

KNOWLEDGE, ATTITUDE & PRACTICE ABOUT ORAL HYGIENE IN STUDENTS OF DISTRICT PESHAWAR

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ABSTRACT

To compare the Knowledge, Attitude and Practices (KAP) about OH in school children of rural and urban area, age 10–15 year of University Town, Peshawar. The knowledge, attitude and practice regarding OH in 800 school children (10-15year) of both genders were compared between rural and urban areas. It was a comparative study with systematic random sampling. A well-arranged questionnaire was applied. A pilot study was carried out on 10% of the sample population. SPSS version 21.0 was used to analysis the data. Rural children were statistically significant about knowledge. Whereas, In Urban children there was on significant difference. In rural children, significantly boys were more aware of the benefits of toothbrush and dental flossing ($p < 0.001$) whereas, in urban more girls were aware of tooth brushing ($p = 0.01$) and dental flossing ($p = 0.006$). In rural only 42.8% of the respondents, significantly more girls ($p < 0.001$), brushed their teeth at least twice a day whereas, in urban (66.8%) more girls were brushing their teeth twice daily ($p = 0.02$). 33.5%, mainly boys ($p < 0.01$), used vertical motion while 39.7% mainly girls ($p < 0.01$) preferred combination motion of the brush for cleaning their teeth, whereas more urban girls preferred (41.4%) brushing their teeth with circular motion ($p = 0.01$). Hence, the basic knowledge of OH was lacking in both genders of rural area as compare to the urban children of both the genders.

Keywords: Comparison, Socio-economic status, Tooth brushing, Urban-Rural, Dental Diseases

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INTRODUCTION

Globally, dental problems have been constant public health issue, at least once in every person's lifetime, poor oral hygiene is experienced by every individual.^{1,2} Oral problems have globally affected 3.9 billion individuals; this burden has been increased since then.³ Permanent

teeth with untreated caries were the prevalent aspects by periodontitis while untreated decay in deciduous counterparts.³ Sixty to ninety percent of school children are affected by dental decay and gingival diseases.^{1,5} Significantly, the burden of poor OH is more in population with low socio-economic status (SES)¹ that leads to more plaque and calculus deposits.^{6,7} In India, children aged 6-18 years, prevalence of dental caries is more than four fifths of children,¹³ higher rates of dental diseases were shown in the rural area as compared to urban area.¹ For a standard evaluation of OH.^{2,3,9} Similarly, routine self-care is recommended that shows a significant lower the production of dental diseases.⁸ In rural areas, the OH is also dictating by socio-economic status, inadequate use of products containing fluoride and lack of screening the oral diseases.¹ To improve oral health worldwide, promoting oral health of adolescents through health promoting schools has been prioritized by the World Health Organization (WHO).^{4,8,10} Preventive strategies have been particularly advised for adolescents because of the high prevalence of plaque accumulation.^{3,5} In developing countries shows a dramatic decline in prevalence and extent of dental diseases in the children of urban areas. In developing countries, good OH in rural

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school children is still a dream come true. Lack of OH may end up in various dental disease as compare to Urban School children who have good OH habits that will carry it through out their life time. School children can contribute in the positive behavior change in their families.¹¹ The oral health educator must provide oral health education to improve the knowledge, attitude and practices in both the gender in urban and rural settings that will translate into good behavior change. Some studies show the correlation between oral health and good knowledge. Brushing the teeth regularly twice a day is an important tool for preventing the oral cavity from various diseases, while inter dental cleaning is effective for the areas of the teeth free from food debris, that cannot be cleaned with the normal tooth brushing. Peterson et al.¹² reported 90% school children, due to lack of OH care, have resulted in dental decay and eventually tooth loss. Many studies have shown that more girls know taking care of the oral cavity is due to positive behavior and good practice than boys.

METHODOLOGY

It was a cross sectional study; to compare the knowledge attitude and practice in urban (400) and rural (400) school students, age (10 to 15), University town, Peshawar were included in this study. Both the groups; male and female had underlying awareness about the oral hygiene with low socioeconomic and middle socio-economic backgrounds. There were 4 schools selected from urban area and 5 schools from rural area of the university town Peshawar. It was a systematic random sampling technique. The congenital defects, allergies and major systemic disease were excluded. A well-structured questionnaire was used. Inform consent was taken from the students, pilot study was conducted on 10% of the sample size. SPSS version 21.0 was used for the analysis of the data. The approval for this study was taken from the ethical committee of the Gandhara university, Peshawar.

RESULTS

There was a significant difference in knowledge with p value < 0.001 in rural group. And the minimum mean score was recorded for both the gender 6 and maximum 20 was recorded. There was no significant difference in knowledge with p value = 0.47 in urban group. And the mean minimum was 4 with maximum mean 12 was recorded.

DISCUSSION

To our knowledge there is very little information regarding OH in Pakistan ad especially KPK in urban population the knowledge, attitude ad practice about oral hygiene as compare to rural group. The cultural differences could be the main reason, the oral hygiene

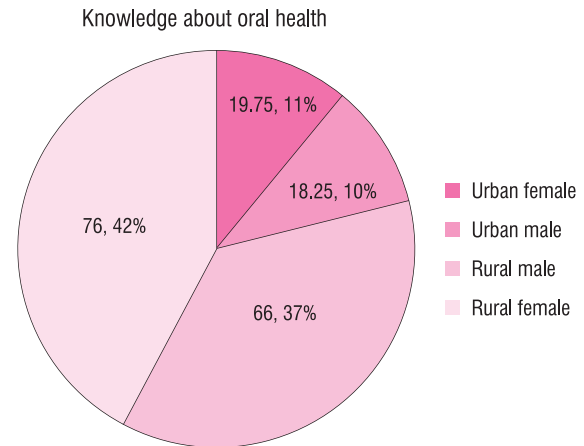


Fig 1: n=400 the urban, mean value maximum was 12 with minimum 4, n=400 for rural mean value was 20 with minimum 12, p<0.001 for rural and p=0.47 for urban.

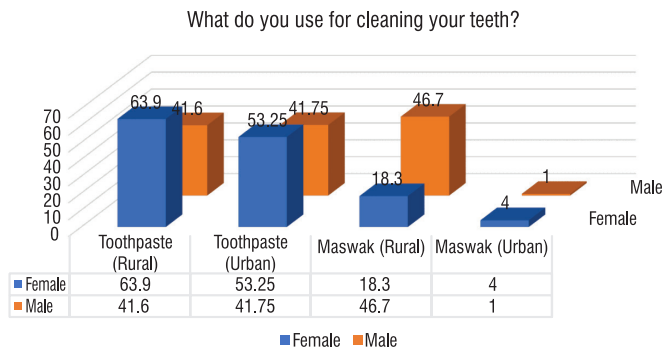


Fig 2: comparison between the urban and rural group (10-15)

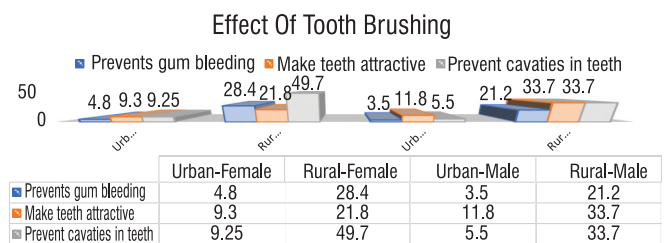


Fig 3: comparing the tooth brushing effects in urban and rural group (10-15)

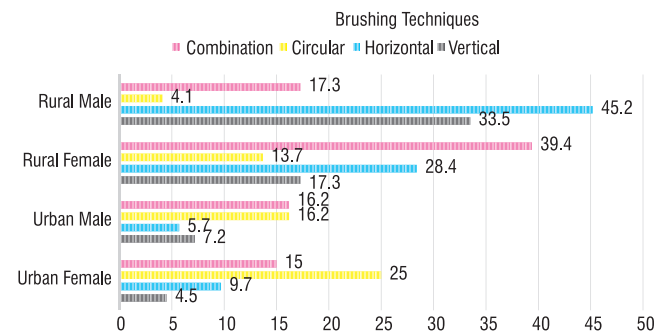


Fig 4: comparing the brushing techniques

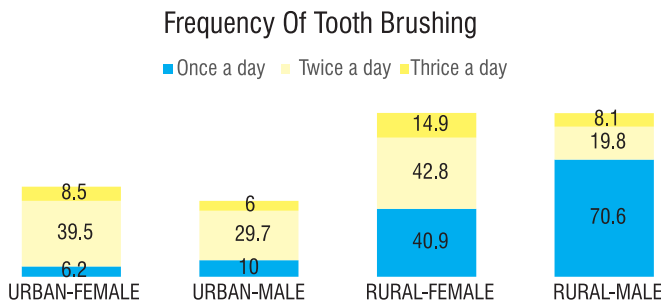


Fig 5: comparing the frequency of tooth brushing in both the groups (10-15)

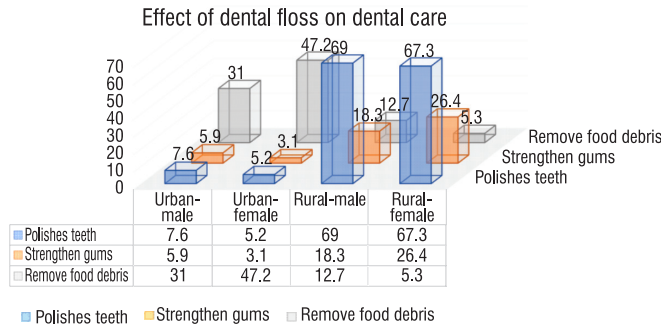


Fig 6: comparing the effects of dental floss on the dental care in both the groups

tools, dentist accessibility, awareness and attitude are more in urban area.¹⁴ In our study the knowledge, attitude and practices about the OH in urban population was good as compare to the rural population due their SES, i.e.; availability and affordability of the dental care facilities. However, Parents' education also plays an important role in providing their children with better oral care, nutritious diet. Geographically, factors affecting SES leads to poor oral outcomes A recent study has shown a direct relationship between the SES and the level of knowledge regarding OH in Pakistan.¹⁶ Furthermore, parent's social and environmental behaviors have an influence on the children eating habits. It is important to consume less amount of sugar intake.¹⁷ In Pakistan, prevention of OH is a challenging for all the health professionals and authorities to overcome their burdens. Similarly, 90% of these burdens are due to lack knowledge in low SES which leads to lack of promotion.¹⁸ Dental cavities that are left untreated can affect children's quality of life. Therefore, dental visits are paid only when home remedies tend to fail, and the intensity of pain is unbearable.¹⁸ To promote OH education in the Pakistani population, mass media is the most effective way therefore; dental professionals and government of Pakistan should work in collaboration to improve the status of knowledge and awareness towards oral health and dental treatment to save the nation's smile. A study in Nigeria¹⁹ and Tanzania²⁰, toothbrush was preferred instead of miswak. However, in Zimbabwe²¹ and Kenya²², miswak was commonly used

cleaning tool instead of the toothbrush. In comparison to our study the use of miswak was more commonly used in rural group especially by the boys (46.7%) whereas, the use of toothbrush was mainly used by the girls (63.9%). Whereas the urban group was familiar with the advantages of miswak, they didn't practice it (male =1% and female =4%). The use of miswak could be related to SES or may be due to religious aspect.²³ In our study both the groups preferred more use of toothpaste to aid oral hygiene, and this finding was like that reported by Mwakatobe and Mumghamba²⁴ and Nyandindi et al.²⁰ A survey in Karachi and Spain showed that participants in the rural areas were aware of the esthetic aspects of the teeth. In our study majority of the rural group were using miswak (especially boys) or other homemade remedies for cleaning the teeth. The most common tool used for cleaning teeth seen in these studies was tooth brush with tooth paste which was same in our study. In a study done in Karachi¹⁸ it was seen that majority of the students (60%) had good knowledge regarding OH which was same in the urban group of our study. Study in Africa²⁰ showed that the attitudes of the participants were not positive towards taking dental services. The attitude of our participants of rural group showed the ignorance about the dental health services, whereas there was positive attitude of the urban participants but were not practicing these measures regarding OH. In India, the knowledge was more in the female participants as compared to male. This was same in our study where females in both the groups were more aware of the OH care. Different studies⁹ showed that more than 60% students tooth brush once daily was less in general public around 40%, but in our study the tooth brushing timings differ in urban with comparing to rural groups. Studies showed, the global trend of brushing twice a day is much higher than our study population. Regular use of toothbrush and tooth paste was seen in the studies done in China, Denmark, Sweden, and Jordan.²⁶ Awareness should be spread regarding dental floss and its importance. People should visit dentist after every six months for their oral checkup. Furthermore, dental surgeons should devote some of their precious time to establish free dental camps.²⁷ In rural areas it is important to educate parents that would increase their children's knowledge, attitude, and practice that in turn would improve OH. Generally, people living in suburban areas have lower SES; hence, their lifestyle behaviors are less healthy and high-risk due to poor economic resources and inability to choose healthy options which all can affect their OH.²⁸

CONCLUSION

To improve the knowledge of the urban and rural population on oral diseases, prevention using simple self-care procedures through regular OH education is

a challenging. With this aspect we can mold attitudes and practices among the children that facilitate the promotion of oral health and prevention of oral diseases. This is going to improve promotion of health and OH of society at large.

Recommendations

OH, awareness and its general understanding should be generating and there should be more visits to urban and rural schools to educate and motivate regarding the improvement of their OH.

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| 3 Zainab Waheed: | Data Analysis/Interpretation, Critical Revision, Final Approval. |
| 4 Farooq Maqsood: | Data Acquisition. |
| 5 Izhar Khan: | Data Acquisition. |
| 6 Samir Khan Kabir: | Critical Revision, Supervision, Final Approval. |