerosols and splatter in dentistry: a brief review of the literature and infection control implications. J Am Dent Assoc [Internet]. 2004 Apr;135(4):429–37. Available from: http://dx.doi.org/10.14219/jada.archive.2004.0207
13. Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China [Internet]. Vol. 395, The Lancet. 2020. p. 497–506. Available from: http://dx.doi.org/10.1016/s0140-6736(20)30183-5
14. Mathew MG, Samuel SR, Soni AJ, Roopa KB. Evaluation of adhesion of Streptococcus mutants, plaque accumulation on zirconia and stainless steel crowns, and surrounding gingival inflammation in primary molars: a randomized controlled trial. Clin Oral Investig [Internet]. 2020 Sep;24(9):3275–80. Available from: http://dx.doi.org/10.1007/s00784-020-03204-9
15. Samuel SR. Can 5-year-olds sensibly self-report the impact of developmental enamel defects on their quality of life? Int J Paediatr Dent [Internet]. 2021 Mar;31(2):285–6. Available from: http://dx.doi.org/10.1111/ipd.12662
16. Samuel SR, Kuduruthullah S, Khair AMB, Al Shayeb M, Elkaseh A, Varma SR, et al. Impact of pain, psychological-distress, SARS-CoV2 fear on adults' OHRQOL during COVID-19 pandemic. Saudi J Biol Sci [Internet]. 2021 Jan;28(1):492–4. Available from: http://dx.doi.org/10.1016/j.sjbs.2020.10.033
17. Samuel SR, Kuduruthullah S, Khair AMB, Shayeb MA, Elkaseh A, Varma SR. Dental pain, parental SARS-CoV-2 fear and distress on quality of life of 2 to 6-year-old children during COVID-19. Int J Paediatr Dent [Internet]. 2021 May;31(3):436–41. Available from: http://dx.doi.org/10.1111/ipd.12757
18. Samuel SR, Acharya S, Rao JC. School Interventions-based Prevention of Early-Childhood Caries among 3-5-year-old children from very low socioeconomic status: Two-year randomized trial. J Public Health Dent [Internet]. 2020 Jan;80(1):51–60. Available from: https://onlinelibrary.wiley.com/doi/10.1111/jphd.12348

19. Vikneshan M, Saravanakumar R, Mangaiyarkarasi R, Rajeshkumar S, Samuel SR, Suganya M, et al. Algal biomass as a source for the novel oral nano-antimicrobial agent. Saudi J Biol Sci [Internet]. 2020 Dec;27(12):3753–8. Available from: http://dx.doi.org/10.1016/j.sjbs.2020.08.022
20. Chellapa LR, Rajeshkumar S, Arumugham MI, Samuel SR. Biogenic Nanoselenium Synthesis and Evaluation of its antimicrobial, Antioxidant Activity and Toxicity. Bioinspired Biomim Nanobiomaterials [Internet]. 2020 Jul 23;1–6. Available from: https://www.icevirtuallibrary.com/doi/10.1680/jbibn.19.00054
21. Samuel SR, Mathew MG, Suresh SG, Varma SR, Elsubeihi ES, Arshad F, et al. Pediatric dental emergency management and parental treatment preferences during COVID-19 pandemic as compared to 2019. Saudi J Biol Sci [Internet]. 2021 Apr;28(4):2591–7. Available from: http://dx.doi.org/10.1016/j.sjbs.2021.02.002
22. Barma MD, Muthupandiyan I, Samuel SR, Amaechi BT. Inhibition of Streptococcus mutans, antioxidant property and cytotoxicity of novel nano-zinc oxide varnish. Arch Oral Biol [Internet]. 2021 Jun;126:105132. Available from: http://dx.doi.org/10.1016/j.archoralbio.2021.105132
23. Muthukrishnan L. Nanotechnology for cleaner leather production: a review. Environ Chem Lett [Internet]. 2021 Jun 1;19(3):2527–49. Available from: https://doi.org/10.1007/s10311-020-01172-w
24. Muthukrishnan L. Multidrug resistant tuberculosis - Diagnostic challenges and its conquering by nanotechnology approach - An overview. Chem Biol Interact [Internet]. 2021 Mar 1;337:109397. Available from: http://dx.doi.org/10.1016/j.cbi.2021.109397
25. Sekar D, Auxzilia PK. Letter to the Editor: H19 Promotes HCC Bone Metastasis by Reducing Osteoprotegerin Expression in a PPP1CA/p38MAPK-Dependent Manner and Sponging miR-200b-3p [Internet]. Hepatology. 2021. Available from: http://dx.doi.org/10.1002/hep.31719
26. Gowhari Shabgah A, Amir A, Gardanova ZR, Olegovna Zekiy A, Thangavelu L, Ebrahimi Nik M, et al. Interleukin-25: New perspective and state-of-the-art in cancer prognosis and treatment approaches. Cancer Med [Internet]. 2021 Aug;10(15):5191–202. Available from: http://dx.doi.org/10.1002/cam4.4060
27. Kamala K, Sivaperumal P, Paray BA, Al-Sadoon MK. Author response for "Identification of haloarchaea during fermentation of Sardinella longiceps for being the starter culture to accelerate fish sauce production" [Internet]. Wiley; 2021. Available from: https://publons.com/publon/47375106
28. Ezhilarasan D, Lakshmi T, Subha M, Deepak Nallasamy V, Raghunandhakumar S. The ambiguous role of sirtuins in head and neck squamous cell carcinoma. Oral Dis [Internet]. 2021 Feb 11; Available from: http://dx.doi.org/10.1111/odi.13798
29. Sridharan G, Ramani P, Patankar S, Vijayaraghavan R. Evaluation of salivary metabolomics in oral leukoplakia and oral squamous cell carcinoma. J Oral Pathol Med [Internet]. 2019 Apr;48(4):299–306. Available from: http://dx.doi.org/10.1111/jop.12835
30. R H, Hannah R, Ramani P, Ramanathan A, Jancy MR, Gheena S, et al. CYP2 C9 polymorphism among patients with oral squamous cell carcinoma and its role in altering the metabolism of benzo[a]pyrene [Internet]. Vol. 130, Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology. 2020. p. 306–12. Available from: http://dx.doi.org/10.1016/j.oooo.2020.06.021
31. J PC, Pradeep CJ, Marimuthu T, Krithika C, Devadoss P, Kumar SM. Prevalence and measurement of anterior loop of the mandibular canal using CBCT: A cross sectional study [Internet]. Vol. 20, Clinical Implant Dentistry and Related Research. 2018. p. 531–4. Available from: http://dx.doi.org/10.1111/cid.12609
32. Wahab PUA, Abdul Wahab PU, Madhulaxmi M, Senthilnathan P, Muthusekhar MR, Vohra Y, et al. Scalpel Versus Diathermy in Wound Healing After Mucosal Incisions: A Split-Mouth Study [Internet]. Vol. 76, Journal of Oral and Maxillofacial Surgery. 2018. p. 1160–4. Available from: http://dx.doi.org/10.1016/j.joms.2017.12.020
33. Mudigonda SK, Murugan S, Velavan K, Thulasiraman S, Krishna Kumar Raja VB. Non-suturing microvascular anastomosis in maxillofacial reconstruction- a comparative study. Journal of Cranio-Maxillofacial Surgery [Internet]. 2020 Jun 1;48(6):599–606. Available from: https://www.sciencedirect.com/science/article/pii/S1010518220301098
34. Abuhammad S. Parents' knowledge and attitude towards COVID-19 in children: A Jordanian Study. Int J Clin Pract [Internet]. 2021 Feb;75(2):e13671. Available from: http://dx.doi.org/10.1111/ijcp.13671