

## ORIGINAL ARTICLE

## SELF EVALUATION OF DENTAL APPEARANCE SATISFACTION AMONG CHILDREN AGED 13–17 YEARS ATTENDING GOVERNMENT SCHOOLS IN PESHAWAR

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**Background:** Dental appearance satisfaction is important among teenagers because decision concerning the personal characteristics of individuals is influenced by their dental appearance in the absence of other information. Objective of this study was to determine the self-evaluated dental appearance satisfaction among young adolescence. **Methods:** This questionnaire based descriptive cross-sectional study was conducted from October 2019 to January 2020 in 13–17 years old government high school going children in District Peshawar. Children with history of jaw trauma, and those receiving or had received orthodontic treatment were excluded. Data was analysed using SPSS-22. Mean±SD, frequencies, and percentages were calculated. Chi-square and *t*-tests were applied as per requirement of data, and  $p \leq 0.05$  was considered as significant. **Results:** A total of 850 subjects, 600 (70%) males and 250 (30%) females were included in the study. Mean age of the participants was  $15 \pm 1.37$  years. Total 600 (70.5%) students had good psychological well-being regarding their dental appearance, 177 (20.8%) had satisfactory, and 73 (8.6%) had poor psychological well-being regarding their dental appearance. **Conclusion:** More than half of the subjects expressed pleasure with their dental appearance and male students were more satisfied than female students.

**Keywords:** Dental appearance satisfaction, Self-evaluation, Oral subjective Impact Scale (OASIS)

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### INTRODUCTION

The dental appearance plays dynamic part in the self-confidence and psychosocial aspect of a child. It also facilitates social respect, integration and acceptance in a society as it is a substantial contributor of the facial and physical appearance of an individual.<sup>1</sup> Self-perception of the dentofacial region has been recognized, as a noteworthy analyst for the universal, ability and affect, academic and physical fields of self-concept.<sup>2</sup> Several studies reported that individuals with fewer dental anomalies are judged to be more socially competent, show greater intellectual achievement and have better psychological adjustment.<sup>3–5</sup>

Facial attraction especially aesthetic appearance plays a vital role in social interaction. It affects mating success, personality assessments, performance, and employment prospects.<sup>4</sup> Facial attraction and smile attraction appear strongly connected to each other. The fact is that in social interaction, one's attention is mainly directed toward the mouth and eyes of the speaker's face.<sup>3</sup> Perception of dental appearance which is disturbed by individual's perception, culture and environment, is an important factor of dental treatment seeking behaviour among individuals.<sup>5</sup> It therefore means that the care and improvement of satisfaction with dental appearance is one of the essentials of dental care.<sup>6</sup>

The pleasure with dental appearance is influenced by gingival architecture, tooth colour, shape, size and occlusal wise arrangement. Dental treatments are commonly carried out during teenage years, when the permanent dentition is appearing.<sup>6</sup> At this particular age, the individual started to feel that his/her appearance is of great importance and that he/she has learned the right to wish or decline treatment independently.<sup>7</sup> Dental appearance gratification is significant among teenagers because judgment regarding the personal characteristics of individuals is influenced by their dental appearance in the lack of other information.<sup>8</sup>

The objective of this study was to determine the self-evaluated dental appearance satisfaction among young adolescence.

### SUBJECTS AND METHODS

A questionnaire based descriptive cross-sectional study was conducted from October 2019 to January 2020 among 13–17 years old school going adolescence in the Peshawar district. The study population consisted of students attending government high schools in the Peshawar education division. Adolescence with history of jaw trauma or who were receiving orthodontic treatment and those who have received orthodontic treatment were excluded from the study.

Ethical approval for the study was taken from the Institutional Review Board (IRB), Peshawar

Medical and Dental College, Peshawar. Official permission was obtained from both male and female District Education Officers in District Peshawar.

Data of government high schools was obtained from DEO office through proper channel. Random cluster sampling technique with probability proportionate to size was used to select the sample. The design effect was considered, using cluster sampling technique, and a sample size of 850 was obtained.

Seventy percent participants were chosen from boys' schools and 30% were taken from girls' school according to number of schools in District Peshawar. The sample size of 595 boys and 255 girls was rounded to 600 boys and 250 girls to be included in the study. A written consent was obtained from parents/guardian of all students who fulfilled the eligibility criteria.

The Oral Aesthetic Subjective Impact Scale (OASIS) is a new self-evaluation tool which has been used to measure perceptive treatment need. It is a consumer-based measure, based on a child's perceived socio-psychological impact of their dental appearance. This scale measures the childhood influence of external impacts by asking queries about their sensitivities of others and themselves, as well as about their previous behaviour related to the appearance of their teeth.<sup>9</sup> The Oral Aesthetic Subjective Impact Scale (OASIS) is composed of five questions addressing concerns and self-perception of dental appearance, and how dental irregularities negatively affect individual's life and the social relationship. Each question is scored on a 1 to 5 Likert scale. Five questions were asked from each student and according to their answers scoring was compiled. Total score was a sum of all five items, ranging between 5 and 25. A score of 16 or above indicated severely psychologically affected patient. Score between 5 and 10 was considered as good, 11–15 as satisfactory and 16–25 as poor psychological well-being respectively. The data was entered and analysed using SPSS-22.

## RESULTS

Among the 850 subjects, 70.5% (600) were males and 29.5% (250) were females. Mean age was 15±1.37 years; 151 (17.8%) were 13 years, 196 (23.1%) were 14 years, 155 (18.2%) were 15 years, 194 (22.8%) were 16 years, and 154 (18.1%) were 17 years old. (Table-1).

As a total 600 (70.5%) students had good psychological well-being regarding their dental appearance whereas 177 (20.9%) had satisfactory and 73 (8.6%) had poor psychological well-being regarding their dental appearance respectively of sample size (Table-2).

A total of 435 (72.5%) male students had good psychological well-being regarding their dental

appearance while 116 (19.3%) and 49 (8.2%) male students had satisfactory and poor psychological well-being respectively. On the other hand, 165 (66%) female students had good psychological well-being regarding their dental appearance while 61 (24.4%) and 24 (9.6%) female students had satisfactory and poor psychological well-being respectively. Males were more satisfied (435/600, 72.5%) with their dental appearance than females (165/250, 66%). Female students were more worried about their dental appearance than male students; 24/250 (9.6%) female students thought that they have poor dental appearance whereas 49/600 (8.17%) male students were not entirely satisfied by their dental appearance. Highly significant ( $p<0.01$ ) differences were identified when Chi-square test was applied to compare psychological well-being in both genders.

**Table-1: Age gender distribution [n (%)]**

Age	Male	Female	Total
13	103 (17.2)	48 (19.2)	151 (17.8)
14	141 (23.5)	55 (22)	196 (23)
15	114 (19)	41 (16.4)	155 (18.2)
16	135 (22.5)	59 (23.6)	194 (22.8)
17	107 (17.8)	47 (18.8)	154 (18.1)
Total	600 (100)	250 (100)	850 (100)

**Table-2: Distribution of Oral Aesthetic Subjective Impact Scale (OASIS)**

OASIS Categories	Frequency	Percentage
Good	600	70.5
Satisfactory	177	20.9
Poor	73	8.6
Total	850	100.0

**Table-3: Gender-wise distribution of OASIS in participants [n (%)]**

Gender	Good	Satisfactory	Poor	Total	<i>p</i>
Male	435 (72.5)	116 (19.33)	49 (8.17)	600	<0.01*
Female	165 (66)	61 (24.4)	24 (9.6)	250	
Total	600 (70.5)	177 (20.9)	73 (8.6)	850	

\*Significant

## DISCUSSION

Self-evaluated dental appearance is progressively getting attention because of its implication in dental care and patient-oriented healthcare delivery-favoured development.<sup>10</sup> In this study, more than half (70.5%) of the subjects expressed Good response with their dental appearance, similar to Ajayi<sup>11</sup> finding in Benin City, Nigeria among 12-year-old, Meng *et al*<sup>12</sup> findings among diverse sample of dentate adults in Florida, Alkhatib *et al*<sup>13</sup> observation among age group of 16–34 years in United Kingdom, and Hamamci *et al*<sup>14</sup> report from Turkish University students. This was lower than 89.0% reported among 18–19 years old individuals in Finland who expressed varied degrees of satisfaction with their dental appearance<sup>15</sup>, and comparable to Azodo *et al*<sup>8</sup> who reported 79.4% approval among 15–37 years old people in Nigeria.

Findings of this study were higher than the findings among dental patients in Israel (62.7%)<sup>16</sup> with sample size of 407 adults aged above 21 years, Turkey<sup>17</sup> (57.3%) with sample size of 1,014 adults aged 16 to 70 years, and Malaysia<sup>18</sup> (47.2%) with sample size of 235 adults aged 18–62 years. The ages in these studies were 16–70 years. The more the age, the more the people adopt with their facial looks and are less concerned with their looks.

## CONCLUSION

More than half of the subjects expressed pleasure with their dental appearance. Male students were better satisfied than the female students which is obviously due to the nature of women and the pressure and misconception of our society that only those will have a groom/bride who have beautiful looks!

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## Contribution of Authors:

**AK:** Conception of idea, data collection, analysis

**NK:** Data analysis, proof reading

**MSK:** Drafting, intellectual content review

**HA:** Data collection and analysis

**MZ:** Final proof reading

**SA:** Data collection, drafting

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