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Original Research Article

Oral hygiene status among 5 to 15-year-old children stomatology National Hospital in Kabul city

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ABSTRACT

Background: The practice of oral hygiene needs to be strengthened during adolescence, a time when there is a significant change in habits, leading to an increase in the prevalence of tooth decay associated with less frequent brushing. The propose of the study is to determine the oral hygiene status in 5-15-year-old children, the lack of the previous data in this field is one the reasons for conducting this research so that we can provide accurate statistics data in Afghanistan.

Materials and Methods: A descriptive cross-sectional study was carried out between 5-15-year-old in 431 children of stomatology national hospital of Kabul city. Sample size was selected randomly from both gender group which were 161 males and 270 females. Oral hygiene status was assessed by using simplified-oral hygiene index. Gingival index (loe and silness, 1963) was used for assessing gingival status. dmf and DMF for decayed, missed and filled teeth in primary and permanent dentition used to assess the prevalence of dental caries. Statistical analysis done by SPSS .20.

Results: 21.2% of children had good oral hygiene status, 65.2% fair oral hygiene and 13.6% had poor oral hygiene. The mean OHI-S was 2.4±1.19. There is no Statistical significant difference between gender and oral hygiene status ($p<0.05$). The prevalence of dental caries was 80.9%. Boys mean dmf was 4.15±3.03 and it was in girls 3.05±2.67, that shows higher prevalence of dental caries in boys than girls. Overall mean of dmf scores was 3.48±2.86. 173 (40.9%) had normal gums. 31.6% of children not brush their teeth, 37.4% brush once in a day.

Conclusion: Oral hygiene status was fair in more than half of the sample size. High prevalence of dental caries seen in males. Dental caries is a major public health problem and an active and effective dental care prevention program for children is needed.

1. Introduction

Maintaining good oral health is crucial for maintaining overall health and quality of life.[1,2] Many individuals throughout the world experience oral pain or discomfort, and it is a fundamental human right for everyone to have access to basic dental care in order to maintain their health and quality of life.[3] Tooth decay and gum diseases are the two oral conditions that are most prevalent. Dental caries is the most prevalent chronic disease in children worldwide because it primarily affects school-aged children,[4] despite being a common disease that affects the mouth and affects a large number of people.[5]

The WHO report from 2003 states that 60–90% of children have dental caries.[6] Many low-income nations still struggle considerably with dental caries3. Moreover, access to dental care services is limited in many impoverished nations, and teeth are frequently left untreated or extracted because of pain.[6]

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When oral bacteria create acids that gradually soften the enamel, dental caries (tooth decay) results. Because it encourages the production of acid by oral bacteria, sugar has a significant impact on tooth decay. Acidic foods and beverages can be equally detrimental since they can erode dental enamel and reduce the surface area of the teeth, increasing sensitivity and decay susceptibility. Due to variations in their physical and chemical makeup, children's milk teeth are more prone to decay than permanent (adult) teeth. Milk teeth in particular have less stable and frequently weaker enamel, which provides less defense against bacteria.

The most prevalent kind of gum disease in kids is gingivitis, which can start out mild and get worse as they get older. Gingivitis is reversible, but if it is not treated, it may progress into periodontitis later in life. If periodontitis develops, tooth loss may result.[7]

Brushing your teeth is the best oral hygiene technique to get rid of bacterial plaque and maintain good oral health. There are a number of variables that impact tooth brushing and the outcomes, including: Education about oral hygiene, the frequency and duration of tooth brushing and the amount of toothpaste used.[8]

A pea-sized dosage of toothpaste (about 1 g) is advised for brushing at the population level. The recommended dosage is lower for kids under 3 since their developing swallowing reflexes increase the danger of unintentional intake. Too much toothpaste use is not only wasteful, but it also raises children's fluorosis risk and hinders the mechanical removal of bacterial plaque.[9,10]

Since the age at which tooth decay begins depends on when children start brushing their teeth, oral hygiene should begin as soon as the child's first tooth appears in order to build good habits,[10–12] Adolescence is a time of major habit change, leading to a rise in the prevalence of tooth decay associated with less frequent brushing, so oral hygiene practices need to be improved throughout this period.[13,14]

Understanding people's dental health behaviors and the prevalence and distribution of oral health issues are important. The development of appropriate programs and policies for oral health depends on this knowledge. In addition to providing the necessary services and training the requisite dental professionals to satisfy these needs, the right policies and programs will aid in raising the general public's awareness and knowledge of the preventative and promotional components of oral health.[15] Oral health has been gravely neglected as a result of a lack of knowledge regarding dental problems.[16]

Currently, Afghanistan doesn't have a national oral health policy. This shows that oral health policy makers are careless and that our nation's lack of attention to its promotion of oral health. The importance of dental health to overall health and wellbeing must be made clear to policymakers. The goal of the study is to assess the level of oral hygiene among children aged 5 to 15; one of the driving forces for the investigation is the need for more reliable statistics for Afghanistan.

2. Material and Methods

2.1. Study design and sample

Children aged 5 to 15 were included in this cross-sectional study in 2022 at the national stomatology hospital in Kabul. 431 children who were sent to the hospital in Kabul were given the oral hygiene questionnaire. Randomly selected and given the oral hygiene status questionnaire and oral examination.

2.2. Data collection

The questionnaire was written in both Persian and English. The proforma was divided into two sections. The first section of the questionnaire contained demographic information such as name, age, gender, parents' names, occupations, incomes, and dental hygiene habits. Brushing frequency was recorded as once daily, twice daily, or rarely, as well as the amount of cream used and the age at which brushing began. The second section included DMF (Decayed, Missed and Filled during Caries) in Permanent Teeth and Simplified Oral Hygiene Index, Gingival Index by Loe and Silness, and dmf in primary teeth.

2.3. Dental examination

The children's oral hygiene was assessed by a single examiner using dental examination tools while they were seated in dental chairs (mouth mirror, dental explorer and dental probe).

2.4. Oral hygiene

Four posterior and two anterior teeth are chosen to represent the six surfaces that will be inspected by the OHI-S: Usually the first molar,[17] but occasionally the second,[18] was evaluated in the posterior dentition. The lingual surfaces of the chosen lower molars and buccal surfaces of the chosen upper molars were both examined. The labial surfaces of the lower-left and upper-right[19] central incisors[20] were scored in the anterior part of the mouth. The central incisor (numbers 21 or 41, respectively) on the other side of the midline was used in place of either missing anterior tooth. The simplified oral hygiene index was used to determine oral hygiene status (OHI-S). The OHI-S scoring system was used to determine the results, and oral hygiene was graded as good (0.1 - 1.2), fair (1.3 - 3.0), and poor (> 3.0). (3.1 - 6.0). Following data collection, tooth brushing demonstrations and oral hygiene instruction were given.[21]

Plaque was evaluated using the Silness-Löe index, where 0 means there was none, 1 meant there was supragingival plaque, 2 meant there was plaque on one third of the gingival

border, and 3 meant there was plaque on more than one third of the gingival border. Also, the DMF (decayed, missing, filled) index was calculated for the entire study population. This index represents the average number of permanent teeth with caries (D), absent due to caries (M), and filled (F). Children aged 5 to 15 years were the inclusion criterion for this study (both genders). Children with systemic illnesses and youngsters older than 15 and lesser than 5 years old are excluded.

2.5. Ethical approval

The Kabul University of Medical Science review board gave the research protocol approval with reference number: 1801/2022. The head of the national hospital for stomatology was informed of the study's objectives and gave their agreement to participate and assist the research. The parents of the children provided written consent, and all of the children were made aware of the goal and methodology of the study.

2.6. Statistic evaluation

A data collection sheet was first used to enter the data. After entering the data onto a computer, SPSS version 20 was used for statistical analysis. Mean and standard deviation were used to express the OHIS, GI, and DMFT sores (SD). Frequencies and percentages were used to represent the distribution of study participants based on their level of oral hygiene, gingival health, and caries experience. Fixed at 0.05 was the statistical significance level.

3. Results

A total of 413 children 5 to 15-year-old participated in the study whom 62.2% were girls and 37.4% were boys with mean age of 9.39±3.15. There's significant statistical relationship between oral hygiene status and age group ($p< 0.05$).

Mean simplified oral hygiene index were 2.4±1.19 which 21.2% had good oral hygiene, 65.2% fair oral hygiene and 13.6% of children had poor oral hygiene. There's no statistical difference between oral hygiene status and gender group ($p> 0.05$). More details in (Table 1) and (Figure 1)

44.9 percent of fathers and 72.4 percent of mothers of the children were illiterate. Mean dmf was 3.48 ± 2.86 indicates that dmf is moderately prevalent (4.4-7.2). Mean dmf In girls was 3.08±2.67, 24.6 percent were caries free. Mean dmf among boys was 4.15±3.03 and 1.13 percent of all boys were caries free and mean DMF was 0.74 ± 1.41. Overall mean in girls was 0.84± 0.47 which was 0.58 ± 1.3 boys. (Table 2)

37.6 percent of children rarely brush their teeth, 37.4 percent brush once a day, 8.4 percent brush twice a day and 16.6 percent brushed their teeth less than once a day, the frequency of brushing in girls was more than boys. Half of the boys rarely brush their teeth at all.

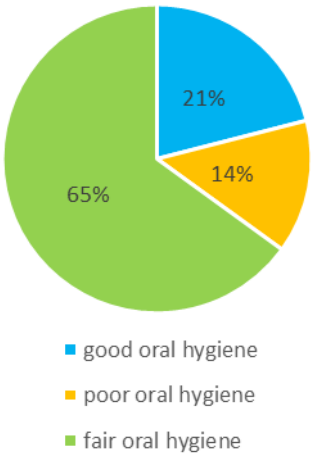

Fig. 1: Oral hygiene status of participants

45.2% (118) used the correct amount of toothpaste (1/3 of brush), 30, 6% (80) used toothpaste at halt of brush (1/2) and 24.15% (63) used toothpaste whole of brush. (Table 3)

In terms of consumption of food containing sucrose and snacks 19.6 percent were not use snacks or drinks, 40.6 percent use less, 20 percent were use snacks at moderate level and 19.8 percent used very much. Girls than boys were used snacks and foods containing sucrose very less. Gingival index, 40.9 percent (173) had normal gingiva, 42.1 percent (178) had mild gingivitis, 13.9 percent (59) had moderate gingivitis and 3.1 percent (13) had severe gingivitis.

The economic level is divided into four categories (no income, low, medium and high income). It turned out that 65 percent of the families had no monthly income, 19.5 percent had low income, 12.6 percent had medium income and 4.8 percent had high income.

4. Discussion

The most widespread oral disease is tooth decay, with significant differences in its incidence across countries, regions, areas within social and ethnic groups, oral health is a part of overall health and important to children and their healthy lives.[22,23] This study results that can be generalized to all 5-15-year-old children from Kabul city.

Based on the results of this study, the prevalence of tooth decay was 75.4%. The same results were reported by Akram[24] 82.9% and Dhuha Malik[25] 83% in Iraq. These results are much higher than the results reported by Monica Perez[26] 39.3% in Spain, M.S Minor[27] 65.6%.

Total dmf for female children were lower 2.67 than for male children 3.03. These results were consistent with other studies conducted by Mahesh Kumar,[28] Dhuha malik[25] and

Table 1: Oral hygiene status described by gender

Gender	Good	%	Fair	%	Poor	Total	%
Female	48	18%	181	68%	37	266	13.9%
Male	42	26.4%	96	60.4%	21	159	13.2%
Total	90	21.2%	277	65.2%	58	425	13.6%

Table 2: Mean score and standard division of dmf and DMF

Gender	dmf component	Mean ± standard division
Female	Decayed	2.61±2.4
	Missed	0.37±0.9
	Filled	0.08±0.44
Male	Decayed	3.63±2.7
	Missed	0.49±1.05
	Filled	0.04±0.22
Overall dmf	Decayed	2.9±2.6
	Missed	0.42±0.96
	Filled	0.07±0.37
	DMF component	
Female	Decayed	0.68±1.22
	Missed	0.1±0.35
	Filled	0.09±0.39
Male	Decayed	0.51±.16
	Missed	0.04±0.22
	Filled	0.05±0.27
Overall DMF	Decayed	0.61±1.2
	Missed	0.08±0.31
	Filled	0.07±0.35

Table 3: Description of oral hygiene practice and habits

Gender	Frequency of brushing	Frequency	Percentage	Age of brushing start	Frequency	Percentage
Female	Once in a day	115	42.9%			
	Twice or more	30	11.2%	Before 4 years	8	5.2%
	Less than once	43	16%	Between 4-6	50	32.7%
	Rarely	80	29.9.1%	After 6 years	125	81.7%
Male	Once in a day	45	28.1%			
	Twice or more	6	3.8%	Before 4 years	6	8.2%
	Less than once	28	17.5%	Between 4-6	17	23.2%
	Rarely	81	50.6%	After 6 years	50	68.5%
Overall	Once in a day	160	37.4%			
	Twice or more	36	8.4%	Before 4 years	14	5.5%
	Less than once	71	16.6%	Between 4-6	67	26.8%
	Rarely	161	37.6%	After 6 years	175	68.4%

akram[24] and contradictory with Dr. Minor.[27]

According present findings mean DMFT scores 0.74±1.41 in girls (1.4) and 1.3 in boys, there's no difference between gender and caries prevalence in permanent teeth, these findings are very lower than the studies of Gopinath[29] (1.48), Khaderi[30] (3.19) and Venera[31] (3,67) and Akram.[24]

The result of the study showed that the mean OHI-S scores were 2.4 (2.07 in girls, 2.04 in boys) there's no statistically significance by gender in oral hygiene status of male and female children. Same results reported by Venera[31] in Kosovo mean OHI-S score 1.66 (1.61 in girls, 1.65 in boys). Blanco M[26] conducted a study in Galicia of Spain and reported that boys had poor oral hygiene (1, 97) than female children (1.49), girls had significantly good oral hygiene than boys, Osadolor[32] reported mean OHI-S score 1.5 in Nigeria that mean OHI-S were higher in boys than girls.

Based on the finding of this study 21.2% had Good oral hygiene that is very lower than 33.3 in Nigeria,[33] 34.8% south-west Nigeria[34] 42, 8% in Kashmir[35] 39.1% in India.[36] It seems necessary to implement oral and dental

hygiene program as soon as possible for the children of Kabul city, and this education can be realized through radio, television, health centers and school educators.

The present study reported that oral hygiene status increased as socioeconomic status decreased. In particular, children from the upper socioeconomic status groups showed better oral hygiene than children from middle or lower socioeconomic status groups. Similar results were also reported by Doddamani,[37] Addy M,[33] Taani,[38] Sogi.[39] This can be attributed to the fact that oral health is a function of better oral hygiene with better education, good income, more positive attitudes towards oral hygiene, and greater frequency of dental visits. 37.6% of children only brush their teeth once a day, these results correspond to 41.8% of the frequency of tooth brushing in Iran.[24] And very less than 88%, 54% brushing frequency (once a day), reports from Galicia[35] and Kosovo.[34] The poor oral hygiene status of most children is reflected in irregular tooth brushing habits and may also be due to insufficient brushing time, amount of toothpaste and ineffective brushing technique. Therefore, it is important to teach children good behavior in maintaining oral health to avoid tooth decay and oral problems.

These results imply that the high level of oral hygiene in urban children may be attributed to parental dental awareness, which is reflected in the maintenance of the child's oral hygiene, and the educational attainment of the family members.

The student body is the adult population of future; they should be educated to foster a sense of accountability for oral health. In addition to promoting a more complex understanding of oral health, exploring the relationships between clinical conditions and their personal and social repercussions also provides the chance to identify interventions to lessen the effects of oral disease through the implementation of school dental health programs.

According to our research, early dental health education and oral health screenings for children have a positive impact on their preventive behavior and attitudes regarding visiting the dentist. Via school dental health initiatives, this can be accomplished by educating the uneducated parents about dental health. The proper way to brush, how to utilize pit and fissure sealants, and the significance of additional preventative actions for kids should all be explained to parents. The goal of the school dental health program is to educate and inspire students, parents, and teachers about the importance of oral health and dental care. To provide health education and the promotion of the best possible school performance and health a new direction, health professionals need to be well-informed and motivated. The advantages of education are lost owing to absenteeism or loss of focus due to illness if the child does not maintain proper health.[40]

5. Conclusion

More than half of the sample size had fair oral hygiene. Boys are more likely than girls to have dental caries. The findings of our study show that dental caries is a significant public health issue, and children require a proactive and successful dental care prevention program. These initiatives will greatly contribute to maintaining the oral health of young kids by imparting knowledge. This study can assist those who work in oral health not only with the planning and execution of therapeutic operations but also with the design and execution of effective dental caries prevention strategies. We can infer from this study that a school-based preventative program and appropriate instruction in oral health education should be provided to students.

6. Conflict of Interest

Nil

7. Financial Support

Nil

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References

1. Edelstein BL. The dental caries pandemic and disparities problem. *BMC Oral Health*. 2006;6(Suppl 1):2.
2. Markovic N, Muratbegovic AA. Oral Health in Bosnia and Herzegovina Schoolchildren – Findings of First National Survey. *Austin J Dermatolog*. 2014;1(3):1014.
3. Petersen PE. Strengthening of oral health systems: oral health through primary health care. *Med Princ Pract*. 2014;23(1):3–9.
4. Lawal FB, Bankole OO. Impact of untreated dental caries on daily performances of children from low social class in an urban African population: the importance of pain. *Pesqui Bras Odontopediatria Clin Integr*. 2019;16:1–8.
5. Ferizi L, Dragidella F, Staka G, Bimbashi V, Mrasori S. Oral health status related to social behaviors among 6-11 year old schoolchildren in Kosovo. *Acta Stomatol Croat*. 2017;51(2):122–32.
6. Petersen PE. The World Oral Health Report 2003: continuous improvement of oral health in the 21st century–the approach of the WHO Global Oral Health Programme. *Community Dent Oral Epidemiol*. 2003;31(1):3–23.
7. Chestnutt IG, Gibson J. Clinical dentistry. 3rd ed. United Kingdom: Churchill Livingstone Elsevier; 2007.
8. Lindhe J, Niklaus L. Periodontología clínica e implantología odontológica. 5th ed. Buenos Aires: Médica Panamericana; 2009.
9. Heidemann D, Bengel W, Benz C, Borutta A, Burkhardt A. Valoracióny profilaxis. In: Práctica de la odontología. Barcelona: Elsevier-Masson; 2007.
10. Sala EC, Navarro CM, Majem LS. Odontología preventiva y comunitaria. In: Principios métodosy aplicaciones. Barcelona: Barcelona; 1999.
11. DeRojas FE, Fernández VF. Manual de Higiene Bucal. Buenos Aires: Médica Panamericana; 2009.
12. Sánchez O, Childers NK. Anticipatory guidance in infant oral health: rationale and recommendations. *Am Fam Physician*. 2000;61(1):115–20.

13. Smyth E, Caamaño F. Factors related to dental health in 12-year-old children: a cross-sectional study in pupils. *Gac Sanit*. 2005;19(2):113–9.
14. Lafuente PJ, de Mendiola F, Aguirre B, Galán JZ, Zuazabal EI, Gilb BG. Estilos de vida determinantes de la salud oral en adolescentes de Vitoria-Gasteiz: evaluación. *Aten Primaria*. 2002;29(4):213–7.
15. Bali RK, Mathur VB, Talwar PP, Chanana HB. National Oral Health Survey and Fluoride Mapping 2002-03, India. New Delhi: Dental Council of India; 2004. Available from: https://dciindia.gov.in/Download/NOHSBOOK.pdf.
16. Shekar BR, Suma S, Kumar S, Sukhabogi JR, Manjunath BC. Malocclusion status among 15 years old adolescents in relation to fluoride concentration and area of residence. *Indian J Dent Res*. 2013;24(1):1–7.
17. Singhal DK, Acharya S, Thakur AS. Maternal knowledge, attitude and practices regarding oral health of preschool children in Udupi taluk. *J Int Dent Med Res*. 2017;10(2):270–7.
18. Kozmhinsky VMR, Heimer M, Goes PSA. Sociodemographic factors and oral health conditions related to the impact on the quality of life of adolescents. *Braz Res Pediatr Dent Integr Clin*. 2016;16(1):35–42.
19. Al-Darwish M, Ansari WE, Bener A. Prevalence of dental caries among 12–14 year old children in Qatar. *Saudi Dent J*. 2014;26(3):115–25.
20. Dukić W, Delija B, Dukić OL. Caries prevalence among schoolchildren in Zagreb, Croatia. *Croat Med J* . 2011;52(6):665–71.
21. Greene JC, Vermillion JR. The simplified oral hygiene index. *J Am Dent Assoc*. 1964;68:7–13.
22. Singhal DK, Acharya S, Thakur AS. Maternal knowledge, attitude and practices regarding oral health of preschool children in Udupi taluk, Karnataka, India. *J Int Dent Med Res*. 2017;10(2):270–7.
23. Ferizi L, Dragidella F, Spahiu L, Begzati A, Disha M, Pustina T. Oral health and salivary status in children with type 1 diabetes mellitus. *J Int Dent Med Res*. 2018;11(3):931–7.
24. Nokhostin M, Siahkamari A, Baghban A. Evaluation of oral and dental health of 6-12 year-old students in Kermanshah city. *Iran South Med J*. 2013;16(3):241–9.
25. Malik D, Hussien B. Oral health status among kindergarten children in Karbala cityIraq. *J Bagh Coll Dentistry*. 2017;29(4):82–8.
26. Blanco M, Pérez-Ríos M, Santiago-Pérez MI, Smyth E. Salud e higiene oral en los adolescentes gallegos. *An Pediatr (Barc)*. 2016;85(4):204–9.
27. Babu MSM, Nirmala S, Sivakumar N. Oral Hygiene Status of 7-12 year old School Children in Rural and Urban population of Nellore District. *J Indian Assoc Pub Health Dent*. 2011;18(Suppl III):1075–80.
28. Kumar PM, Joseph T, Varma RB, Jayanthi M. Oral health status of 5 years and 12 years school going children in Chennai city–an epidemiological study. *J Indian Soc Pedod Prev Dent*. 2005;23(1):17–22.
29. Gopinath VK, Rahman B, Awad MA. Assessment of gingival health among school children in Sharjah, United Arab Emirates. *Eur J Dent*. 2015;9(1):36–40.
30. Khadri FA, Gopinath VK, Hector MP, Davenport ES. Evaluating the risk factors that link obesity and dental caries in 11-17-year-old school going children in the United Arab Emirates. *Eur J Dent*. 2018;12(2):217–24.
31. Ferizi L, Bimbashi V, Kelmendi J, Olloni T. Oral health status among 12-year-old schoolchildren in Kosovo. *Pesqui Bras Odontopediatria Clín Integr*. 2020;20:e0039.
32. Osadolor OO, Iwuoha CE. Oral hygiene status of primary school children. *Int J Dent Res*. 2019;4(3):104–7.
33. Addy M, Dummer PHH, Hunter AL, Kingdom A, Shaw WC. The effect of brushing frequency, tooth brushing, sex and social class on the incidence of plaque, gingivitis and pocketing in adolescents. *Community Dent Health*. 1990;7(3):237–47.
34. Akinyamoju CA, Dairo DM, Adeoye IA, Akinyamoju AO. Dental caries and oral hygiene status: Survey of school children in rural communities, Southwest Nigeria. *Niger Postgrad Med J*. 2018;25(4):239–45.
35. Sukhabogi JR, Shekar CBR, Hameed IA, Ramana IV, Sandhu G. Oral health status among 12- and 15- year old children from government and private schools in Hyperabad. *Ann Med Health Sci Res*. 2014;4(3):272–7.
36. Behal R, Lone N, Shah AF, Yousuf A, Jan SM. Oral health status of 6-12 year old children attending a Government Hospital in Kashmir. *IAIM*. 2016;3(3):139–46.
37. Dodamani A, Prashanth VK, Abbayya K, Vinayak A, Girija B. To Determine the Relationship between Oral Hygiene and Gingival Status With Socia- economic Status among School going Children of Belgaum City aged 12 to 15 Years. *Indian Assoc Public Health Dent*. 2011;9(17):14–20.
38. Taani DS. Dental health of 13-14-year-old Jordanian school children and its relationship with socio-economic status. *Int J Paediatr Dent*. 1996;6(3):183–6.
39. Sogi GM, Bhaskar DJ. Dental caries and oral hygiene status of school children in Davangere related to their Socio-economic levels: An epidemiological study. *J Indian Soc Pedo Prev Dent*. 2002;20(4):152–7.
40. Ebrahim GL. Practical Mother and Child Health in Developing Countries. United States: Macmillan; 1978.

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