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Perception towards Preventive Strategies for Dental Caries and Oral Health Promotion among School Teachers: A Focus Group Discussion

Sathya Kumaresan

Post-Graduate Student, Department of Public Health Dentistry Saveetha Dental College, Saveetha University, Saveetha Institute of Medical and Technical Science, Chennai, India

Email: sathu.kumaresan@gmail.com

Arthi Balasubramaniam

Senior lecturer, Department of Public Health Dentistry, Saveetha Dental College, Saveetha University, Saveetha Institute of Medical and Technical Science, Chennai- 77, India

Email: arthi.bds@gmail.com

Meignana Arumugham. I

Professor and Head, Department of Public Health Dentistry, Saveetha Dental College, Saveetha University, Saveetha Institute of Medical and Technical Science, Chennai- 77, India

Email: drmei..sdc@saveetha.com

Pradeep Kumar Rathinavelu

Professor and Head, Department of Public Health Dentistry, Saveetha Dental College, Saveetha University, Saveetha Institute of Medical and Technical Science, Chennai- 77, India

Email: pradeepkumarr.sdc@saveetha.com

Abstract---Background and Aim: There are numerous preventive strategies available globally for dental caries. However, the incidence of dental caries is high among school going children in most of the developing countries. School teachers play a major role in inculcating good habits and behaviour to the children. Thus, we aimed to assess the perception of dental caries among school teachers qualitatively by focus group discussion. Methods: One focus group discussion was conducted among the primary level government and private school teachers in Tamil Nadu. A group of 12 teachers, 6 from Government schools and 6 from Private schools were recruited. The discussion was

held in a virtual platform due to COVID-19 Lockdown. The session lasted for 45-60 min. The areas of discussion included attitude towards aetiology, prevention and treatment for dental caries. Results: Analysis of interview transcripts recognized many influences on children's oral health attitudes. Majority of teachers expressed a high efficacy using toothbrushes, tongue cleaners, mouthwashes, oil pulling and massaging gums as plaque control mechanisms. Most of the participants were aware of all treatment modalities for dental caries. However, they were not totally aware of the preventive strategies of dental caries. Conclusion: This qualitative study emphasizes that the overall knowledge, perception of aetiology and treatment for dental caries were superior and noteworthy among private school teachers as compared to government school teachers. Moreover, the teachers have expressed their interest for professional oral health assistance in dietary guidelines at schools, performing preventive strategies such as topical fluoride and pit and fissure sealant application.

Keywords---Focus group discussion, Primary level school teachers, virtual platform, dental caries.

Introduction

Dental caries and gingival diseases are the predominant oral diseases among children globally [1]. It manifests as tooth ache, eating impairment, early tooth loss in children [2]. According to World Health Organization reports, school children are more affected by dental caries in developing countries. Furthermore, it is evident from the literature that prevalence of dental caries was up to 83.3% among Middle -Eastern children. Around 86% of the respondents believe that children's teeth should be regularly checked by dental professionals [3]. The National Health Interview Survey reported, 1.57 million lost school days in 1980 as a result of acute dental problems [4]. WHO's Global School Health Initiative Uplifts Health Promoting Schools to create a healthy backdrop for living, learning and working. This initiative is outlined to revamp the health of students, school personnel and other members of the society through schools [5]. Parents attitudes and behaviours have a significant influence on children's oral diseases predominantly comprising of dental caries and gingival health [6,7]. According to literature, daily twice tooth brushing behaviour and sound dentition in were collaterally associated with mother's oral health awareness [8].

Although parents play a vital role in encouraging and positively influencing children for healthy lives, teachers render a potential role in promoting oral health of children, since the children spend considerable amount of time in schools than with the parents

Teachers by promoting oral health care will not only improve and encourage oral health, but also curb the oral health problems as well [9]. However, most of the teachers have poor calibre and disposition for it as they are inadequately instructed for this duty. Furthermore, lack of time, lack of resources, failure to

integrate oral health into the curriculum has been implied as roadblocks for upskilling oral health education in schools [10].

School teachers play a pre-eminent task in oral health promotion as they interconnect with their children on a daily basis. They exhibit a major role in the planning and execution of oral health preventive programs. It is thereby essential to match their own oral health education and promotional activities to professional recommendations. Hence, the current study was undertaken with an objective to assess the attitude and perception towards preventive strategies for dental caries and oral health promoting schools and school teachers qualitatively.

Methodology

An interview proforma was formulated so that we could analyse various aspects of oral health measures and dental caries. Focus group discussion was conducted among the primary level government and private school teachers in Tamil Nadu. The teachers were invited over an online platform virtual session. Prior to the study, ethical clearance was obtained from the author's Institutional Review Board (IRB). The purpose of the study was explained to teachers and only those who showed interest and willingness to participate in the sessions were included. A purposive sampling method was used to recruit the study participants. The focus group discussion lasted for 45-60 min. The areas of discussion included their attitude and perception on oral hygiene measures, cause and treatment modalities for dental caries and preventive strategies for dental caries and oral health promoting schools. The discussion was found to be healthy.

The teachers were able to share their point of views on improving and promoting child's oral health. The session had one moderator and one assistant with the school teachers. The moderator prompted the topics and the discussion continued. Finally, interpretative analysis was done to group similar points together and to eliminate the recurrent themes. The entire session was audio and video recorded in zoom platform. The recordings were transcribed to verbal format after the recordings were read and familiarized multiple times to generate themes. The focus group protocol helped to sort the emerging key points and new themes according to responses. Initially the analysis was done manually and the responses were charted down to respective key points.

Results

Of the 12 participants in the focus group discussion, 6 participants were private school teachers and 6 participants were Government school teachers. The responses generated after the focus group discussion were sorted and the following themes were produced.

Oral hygiene measures:

Most of the participants felt that use of toothbrush and toothpaste was the important oral hygiene aid. Both the Government and private school teachers agreed to this. However, Government school teachers felt that tongue cleaning, oil pulling and salt water gargling will also aid in oral hygiene maintenance. One of the private school teachers felt that flossing will be the most effective oral hygiene aid for people with crooked teeth. One of the Government school teachers said

that toothbrushing using neem stick will provide tooth cleaning and also neem juice is antibacterial.

Cause for dental caries:

All the participants felt that consumption of more sugary food is the cause for dental caries. One of the private school teachers felt that “consumption of sugary foods is not solely responsible for dental caries, failure to clean mouth after the consumption may be the cause”. One other private school teacher felt that in between meals snacking (sweets) is the cause for dental caries. Few Government school teachers perceived those chocolates that are very sweet and sticky in nature, stick to the teeth and cause dental caries.

On discussion regarding the initiation and progression of dental caries, few private school teachers felt that dental caries starts as a small discolouration which gradually becomes a cavity. Further on with no treatment gets deeper and causes sensitivity and pain.

The discussion on “Why do children like chocolates”, one of the private school teachers felt that parents are responsible for their liking. From their infancy, parents start giving chocolates to console them. Not only that, children themselves are attracted to chocolates by attractive wrappers, colours, advertisements and free gifts with chocolates said by one Government school teacher.

“Where do school children get sweets and chocolates”, discussion regarding this showed that sweets and chocolates are made available to the children outside the school premises, answered by one Government school teacher. Private school teachers answered that strictly no sweets and chocolates are made available in school canteen. However, we find them as snacks in snacks box given by their parents.

Regarding the discussion on any necessary actions taken to prevent the accessibility of sweets and chocolates to children, one Government school teachers answered that “we cannot restrict the shops from selling them, only we can advise children not to eat or buy them”. Also, we can advise and insist the parents not to give sweets as snacks, instead some healthy snacks can be given as felt by a private school teacher.

Treatment modalities for dental caries:

On discussion of various treatment modalities for dental caries, most of the teachers were aware of different restorations of dental cavities. Also, they were aware of Root Canal Treatment, followed by crowns in case of pain. They felt extraction is the only choice in case of grossly destructed tooth due to dental caries.

Preventive strategies for dental caries:

Regarding discussion about topical fluoride applications for prevention of dental caries, both Government and Private school teachers felt that “fluoride will spoil general health and it should not be used”. They were shocked to know that fluorides will help in prevention of dental caries. Also, they have not heard the word pit and fissure sealant which is a sealing agent for deep pit and fissures.

Discussion

This qualitative study provides a comprehensive description on the key determinants of oral health behaviours of teachers. Furthermore, the teachers were asked to suggest their opinion on professional support to promote oral health of school children.

In this interview, the attitude and perception of oral health and treatment protocols among government and private school teachers is investigated. The focus group interview expressed information that some of the teachers were uninformed of the present oral health interventions. Several narratives have revealed that poorer family background and certain parenting styles are associated with bad oral health [11]. Studies have also evidenced that there exists a relationship between poor oral health and the likelihood of poor school performance [12].

Several studies have been acknowledged in dental literature that interlinks the role of parents and family in children's oral health [13]. According to the comprehensive perspective of the school teachers of South India regarding the oral health and treatment protocols, around 47% of the participants agree that bacteria and sugar are the significant causes of dental caries.

Both the Government and private school teachers expressed their concern about the children's consumption of sugary foods and drinks, commercials and television, supermarkets and affordability of foods. These findings were in accordance with current study [14]. They also believed that dental education should be included in school curriculum for the prevention of oral diseases to empower the future generation to refine their oral health status. These findings were in concurrence with reports from other studies, thus indicating that the significance of oral health awareness sessions and motivational orations among schoolteachers were well disseminated [15,16].

In a study conducted by Vinita Mary et al, only 4.2% were flossing while 95.8% were not [17]. This concurs with the findings of the current study where very few private teachers felt that flossing can also be used as an effective aid in maintaining oral hygiene. This can be because dental floss among school teachers is negligible and that the mass media is not that great in propagating the usage of dental floss.

With reference to oral health knowledge, majority of subjects possessed basic knowledge about dental caries, bleeding of gums and causes of it. These findings were comparable to studies reported from other parts of the world [18]. Regarding oral hygiene practices among school teachers, majority of them used a combination of toothbrush and toothpaste to brush twice a day, which were contradictory with the practices of Saudi school teachers as they were using miswak as a replacement for toothbrush [19].

In the current study, both the Government and Private school teachers reported that fluoride is not good for health through peer groups and social media platforms. In addition, the teachers were unaware of dental fluorosis

phenomenon. These results are in contrary to the findings of the study conducted by Vidya Sekar et al, where around 74.5% of the respondents knew the protective action of fluoride against dental caries. They also believed that preventive treatment apart from dental treatments are essential as children develop caries at a younger age [3].

This qualitative study was conducted in an online platform to limit the spread of COVID-19. It is one of the limitations of the study that it targeted only teachers operating the internet, many of them who do not use internet or have poor access to it were not included. This could be attributed to the fact there is a probability of poor network connection interrupting the session as the study population is comprised of Internet users.

Conclusion

Undeniably, teachers are fundamental in school oral health promotional activities. It is very surprising to note that in spite of lack of training, private school teachers are well acquainted about oral health. Furthermore, the respondents had a positive attitude towards child's oral health. This study was conducted with an objective of assessing the attitude and perception of oral health and treatment protocol among urban and rural school teacher's knowledge. Future studies are recommended on conducting interventions by information, education and communication (IEC) activity among school teachers to promote oral health of children.

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