International Journal Dental and Medical Sciences Research
Volume 5, Issue 6, Nov-Dec 2023 pp: 243-248 www.ijdmsrjournal.com ISSN: 2582-6018

Comparative assessment of awareness about pediatric oral health and treatment in parents from urban and rural areas in Karad, Maharashtra.

Dr. Hemangi Sawant, Dr. Namrata Gaonkar, Dr. Shashikiran N.D., Dr. Sachin Gugawad, Dr. Savita Hadakar, Dr. Sonali Waghmode

[1,] *Intern, School of Dental Sciences, KVV, Karad, Maharashtra*
[2,5]*Associate Professor, School of Dental Sciences, KVV, Karad, Maharashtra*
[3,4]*Associate Professor, School of Dental Sciences, KVV, Karad, Maharashtra*
[6]*Assistant Professor, School of Dental Sciences, KVV, Karad, Maharashtra*
Corresponding Author: Dr. Hemangi Sawant

Date of Submission: 04-12-2023 Date of Acceptance: 16-12-2023

ABSTRACT: Dental caries is one of the most prevalent non-communicable diseases that affects the entire human population and occurs irrespective of race, gender, age, or socioeconomic status. Parental knowledge and behaviors regarding oral health have a significant impact on the incidence of dental caries in children. This study was designed to obtain present knowledge and awareness of parents regarding their children's oral health from urban areas and rural areas in Karad, Maharashtra. The survey included the time and reason for the child's first dental visit, knowledge about various dental treatment modalities, misconceptions and enthusiasm of parents. This survey including 200 participants revealed that many parents never took their child to the dentist. The majority of the respondents from urban as well as rural areas considered toothbrushing as the remedy for caries in deciduous teeth rather than preventive measures. The most common misconception that instilled fear of dental treatment was found to be the fear of losing eyesight. A moderate number of urban and rural respondents were aware of the use of space maintainers in case of early loss of primary teeth. The urban population exhibited a greater degree of awareness than the rural population regarding pediatric oral health concerns.

KEYWORDS: Dental Caries, Pediatric Oral Health, Parent Awareness, Space Maintainer, Toothbrushing, Misconception

I. INTRODUCTION

Dental caries is one of the most prevalent non-communicable diseases that affects the entire human population and occurs irrespective of race, gender, age, or socioeconomic status. Although some people are more at risk of developing caries than others, especially children. The pediatric age group is more prone to caries because of numerous factors namely dietary habits, oral hygiene practices, socioeconomic status and medical history. According to estimates, there are more than 530 million children who suffer from primary dentition caries worldwide. (1)

Caries and its consequences have a negative influence on overall health and quality of life. Pediatric patients affected by caries may endure pain, which frequently leads to sleeping problems, altered eating habits, speech problems, body weight loss, a slowdown in growth, behavioral changes like irritability and low self-confidence, and decreased academic performance. (2) However, this disease and its unfavorable effects can be mostly avoided. As recommended by the WHO, developing measures to prevent dental caries and enhance oral health requires an understanding of the factors that affect oral health behaviors. Therefore, it is crucial to comprehend the social value that parents place on oral health to encourage preventive treatments as they play the most important role in early intervention and prevention of the disease.

According to Bandura's social cognitive theory, a child's social and health behaviors are significantly influenced by the actions of their parents. (3) There is a relationship between parental socioeconomic status and children's oral hygiene and oral health. (4) Parental knowledge and behaviors regarding oral health have a significant impact on the incidence of dental caries in children. Children, for the first few years of their lives, rely on their parents for their daily hygiene, lifestyle choices, and oral health care, including brushing their teeth, eating right, and seeing the dentist. There is a need to have a significant commitment by parents to prevent dental caries, especially in

International Journal Dental and Medical Sciences Research
Volume 5, Issue 6, Nov-Dec 2023 pp: 243-248 www.ijdmsrjournal.com ISSN: 2582-6018

preschoolers as in Indian society, there is a low degree of dental awareness and dental visit initiation among parents of preschoolers, whether it is in urban or rural areas. (5)

Mothers with an urban background are reported to have average KAP (Knowledge, Awareness and Practices) scores, while those with a rural background showed poor KAP scores regarding children's oral health. (6) According to Shivaprakash et al., there was no discernible difference in parents' knowledge of infant oral health between rural and urban areas (P > 0.05). (7) Rathore K et al (2019) concluded in their study that parents' attitudes toward their children's oral health differ significantly between urban and rural areas. Parents in urban areas appear to be more interested in learning about children's oral health than those in rural areas, who appear to be less aware of the value of maintaining primary dentition. (8) Compared to rural mothers, the majority of urban mothers are adequately knowledgeable about the dental hygiene of their children. (9)

This survey was designed to obtain present knowledge and awareness of parents regarding their children's oral health from urban areas and rural areas in Karad, Maharashtra.

II. AIMS & OBJECTIVES

Aim- Comparative assessment of awareness about pediatric oral health and treatment in parents from urban and rural areas in Karad, Maharashtra.

Specific Objectives -

1) To assess and compare awareness about pediatric oral health in parents from urban and rural areas in Karad, Maharashtra.
2) To know the attitude of parents towards dental treatment of their child in Karad, Maharashtra.
3) To compile misconceptions regarding dental treatments.

III. MATERIALS AND METHODS

This community-based cross-sectional study was conducted at Karad taluka, Maharashtra to assess awareness about pediatric oral health and treatment in parents from urban and rural areas.

Study Population -

Parents in the Karad taluka who fulfilled inclusion criteria.

Study Samples -

For this study, a sample size of 200 parents was selected.

Inclusion criteria –

1)The one who consented to the study.
2)One who had at least one child.
3)One who had a child or children from the age group of 0-15 years.

Exclusion Criteria -

1) The ones who were not willing to participate.
2) The ones who did not have any children
3) The ones who had children older than 15 years

Ethical Consent –

All ethical issues were considered during the process of this study and the study proposal was approved by Krishna Vishwa Vidyapeeth's ethical committee and the consent form was filled by participants before starting the study.

Data Collection Tools -

A questionnaire form was circulated among the participants as a printed form in the local language (Marathi) in urban as well as rural areas with 10 questions in it and having respective options for each of them. The survey included the time and reason for the child's first dental visit, knowledge about various dental treatment modalities, misconceptions and enthusiasm of parents. The questionnaire was validated by an external expert.

IV. RESULTS AND DISCUSSION

Respondents were asked when they take their children to the dentist and it was revealed that 46% of rural and 47% of urban respondents never took their child to the dentist. 46% of rural and 32% of urban respondents visited the dentist when their child was 0-6 years old. [Fig.1]

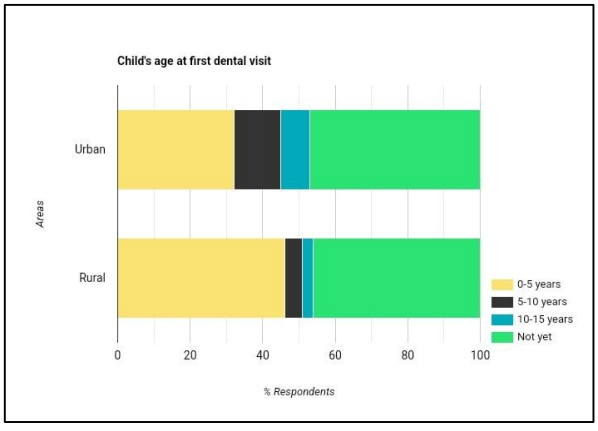

Fig.1

When questioned about the reason for the child's first dental visit, the majority of the respondents from urban as well as rural areas

International Journal Dental and Medical Sciences Research
Volume 5, Issue 6, Nov-Dec 2023 pp: 243-248 www.ijdmsrjournal.com ISSN: 2582-6018

reported that pain was or would be the main reason behind their child's dental visit. 27% of respondents from rural areas and 31% of respondents from urban areas were interested in taking their child to the dentist for regular dental checkups. [Fig.2]

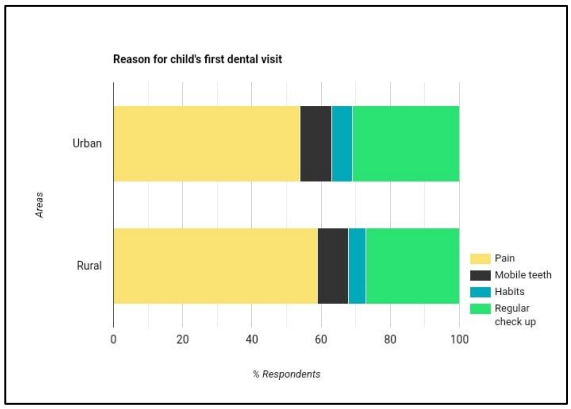

Fig.2

Parents were asked about their apprehension for dental visits and the highest percentage of parents from rural areas mentioned they were apprehensive regarding children's dental treatment as they doubted the safety and quality of treatment. A nearly similar number of respondents from urban areas reported that their apprehension was because of misconceptions and fear, personal experience and uncertainty about safety and quality of treatment, while experience with elder children was the least common cause for apprehension in both urban and rural respondents. The most documented misconception turned out to be the loss of eyesight after undergoing dental treatments. These findings were consistent with those of Ambrish Mishra et al (2023) (10) who reported in their study that fear about dental treatment was reported by a greater number of mothers from urban areas than rural areas. [Fig.3]

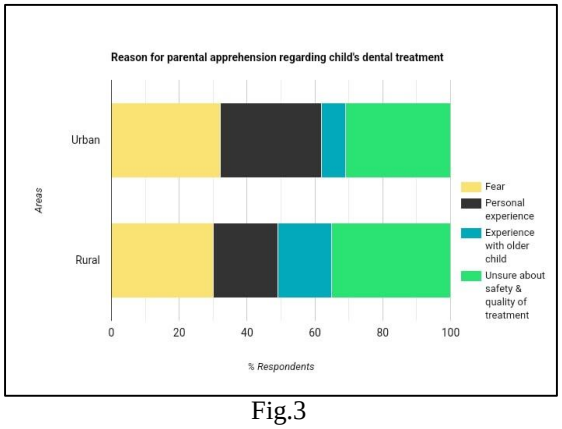

Fig.3

After questioning the brushing habits of the children, the highest percentage of rural respondents reported that their children practice toothbrushing once daily, while most of the urban parents responded that their children brush twice a day. This finding was in agreement with that of Ewelina Chawłowska et al (2022) (11) who observed in their study that children living in cities tended to brush their teeth more often ($p = 0.0426$) than rural children. Results from our study further showed that very few children brush only if they want to and only none of the children brush more than two times a day. [Fig.4]

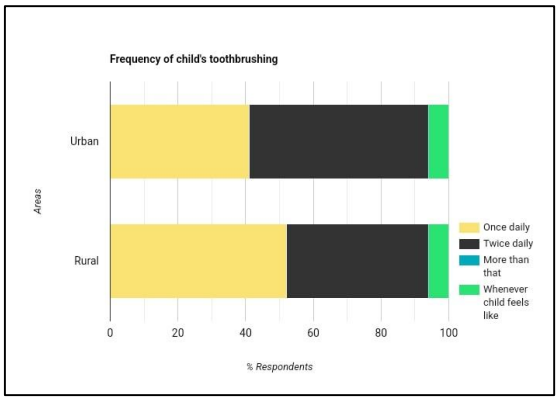

Fig.4

While assessing the parents' awareness regarding treatment choices of primary teeth, it was revealed that the majority of the urban as well as rural parents considered toothbrushing as the remedy for caries in deciduous teeth rather than preventive measures. 30% of urban and 19 % of rural parents were aware of restorative treatments in deciduous teeth. Only 5% of both rural and urban respondents did not feel any need for intervention. These results were in accordance with studies done by Thakare et al. (2012) (12) who observed in their study that the majority of the parents were aware of the importance of primary teeth. Our results were partly in accordance with the study conducted by Vennila Chandran et al (2019) (13) wherein participants were aware of the importance of primary dentition and also wanted to preserve the deciduous teeth until their exfoliation. On the other hand, results from our study were inconsistent with those of Wong et al. (2005) (14) who noted the cultural perception among Chinese parents that the primary teeth were not valued as highly as the permanent teeth. [Fig.5]

International Journal Dental and Medical Sciences Research
Volume 5, Issue 6, Nov-Dec 2023 pp: 243-248 www.ijdmsrjournal.com ISSN: 2582-6018

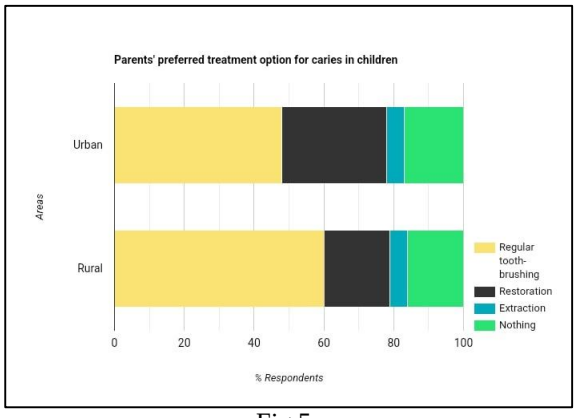

Fig.5

The majority of the respondents from both urban and rural areas opted for dental visits to save their teeth when they were questioned about treatment of choice if their children would be suffering from dental pain. More respondents from rural areas chose home remedies as a treatment for dental pain than urban areas which predominantly included the use of cloves. [Fig.6]

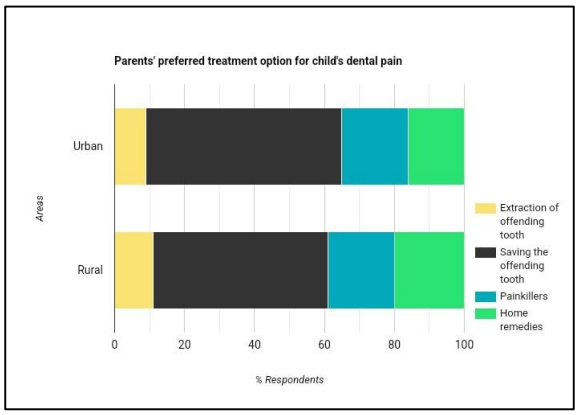

Fig.6

When asked about management of choice concerning broken or fractured teeth as a result of trauma, restorative treatment was opted by 46 % of urban respondents and only 29% of rural respondents. Rural parents were more inclined towards extraction of the offending tooth than urban parents. Results showed that urban parents were not as aware as rural parents regarding reattachment of broken tooth fragments, while on the other hand, a greater number of urban parents opted for restorative treatments than rural parents. [Fig.7]

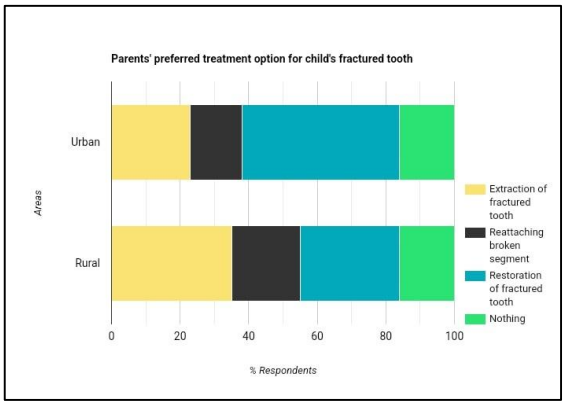

Fig.7

All the respondents were questioned about preferred means of space management after premature loss of deciduous teeth and results concluded that most of the urban as well as rural parents did not feel the need for any treatment. Awareness about space maintainers was found to be more in urban than rural areas, while on the other hand, a greater number of rural parents chose prostheses compared to urban parents. Very few parents preferred braces as a means of space management. [Fig.8]

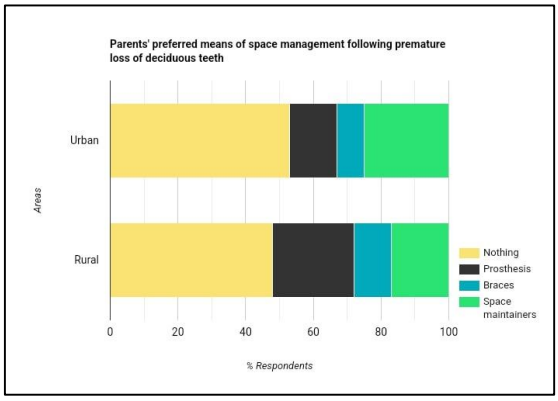

Fig.8

When asked about the frequency of dental visits, the majority of rural and urban respondents were willing for their child's dental visit only in case of discomfort and pain. The results of our study were consistent with the literature, which shows that pain relief is the primary reason oral healthcare services are used in India. A comparatively higher percentage of urban parents opted for dental visits every 6 months than rural parents. This finding was in accordance with results from the study conducted by Ambrish Mishra et al (2023) (6) wherein they reported that 5.49% of mothers in urban areas and none in rural areas took their children to the dentist on scheduled visits. [Fig.9]

International Journal Dental and Medical Sciences Research
Volume 5, Issue 6, Nov-Dec 2023 pp: 243-248 www.ijdmsrjournal.com ISSN: 2582-6018

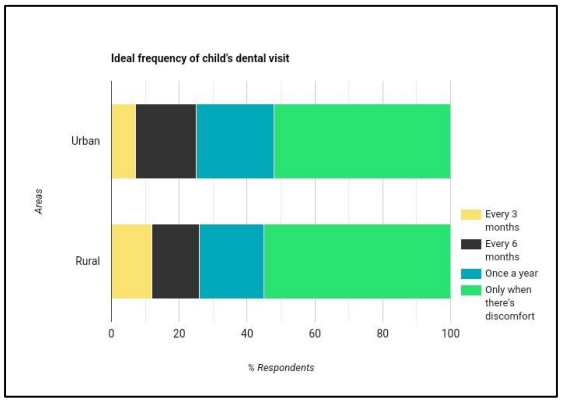

Fig.9

When respondents were questioned about their preferred medical professional for their children's dental needs, results revealed that pedodontics were mostly preferred by both urban and rural parents. Preferred professionals according to rural parents were as follows: - Pedodontist > Pediatrician > General dentist > General Physician. Preferred professionals according to urban parents were as follows: - Pedodontist > General dentist > Pediatrician > General physician. [Fig.10]

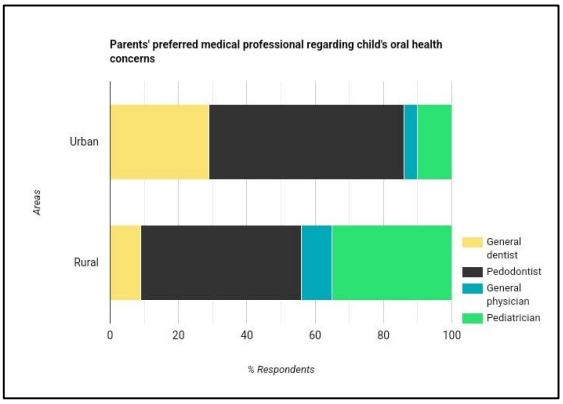

Fig.10

V. CONCLUSION

Based on the results, this study concluded that the urban population exhibited a greater degree of awareness than the rural population regarding pediatric oral health concerns. The most common misconception that instilled fear in parents for a child's dental treatment was found to be the fear of losing eyesight. Also, cloves were considered a home remedy for dental pain by both populations. Very few parents were aware of the reattachment procedure as a treatment option for fractured teeth. A moderate number of urban and rural respondents were aware of the use of space maintainers in case of early loss of primary teeth. All these results highlight the need to improve awareness among both populations especially the rural population regarding the care of children's oral health.

REFERENCES

[1]. Obradović M, Dolić O, Milovanović V, Karaman N, Mišić M, Miljević V, Matošević-Jajčanin S, Sukara S, Kaurin P, Knežević N, Regoda-Šeranić M, Mijatović D, Galić-Pejić B. Caries Experience in Primary and Permanent Dentition in Children Up to 15 Years of Age from Bosnia and Herzegovina-A Retrospective Study. Children (Basel). 2023 Apr 21;10(4):754. doi: 10.3390/children10040754. PMID: 37190003; PMCID: PMC10136562.

[2]. Colak H, Dülgergil CT, Dalli M, Hamidi MM. Early childhood caries update: A review of causes, diagnoses, and treatments. J Nat Sci Biol Med. 2013 Jan;4(1):29-38. doi: 10.4103/0976-9668.107257. PMID: 23633832; PMCID: PMC3633299.

[3]. Bandura, Albert, William H. Freeman, and Richard Lightsey. "Self-efficacy: The exercise of control." (1999): 158-166.

[4]. Ayele, Fenta A., Belaynew W. Taye, Tadesse A. Ayele, and Kassahun A. Gelaye. "Predictors of dental caries among children 7–14 years old in Northwest Ethiopia: a community based cross-sectional study." BMC Oral Health 13 (2013): 1-6.

[5]. Kaur B. Evaluation of oral health awareness in parents of preschool children. Indian J Dent Res. 2009 Oct-Dec;20(4):463-5. doi: 10.4103/0970-9290.59455. PMID: 20139572.

[6]. Mishra A, Sharma D, Tripathi GM, Khan TA. Rural-urban disparities in knowledge, attitude, and practice toward child oral health among mothers of 9-36-month-old children. J Rural Med. 2023 Jul;18(3):175-181. doi: 10.2185/jrm.2022-043. Epub 2023 Jul 7. PMID: 37448700; PMCID: PMC10336342.

[7]. Shivaprakash, P K; Elango, I; Baweja, D K; Noorani, H H. The state of infant oral healthcare knowledge and awareness: Disparity among parents and healthcare professionals. Journal of Indian Society of

[8]. Rathore K, Tandon S, Sharma M, Kalia G. Queries of Parents Related to their Children's Oral Health in Rural and Urban Area of Jaipur: A Clinical Study. Int J Clin Pediatr Dent. 2019 Mar-Apr;12(2):88-91. doi: 10.5005/jp-journals-10005-1598. PMID: 31571777; PMCID: PMC6749873.

[9]. Srinivasan, P. (2022). Knowledge and practices of mothers towards oral health of

their 3-5 years children: a rural and urban comparative study. International Journal Of Community Medicine And Public Health, 9(5), 2073–2079.

[10]. Mishra A, Sharma D, Tripathi GM, Khan TA. Rural-urban disparities in knowledge, attitude, and practice toward child oral health among mothers of 9-36-month-old children. J Rural Med. 2023 Jul;18(3):175-181. doi: 10.2185/jrm.2022-043. Epub 2023 Jul 7. Erratum in: J Rural Med. 2023 Oct;18(4):241. PMID: 37448700; PMCID: PMC10336342.

[11]. Chawłowska, E.; Karasiewicz, M.; Lipiak, A.; Cofta, M.; Fechner, B.; Lewicka-Rabska, A.; Pruciak, A.; Gerreth, K. Exploring the Relationships between Children's Oral Health and Parents' Oral Health Knowledge, Literacy, Behaviours and Adherence to Recommendations: A Cross-Sectional Survey. Int. J. Environ. Res. Public Health **2022**, 19, 11288. https://doi.org/10.3390/ijerph191811288

[12]. Thakare, Vrushali G., Ajith Krishnan CG, and Sachin Chaware. "Parents′ perceptions of factors influencing the oral health of their preschool children in Vadodara city, Gujarat: A descriptive study." European Journal of General Dentistry 1.01 (2012): 44-49.

[13]. Chandran, Vennila, et al. "Parental knowledge, attitude, and practice regarding the importance of primary dentition of their children in Kerala, India." Journal of Indian Association of Public Health Dentistry 17.3 (2019): 247-252.

[14]. Wong, Diane, Silvia Perez-Spiess, and Kell Julliard. "Attitudes of Chinese parents toward the oral health of their children with caries: a qualitative study." Pediatric dentistry 27.6 (2005): 505-512.