

ORAL HEALTH-RELATED KNOWLEDGE, ATTITUDE, AND PRACTICE AMONG SCHOOL CHILDREN FROM RURAL AND URBAN AREAS OF DISTRICT SHEIKHUPURA, PAKISTAN

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ABSTRACT

Good oral health is the major aspect of general health but the practitioners in the field of dental surgery have reported it is one of the most ignored part among general community. Good oral health practices started at earlier age lead to healthy gums and teeth later in life. In present research, the knowledge, attitude and practice of oral health among school children were studied. Descriptive statistics and tests of significance (t-test and F-test) show that oral health Knowledge, Attitude and Practice (KAP) among study participants were poor and needed to be improved. Findings of the present study also showed that utilization of dental service was mainly for pain relief. Significant gender differences were found where girls had scored higher in all the three aspects of KAP. Parent education and income level of the family were also found significant factors. Children from high socioeconomic status had scored higher in all the three dimensions of KAP scores. Similarly, children of educated parents had higher scores. But it is important to note that generally the level of score in KAP was less than 50%, which is not a good indication. Comprehensive oral health educational programs for both children and their parents, especially for less educated and lower socioeconomic group families, are required to improve the prevention and control of oral diseases..

Key Words: oral health, knowledge, attitude, school children.

INTRODUCTION

Today, millions of children are needlessly afflicted with dental diseases because they cannot obtain timely preventive, educational or treatment services. The systematic community-oriented oral health promotion programmes are needed to target lifestyles and the needs of children, particularly for those living in rural areas. A prevention-oriented oral health care policy would seem more advantageous than the present curative approach.¹ Literature shows that oral health is affected by urbanization, gender and important aspects of tooth brushing e.g. frequency, time spent on and method of tooth brushing. Several socio-economic and socio-cultural factors such as religious affiliation, material living conditions and participation in a social network were significantly associated with the use of oral health care services.²

It is recommended by World Health Organization that programs focusing awareness of oral health among

school children should be planned for prevention and control of oral diseases. The efficacy of education focusing oral health awareness will be limited if such programs are not directly targeted on attitudes, and take into account factors related to the environment, education, social status and economic level of the targeted population.³

Although many studies had been done to assess the knowledge, attitude and practice (KAP) of oral health but lesser attention had been paid to statistically identify the factors which play a significant role in this regard. The aim of this study was to assess KAP of oral health among the 6th to 10th class/grade students of Lahore division. This study provides baseline information about children's knowledge attitudes and practice about oral health. The results of this study are aimed to design an effective programme which will help to educate the children to care about their oral health in children.

METHODOLOGY

It is a cross sectional study. All the students of 6th to 10th class in schools, who were present on the day of data collection, formed the study group. The study sample of 400 students was selected using stratified random sampling technique.

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Data on oral health KAP was collected by the help of a self-administrated questionnaire which consisted on four sections (Socio-demographic, Knowledge, Attitude and practice of oral health. Questionnaires were completed under the researcher supervision.

The questionnaire was pretested by conducting pilot study among 10% of sample size to assess the students' ability to understand the questions and answer them without any help. Permission was taken before the start of the study from the school Headmaster/ Principals. The scores of knowledge, attitude and practice were obtained by aggregating the items of these constructs respectively. Descriptive measures (mean \pm standard deviation) and statistical tests of significance (t-test and F-test) are calculated and reported in Table 1 and Table 2. All the statistical analysis was performed using SPSS 17.0.

RESULTS

Results in Table 1 showed the responses to various factors related to knowledge, attitude and practice of oral health. These results showed that majority of respondents had poor knowledge of dental and periodontal diseases. Majority of respondents were not aware of the correct method of brushing (i.e. brushing in round instead of vertically or horizontally) and use of tooth paste.

The results in Table 2 showed that, in general, there was very poor level of knowledge, attitude and practice in the population under study. The score was not exceeding 50% of the desired level in all the three aspects with the lowest score in attitude about oral health. Parental education and family monthly income were found statistically significant factors affecting

TABLE 1: DISTRIBUTION OF RESPONSES TO VARIOUS FACTORS OF KNOWLEDGE, ATTITUDE AND PRACTICE OF ORAL/DENTAL HEALTH ON GENDER BASIS

		Male	Female	Total
Oral diseases are as important as other health problems	Agree	102	176	278
	Disagree	22	10	32
	Do not know	73	13	86
Oral problems causes other general diseases (e.g. Stomach, Heart & Respiratory etc)	Agree	132	144	276
	Disagree	54	27	81
	Do not know	14	28	42
Brushing your teeth (times/day)	once	143	78	221
	twice	41	97	138
	more than twice	16	25	41
Time of brushing	After breakfast	69	36	105
	Before Breakfast	105	86	191
	Before Sleeping	21	64	85
	Others	5	14	19
Method of brushing	Left - Right	72	88	160
	Up - Down	22	54	76
	Round	45	57	102
	Don't Know	60	1	61
Fluoride prevents tooth decay	Agree	83	128	211
	Disagree	12	12	24
	Do not know	105	60	165
Have oral/dental problem	Dental Pain	38	27	65
	Loose teeth	16	16	32
	Bleeding Gum	22	22	44
	Cavity form in teeth	22	9	31
	Irregular teeth	5	14	19
	Others	0	4	4
	Don't know	7	14	21
	No	90	94	184

TABLE 2: MEAN + SD OF SCORES OF KNOWLEDGE, ATTITUDE AND PRACTICE OF ORAL HEALTH AND THEIR SIGNIFICANCE TESTING

	n	Knowledge score (Out of 14)	Attitude Score (Out of 8)	Practice Score (Out of 7)
Gender				
Male	200	6.08 ± 2.26	1.63 ± 1.08	4.08 ± 1.30
Female	200	7.57 ± 1.66	2.61 ± 1.26	4.53 ± 1.43
		t = -7.5***	t = -8.3***	t = -3.3***
School				
Government	200	6.99 ± 1.49	1.88 ± 0.98	4.17 ± 1.31
Private	200	6.66 ± 2.58	2.37 ± 1.47	4.43 ± 1.44
		t = 1.6	t = -3.8***	t = -1.9
Region				
Urban	305	6.91 ± 2.16	2.19 ± 1.34	4.47 ± 1.38
Rural	95	6.56 ± 1.93	1.91 ± 0.98	3.78 ± 1.25
		t = 1.4	t = 1.9	t = 4.3***
Father Education				
Illiterate	76	6.47 ± 1.98	1.76 ± 1.01	3.78 ± 1.36
Primary	43	6.51 ± 2.23	1.86 ± 1.13	4.28 ± 1.45
Middle	56	6.36 ± 2.24	1.84 ± 1.09	4.37 ± 1.21
Matric	110	6.65 ± 2.26	2.08 ± 1.21	4.15 ± 1.27
Intermediate	42	7.07 ± 2.08	2.10 ± 1.36	4.31 ± 1.35
Graduate	37	7.86 ± 1.60	2.78 ± 1.51	5.00 ± 1.31
Master	36	7.83 ± 1.34	3.14 ± 1.31	5.06 ± 1.37
		F =4.2***	F =8.1***	F =5.8***
Mother Education				
Illiterate	133	6.35 ± 2.08	1.77 ± 1.13	4.02 ± 1.35
Primary	71	6.69 ± 1.82	1.80 ± 0.94	4.08 ± 1.31
Middle	52	6.65 ± 2.21	1.85 ± 1.02	4.42 ± 1.19
Matric	73	6.95 ± 2.18	2.33 ± 1.39	4.38 ± 1.34
Intermediate	38	7.97 ± 2.09	2.92 ± 1.19	4.61 ± 1.59
Graduate	19	7.53 ± 2.17	3.11 ± 1.79	5.53 ± 1.26
Master	14	8.00 ± 1.52	3.57 ± 0.94	4.71 ± 1.44
		F =4.4***	F =12.4***	F =4.6***
Monthly Income (Rs.)				
< 10,000	161	6.31 ± 1.94	1.73 ± 0.99	3.98 ± 1.36
10,000 – 20,000	70	6.33 ± 2.12	1.93 ± 1.15	4.29 ± 1.23
20,000 – 30,000	44	7.05 ± 1.98	1.89 ± 1.26	4.27 ± 1.17
30,000 –40,000	52	7.63 ± 2.11	2.79 ± 1.50	4.75 ± 1.55
40,000 –50,000	48	7.94 ± 2.04	2.87 ± 1.35	4.62 ± 1.47
> 50,000	25	7.32 ± 2.17	2.84 ± 1.21	2.84 ± 1.20
		F =7.9***	F =13.4***	F =4.78***

*** p-value < 0.001

all the three dimensions i.e. knowledge, attitude and practice of oral health. Interestingly, results showed that female scored higher than male in all the three dimensions of KAP of oral health.

There was significant gender difference in all the three aspects of oral health i.e. knowledge, attitude and practice. It can be noticed that female students scored higher than male students in all the three aspects of oral health. The students both from both government and private schools showed same level of knowledge and practice. Whereas, for the attitude, private school students scored significantly higher than government school students. This difference may be due to the fact that most of private school students belong to high income group. Urban and rural area students have same score in knowledge and attitude but in practice of oral health the students from urban area scored higher than the students from rural areas, for detailed results see Table 2.

Parental educational level was found to be a significant factor. Both father and mother education showed similar pattern of score in knowledge, attitude and practice of oral health. The students of highly educated parents showed higher level of knowledge, attitude and practice of oral health as compared to illiterate or less educated parents. It can be noticed that up to matriculation level of education the score on knowledge, attitude and practice are lower than the level of education of intermediate, graduate and master. Participants whose father had higher level of education showed more score in knowledge and positive attitude and practice towards oral health. The students whose parents had college or university education score more in knowledge, attitude and practice about oral health.

DISCUSSION

Most of the respondents in this study belonged to low socioeconomic status (SES). Monthly income is very important variable in studies conducted in every underdeveloped area where all basic facilities are not available. In lower SES group, the knowledge score on oral health was low as compared to high SES group. Similar pattern had been observed for attitude and practice scores for the SES factor. It had been reported in literature that there is strong association between socioeconomic status and early childhood caries.⁴ Children from low socioeconomic status showed increased early childhood caries. Hence it is suggested that prevention programs at grass root levels should be developed to educate parents especially for the low socioeconomic background.⁵ Moreover, it had been suggested that group of secondary level students would be the appropriate target group to receive the first organized intervention leading towards improving the periodontal health status and reducing prevalence of dental caries through increasing their knowledge, attitude and behavior, then followed by other groups.⁶

Role of parents was found very important in developing healthy habits among the young children. Children of educated parents showed higher level of knowledge, attitude and practice of oral health. Results of the current study showed that parental education

was positively correlated with KAP scores (Knowledge: $r=0.243$; Attitude: $r=0.184$; Practice: $r=0.322$). All these correlations were found statistically highly significant. A diversity of practices, particularly at a crucial stage of life (being transition to permanent dentition and habit formation), school children could substantially benefit from interventions like prevention programs.⁷ A need of health education programs especially for low socioeconomic school children was proposed by Mirza et al in their study.⁸ There is a need for regular oral health education of the children, as well as their parents and school teachers.⁹

CONCLUSION

Results of this study suggest that oral health KAP among study participants were poor and needs to be improved. Findings of the present study also show that utilization of dental service is mainly for pain relief. The results also suggest that simple preventive oral health measures among study participants like brushing twice a day is not a norm. Based upon these findings, systematic community-oriented oral health promotion programs are needed to target lifestyles and the needs of school children. Also, information regarding oral health should be included on wider basis in the school curriculum in an attempt to prevent and control dental diseases. In this background, an oral health promotion program has to involve partnership of school authorities, parents, and dental-care providers such as dental colleges or public health department and funding agencies. Comprehensive oral health educational programs for both children and their parents are required to achieve this goal.

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