PARENTAL KNOWLEDGE OF THE IMPACT OF SCHOOL CHILDREN ORAL HEALTH ON THEIR QUALITY OF LIFE

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ABSTRACT

The influence that oral health has on physical and psychical development of children, especially on their self-esteem, picture that they have about themselves and the level of their socialization, is very well known.

The study aimed to assess the parental attitude regarding the impact of oral care habits of their school-aged children on their Oral health-related quality of life.

The signed information consent form presented the agree of 100 parents to participate in the research and they present the final sample of the study.

The study was conducted using a self-administered questionnaire comprising children's age and gender, parents' educational level, questions related to parent knowledge about oral health of their children, routine dental visits, oral hygiene habits, dietary, and problems which their children may have with their appearance, comfort, and social life due to oral health problems.

Half of the participants claimed that they clean their children's teeth or children brush their teeth alone twice or more times a day, 15 (15%) once a day, whereas 5% of the participants never clean their children's teeth. Study participants reported irregular dental attendance (44%) and most of the parents in this study (81%) thought that their children are satisfied with the appearance of their teeth.

The results of the present study suggested the continuous implementation of oral health programs which will start at an early age and which will mandatory include the parents, as the main caregiver of oral health to their children.

Keywords: OHRQoL, children's oral health, oral health habits

Introduction

Oral health is an important factor in wellbeing and health in general and it has a significant impact on the quality of life. World Health Organization (WHO) defines oral health as "a state of being free from chronic mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing" [1].

Having in mind that the orofacial conditions impact children's quality of life, it is very important to know their oral health status. Oral health status influences the way they enjoy food, chew, how they look and speak and participate in daily activities. Oral health status affects them physically and psychologically. It also affects their self-esteem, self-image, and feelings of social well-being. The most common dental disease present in children is dental caries. WHO indicated that: "Dental caries results when microbial biofilm (plaque) formed on the tooth surface converts the free sugars contained in foods and drinks into acids that dissolve tooth enamel and dentine over time." It is also known that:" Continued high intake of free sugars, inadequate exposure to fluoride and without regular microbial biofilm removable, tooth structures are destroyed, resulting in development of cavities and pain, impacts on oral-health-related quality of life, and, in the advanced stage, tooth loss and systemic infection" [1].

Various studies [2, 3] have shown that poor dental hygiene, especially in primary school children, is a predictor of poor quality of life caused by oral health. Proper oral hygiene and better oral health were based on oral health knowledge and studies have shown the lack of this knowledge in developing countries [4].

Convenient fact is that children can be considered as ideal for early intervention because healthy behavior and lifestyle developed at an early age are more sustainable. Education on oral health and responsible health behavior is the most important factor in the preservation of teeth health. Responsible health behavior is impacted by the level of information about proper nutrition and the attitudes and habits in maintaining oral hygiene [5].

Family plays the most important role in shaping the attitudes of children because the health behavior of parents directly affects the behavior of children. Parents share their knowledge and experience with their children, and therefore, educating parents can influence the health behavior of their children.

Having in mind that the parents are the role model for the children's health behavior and principal decision-makers concerning a child's health [6] it seems reasonable to examine parental attitude on children's Oral Health-Related Quality of Life (OHRQoL) in the city of Sarajevo.

The Aim of the Study

The study aimed to assess the parental attitude regarding the impact of oral care habits of their school-aged children on their Oral Health-Related Quality of Life (OHRQoL).

Materials and Methods

The study was conducted in Primary health care centers (PHCCs) Center and Old Town, City of Sarajevo, after the approval from the Ethical Committee of the Faculty of Dentistry, University in Sarajevo No. 02-3-4-102-2/ 2019. and the approval from the Ethical Committee of Primary Health Care Center Sarajevo Canton No. 01-06-977-3/ 19. during March and April 2019.

Participants in the study were 100 parents who previously signed an information consent form for participation in the research 7.

The study was conducted using a self-administered questionnaire comprising children's age and gender, parents educational level,

questions related to parent knowledge about oral health of their children (3), routine dental visits (2), oral hygiene habits (2), dietary (1), and problems which their children may have with the appearance, comfort, and social life due to teeth problems (1).

Assessment of children's oral health-related practices included questions regarding the use the fluoridated or fluoride-free toothpaste, the dental floss if used and the frequency of brushing. Assessment of children's oral health-related attitude included items on the frequency of visits to a dentist and reasons for visiting and not going to the dental office. Assessment of a children's dietary habits included questions of daily consumption of sugar in different food and beverage. Oral health-related quality of life was assessed by a series of questions like:

- The frequency of unpleasant situations which they may have like difficulties in chewing firm foods and eating/drinking hot/cold foods;
- The frequency of situations when they avoided smiling/laughing and felt irritable/ frustrated and upset,
- The frequency of situation when they were concerned what people think about their teeth/mouth.

The obtained data was compiled and analyzed using Statistical Package for Social Sciences (SPSS Inc., Chicago, IL, version 15.0 for windows). Frequency analysis was done using descriptive statistics.

	6-7 yrs.	8-10 yrs.	11-14 yrs.	Total
Male	8 38,1%	29 67,4%	17 47,2%	54 54,0%
Female	13 61,9%	14 32,6%	19 52,8%	46 46,0%
Total	**21** **100,0%**	**43** **100,0%**	**36** **100,0%**	**100** **100,0%**

Table 1. The distribution of the children by age and gender, by frequencies and percentage

Visits to a dentist during the last year	Number	%
Once	11	11,0
Twice	22	22,0
Three times	20	20,0
Four times	16	16,0
More than four times	26	26,0
I did not visit a dentist for the past 12 monts	3	3,0
I never visited a dentist during the past 12 monts	1	1,0
I do not remember	1	1,0
TOTAL	**100**	**100,0**

Table 2. Visits to dentist by frequences and percentage

What was the reason for your last visit?	Number	%
Pain or teeth issues	12	12,0
Treatment or continuation of treatment	29	29,0
Routine examination of teeth / treatment	56	56,0
I do not know / I do not remember	3	3,0
TOTAL	**100**	**100,0**

Table 3. Attitude towards professional dental care by frequencies and percentage

Results

For the study purpose, a total of 100 parents (mother or father) answered the questionnaire consisted of 11 questions included the questions of their educational level. The distribution of children by age and gender, whose parents were study participants, is illustrated in Table1.

Table 2. and 3. summarized the information about the practice of using professional dental care. For eleven children (11%) parents claimed that they visited a dentist once in the past year, 22 (22%) visited a dentist twice, 20 (20%) visited a dentist three times during the last 12 months and

Child is not satisfied with the appearance of their teeth	Number	%
Yes	14	14,0
No	81	81,0
I do not know	5	5,0
TOTAL	**100**	**100,0**
Your child avoids laughing because of the appearance of their teeth	**Number**	**%**
Yes	11	11,0
No	87	87,0
I do not know	2	2,0
TOTAL	**100**	**100,0**
Other children mock your child' teeth	**Number**	**%**
Yes	8	8,0
No	90	90,0
I do not know	2	2,0
TOTAL	**100**	**100,0**
Toothache or discomfort caused by teeth made your child to miss school classes or a whole day	**Number**	**%**
Yes	7	7,0
No	93	93,0
I do not know	0	0,0
TOTAL	**100**	**100,0**
Child experiences difficulties while consuming solid food	**Number**	**%**
Yes	11	11,0
No	88	88,0
I do not know	1	1,0
TOTAL	**100**	**100,0**
Child experiences difficulties while chewing food	**Number**	**%**
Yes	10	10,0
No	88	88,0
I do not know	2	2,0
TOTAL	**100**	**100,0**

Table 4. Parental knowledge of oral impacts on oral health-related quality of life of their children

only 3 (3%) did not visit a dentist in the past 12 months (Table 2).

Parents of 56 children (56%) said that the routine examination of the teeth was the reason for their last visit to the dentist, treatment or continuation of treatment was cited as a reason by 29 (29%) of the examinees, while parents of only 12 children (12%) stated that their children visited the dentist because they had pain or problem with the teeth (Table 3).

Table 4. reveals the information about the parental knowledge of the impact of school children oral health to their quality of life. Most of the parents (81 %) think that their children are satisfied with the appearance of their teeth. Eleven participants thought that their children avoid laughing because of their teeth and eight of them claimed that their children experienced mocking by other children because of the appearance of their teeth.

Regarding absenteeism from school, seven parents claimed that toothache is one of the reasons why their children did not attend the school for a whole day, 11 parents (11%) reported that their children experience difficulties while eating solid food, while 10 parents (10%) reported that their children had difficulty while chewing (Table 4).

Oral impacts on oral health-related quality of life of children were compared to the parent's level of education in Table 5. Some minor differences in the effect of oral health on everyday activities in children whose parents have secondary education and those whose parents have a college education are visible.

Discussion

Children are always the responsibility of adults, and decisions about their children's health rely on them. That's why is important to assess parents' perceptions regarding the influence of oral health problems and its treatment on their children's quality of life. On the other side, the studies showed

Child is not satisfied with the appearance of their teeth		**Yes**	**No**	**I do not know**	**Total**
PARENTAL LEVEL OF EDUCATION	SECONDARY SCHOOL	7	38	2	47
		7,0%	38,0%	2,0%	47,0%
	COLLEGE EDUCATION	7	43	3	53
		7,0%	43,0%	3,0%	53,0%
TOTAL		14	81	5	100
		14,0%	81,0%	5,0%	100,0%
Your child avoids laughing because of the appearance of their teeth		**Yes**	**No**	**I do not know**	**Total**
PARENTAL LEVEL OF EDUCATION	SECONDARY SCHOOL	6	40	1	47
		6,0%	40,0%	1,0%	47,0%
	COLLEGE EDUCATION	5	47	1	53
		5,0%	47,0%	1,0%	53,0%
TOTAL		11	87	2	100
		11,0%	87,0%	2%	100,0%
Other children mock your child' teeth		**Yes**	**No**	**I do not know**	**Total**
PARENTAL LEVEL OF EDUCATION	SECONDARY SCHOOL	5	40	2	47
		5,0%	40,0%	2,0%	47,0%
	COLLEGE EDUCATION	3	50	0	53
		3,0%	50,0%	0,0%	53,0%
TOTAL		8	90	2	100
		8,0%	90,0%	2%	100,0%
Toothache or discomfort caused by teeth made your child to miss school classes or a whole day		**Yes**	**No**	**I do not know**	**Total**
PARENTAL LEVEL OF EDUCATION	SECONDARY SCHOOL	3	44	0	47
		3,0%	44,0%	0,0%	47,0%
	COLLEGE EDUCATION	4	49	0	53
		4,0%	49,0%	0,0%	53,0%
TOTAL		7	93	0	100
		7,0%	93,0%	0%	100,0%
Child experiences difficulties while consuming solid food		**Yes**	**No**	**I do not know**	**Total**
PARENTAL LEVEL OF EDUCATION	SECONDARY SCHOOL	5	41	1	47
		5,0%	41,0%	1,0%	47,0%
	COLLEGE EDUCATION	6	47	0	53
		6,0%	47,0%	0,0%	53,0%
TOTAL		11	88	1	100
		11,0%	88,0%	1%	100,0%
Child experiences difficulties while chewing food		**Yes**	**No**	**I do not know**	**Total**
PARENTAL LEVEL OF EDUCATION	SECONDARY SCHOOL	3	42	2	47
		3,0%	42,0%	2,0%	47,0%
	COLLEGE EDUCATION	7	46	0	53
		7,0%	46,0%	0,0%	53,0%
TOTAL		10	88	2	100
		10,0%	88,0%	2%	100,0%

Table 5. Frequencies and percentage distribution of parental answers regarding the knowledge of quality of life.

that children at the age of eight are able to understand and explain all aspects of their health experiences and can respond to a five-point response format. Children aged 6-7 understood the basic task of the questionnaires and were able to explain their health experiences but they had difficulties with understanding some health-related terms and tended to use extreme responses (8). Having in mind all those facts, the participants in this study were the parents of primary school children aged 6 to 14.

Only half of the participants in this study claimed that they clean their children's teeth or children brush their teeth alone twice or more times a day, 15 (15%) once a day, whereas 5% of the participants never clean their children's teeth. In order to improve plaque control, most of dentists recommended tooth brushing twice a day [9] but the frequency of subjects brushing teeth twice daily shows a wide variation between the countries and can be attributed to their different economic and social conditions [10]. Studies suggested that tooth brushing typically occurs within family-based traditions with the persistence of the practice throughout life [11]. Tooth brushing habits and adequate oral hygiene in parents can affect the quality and appropriateness of tooth brushing in children. So, regular tooth brushing habits and sound dentition in children are associated with their parents' positive oral health-related attitudes.

Studies in Netherlands and Australia show the influence of parents on the development of oral hygiene habits their offspring by transferring knowledge and by supervising children's health behavior [12,13].

So, a family-based approach, suggested by Wainwright J and Sheiham A. with the focus on active parent involvement, targeting multiple family members, can have better results in dental caries prevention, than the preventive measures with the focus on the child alone [14].

Results of the study "Parental knowledge of the impact of school children oral health on their quality of life" reported irregular dental attendance (44%) and this finding is consistent with findings of similar studies [15, 16].

Most of the parents in this study (81%) thought that their children are satisfied with the appearance of their teeth. Although the studies indicate that it is both acceptable and accurate to have a parental report when evaluating child's quality of life, there is a possibility for inaccuracy when relying on the parents to report only in comparison to survey the very child directly. Distinction between parental and child responses to the questionnaire may reflect real differences in perspectives [17,18].

Some studies suggested that the agreement level for questions for which the child and the parents have different information (e.g. peer interactions), as well as the items for which the possible answers are more abstract (e.g. emotions) support the hypothesis that parents' knowledge of their children is limited [19,6].

This study used the level of parental education as a measure of childhood socio-economic background. The study results demonstrated that there is no significant difference between the educational level of the parents and their knowledge of the impact of the oral health of their children on their quality of life. These results can be interpreted by the fact that the study group didn't have parents with primary school only or parents without education, groups which traditionally represent the lowest social class. Similar studies conducted in the world demonstrated the relationship between the socioeconomic situation and OHRQoL, in the way that the parents with low socioeconomic status had poor oral health with the more impact on OHRQoL, as compared to parents who had high socioeconomic status [20].

Even in Sweden, the country where the majority of young people have good oral health, children in socioeconomically weak groups have worse oral health than other children [21,22].

Most of the researches on oral health focused on the associations between a low socioeconomic

status during childhood and its consequences on oral health during adulthood. From the perspective of dental prevention, it is evident that early childhood is a sensitive period with an influence on lifelong oral health status. While the research suggests that the socio-economic conditions under which children grow up have a great impact on the presence of oral diseases in adult, there is some evidence that these influences can be changed thus this area of research demands further investigation.

Conclusion

It is well known that health behavior can be influenced by a large number of factors like knowledge, beliefs, attitudes, skills, finance and time. The influence of family members, friends, co-workers, opinion leaders, and even health workers themselves on oral health behavior is also evident. School-age is the right time when the behavior can still be modified. A parent positive attitude and the correct practice are essential to bringing about a change in the oral health behavior of the school children. The present study stresses the need for continuous implementation of school oral health programs which will mandatory include the parents, as the main caregiver of oral health to their children during the preschool and early school phase of their life.

DECLARATION OF INTEREST

There is not any conflict of interest for all authors, between the authors, or for any organization.

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