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Research Article

**ANALYSIS OF ORAL HYGIENE EDUCATION AND ITS  
EFFECT IN OBESE CHILDREN: A CROSS SECTIONAL  
ANALYSIS**Hafiza Ayesha Qudsia<sup>1</sup>, Aqsa Pervaiz<sup>2</sup>, Hira Dastgir<sup>3</sup><sup>1</sup>District Headquarter Hospital, Narowal, <sup>2</sup>Allama Iqbal Memorial Teaching Hospital, Sialkot,<sup>3</sup>District Headquarter Hospital, Gujranwala.**Article Received:** October 2019    **Accepted:** November 2019    **Published:** December 2019**Abstract:**

**Objectives of the study:** The basic aim of the study is to analyze the Oral hygiene education in obese children of local population of Pakistan.

**Methodology of the study:** This cross sectional study was conducted at Allama Iqbal Memorial Teaching Hospital, Sialkot during January 2019 to August 2019. A total of 100 (male 60 and female 40) obese children were selected for this study.

**Results:** Knowledge of the participants regarding the oral health is described. Females scored more favorably in knowledge and behaviors concerning dental health particularly a significant difference ( $P < 0.05$ ) in brushing habit was observed between the two genders. The Interdentally cleaning habit was observed only in 03% cases.

**Conclusion:** It is concluded that obese children have ore bad habits of eating and due to this reason they suffer more from oral health problems as compared to those who eat properly and clean their teeth's in a proper manner.

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**INTRODUCTION:**

A good oral health is the state of mouth free of any disease affecting the oral cavity and its surrounding structures. Oral health has remained as an integral part of an individual's general health and overall well-being. Maintaining good oral hygiene is one of the most important things for healthy teeth and gums. Good oral health not only enables a person to look and feel good, it is equally important in maintaining oral functions [1].

Overweight and obesity have become public health problems in both developed and developing countries. The rapid increase in bodyweight in both settings indicates that the trend is largely due to social, environmental and behavioural changes, rather than hereditary changes [2]. Globalization, increasing urbanization, changes in traditional family structures and lifestyles, and a more mechanized workplace directly or indirectly affect dietary and physical activity patterns. Excess body weight, along with hypertension, cigarette smoking and hypercholesterolaemia, is an important risk factor for cardiovascular disease (CVD), and is also associated with a higher prevalence of hyperlipidaemia, diabetes mellitus, hypertension and several cancers [3].

Obesity is a major WHO concern now and WHO has updated recommendations for action to governments, international agencies and concerned partners in the public and private sectors [4]. Dental caries has a wide spectrum of risk factors ranging from child's gender, increasing age, lack of fluoride exposure, oral health behaviours, unhealthy dietary lifestyle such as use of sugar-sweetened beverages, low socio-economic status (SES), and maternal oral health [5]. Dental caries is an important public health issue since its lack of treatment leads to pain, repeated prescription of antibiotics, tooth loss, malnutrition, poor childhood development, low self-esteem, and missed school days. Hence, it compromises a child's overall quality of life. Also, it has been acknowledged that decay in primary teeth is a strong risk factor of dental caries in the permanent teeth [6].

**Objectives of the study:**

The basic aim of the study is to analyze the Oral hygiene education in obese children in local population of Pakistan.

**METHODOLOGY OF THE STUDY:**

This cross sectional study was conducted at Allama Iqbal Memorial Teaching Hospital, Sialkot during January 2019 to August 2019.

**Data collection:**

A total of 100 (male 60 and female 40) obese children were selected for this study. All children falling between age limit 10 to 18 years and permanent residents of the area were included. This study was conducted by the ethical approval committee of hospital. Parents of the participants were explained the objectives of the study and assured of the confidentiality. A written consent was taken from all of them. The designed questionnaire contained questions that were closed-ended and some were multiple-choice items with alternative statements. The questions asked were about demographic characteristics like age, sex, class, family income and habits like cigarette smoking and chewing tobacco. Obesity history were also asked to the children's.

**Statistical Analysis:**

The data was entered through a trained computer operator and imported into statistical package for social sciences (SPSS) version 17 for statistical analysis. Frequency distribution tables were produced with percentages.

**RESULTS:**

Knowledge of the participants regarding the oral health is described in table-1. Females scored more favorably in knowledge and behaviors concerning dental health particularly a significant difference ( $P < 0.05$ ) in brushing habit was observed between the two genders. The Interdentally cleaning habit was observed only in 03% cases. Girls were observed to consume more sweets, snacks and soft drink as compared to boys. Daily eating habits of children's were also included in the table (table 1).

Significantly more girls reported brushing their teeth. The habit of daily brushing was more prevalent in the young age group when compared to students of age 15–18 years but the difference was not significant statistically (table 2).

**Table 1:** Oral health knowledge of the respondents

Knowledge	Frequency (%)
<b>Daily brushing frequency in obese children</b>	
Yes	45.76
No	19.56
Do not know	33.56
<b>High content of sugar in the diet</b>	
Yes	60.76
No	7.0
Don't Know	32.25
<b>Daily eating habits effect on oral health</b>	
Yes	33.45
No	16.78
Do not know	2.21
<b>Oral problems</b>	
Consult a physician	21.5
Consult a dentist	34.5
Consult a Hakim	5.5
Not care	34.56
<b>Obesity issues</b>	
Yes	78.98
No	21.02

**Table 2:** Relationship between demographic variables and oral health knowledge

Socio demographic variables	Frequency (%)	Brushing daily ( <i>n</i> = 191) (%)	<i>P</i> value*
<b>Gender</b>			
Boy	176(61.3)	101(57.4)	0.001
Girl	111(38.7)	90(81.1)	
<b>Age</b>			
10-14	105(36.6)	71(67.6)	0.771
15-18	182(63.4)	120(65.9)	
<b>Obesity</b>			
Less than normal value	183(63.8)	116(63.4)	0.132
Greater than normal value	104(36.2)	75(72.1)	
<b>Using tooth brush</b>			
Yes	251(87.5)	187(74.5)	<0.001
No	36(12.5)	4(11.1)	

**DISCUSSION:**

This study aims to provide the oral health knowledge in obese children's because obesity is the common issue in Pakistan. The main factor which contribute towards obesity is our local environment and eating habits. In literature, knowledge and awareness about oral health is reported to be very low and marked differences in oral hygiene habits, depending on age and educational levels were observed. Studies conducted in Spain and Kuwait showed an association between increased knowledge and better oral health [7]. Good oral health practice can be accomplished mainly through self-induced habits like maintenance of dental hygiene, restriction of diet especially reduced sugar intake, use of fluoridated products and also with

the help of available dental services, which includes, regular dental checkup, utilization of primary and preventive care and dental health education [8]. It is important to prevent dental problems before they start. The easiest way is to practice daily brushing and flossing that in turn will reduce the dental diseases. In our study the prevalence of daily brushing is reported as 66.5%. A figure which is similar to that reported in a Saudi study conducted in 2003 and found that 65% of students were doing brushing at least once [9]. The same study reported that private school students had a better dental hygiene practice and that age was inversely related to oral health practices. While in our study, we found that both age and type of schooling

were not significantly related to the habit of tooth brushing [10].

#### CONCLUSION:

It is concluded that obese children have ore bad habits of eating and due to this reason they suffer more from oral health problems as compared to those who eat properly and clean their teeth's in a proper manner.

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