

AWARENESS AND HEALTH SEEKING BEHAVIOUR OF PARENTS REGARDING THEIR CHILDREN'S ORAL HEALTH AND PROFESSIONAL DENTAL CARE

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Abstract: Parents' awareness and health-seeking behaviour concerning their children's oral health and professional dental care are vital components shaping pediatric dental wellness. The study's primary objective is to find parents' awareness and health-seeking behaviour regarding their children's oral health and professional dental care. This cross-sectional study was conducted in Karachi. Data was collected from 320 parents who participated in this study. To capture a comprehensive understanding, participant recruitment involves a diverse selection of parents, ensuring representation across various demographics, including age, socioeconomic status, educational background, and geographical location. Data were collected from 320 participants. Participants belong to different age groups. Respondents with a high school education or less constituted 35%, while those with a bachelor's degree represented 30% of the participants. The survey outlined varying degrees of parental awareness regarding specific oral health practices. While a high percentage of parents were aware of the importance of fluoride use for children (85%) and the ideal age for dental check-ups (60%), adherence to the American Academy of Pediatric Dentistry (AAPD) brushing recommendations and awareness of proper flossing techniques were notably lower, at 25% and 40%, respectively. It is concluded that early dental checkups play a crucial role in preventing conditions like dental caries. Founding good oral habits and hygiene during the formative years significantly contributes to lifelong oral health in children.

Keywords: Pediatric oral health, Parents' awareness, Health-seeking behavior, Dental caries, Oral habits, Fluoride use

Introduction

Parents' awareness and health-seeking behaviour concerning their children's oral health and professional dental care are vital components shaping pediatric dental wellness. This critical aspect of parental involvement influences a child's oral hygiene routines, preventive care measures, and access to professional dental services (Sing et al., 2022). Understanding parental awareness and behaviour towards their children's oral health is fundamental in addressing early intervention, preventive strategies, and promoting positive oral hygiene habits from an early age. Oral health mirrors overall well-being, and neglect can significantly impact an individual's health. Often mimicking their parents' behaviours, children learn oral hygiene habits primarily from home, where parents serve as influential role models (Moynihan et al., 2018). Parents' attitudes toward oral health significantly shape their children's dental well-being. Research confirms that a positive parental attitude toward dentistry correlates with better dental health in their children (Vittoba et al., 2016). Presently, dental issues among children are prevalent, prompting millennial parents to prioritise their children's dental care, often preferring specialised pediatric dentists over general practitioners. Over the last five decades, an observable enhancement in children's oral health has been attributed to heightened parental awareness regarding dental care. As the primary source of information and

health habits, parents and family members play a pivotal role in shaping a child's oral health status (Tuli et al., 2020). Studies, such as that by Lalic M et al., reveal a statistically significant link between parental oral hygiene practices and their involvement in their child's dental care routine. Recognising parental perceptions of early childhood oral health is crucial in formulating effective preventive strategies, given that parental beliefs, attitudes, and practices directly impact their children's dental well-being (Kumar et al., 2019).

Effective oral hygiene is pivotal in controlling dental complications, especially cavities. Research has demonstrated that untreated cavities can result in painful episodes, prompting emergency dental visits and premature tooth loss among young individuals. This loss can cause chewing difficulties and aesthetic and functional damage to permanent teeth (Alshammari et al., 2021). Ensuring robust oral hygiene practices early on is crucial to prevent these complications. The American Academy of Pediatric Dentistry (AAPD) strongly advocates twice-daily brushing with an age-appropriate soft toothbrush. They emphasise that parents should conduct this regimen if their children are not yet independent. This underscores the necessity of raising parental awareness about children's dental care to mitigate potential future oral health issues (Tefera et al., 2021). Thus, the study aims to find parents'

awareness and health-seeking behaviour regarding their children’s oral health and professional dental care.

Methodology

This cross-sectional study was conducted in Karachi. Data was collected from 320 parents who participated in this study. To capture a comprehensive understanding, participant recruitment involves a diverse selection of parents, ensuring representation across various demographics, including age, socioeconomic status, educational background, and geographical location. A self-administered questionnaire is developed, covering multiple facets such as parental knowledge, attitudes, and practices concerning oral health, their approach to seeking professional dental care for their children, and the factors influencing their decisions. This can be executed through various methods like online surveys, in-person interviews, or mailed questionnaires, ensuring the confidentiality and anonymity of responses to encourage candid feedback. Data was collected and analysed using SPSS v27.0. The questions that were scored to determine the information concerning the reason for dental caries and its prevention were managed, and an absolute score of 7 was given to evaluate the data. Respondents with scores six and above were viewed as having great information, with scores 3 to 5 as moderate and below 3 had poor knowledge.

Results

Data were collected from 320 participants. Participants belong to different age groups. Respondents with a high school education or less constituted 35%, while those with a bachelor's degree represented 30% of the participants. Regarding income brackets, 40% fell below \$50,000, whereas an equal split of 30% each was seen for \$50,000 - \$100,000 and above \$100,000 brackets. In terms of location, a more significant urban representation of 55% was notable compared to suburban (30%) and rural (15%) areas (Table 1).

Table 01: Demographic data of participants

Demographic	Distribution
Age Range	
25-35 years	40%
36-45 years	30%
46-55 years	20%
56+ years	10%
Education Level	
High School or Less	35%
College	25%
Bachelor's Degree	30%
Advanced Degree	10%
Annual Income Bracket	
Below \$50,000	40%
\$50,000 - \$100,000	30%
Above \$100,000	30%
Location	
Urban	55%
Suburban	30%
Rural	15%

Respondents with higher education, particularly those with advanced degrees, demonstrated significantly greater knowledge scores on oral health-related topics than those with lower education levels. This suggests that educational attainment positively influences awareness and understanding of oral health concerns (Table 2, Figure 1).

Table 02: Relationship between education level and knowledge scores on causes of dental caries

Education Level	Mean Knowledge Score (Out of 10)
High School or Less	5.2
Some College	6.8
Bachelor's Degree	8.3
Advanced Degree	9.5

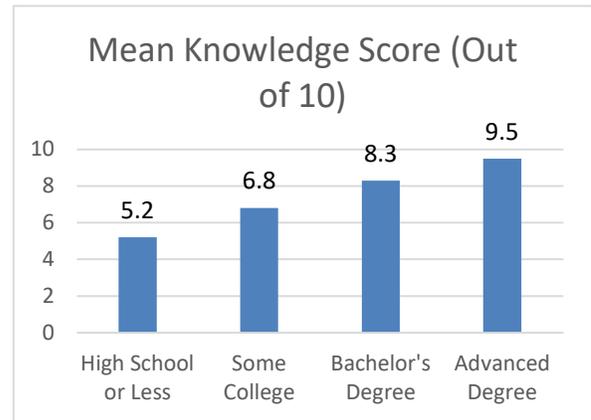


Figure 1: Literacy status of the study population

Table 03: Parental awareness of oral health practice

Oral Health Practice	Percentage of Parents Aware
Proper Brushing Techniques	75%
Ideal Age for Dental Check-ups	60%
Flossing Importance	40%
Fluoride Use for Children	85%
Preference for Pediatric Dentists	65%
Adherence to AAPD Brushing Recommendations	25%
Regularity of Dental Check-ups	45%

Table 04: Barriers faced by parents in seeking dental health awareness.

Barriers to Dental Healthcare	Percentage of Respondents (%)
Cost of dental treatment	42
Lack of insurance coverage	28
Fear or anxiety about dental procedures	18
Accessibility issues to dental clinics	25
Lack of awareness about available services	15
Time constraints	30

The survey outlined varying degrees of parental awareness regarding specific oral health practices. While a high percentage of parents were aware of the importance of fluoride use for children (85%) and the ideal age for dental

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check-ups (60%), adherence to the American Academy of Pediatric Dentistry (AAPD) brushing recommendations and awareness of proper flossing techniques were notably lower, at 25% and 40%, respectively (Table 3, Figure 2). Table 04 illustrates the key barriers parents face in seeking dental health awareness for their children. Financial constraints, cited by 42% of respondents, reveal a significant concern about the cost of dental treatment. Additionally, 28% highlighted the lack of insurance coverage as a barrier, emphasising the role of financial limitations. Fear or anxiety about dental procedures (18%) and accessibility issues to dental clinics (25%) were

identified as psychological and logistical hurdles, respectively. Furthermore, 15% reported a lack of awareness about available services, indicating the need for improved information dissemination. Time constraints, noted by 30%, emphasise parents' challenges in managing dental care alongside other responsibilities. In summary, these findings underscore the importance of addressing financial, insurance-related, psychological, logistical, awareness, and time-related barriers to enhance children's access to dental healthcare services.

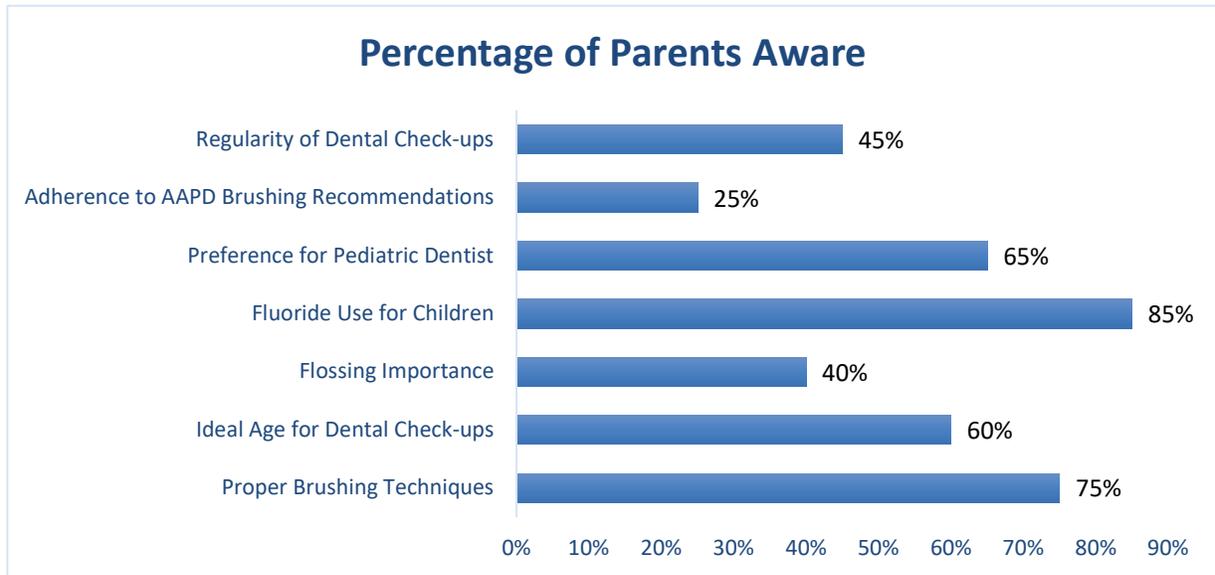


Figure 2 Percentage of parent’s awareness

Discussion

Children's oral health habits and patterns often mirror those of their parents, as observed in various global studies. A direct relationship exists between the dental habits of parents and their children. Notably, the frequency with which parents brush their teeth correlates significantly with their children's tooth brushing. Moreover, parents' active involvement and support in upholding their child's oral hygiene is crucial in shaping and influencing the child's dental health (Pérez-Bejarano et al., 2017). Prenatal guidance for mothers holds significant sway over children's oral hygiene. As Furze and Basso suggest, the mother's initial dental visit ideally occurs around the 4th month of pregnancy. This visit allows dentists to advocate for the child's first dental checkup at six months, educate mothers on tooth eruption and preventive measures, and offer valuable parental guidance (Alkhabuli et al., 2019). Pediatric dentists should stress the importance of regular preventive dental care for children alongside routine oral hygiene recommendations. Parents must be well-informed about their child's dietary habits, ensuring vigilant monitoring of sugar intake and other oral health-related practices (Ward et al., 2019). Oral health issues disproportionately affect marginalised communities and individuals facing disabilities. Studies indicate that disabled individuals often experience poorer oral health compared to those without disabilities (N. Uguru et al., 2021). Among children and adolescents with

intellectual disabilities, research shows a higher prevalence of dental plaque, poorer gum health, and fewer treated teeth, highlighting their oral health challenges compared to their peers (Shan et al., 2023). Untreated dental caries in permanent teeth is a prevalent oral health concern globally, with over 530 million children affected by primary tooth caries (Divaris et al., 2020). Children with disabilities and special needs encounter additional oral health problems due to cognitive limitations, behavioural issues, impaired movement, and neuromuscular conditions. As a result, they often require extra assistance and depend on others to maintain optimal oral health (Kumar et al., 2023)..

Conclusion

It is concluded that early dental checkups play a crucial role in preventing conditions like dental caries. Founding good oral habits and hygiene during the formative years significantly contributes to lifelong oral health in children. Therefore, integrating oral health into community health education programs is imperative for promoting well-being.

Declarations

Data Availability statement

All data generated or analyzed during the study are included in the manuscript.

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Approved by the department Concerned.

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Conflict of interest

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Conception of Study, Development of Research Methodology Design, Study Design,, Review of manuscript, final approval of manuscript

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Data acquisition and analysis.

EMAAN MANSOOR

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References

- Syed, A., Ali, S. S., and Khan, M. (2018). Frequency of depression, anxiety and stress among the undergraduate physiotherapy students. *Pakistan Singh, Ritu, et al. "Knowledge, Attitude and Practices of Parents toward the Oral Health of Their School-going Children in Faridabad City." International Journal of Clinical Pediatric Dentistry*, vol. 15, no. 5, 2022, pp. 549-553, <https://doi.org/10.5005/jp-journals-10005-2438>.
- Moynihani P, Makino Y, Petersen PE, et al. Implications of WHO guideline on sugars for dental health professionals. *Community Dent Oral Epidemiol*. 2018;46(1):1–7. doi: 10.1111/cdoe.12353.
- Vittoba Setty J, Srinivasan I. Knowledge and awareness of primary teeth and their importance among parents in Bengaluru City, India. *Int J Clin Pediatr Dent*. 2016;9(1):56–61. doi: 10.5005/jp-journals-10005-1334.
- Tuli M, Gangasani A, Khurshid A, et al. Knowledge of parents about multi-level influences on oral hygiene practices in pediatric patients: qualitative research. *Saudi J Med*. 2020;5(5):248–252. doi: 10.36348/sjm.2020.v05i05.006
- Kumar G, Dhillon JK, Vignesh R, et al. Parents' knowledge, attitude, and practical behaviour regarding their child's oral health in New Delhi. *J Indian Soc Pedod Prev Dent*. 2019;37(1):3–7. doi: 10.4103/JISPPD.JISPPD_257_18.
- Alshammari, Fatimah S., et al. "Parental Awareness and Knowledge toward Their Children's Oral Health in the City of Dammam, Saudi Arabia." *International Journal of Clinical Pediatric Dentistry*, vol. 14, no. 1, 2021, pp.

100-103, <https://doi.org/10.5005/jp-journals-10005-1894>.

- Tefera, A.T., Girma, B., Adane, A. et al. Dental health problems and treatment-seeking behaviour among special need school students in Amhara region, Ethiopia. *BMC Oral Health* 21, 489 (2021). <https://doi.org/10.1186/s12903-021-01856-x>
- Pérez-Bejarano NM, et al. Oral health in adolescents with disabilities from centro de educación especial san miguel, Guarambaré, Paraguay. *Rev. Fac. Odontol*. 2017;29(1): 51–64. <https://doi.org/10.17533/udea.rfo.v29n1a3>.
- Alkhabuli JOS, Essa EZ, Al-Zuhair AM, Jaber AA. Oral health status and treatment needs for children with special needs: A cross-sectional study. *Pesqui Bras Odontopediatria Clin Integr*. 2019;. <https://doi.org/10.4034/PBOCI.2019.191.127>.
- Ward LM, Cooper SA, Hughes-McCormack L, Macpherson L, Kinnear D. Oral health of adults with intellectual disabilities: a systematic review. *J Intellectual Disabil Res*. 2019. <https://doi.org/10.1111/jir.12632>.
- N. Uguru, O. Onwujekwe, C. Uguru, U. Ogu, C. Okwuosa, and C. Okeke, "Oral health-seeking behaviour among different population groups in Enugu Nigeria," *PLoS One*, vol. 16, no. 2 February 2021, doi: <https://doi.org/10.1371/journal.pone.0246164>.
- Shan, Z., Liao, C., Lu, J. et al. Improving parents' oral health knowledge by a school-based oral health promotion for parents of preschool children: a prospective observational study. *BMC Oral Health* 23, 890 (2023). <https://doi.org/10.1186/s12903-023-03567-x>
- Divaris K, Slade GD, Ferreira Zandona AG, Preisser JS, Ginnis J, Simancas-Pallares MA, Agler CS, Shrestha P, Karhade DS, Ribeiro ADA, et al. Cohort Profile: ZOE 2.0—A community-based genetic epidemiologic study of early childhood oral health. *Int J Environ Res Public Health*. 2020;17:8056. <https://doi.org/10.3390/ijerph17218056>.
- Kumar V, Gaunkar R, Thakker J, Ankola AV, Irranna Hebbal M, Khot AJP, Goyal V, Ali A, Eldwakhly E. Pediatric Dental Fluorosis and its correlation with Dental Caries and oral-health-related quality of life: a descriptive cross-sectional study among Preschool Children Living in Belagavi. *Children*. 2023;10:286. <https://doi.org/10.3390/children10020286>.
- Zhou N, Ding H, Liu J, Chen J, Zhang S, Chu C-H. Dental Caries Status among Yi Preschool Children in Yunnan Province, China: a cross-sectional study. *Int J Environ Res Public Health*. 2021;18:8393. <https://doi.org/10.3390/ijerph18168393>.



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