

Impact of Malocclusion on Oral Health Related Quality of Life in Young People

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ABSTRACT

Objective: To evaluate the self-assessment dental look pleasure among youngsters.

Study Design: Questionnaire based descriptive cross-sectional study.

Place and Duration of Study: This study was conducted at the Department of Orthodontics at Bacha Khan College of Dentistry Mardan from 15th July 2021 to 18th October 2021.

Materials and Methods: This study was conducted on patients in aged 15 to 25 years who wants orthodontic treatment. Data was analyzed using SPSS-22. Mean \pm SD, frequencies, and percentages were calculated. Chi-square and t-tests were applied as per necessity of data, and $p \leq 0.05$ was measured as significant.

Results: A total 217 (72.3%) sample size had good psychological well-being regarding their dental aesthetic appearance whereas 60 (20%) had satisfactory and 23 (7.7%) had poor psychological well-being regarding their dental appearance respectively.

Conclusion: More than half of the total sample voiced desire with their dental aesthetic. Male patients were more pleased as compared to female patients, which is obviously due to the nature, thinking and misconception of our society that only those will have groom/bride who have beautiful looks.

Key Words: Dental appearance satisfaction, Oral subjective Impact Scale (OASIS), Self-assessment, Oral Health-Related Quality of Life (OHRQoL)

Citation of article: Ahmed SN, Khan A, Zaman R, Farid Ullah, Naeem M, Falak N. Impact of Malocclusion on Oral Health Related Quality of Life in Young People. Med Forum 2021;32(11):189-192.

INTRODUCTION

The conception of Oral Health-Related Quality of Life (OHRQoL) parallels to the effect of dental condition or disease of a person's daily comfort, working or overall quality of life (QoL).¹ The concept of OHRQoL practices patient focused consequence events to recognize the effect of oral health on features of everyday life in terms of a person's efficient, social, and emotional well-being.² Factors influencing dental health, counting malocclusion, are vastly dominant, and have significances not only for economic and physical comfort, but can also affect QoL by disturbing appearance, interpersonal relationships, function, self-confidence, socializing and psychological well-being.³ Studies on social, physical and psychological effect of malocclusion on OHRQoL explain the impacts of malocclusion on commons and offers a better indulgent

of the claim for orthodontic management outside the dimension of scientific limitations. Furthermore, since psychological and social impacts are usually the main reasons for pursuing orthodontic treatment, OHRQoL can be measured the best dimension for orthodontic management requirement and consequence.³ Such study may be of great value to health planners, oral health care providers and researchers.⁴ Malocclusion varies from the common dental circumstances in that it is "a set of dental deviations" somewhat than a illness, and orthodontic treatment does not remedy a disorder but somewhat modifies disparities from an uninformed model.⁵ Malocclusion can be alleged otherwise by the person pretentious, and a person's point of knowledge about their malocclusion might not be associated to its condition of sternness.⁴

Hence, once assessing the effect of a malocclusion, it is vital to reflect the unlike fields that may be overdone and their associations to the intensity of malocclusion. Few folks with a Spartan malocclusion are pleased with or are having no problems regarding to their dental esthetics, while others may be anxious regarding slight anomalies in their occlusion.³ Essential valuation for orthodontic management is conventionally evaluated by means of tools such as the Oral Aesthetic Subjective Impact Scale (OASIS).^{3, 6} Preceding investigations finding the association between malocclusions and OHRQoL, as well as the influence of orthodontic treatment on OHRQoL has been vague. Few

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Received: October, 2021

Accepted: November, 2021

Printed: November, 2021

researchers found a robust association among orthodontic treatment need or malocclusion and OHRQoL⁷⁻⁹, but others stated no strong association.^{4, 10, 11}

This current study was carried out to evaluate OHRQoL in youngsters aged 15 to 25 years who wants orthodontic treatment visiting Bacha Khan College of Dentistry, Mardan and to measure the association between orthodontic treatment need, gender, age and education level, and OHRQoL.

MATERIALS AND METHODS

A questionnaire based descriptive cross-sectional study was conducted among 300 young adults aged 15 to 25 years; appearing at department of orthodontic. Participants completed the OASIS questionnaire. Ethical approval for the study was taken from the Institutional Review Board of Bacha Khan College of Dentistry, Mardan.

Exclusion Criteria: Students with history of jaw trauma or those who are receiving orthodontic treatment and those who have received orthodontic treatment were excluded from the study.

Questionnaire and Data Analysis: The Oral Aesthetic Subjective Impact Scale (OASIS)¹² is a new self-assessment tool which has been used to amount the observant orthodontic treatment requirement. It is a consumer grounded scale, built on a socio-psychological effect of dental appearance. This scale measures the influence of exterior impacts by asking queries about their sensitivities of others and themselves, as well as about their former behavior associated to the presence of their dental aesthetic.¹² The OASIS is composed of five inquiries addressing worries and self-assessment of dental aesthetic look, and how dental anomalies harmfully distress person's life and the social relationship. Each asked 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 consider as good, 11–15 as satisfactory and 16–25 as poor psychological well-being respectively. The data was entered and analyzed using SPSS-22. Chi-square test was applied to compare psychological well-being in both genders.

RESULTS

Among the 300 subjects, 92 (30.7) were males and 208 (69.3) were females. Mean age was 21 ± 1.45 years; 41 (13.7%) were 15 years, 32 (10.7%) were 16 years, 91 (30.3%) were 17 years, 24 (8%) were 18 years, 12 (4%) were 19 years, 17 (5.7%) were 20 years, 11 (3.7%) were 21 years, 19 (6.3%) were 22 years, 23 (7.6) were 23 years, 21 (7%) were 24 years and 9 (3%) were 25 years old respectively (Table 1).

Table No.1: Age and gender distribution [n (%)]

Mean+SD 21+1.30				
Age	Male	Female	Total	
15	7 (7.6)	34 (16.34)	41 (13.7)	
16	10 (10.9)	22 (10.57)	32 (10.7)	
17	12 (13.04)	79 (37.98)	91 (30.3)	
18	9 (9.7)	15 (7.21)	24 (8)	
19	11 (11.9)	1 (0.48)	12 (4)	
20	8 (8.7)	11 (5.3)	17 (5.7)	
21	8 (8.7)	3 (1.44)	11 (3.7)	
22	6 (6.5)	13 (6.25)	19 (6.3)	
23	9 (9.7)	14 (6.73)	23 (7.6)	
24	10 (10.9)	11 (5.3)	21 (7)	
25	2 (2.17)	7 (3.36)	9(3)	
Total	92 (100)	208 (100)	300 (100)	

A total 217 (72.3%) sample size opted good psychological well-being concerning their dental aesthetic look whereas 60 (20%) had satisfactory and 23(7.7%) had poor psychological well-being concerning their dental look respectively (Table 2).

Table No.2: Distribution of OASIS

OASIS Categories	Frequency	Percent
Good	217	72.30
Satisfactory	60	20.00
Poor	23	7.70
Total	300	100.0

A total of 145 (69.71%) sample size had good psychological well-being concerning their dental look and thought that they don't need orthodontic treatment while 51 (24.51%) and 12 (5.77%) sample size had satisfactory and poor psychological well-being, they wanted to have orthodontic treatment. Whereas, 72 (78.27%) male students had good psychological well-being concerning their dental look thought that they don't need orthodontic treatment while 9 (9.8%) and 11 (11.95%) male students had satisfactory and poor psychological well-being concerning their dental look, they wanted to have orthodontic treatment (Table 3).

Table No.3: Gender-wise distribution of Oral Aesthetic Subjective Impact Scale (OASIS) in participants

Gender	OASIS Categories			Total N (%)	P value
	Good N (%)	Satisfactory N (%)	Poor N (%)		
Female	145 (69.71)	51 (24.51)	12 (5.77)	208 (100)	<0.01
Male	72 (78.27)	9 (9.8)	11 (11.95)	92 (100)	
Total	217 (72.3)	60 (20)	23 (7.70)	300 (100)	

DISCUSSION

Self-evaluated dental appearance is gradually receiving consideration since of its suggestion in dental care and patient-oriented healthcare delivery preferred growth.¹³ The OASIS is based on a Likert scale which is believed to place limited cognitive stresses on the respondent.¹⁴ Though primarily established for use in children, has been used in a number of adult studies.¹⁵ Self-assessment dental aesthetic presence is gradually receiving care because of its inference in dental care and patient-oriented healthcare distribution preferred growth.¹⁶

In the current study more than half (72.3%) of the students stated Good response concerning their dental aesthetics, similar to the study piloted by Naveh GR et al¹⁷ among dental patients in Israel (62.7%) with sample size of 407 adults aged above 21 years, Akarslan et al¹⁸ reported from Turkey (57.3%) and Tin et al¹⁹ observation among Malaysian adults (47.2%). Findings of the current study were higher than by Meng et al²⁰ findings among varied sample of adults in Florida, Alkhatib et al²¹ observation among age group of 16–34 years in United Kingdom, and Hamamci et al²³ report from Turkish University students.

Interestingly male patients were little more concern about their dental appearance against the study conducted by Khan et al²² conducted on students of government high schools children aged 13–17. It may be due to the aged difference as at low age looks doesn't matter the most for adolescents, and they are mostly busy in their own world.

CONCLUSION

More than half of the total sample voiced desire with their dental aesthetic. Male patients were more pleased as compared to female patients, which is obviously due to the nature, thinking and misconception of our society that only those will have groom/bride who have beautiful looks. The result suggest for a well-trained psychiatrist should be hired in every school/colleges to have a lecture with young generation and should be encourage to speak about their thinking and deficiencies they feel in themselves.

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Conflict of Interest: The study has no conflict of interest to declare by any author.

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