

Research Article

Self-esteem, Adolescents and Malocclusions

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Abstract

Background: A person's physical attractiveness of a person is one of the first traces of information that can be obtained from the individual. Objective: To determine the characteristics that express self-esteem in adolescents between 15 and 17 years of age who attend the Orthodontics consultation of the Marta Abreu Teaching Polyclinic with malocclusions. Methodological Design: A descriptive, observational study was carried out in the Department of Stomatology, in the period from March 2023 to March 2024. The sample consisted of 30 adolescents selected through non-probabilistic sampling, the techniques and instruments for collecting information were the Medical History, Coppersmith Questionnaire, Psychosocial Impact of Dental Aesthetics Questionnaire and semi-structured interview, the results were processed in the SPSS version 15.0 program. Results: As results, it is described that in relation to self-esteem and the distribution of the categories, the medium level is the most frequent, the female sex is the one with the highest incidence, young people experienced a negative impact on their personal image that influences the development of self-perception. Conclusions: Malocclusions affect the self-esteem of adolescents.

Keywords

Adolescents, Self-esteem, Aesthetics, Impact, Malocclusions

1. Introduction

Heto Physical attractiveness of a person is one of the first traces of information that EU can be obtained from the individual, even before any interaction begins. Since 1974, it has been demonstrated that physical attractiveness does affect the reactions of others and consequently, towards the individual, especially when we refer first impressions of peers and heterosexual attraction.[1].

During adolescence and early adulthood, physical attractiveness is an important and especially transcendent personal

characteristic. Dion and Berscheid (1974) suggested that a person's physical appearance can have developmental connotations for peers long before adolescence, perhaps as early as the period when social interaction begins [2].

While all the features that comprise it can contribute equally, it has been shown that dental appearance is a very important factor in social interactions. Studies show that the different facial components present the following hierarchy: mouth, eyes, facial structure, hair, nose. [2] It is therefore

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evident that dentofacial appearance plays a fundamental role and its alterations lead to discomfort for those who suffer from it.

Dentomaxillofacial abnormalities are associated with the bony portion of the jawbone, such as the arrangement of the teeth. These abnormalities are very prevalent in the mouth, impairing the patient's aesthetics, as they clearly denote the discrepancy between the bone and the jawbone. The etiology is diverse and has several originating factors, among them are inadequate nutrition, parental genetics, inadequate oral habits. These factors are the same ones that cause the alterations if they are present beyond three years and therefore it is the most common cause, as well as the edisease in general. [3].

People who suffer from dentomaxillary alterations are affected in the development of self-esteem and body image, since they are often objects of ridicule and affect their social development, whether in the family, group of friends, school. [4] The perception that an individual has about themselves, which in turn includes respect and self-acceptance, independent of the approval of the environment in which they surround themselves. [5] Self-image is the belief and perceptions that people have about their own body, according to their emotions based on the changes and development that their body has over time.

Therefore, the psychological significance of the mouth and face, discussed in various articles, express how these two areas can be targets of psychological manifestations and alterations. Dentomaxillofacial abnormalities can make some people shy, withdrawn, and fearful; they can cause social discomfort, create inferiority complexes, and negative attitudes that alter their performance in life. Therefore, we set ourselves the following objectives:

To determine the characteristics expressed by self-esteem in adolescents between 15 and 17 years of age who attend the Orthodontic consultation at the Marta Abreu Teaching Polyclinic with malocclusions.

2. Methodological Design

A descriptive, observational study was carried out, in which specific data collection methods can be used, including a Questionnaire and an Interview, which provide information. The research was carried out at the Marta Abreu Teaching Polyclinic from March 2023 to March 2024.

2.1. Population and Sample

The population consisted of 65 adolescents between 15 and 17 years of age who attended the Orthodontic clinic at the Marta Abreu Teaching Polyclinic, from March 2023 to March 2024.

A purposive sample was selected at the author's discretion, which included 30 adolescents who met the following selection criteria.

2.2. Inclusion Criteria

- Adolescents whose parents gave informed consent to participate in the research.

- Patients with malocclusions, with less than six months of treatment.

Exclusion Criteria

- Adolescents with congenital diseases that affect the Stomatognathic System.

- Adolescents who have previously received psychological treatment.

Exit Criteria

- Adolescents who abandoned orthodontic treatment during the research period.

The research was carried out in three stages:

At the first moment, patients were informed that they had been selected to participate in the research because they met the inclusion criteria. Informed consent was requested from their guardians and they were administered the Coppersmith Questionnaire. This questionnaire was developed by Coppersmith based on studies conducted in the area of self-esteem. It aims to determine the level of self-esteem of individuals and is composed of 25 propositions (items) to which the subject must respond affirmatively or negatively.

A point is awarded for items that are worded positively and to which the subject answers affirmatively. These items are: 1, 4, 5, 8, 9, 14, 19, 20. When the subject answers "no" to any of them, a 0 is assigned for that item. These scores are then added together to give a total score.

This result is interpreted from a percentile standard designed to classify subjects according to three levels:

High level of self-esteem: subjects who are classified at this level reach a score between 19 and 24 points. They obtain points in most of the Items that investigate happiness, efficiency, self-confidence, autonomy, emotional stability, favorable interpersonal relationships, expressing a uninhibited behavior in groups, without focusing on themselves or their own issues.

Average level of self-esteem: the subjects that are classified at this level are those who fluctuate between 13 and 18 points. They present characteristics of the levels high and low, without one level predominating over the other.

Low level of self-esteem: Subjects who fall into this group score below 12 points. They score few points on the items that indicate adequate self-esteem and that were described above. In this sense, subjects at this level perceive themselves as unhappy, insecure, focused on themselves and their particular problems, afraid of expressing themselves in groups where their emotional state depends on external values and demands. The semi-structured interview technique allows us to access both quantitative and qualitative data face-to-face with the interviewer, in addition to encouraging two-way communication through conversation, where both parties play a fundamental role, and in turn allows greater flexibility.

The interview designed in this research was semi-structured

and prepared in advance, although due to the characteristics of the technique, open-ended questions were always left, relating to the interviewee's behavior. These questions followed a specific order: logical and carried out a comprehensive analysis of the adolescent's subjectivity.

In a second session, the Psychosocial Impact of Dental Aesthetics Questionnaire (PIDAQ) is administered to assess the impact of malocclusion on adolescent functioning in the dimensions covered by the instrument. This questionnaire evaluates the psychosocial aspects of oral health-related quality of life. It consists of 23 questions, divided into four dimensions: one positive dimension and three negative ones: aesthetic concern (3 questions), psychological impact (6 questions), social impact (8 questions), and self-confidence based on dental appearance (6 questions).

To measure, a Likert scale with five response alternatives is used, and a score is assigned to each of them.

0= nothing 1= a little 2= some 3= a lot 4= a lot

Finally, the score obtained is added to classify the psychosocial impact into Low Impact: 0 to 46 points and High Impact: 47 to 92 points.

In the last phase of the research, the researcher compiles the information in a database and performs the analysis of the collected results using the "Descriptive Statistics of Percentage Frequency" technique, which is processed with the help of the SPSS version 15.0 program.

3. Results and Discussion

Coppersmith Questionnaire

The results obtained from the application of the instrument showed that the majority of the 30 subjects in the sample obtained scores ranging from less than 12 points, while the remainder ranged from 13 to 18 points. No subject in the sample, regardless of sex, age, or degree of malocclusion, obtained scores between 19 and 24, indicating that the adolescents studied did not have high self-esteem.

After administering the instrument, 63% of subjects received a rating of Low Self-Esteem, while 37% were evaluated as having Average Self-Esteem. During the interviews, both the retest and the semi-structured interviews, they reported low self-confidence, a lack of autonomy, poor emotional stability in interpersonal relationships, and, above all, inhibited behavior within their group, stemming from their lack of acceptance of their personal self-image and the frequent comparisons they made with their peers.

As an example, we cite the case of CCP (16 years old) who considers herself a lonely person, who has no friends, who keeps quiet about many of the things she thinks in groups out of fear and who is not at all taken into account as a person... This, the patient says, makes her feel sad and she withdraws because she cannot stop feeling inferior to the other girls in her group.

It is notable that expressions such as these were common among the majority of subjects in the sample in general, regardless of sex, age, and type of malocclusion, although we must recognize that they were always more pronounced and marked among the girls in the sample.

When the analysis is carried out on the entire sample and statistically processed through SSPS version 15.0, notable relationships are obtained that we must demarcate:

Regarding the age of the sample, there were no significant changes in the assessments of low self-esteem among adolescents as age increased. Among 15-year-olds, 36.8% reported low self-esteem, while among 17-year-olds, the figure was 31.5%, a very similar score.

However, regarding gender, we cannot say the same because 27.2% of boys have a low rating, while 72.7% of girls have a very marked difference.

However, it is noteworthy that neither females nor males in the sample obtained a High Self-Esteem rating, which denotes difficulties in all the adolescents in the sample in their self-assessment processes and in their self-esteem in general.

Table 1. Analysis of the Coppersmith Questionnaire in relation to sex and age.

		Levels		
		High	Medium	Low
		No%	No%	No%
Age	15	0 0.0	3 27.4	7 36.8
	16	0 0.0	4 36.3	6 31.5
	17	0 0.0	4 36.3	6 31.5
Total		0 0.0	11 36.6	19 63.4
Sexo	F	0 0.0	5 62.5	16 72.7
	M	0 0.0	3 37.5	6 27.2

	Levels		
	High	Medium	Low
	No%	No%	No%
Total	0 0.0	8 26.6	22 73.4

The analysis of the Coppersmith questionnaire reflects in the table a predominance of the low level, both for age (63.4%) and for sex (73.4%), demonstrating the individual reaction of adolescents in relation to their future prospects and different opinions about themselves.

Psychosocial Impact Questionnaire of Dental Aesthetics

This instrument is unique in that it is the latest to be implemented and its format allows for a direct focus on the psychosocial impact of malocclusion on each individual. The various dimensions it assesses offer the opportunity to study the internal orchestration that causes malocclusion in adolescents in a multifaceted manner.

All of the above makes it possible for the application of this Questionnaire to serve as a confirmation of the results obtained with the previous instruments.

A high psychosocial impact was evident across all dimensions and in all subjects. This is reflected in a high percentage of aspects (dimensions), including aesthetic concerns, psychological impact, social impact, and self-confidence based on dental appearance.

Regarding age, note how the high impact increases as age increases: 7 (70.0%) with 15 years, 6 at 16 years old (60.0%) and finally 8 at 17 years old (80.0%), from which it can be inferred that as the adolescent stage progresses towards youth, the affectation of self-esteem linked to their self-assessment in

relation to their personal aesthetics becomes more marked.

This result is accompanied by a similar effect when analyzing the gender: 15 girls, representing 71.4% of the female sample, are evaluated with a high psychosocial impact, while a smaller number of boys are evaluated with a high psychosocial impact, 6 of them, which represents 66.4% of the male sample.

On the other hand, the results highlight that with age there is a tendency to maintain the Low Impact range, thus observing that at 15 years old only 3 of these boys (30%) obtain a low impact rating, while at 16 years old, 4 are placed in that range (40% of those included in this age range) and finally, of those who were 17 years old, there were 2 subjects, representing 70% at that age. Here, something should be pointed out in the analysis: these adolescents who obtain a low psychosocial impact evaluation, even if they do not have a high impact, do express a level of impact in important dimensions that are considered by the instrument. In other words, they show shyness when relating to others, they have the habit of covering their mouths when speaking, they are concerned about how they are considered because of their teeth, among other manifestations that reveal some degree of psychosocial affectation. Something similar occurs in the sample regarding gender, in which 6 girls obtain a low impact rating, while 3 boys obtain this rating.

Table 2. Psychosocial impact of dental aesthetics in adolescents with malocclusions.

	Age (%)			Sex (%)	
	15	16	17	F	M
Impact Level	No%	No%	No%	No%	No%
Low	3 (30.0)	4 (40.0)	2 (20.0)	6 (28.5)	3 (33.3)
High	7 (70.0)	6 (60.0)	8 (80.0)	15 (71.4)	6 (66.4)

Source: Questionnaire

Regarding the PIDAQ questionnaire, the results described in the table show that the psychosocial impact on both age and sex is high.

It should be noted that the results obtained are mediated, of course, by the individual's psychosocial well-being. As the

score increases, it represents high psychosocial values, which are a psychological expression of greater dependence on the adolescent's dental self-confidence and the influence of dental aesthetics on their self-image in general and, in particular, on their aesthetic concern, which is so marked at this stage of

personal development.

It was very revealing to see in the formulation and self-assessment of the items that when looking at objects such as mirrors, photos and videos, the person has a general view of themselves and their teeth and yet focuses on other characteristic imperfections of the teeth that might be unpleasant, such as size, color, shape and crowding.

This is logically supported by the fact that malocclusions have a psychological impact on people, since they often tend to reduce facial attractiveness, isolating the person from their social environment and generating reactions that affect the individual's physical and mental well-being.

Various studies have obtained similar results to those presented in this paper, including Fernández, [6] which applied to young people at an educational institution in Callao. Similar results are also observed in the study by Arela, in which patients' self-esteem influenced the questionnaire. [7].

This was consistent with the results obtained by Ochoa M, who found that female adolescents presented a higher percentage of psychosocial impact compared to males. [8] This result is similar to that of Ponce, who concluded that young women have a higher percentage of impact in the dimensions of social impact, significantly influencing the aspect of trust in

relation to them as individuals. [9].

It was evident that the responses regarding the impact were not as noticeable, and males were more affected, which differs from the research results, leaving a low psychosocial impact. This research coincides with the results obtained by various studies, in which 95.0% of respondents reported a low impact, both of which do not correspond to the results obtained in the research. [10-12].

Summarizing the analysis that has been followed in the results of the work we must mean the following:

Self-esteem is fundamental to human psychology. It's how we evaluate and value ourselves, affecting our confidence, our work, our relationships, and almost every area of our lives. [13] Dental appearance has a significant impact, especially during adolescence, as this is the stage of self-esteem building.

The descriptive analysis of the research on self-esteem shows a distribution of categories where the medium level was the most frequent, representing 66.7% of the sample of patients evaluated, demonstrating that the young participants experienced a negative impact on their personal image that influences the development of their self-perception.

Table 3. Self-esteem levels in adolescents with malocclusions.

Self-esteem	Frequency	Percent
High	3	33.3
Half	20	66.7
Low	7	23.0

Source: Questionnaires

The physical, social, and psychological consequences of malocclusion have long been the subject of research. Malocclusions are currently considered a public health problem. [14] Furthermore, the prevalence of dental occlusion disorders is known to be the third leading cause of oral morbidity worldwide. [15].

In the field of dentistry, a multidisciplinary profession is essential, both clinical and psychological intervention. This means that dental professionals must have a thorough understanding of the repercussions of average or low self-esteem. [15] They must also be trained to address it through motivational talks and appropriate prevention.

4. Conclusions

Malocclusions, rather than being experienced by adolescents as a disease, are perceived as a psychological problem, primarily in females, and cause average levels of self-esteem, in which the

individual's self-assessment and body acceptance in relation to self-image present a negative attitude.

Abbreviations

PID Psychosocial Impact of Dental Aesthetics
AQ Questionnaire

Author Contributions

Ismaray Contreras Cobas: Investigation
Leonardo Rodríguez Méndez: Investigation
Surisaday Almeida Pérez: Investigation

Conflicts of Interest

The authors declare no conflicts of interest.

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