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The Impact of Polydiastema on Oral Health and Quality of Life in Orthodontic Patients: Cross-Sectional Study

Ortodonti Hastalarında Polidiastemanın Ağız Sağlığı ve Yaşam Kalitesi Üzerindeki Etkisinin Değerlendirilmesi: Kesitsel Çalışma

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ABSTRACT Objective: This study aims to evaluate the impact of polydiastema on oral health-related quality of life (OHRQoL) in adolescent patients and their parents/caregivers. The Turkish versions of the Child Perceptions Questionnaire (CPQ) and Parental-Caregivers Perceptions Questionnaire (P-CPQ) were used to assess patient and parental perceptions. **Material and Methods:** The study included 59 polydiastema patients (12-18 years) with complete permanent dentition and their parents/caregivers, recruited from Ordu University Faculty of Dentistry Orthodontics Clinic. Participants completed validated CPQ (39 questions) and P-CPQ (35 questions) questionnaires assessing oral symptoms, functional limitations, emotional well-being, and social well-being. The Likert-based questionnaires associate lower scores with better OHRQoL. Data were analyzed using SPSS, with $p<0.05$ considered significant. The data were analyzed using descriptive statistics, independent samples t-test, Spearman's correlation analysis, and multivariate analysis of variance. The study was approved by the Ordu University Clinical Research Ethics Committee (no: 2024/17). **Results:** Patients' mean CPQ score was 70.9, with social well-being (23.3), emotional well-being (18.0), functional limitations (16.7), and oral symptoms (12.8) being the most affected domains. Parents/caregivers' mean P-CPQ score was lower at 59.1, with significant differences in functional limitations, emotional and social well-being, and total scores ($p<0.05$). Patients' overall well-being showed strong correlations with all CPQ subscales ($p<0.001$). **Conclusion:** Polydiastema significantly impacts adolescents' social and emotional OHRQoL, with patients perceiving greater effects than parents/caregivers. The findings underscore the importance of multidisciplinary treatment approaches and integrating both patient and parental perspectives in managing polydiastema.

Keywords: Diastema; oral health; quality of life; orthodontics

ÖZET Amaç: Bu çalışma, polidiastemanın adölesan hastalar ve ebeveynleri/bakıcıları üzerindeki ağız sağlığıyla ilişkili yaşam kalitesi [oral health-related quality of life (OHRQoL)] etkisini değerlendirmeyi amaçlamaktadır. Çocuk Algı Anketi [Child Perceptions Questionnaire (CPQ)] ve Ebeveyn-Bakıcı Algı Anketi'nin (P-CPQ) Türkçe versiyonları kullanılarak hasta ve ebeveyn/bakıcı algıları incelenmiştir. **Gereç ve Yöntemler:** Çalışmaya, Ordu Üniversitesi Diş Hekimliği Fakültesi Ortodonti Kliniğine başvuran, daimi dişlenmesini tamamlamış 12-18 yaş arası 59 polidiastemalı hasta ve ebeveynleri/bakıcıları dâhil edilmiştir. Katılımcılar, ağız semptomları, fonksiyonel kısıtlamalar, duygusal iyi oluş ve sosyal iyi oluşu değerlendiren, geçerliliği kanıtlanmış CPQ (39 soru) ve P-CPQ (35 soru) anketlerini doldurmuştur. Anketler, Likert ölçeğine dayalı olup, düşük skorlar daha iyi OHRQoL ilişkilendirilmiştir. Veriler, SPSS ile analiz edilmiş, $p<0,05$ anlamlı kabul edilmiştir. Veriler, tanımlayıcı istatistikler, bağımsız örneklem t-testi, Spearman korelasyon analizi ve çok değişkenli varyans analizi kullanılarak analiz edilmiştir. Çalışma, Ordu Üniversitesi Klinik Araştırmalar Etik Kurulu tarafından onaylanmıştır (no: 2024/17). **Bulgular:** Hastaların ortalama CPQ skoru 70,9 olup, sosyal iyi oluş (23,3), duygusal iyi oluş (18,0), fonksiyonel kısıtlamalar (16,7) ve ağız semptomları (12,8) en çok etkilenen alanlardır. Ebeveynlerin/bakıcıların P-CPQ skoru 59,1 ile daha düşük bulunmuş; fonksiyonel kısıtlamalar, duygusal ve sosyal iyi oluş ile toplam skorlarda anlamlı farklar saptanmıştır ($p<0,05$). Hastaların genel iyi oluşu, tüm CPQ alt kategorileriyle güçlü korelasyon göstermiştir ($p<0,001$). **Sonuç:** Polidiastema, adölesanların sosyal ve duygusal ağız sağlığı ile ilgili yaşam kalitesini önemli ölçüde etkilemektedir ve hastalar ebeveynlere/bakıcılara göre daha fazla etkilenmektedir. Bulgular, polidiastema tedavisinde multidisipliner yaklaşımların ve hem hasta hem de ebeveyn/bakıcı perspektiflerinin dikkate alınmasının önemini vurgulamaktadır.

Anahtar Kelimeler: Diyastem; ağız sağlığı; yaşam kalitesi; ortodonti

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Diastema, observed in many individuals, is the absence of contact points between the mesial or distal surfaces of 2 adjacent teeth. When this occurs between the 2 central incisors, it is termed median diastema. The prevalence of midline diastema is higher in children (48.8%) during the mixed dentition period, where it is considered a normal condition, and decreases with advancing age.[1,2] While it can occur between only 2 teeth, it can also be present between multiple teeth in the same individual; this condition is referred to as polydiastema. Many factors contribute to the development of polydiastema, such as habits, oligodontia, and tooth size-arch length discrepancy. Polydiastema occurs less frequently than median diastema, and its prevalence was reported as 4.3% in one study.[3] The prevalence of diastema has been found to be higher in females compared to males (56.7%). It is most commonly observed in the maxilla in the majority of individuals, followed less frequently by occurrences in both the maxilla and mandible. The prevalence of diastema also varies among different ethnic groups.[4]

The anxiety caused by polydiastema prompts individuals to seek treatment from dentists and orthodontists. This anxiety has significant functional and psychosocial impacts on patients. It has been reported in the literature that this condition causes increased anxiety and a poor quality of life (QoL).[5] The treatment of polydiastema is challenging and requires a multidisciplinary approach. Investigating the QoL in these patients will provide guidance for clinicians regarding treatment. In previous years, prosthetic restorations causing irreversible loss of tooth structure were frequently applied in patients with polydiastema. Nowadays, however, less invasive approaches such as orthodontic treatment, laminate veneers, and the use of adhesive restorations are becoming increasingly common.[6]

Various tests are used to investigate the reasons for seeking treatment and to understand QoL-related issues in patients seeking or undergoing orthodontic treatment. One of these tests, the Child Perceptions Questionnaire (CPQ), is a widely used instrument developed to evaluate how problems with children's teeth and oral tissues affect their daily lives. This questionnaire aims to measure children's QoL in a simple and understandable manner. The reliability and validity of the Turkish translation of this questionnaire have been demonstrated in various studies.[7]

The Parental-Caregivers Perceptions Questionnaire (P-CPQ) is a frequently used measure for evaluating parents/caregivers' perceptions of their children's oral health and its impact on their QoL. This questionnaire reveals, from the parents/caregivers' perspective and in a simple and understandable manner, how children's oral health problems affect their daily lives. The P-CPQ was originally developed in English in the USA and was subsequently translated into other languages for use.[7] When assessing the QoL of child patients, it is important to consider the parents/caregivers' perspectives. This is because children may have difficulty fully understanding the questionnaire items, which can lead to incorrect responses. However, parental participation in the survey has both advantages and disadvantages. The advantage is that parents/caregivers are closely familiar with their children's condition. The disadvantage, however, is that they might provide subjective answers about their children's health status due to emotional reasons. Therefore, when investigating the impact of polydiastema on children, it is necessary to obtain information from both the children and their parents/caregivers.[8,9]

The aim of this study is to evaluate the effect of polydiastema on patients' oral health-related QoL (OHRQoL). Additionally, it investigates the impact of this condition on the parents/caregivers of these patients.

MATERIAL AND METHODS

This study was conducted to examine the impact of polydiastema on the QoL of patients and their parents/caregivers. The study was approved by the Ordu University Clinical Research Ethics Committee (date: April 26, 2024; no: 2024/17). The was conducted following the ethical standards specified in the Helsinki Declaration. The sample size was calculated using G*Power software (version 3.1.9.2, Universität Düsseldorf, Germany), assuming a 95% confidence level (1-α) and 95% statistical power (1-β). The analysis indicated that a minimum of 41 participants was required for the study.

Informed consent forms were signed by the patients and their parents/caregivers who volunteered to participate and were provided with detailed information about the study. Twenty boys and 39 girls, along with 59 parents/caregivers, participated in the study. Based on a previous detailed literature review, a 39-item questionnaire for the children (individuals) and a 35-item questionnaire for their parents/caregivers were developed; participants were asked to complete these questionnaires. The first 2 items of the questionnaire administered to the children (CPQ) pertain to general oral health. The remaining items pertain to oral symptoms (6), functional limitations (9), emotional well-being (9), and social well-being (13) experienced within the last 3 months. In the questionnaire administered to the parents/caregivers (P-CPQ), the first 2 items pertain to their child's general oral health. The remaining items inquire about the parents/caregivers' perception of their children's oral symptoms (6), functional limitations (8), emotional well-being (6), and social well-being (13) experienced within the last 3 months. The questionnaire utilizes a Likert-type scale consisting of 5 response options. The response options were as follows: Never (0), Once or twice (1), Sometimes (2), Often (3), and Always (4). Lower scores indicate better oral health and QoL.[7-10] Patients and their parents/caregivers were asked to complete the questionnaires independently.

Participants were recruited from Turkish patients aged 12-18 years, with fully erupted permanent dentition, who presented for treatment at the Department of Orthodontics, Faculty of Dentistry, Ordu University. Patients exhibiting a lack of interdental contact between multiple teeth were classified as having polydiastema. The diagnosis of polydiastema was based on the review of patients' orthopantomograms (panoramic radiographs) and periapical radiographs, supplemented by clinical examination. Patients for whom a definitive diagnosis of polydiastema could not be confirmed were excluded from the study. Patients with a history of previous orthodontic treatment or those currently undergoing orthodontic treatment were excluded. Individuals with intellectual disability, presence of jaw cysts or tumors, congenitally missing teeth or tooth loss due to other causes, impacted teeth, or associated syndromes were also excluded from the study.

All data were entered into the SPSS version 25.0 (SPSS, Chicago, Ill) for analysis. After assessing the normality of data distribution, parametric tests were applied to normally distributed data, while non-parametric tests were used for data that were not normally distributed. The data were analyzed using descriptive statistics, independent samples t-test, Spearman's correlation analysis, and multivariate analysis of variance. For all statistical evaluations, a p value <0.05 was considered statistically significant.

RESULTS

The study sample consisted of 43.2% male and 56.8% female patients. The mean age of the patients was 14.8 years. Among the parents/caregivers completing the questionnaire, 47.4% were fathers, 42.3% were mothers, and 11.3% were other individuals.

The mean score given by patients in response to the question, "How do you think the health of your/your child's teeth, lips, jaws and mouth?" was 3.2, whereas the mean score given by parents/caregivers answering the same question for their child was 3.3. For the question, "How much does the condition of your/your child's teeth, lips, jaw or mouth affect your life?", the mean score provided by patients was 2.7, while the mean score provided by parents/caregivers for their child was 3.0 (Table 1). Regarding the 4 subscales of the CPQ, patients reported the highest mean scores in social well-being (23.3), followed by emotional well-being (18.0), functional limitations (16.7), and oral symptoms (12.8). The same ranking order was observed in the parents/caregivers 'reports (P-CPQ). The mean total score for patients was 70.9, whereas the mean total score reported by parents/caregivers was 59.1 (Table 1).

Regarding the responses to Question 1, 40.7% of patients answered "Average", 39.0% "Fair", 10.2% "Good", 6.8% "Excellent", and 3.4% "Poor". For Question 2, 32.2% of patients responded "Fairly important", 28.8% "Slightly important", 15.3%" Important", and 8.5% "Very important" (Table 2).

No statistically significant relationship was found between patients' self-reported oral health and

TABLE 1: CPQ and P-CPQ scores

	CPQ		P-CPQ	
	$\bar{X}$	SD	$\bar{X}$	SD
2 question				
How do you think the health of your/your child's teeth, lips, jaws and mouth?	3.2	0.12	3.3	0.14
How much does the condition of your/your child's teeth, lips, jaw or mouth affect your life?	2.7	0.15	3.0	0.13
4 subscales				
Oral symptom	12.8	0.4	11.9	0.4
Functional limitations	16.7	0.8	12.5	0.6
Emotional well-being	18	1.1	14.4	0.5
Social well-being	23.3	1.1	20.1	0.9
Total	70.9	2.9	59.1	2.2

CPQ: Child Perceptions Questionnaire; P-CPQ: Parental-Caregivers Perceptions Questionnaire; SD: Standard deviation

TABLE 2: Responses of patients and parents/caregivers to the first two questions

How do you think health of your/your child's teeth, lips, jaws and mouth?					
	Excellent	**Good**	**Average**	**Fair**	**Poor**
Patient	4 (6.8%)	6 (10.2%)	24 (40.7%)	23 (39%)	2 (3.4%)
Parents/caregivers	5 (8.5%)	7 (11.9%)	17 (28.8%)	24 (40.7%)	6 (10.2%)
How much does the condition of your/your child's teeth, lips, jaw or mouth affect your life?					
	Not important	**Slightly important**	**Fairly important**	**Important**	**Very important**
Patient	9 (15.3%)	17 (28.8%)	19 (32.2%)	9 (15.3%)	5 (8.5%)
Parents/caregivers	3 (5.1%)	17 (28.8%)	20 (33.9%)	14 (23.7%)	5 (8.5%)

the oral symptoms subscale score (p=0.271). Statistically significant relationships were found between patients' self-reported oral health and the scores for functional limitations (p=0.012), emotional well-being (p=0.031), social well-being (p=0.009), and the total CPQ score (p=0.010) (Table 3).

Statistically significant relationships were found between patients' self-reported overall well-being and oral symptoms (p=0.008), functional limitations (p<0.001), emotional well-being (p<0.001), social well-being (p<0.001), and the total CPQ scores (p<0.001) (Table 3).

While no statistically significant relationships were found between the parents/caregivers' perception of their child's oral health and the P-CPQ subscale scores for oral symptoms (p=0.080), functional limitations (p=0.052), emotional well-being (p=0.120), or social well-being (p=0.148), a statisti-

TABLE 3: The correlation of subscales between patients and parents/caregivers

	Patients				**Parents/caregivers**			
	Oral health		**Overall well-being**		**Oral health**		**Overall well-being**	
	r value[1]	**p value**	**r value[1]**	**p value**	**r value[1]**	**p value**	**r value[1]**	**p value**
Oral symptom	0.146	0.271	0.343**	0.008	0.230	0.080	0.197	0.135
Functional limitations	0.325*	0.012	0.476**	<0.001	0.255	0.052	0.290*	0.026
Emotional well-being	0.281*	0.031	0.534**	<0.001	0.205	0.120	0.413**	0.001
Social well-being	0.338**	0.009	0.614**	<0.001	0.191	0.148	0.342**	0.008
Total	0.332*	0.010	0.658**	<0.001	0.312*	0.016	0.414**	0.001

[1]Spearman correlation

cally significant relationship was observed with the total P-CPQ score (p=0.016) (Table 3).

No statistically significant relationship was found between the parents/caregivers' assessment of the overall well-being and the oral symptoms scores (p=0.135). Statistically significant relationships were found between the parents/caregivers' overall well-being and the scores for functional limitations (p=0.026), emotional well-being (p=0.001), social well-being (p=0.008), and the total P-CPQ score (p=0.001) (Table 3).

Parents/caregivers reported lower mean scores compared to patients for oral symptoms, functional limitations, emotional well-being, social well-being, and the total score. Statistically significant differences between parent and patient reports were found for functional limitations (p<0.001), emotional well-being (p=0.005), social well-being (p=0.003), and the total score (p=0.002) (Table 4).

TABLE 4: Comparison of mean scores of patients and parents/caregivers

		$\bar{X}$	SD	Test statistics	p value
Oral symptom	Patients	12.9	3.7	1.30	0.196
	Parents/caregivers	12.0	3.8		
Functional limitations	Patients	16.7	6.3	3.98	<0.001
	Parents/caregivers	12.5	5.0		
Emotional well-being	Patients	18.0	8.5	2.84	0.005
	Parents/caregivers	14.4	4.5		
Social well-being	Patients	23.3	8.8	2.12	0.003
	Parents/caregivers	20.1	7.4		
Total	Patients	70.9	22.5	3.21	0.002
	Parents/caregivers	59.1	17.1		

Independent sample t-test; SD: Standard deviation

Examining the patients' CPQ subscale scores, the mean of total score for females aged 12-14 years was 61.7, compared to 67.4 for males in the same age group. For those aged 15-18 years, the mean score was 74.3 for females and 75.5 for males (Table 5).

The main effects of gender and age on the scores for oral symptoms, functional limitations, emotional well-being, social well-being, and the total score were not found to be statistically significant. Furthermore, the interaction effect between gender and age did not have a statistically significant impact on the scores for oral symptoms, functional limitations, emotional well-being, social well-being, or the total score (Table 6).

DISCUSSION

This study evaluates the relationship between self-reported oral health and overall well-being and the domains of oral symptoms, functional limitations, emotional well-being, and social well-being in children with polydiastema and their parents/caregivers, using the Turkish versions of the CPQ and P-CPQ questionnaires. Conducting cross-cultural assessments using validated and reliable questionnaires that evaluate QoL is valuable.[10] The CPQ is the most frequently used questionnaire for this purpose.[11]

The findings of this study provide valuable insights into perceptions of OHRQoL among pediatric patients and their parents/caregivers, as assessed by the CPQ. The demographic profile of the sample, with a slight predominance of female patients (56.8%) and a mean age of 14.8 years, is consistent with prior studies examining OHRQoL in adoles-

TABLE 5: Subscale scores according to patient's age and gender

Gender	Age (years)	Oral symptoms	Functional limitations	Emotional well-being	Social well-being	Total score
Male	12-14	13.7±3.2	16.1±4.8	16.4±8.3	21.2±9.1	67.4±21.9
	15-18	13.9±4.7	19.6±6.1	17.3±9.4	24.6±6	75.5±18.2
	Total	13.8±4	18.1±5.7	16.9±8.7	23.1±7.6	71.9±19.8
Female	12-14	11.2±3	14.6±4.5	15.6±4.5	20.3±5.5	61.7±13.6
	15-18	13±3.7	16.7±7.2	19.9±9.5	24.8±10.6	74.3±26.6
	Total	12.4±3.6	16±6.5	18.6±8.5	23.4±9.5	70.4±23.9
Total	12-14	12.2±3.3	15.2±4.6	16±6.2	20.7±7.1	64.1±17.4
	15-18	13.2±4	17.5±7	19.1±9.5	24.8±9.4	74.7±24.2
	Total	12.9±3.7	16.7±6.3	18±8.5	23.3±8.8	70.9±22.5

TABLE 6: MANOVA results for CPQ subscales

Source	Subscales	Type III sum of squares	df	Mean square	F	Significance	Partial eta squared (η^2)
Gender	Oral symptom[a]	36.8	1	36.8	2.674	0.108	0.046
	Functional limitations[b]	62.7	1	62.7	1.609	0.210	0.028
	Emotional well-being[c]	9.6	1	9.6	0.130	0.719	0.002
	Social well-being[d]	1.6	1	1.6	0.020	0.888	<0.001
	Total[e]	147.6	1	147.6	0.294	0.590	0.005
Age (years)	Oral symptom	12.9	1	12.9	0.936	0.338	0.017
	Functional limitations	97.6	1	97.6	2.503	0.119	0.044
	Emotional well-being	81.8	1	81.8	1.116	0.295	0.020
	Social well-being	193.4	1	193.4	2.494	0.120	0.043
	Total	1326.1	1	1326.1	2.642	0.110	0.046
Gender* Age (years)	Oral symptom	7.5	1	7.5	0.544	0.464	0.010
	Functional limitations	6.4	1	6.4	0.165	0.686	0.003
	Emotional well-being	37.5	1	37.5	0.512	0.477	0.009
	Social well-being[d]	3.5	1	3.5	0.046	0.832	0.001
	Total	67.3	1	67.3	0.134	0.716	0.002

*Gender (male, female); age (12-14 early adolescence, 15-18 middle adolescence); [a]R^2=0.014; [b]R^2=0.015; [c]R^2=-0.006; [d]R^2=-0.001; [e]R^2=0.006;
MANOVA: Multivariate analysis of variance; CPQ: Child Perceptions Questionnaire

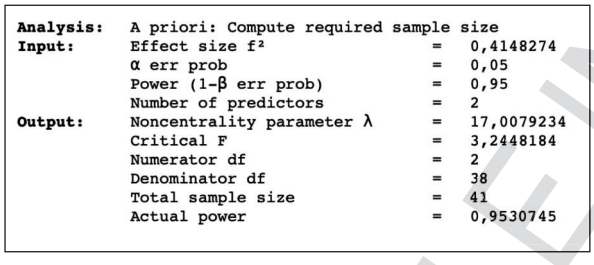

FIGURE 1: 1) Raziee L, Judd P, Carmichael R, Chen S, Sidhu N, Suri S. Impacts of oligodontia on oral health-related quality of life reported by affected children and their parents. Eur J Orthod. 2020;42(3):250-6. PMID: 31184709.

cents.[12] The distribution of respondents completing the questionnaire-47.4% fathers, 42.3% mothers, and 11.3% others-suggest a balanced parental perspective, which is essential for understanding discrepancies between self-reports and proxy reports in pediatric populations.[13] In the present study, the CPQ total and subscale scores showed significant correlations with the responses to the first 2 global assessment questions of the questionnaire. This finding is consistent with results reported using the German-language version of the questionnaire in the study by Bekes et al. and the Brazilian Portuguese-language version in the study by Barbosa et al.[14,15] These findings provide evidence for the validity of the CPQ in multiple languages.

According to the findings of this study, significant correlations were found between the self-reported overall well-being rating and all subscale scores of the CPQ. In their study using the Turkish version of the CPQ, Aydoğan et al. similarly found significant correlations between both the self-reported oral health and overall well-being and all subscale scores, consistent with our findings.[7] The similarity in the findings provides evidence for the structural validity of the Turkish version of the CPQ.

The mean total CPQ score for individuals with polydiastema participating in this study was 70.9. In their study, Locker et al., reported a mean total CPQ score of 77.8 for patients with oligodontia.[16] Although the severity of diastema in patients with oligodontia might be greater than in those with polydiastema, the reason for the difference observed in the CPQ scores could potentially be explained by factors such as the administration of the questionnaire to populations with different cultural backgrounds, variations in patients' aesthetic concerns, or differing levels of awareness.

Examining the CPQ subscale, the highest mean scores for both patients and parents/caregivers were reported for social well-being (patients: 23.3; parents/caregivers: 20.1). This was followed, in de-

scending order for both groups, by emotional well-being (18.0 and 14.4, respectively), functional limitations (16.7 and 12.5, respectively), and oral symptoms (12.8 and 11.9, respectively). This ranking suggests that oral health problems have a more pronounced impact on the social and emotional domains. Similar findings were also reported in a study by Thomson and Malden, which found that oral health problems adversely affected social interactions and self-esteem, particularly among adolescents.[17]

The CPQ subscale scores revealed that social well-being was the most affected area for both patients (23.3) and parents/caregivers, followed by emotional well-being, functional limitations, and oral symptoms. This pattern aligns with studies by Foster Page et al., who found that adolescents often prioritize social consequences, such as appearance and peer interactions, when assessing the impact of oral health.[18]

In this study, the mean scores reported by parents/caregivers for oral symptoms, functional limitations, emotional well-being, social well-being, and the total scores were found to be lower than those reported by the patients themselves. This indicates that patients have a more negative perception of their health status compared to their parents/caregivers. This difference suggests that children experience their own condition more intensely and that parents/caregivers may not be fully aware of these impacts.[19] Statistically significant differences between parent and child scores were observed for functional limitations, emotional well-being, social well-being, and the total scores. Studies by Raziee et al., Ferreira et al., and Jokovic et al. found that patients reported lower total scores compared to their parents/caregivers.[20-22] The reason for this difference might be the administration of the questionnaires to individuals from different ethnic backgrounds and variations in the mean age of the patients.

Patients rated their oral health slightly lower (mean score of 3.2) than their parents/caregivers rated their children's oral health (mean score of 3.3) (Table 1). The reason for this difference may be that adolescent patients are more conscious of oral health for aesthetic and social reasons and parents/caregivers give more importance to function. The lack of significant associations between parental perceptions and specific subscales suggests that relying solely on proxy reports may overlook critical aspects of the child's experience, a concern raised by Tsakos et al.[23]

This study has some limitations. The cross-sectional design precludes causal inferences, and the sample's specific demographic characteristics (e.g., mean age of 14.8 years) may limit generalizability to younger or older pediatric populations. Additionally, the absence of clinical oral health data (e.g., caries prevalence or orthodontic status) prevents direct correlation between objective conditions and subjective perceptions, an area warranting further exploration.[24] Future research could employ longitudinal designs to assess how CPQ and P-CPQ evolves over time and integrate clinical assessments to elucidate the relationship between oral pathology and perceived impact.

CONCLUSION

In conclusion, this study highlights the nuanced differences between adolescent patients' and parents/caregivers' perceptions of OHRQoL. The findings emphasize the importance of considering both perspectives in pediatric dentistry and contribute to the growing body of evidence on CPQ and P-CPQ as a critical outcome measure.

It can be concluded that patients perceive their QoL more negatively compared to their parents/caregivers. This finding indicates that the aesthetic concerns associated with polydiastema significantly impact the daily lives of these individuals, and that they are more affected from a psychosocial perspective. Therefore, considering the views of both children and parents/caregivers in clinical practice is highly important for treatment planning and strengthening the patient-practitioner relationship. Furthermore, it is concluded that aesthetic and psychosocial factors should be prioritized in the evaluation and treatment planning for individuals with polydiastema.

%95 güven (1-α), %95 test gücü (1-β), f2= 0,4148274 etki büyüklüğü ile alınması gereken minimum örnek sayısı 41 olarak belirlenmiştir (1).

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Mehmed Taha Alpaydın, Merve Köklü;* ***Design:*** *Mehmed Taha Alpaydın, Tuğce Alpaydın;* ***Control/Supervision:*** *Mehmed Taha Alpaydın;* ***Data Collection and/or Processing:*** *Burak Yalçınkaya, Merve Köklü;* ***Analysis and/or Interpretation:*** *Tuğce Alpaydın;* ***Literature Review:*** *Mehmed Taha Alpaydın, Tuğce Alpaydın;* ***Writing the Article:*** *Tuğce Alpaydın, Burak Yalçınkaya;* ***Critical Review:*** *Mehmed Taha Alpaydın, Tuğce Alpaydın;* ***References and Fundings:*** *Mehmed Taha Alpaydın, Tuğce Alpaydın;* ***Materials:*** *Burak Yalçınkaya, Merve Köklü.*

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