

# Parental Health-Seeking Behaviors for Dental Caries in Children Aged 6-15: A Study from District Chakwal

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## Introduction

Dental caries causes localized breakdown and destruction of the calcified tissues. Caries producing predisposing factors are most active among the school children, who often exhibit inappropriate dietary habits, and have very less or no guidance about basic oral hygiene. Children attending public schools or belonging to lower social-economic backgrounds are seen to have a higher occurrence of dental caries and poor status of oral hygiene.<sup>1</sup> Oral infections result in loss of many productive hours every year worldwide, and decreases the quality of life.<sup>2</sup> If oral disease during childhood is left unmanaged, it can lead to adverse consequences such as chronic pain, anomalies of oral cavity and face, abscess of teeth and soft tissues, bone destruction and spread of infections through blood. In the Eastern Mediterranean region, the pooled prevalence for carious dentition is 59-73% for children aged 6–15 years.<sup>3</sup> The prevalence at the national level was reported to be 56-70% with some variation among the provinces.<sup>4</sup> Dental caries have adverse effects on children's dietary habits, consequently influencing their nutritional status.<sup>5</sup> Four simple and effective interventions can prevent caries in children: proper tooth brushing, fissure sealants, periodic care seeking, and topical fluoride application. Parents play a fundamental role in maintaining the dental health of their children. Their

attitude and knowledge undoubtedly are related to the dental health outcomes of children. Therefore, the purpose of this study was to explore their knowledge and practices regarding children's dental health is important as these ultimately effect the care seeking behaviors and the utilization of professional dental services.<sup>6</sup> In Pakistan, there is a need to introduce services for oral health promotion, screening, restorative treatment and referral in existing primary health care system.<sup>7</sup> Therefore, the purpose of this study was to assess the knowledge and practices of parents regarding the dental health of their children 6-15 years in district Chakwal; and to understand the health seeking behaviors and patterns of parents' care-seeking regarding dental caries of the children.

## Methods and Results

It was a descriptive cross-sectional household survey, conducted from May to August 2023 in District Chakwal, Punjab. A sample size of 340 patients was statistically calculated considering a prevalence of dental caries as 70%.<sup>4</sup> The written informed consent was sought from the respondents. The study participants included parents and guardians of children of age group 6-15 years. Those parents having mentally and physically handicapped children and children having dental problems other than caries were excluded. Data was collected through a semi-structured questionnaire, developed after reviewing literature. Questionnaire included demographic details and questions related to the occurrence and associated issues of dental caries in their children. After the written consent of the study participant, the interview was conducted and responses were noted. Data was entered, cleaned and analyzed in SPSS v23.0. Besides descriptive frequencies, statistical association was ascertained by chi square test.

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### Authors Contribution

NRM & BTS conceptualized the project, statistical analysis and drafting, revision & writing of manuscript. NRM did the data collection and literature search.

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Out of 340 eligible parents and guardians selected through simple random sampling, 293 (86%) answered the questionnaire completely while 14% withdrew from the study because various reasons.

Almost one third of the mothers were uneducated, and about half of them had education only to primary level. Fathers were slightly better educated as compared to mothers, and almost half had had a higher secondary education. More than half of the study population lived on less than PKR. 10000 (US\$85) a month and another quarter lived barely on PKR 10000-15000 (US\$ 86-130) a month, which reflects the state of socio-economic deprivation in the district.

Mother and father's education and household income were further analyzed to see any significant association with different behaviors and practices regarding dental care of the children. All the independent variables were found to be significantly associated with mode of cleaning the teeth in the family ( $p = 0.000$ ), frequency of brushing ( $p = 0.049$ ), knowledge about oral hygiene ( $p = 0.000$ ), knowledge about dental caries ( $p = 0.000$ ), knowledge of treatment of dental caries ( $p = 0.000$ ), care seeking behaviors ( $p = 0.000$ ), and mode of treatment which was mostly using traditional home remedies ( $p = 0.000$ ). The main reason behind choosing traditional remedies at home is the non-affordability of modern dental treatment for a majority of parents ( $p = 0.000$ ), despite the fact that they knew it is not appropriate. This factor also caused significant delay in treatment seeking.

## Comments

Since the dental treatment is stereotyped to be expensive, the parents and guardians tend to opt for self-treatment or consult a traditional healer. Oral health must be monitored from early childhood.<sup>8</sup> Mothers are more knowledgeable and possess better attitude, yet their practices could be inappropriate.<sup>9</sup> Low levels of education of parents, unemployment and residing in rural areas was strongly associated with higher status of dental caries among children. Rural areas had higher availability and consumption of sugary foods and beverages, as well as limited access and availability of dental health services.<sup>10</sup> This was one of the few community-based studies from rural Pakistan that explored parental health-seeking behaviors related to dental caries in children, highlighting the role of socioeconomic and educational determinants in shaping traditional care choices despite partial awareness. Hence the study highlighted the paradoxical behavior where parents are aware that

traditional remedies are suboptimal, yet they still use them, primarily due to financial constraints.

## Conclusion

Knowledge, care seeking behaviors and economic inaccessibility of parents greatly influence the oral hygiene of their children. Intervening with school children and raising awareness on preventive measures such as oral hygiene, dietary habits and importance of periodic dental visits will make a difference. Moreover, it is time to integrate oral health promotion into the primary health care.

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