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POSTER PRESENTATIONS

PP-1

Effect of Demineralization on the Microhardness of a Microhybrid Resin Composite

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Introduction: Improved physical and esthetic properties of resin composites have led to their widespread use in both anterior and posterior restorations. However, exposure to chemical and physical factors in the oral environment may alter their surface characteristics. Demineralization processes may compromise the structural integrity of these materials, leading to deterioration in their mechanical properties. Surface microhardness is an important parameter closely related to wear resistance and clinical performance. Therefore, evaluating the effects of demineralization solutions on composite resins is clinically relevant. The aim of this study was to investigate the effect of storage in a demineralization solution on the surface microhardness of a microhybrid composite resin.

Methods: A total of 20 disc-shaped (8x2) specimens were prepared from a microhybrid composite resin (Filtek Z250, 3M ESPE) using standardized molds. After polymerization, all specimens were stored in distilled water for 24 hours. Baseline surface microhardness values were measured using a Vickers microhardness tester (HMV Microhardness Tester, Shimadzu). The specimens were randomly divided into two groups (n=10): control (distilled water) and demineralization (pH=4.8 solution). All specimens were stored under standardized conditions for 30 days, after which measurements were repeated. Data were analyzed using repeated measures analysis of variance with Bonferroni test ($p<0.05$).

Results: No significant difference was observed between the groups at baseline ($p>0.05$). After the experimental period, the microhardness values of the demineralization group were significantly lower than those of the control group ($p<0.05$). Within-group comparisons showed a significant decrease in both groups ($p<0.05$), with a more pronounced reduction in the demineralization group.

Conclusion: Demineralization significantly reduced the surface microhardness of the microhybrid composite resin, whereas distilled water caused a more limited decrease. These findings suggest that demineralization may adversely affect the mechanical properties of composite resins.

Keywords: Microhardness, demineralization, resin composite

PP-2

The Effect of Demineralization Solution on the Surface Roughness of Fluoride-releasing Composite Resin

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Introduction: This study aimed to evaluate the changes in surface roughness of a fluoride-releasing restorative material under intraoral demineralization conditions.

Methods: A fluoride-releasing monochromatic composite resin (Beautiful II, Shofu, Japan) was used in this study. A total of 20 disk-shaped resin specimens were prepared using acetate molds (8×2) (n=20) and polymerized according to the manufacturer's instructions using an LED light device (Valo, Ultradent, USA) at 1000 mW/cm². The prepared specimens were randomly divided into two groups based on storage conditions (n=10): a control group stored in distilled water and a group subjected to demineralization solution. The specimens were stored at 37 °C for 30 days. The demineralization solution used for this purpose was prepared in the laboratory according to appropriate formulations. Surface roughness measurements (Ra) of all specimens were performed using a contact profilometer (Marsurf M 300 C) at 3 different points on the upper surfaces of the specimens. Measurements were taken 24 hours and 30 days after specimen fabrication. Surface roughness data were analyzed using repeated measures analysis of variance and Bonferroni tests.

Results: While no statistically significant difference was found between the groups in initial surface roughness values ($p>0.05$), a significant difference emerged between the groups after treatment ($p<0.05$). Although the increase in surface roughness values in the distilled water group was not statistically significant ($p>0.05$), a significant increase in surface roughness values was detected in the demineralization solution group ($p<0.001$).

Conclusion: The results indicate that demineralization processes significantly increase the surface roughness of fluoride-releasing composite resins.

Keywords: Fluoride, roughness, demineralization

PP-3

Evaluation of the Hygiene Habits of Complete Denture Patients Admitted to a University Dental Hospital

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Introduction: Plaque accumulation on complete dentures plays a critical role in the development of complications such as denture stomatitis and mucosal inflammation. Therefore, evaluating denture hygiene and its association with patients' hygiene habits is of clinical importance. This study aimed to assess the hygiene practices of complete denture wearers and to investigate their relationship with clinically determined denture hygiene levels.

Methods: Sixty complete denture patients were included. Demographic characteristics, systemic health status, duration of denture use, and hygiene habits were recorded a structured questionnaire. Denture hygiene was scored from 0 (no plaque) to 3 (heavy plaque accumulation) using the Budtz-Jørgensen (1977) index based on standardized denture photographs evaluated by two independent observers. Although originally defined for the internal surface, the index was also applied to the external surface. Data were analyzed using Mann-Whitney U and Kruskal-Wallis tests, and interobserver agreement was assessed the intraclass correlation coefficient (ICC).

Results: Interobserver agreement was high (ICC=0.833 for internal surface; ICC=0.836 for external surface). The median internal surface hygiene score was 1. Internal hygiene scores differed significantly according to chronic disease status, with higher scores (poorer hygiene) observed in individuals without chronic disease ($p=0.009$). External surface scores were significantly associated with denture usage duration, showing an increasing trend with longer use ($p=0.014$). Although most participants reported daily cleaning, no significant relationship was found between cleaning frequency and hygiene scores ($p>0.05$). No significant differences were observed for other variables.

Conclusion: Self-reported hygiene habits were not significantly associated with clinically assessed denture hygiene. The photograph-based application of the Budtz-Jørgensen index demonstrated high interobserver reliability.

Keywords: Complete denture, denture hygiene, Budtz-Jørgensen index, hygiene habits

PP-4

The Effect of pH Cycling on the Surface Roughness of Fluoride-releasing Composite Resins

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Introduction: The aim of this study was to evaluate the changes in surface roughness of fluoride-releasing nanohybrid composite resins exposed to pH cycling.

Methods: A fluoride-releasing nanohybrid composite resin (Beautifil II, Shofu, Japan) was used in this study. A total of 20 disk-shaped resin specimens were prepared using Teflon molds (8×2 mm) and polymerized with an LED curing unit (Valo, Ultradent, USA) according to the manufacturer's instructions (1000 mW/cm²). The specimens were divided into two groups based on storage conditions: pH cycling and air (control). According to their groups, specimens were stored in 20 mL of solution in closed containers for 30 days, undergoing 16 hours of remineralization and 8 hours of demineralization daily. Surface roughness values were measured before and after storage in solutions and air, using a contact profilometer (Marsurf M 300 C; Mahr GmbH, Germany) at three different points on the top surfaces of the specimens. Statistical analyses were performed using repeated measures analysis of variance and Bonferroni tests for pairwise comparisons ($p < 0.05$).

Results: Storage in air did not cause a significant change in surface roughness. However, exposure to pH cycling resulted in a significant increase in surface roughness values.

Conclusion: pH cycling had a negative effect on the surface roughness of the fluoride-releasing composite resin.

Keywords: Fluoride-releasing nanohybrid composite resin, surface roughness, pH cycling, demineralization, remineralization

PP-5

Evaluation of Patient Satisfaction Following Apical Resection of Teeth Associated with Odontogenic Cysts and Tumors Using the OHIP-14

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Introduction: This study aimed to evaluate patient satisfaction and oral health-related quality of life in individuals who underwent endodontic treatment combined with apical resection for teeth associated with odontogenic cysts and tumors, utilizing the validated Oral Health Impact Profile-14 (OHIP-14) instrument.

Methods: A retrospective analysis was conducted on patients treated between 2020 and 2024 for teeth associated with odontogenic cysts and tumors who underwent endodontic treatment followed by apical resection. Patients meeting the inclusion criteria were enrolled in the study. Eligible participants were contacted via telephone, informed about the study protocol, and subsequently administered the OHIP-14 questionnaire. Data were analyzed using descriptive statistics and expressed as means and standard deviations.

Results: A total of 48 individuals, aged between 18 and 60, were included in the study and a single-group study design was adopted. Analysis of the OHIP-14 item scores revealed mean values ranging from 0.00 to 0.85, indicating a generally low level of impact on quality of life related to oral health. These findings suggest that the overall oral health-related quality of life of the participants was favorable. The standard deviation values ranged between 0.00 and 1.08, reflecting limited variability across the sample. Although certain individuals reported relatively higher levels of discomfort, the overall distribution remained concentrated around low scores.

Conclusion: The OHIP-14 findings demonstrate that oral health-related quality of life remains largely preserved following apical resection procedures in teeth associated with odontogenic cysts and tumors. Physical pain emerged as the most prominent domain affected; however, it was predominantly characterized as mild and transient. Functional limitations, particularly in relation to speech, were found to be minimal across the majority of participants. Notably, relatively higher scores were observed in items related to taste disturbance, suggesting the potential occurrence of postoperative sensory alterations in a subset of patients. Collectively, these results indicate that the applied dental treatments interventions do not exert a clinically significant negative impact on patients' quality of life, thereby supporting the effectiveness of these interventions from a patient-centered perspective.

Keywords: OHIP-14, oral health-related quality of life, apical resection, endodontic treatment, odontogenic cysts, odontogenic tumors

PP-6

Determination of Oral Health Attitudes of Preclinical Dentistry Students

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Introduction: Oral and dental health is an important part of overall health, and individuals' attitudes and behaviors play a critical role in maintaining this health. This study aims to determine the attitudes and behaviors of preclinical dentistry students regarding oral health.

Methods: This study is a cross-sectional survey conducted on preclinical dentistry students. A total of 92 preclinical students were included in the study. Categorical variables were presented as frequency and percentage values. Pearson chi-square and Fisher's exact chi-square tests were used in statistical analyses. The analyses were performed using IBM SPSS Statistics 22 software, and the significance level was accepted as 0.05.

Results: Of the participants in the preclinical group, 68.5% were female and 31.5% were male. The majority of participants (94.6%) had previously visited a dental clinic, and 91.3% reported brushing their teeth at least twice a day. However, the rate of brushing after every meal remained limited at 26.1%. Regular dental floss use was 37%, while regular mouthwash use was found to be 23.9%. A total of 68.5% of participants reported concern about bad breath. Smoking prevalence was 12%, and among smokers, the belief that their teeth worsened despite brushing was significantly higher ($p<0.05$). In gender-based analyses, it was found that visiting a dental clinic and regular use of dental floss were significantly higher among females compared to males ($p<0.05$). Additionally, regular use of mouthwash was significantly more common among participants who used professional brushing techniques ($p<0.05$).

Conclusion: Although basic oral hygiene habits are common among preclinical students, auxiliary hygiene practices are insufficient. Factors such as gender and smoking affect oral health behaviors. Therefore, it is important to increase oral health education and promote proper hygiene habits.

Keywords: Oral health, dental hygiene, preclinical students, attitude, behavior

PP-7

Determination of Oral Health Attitudes of Clinical Dental Students

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Introduction: Attitudes toward oral health play a decisive role in the development and maintenance of individuals' oral hygiene behaviors. Evaluating these attitudes is important for revealing the current status of oral health-related behaviors. The aim of this study is to assess the attitudes toward oral health of dental students receiving clinical training.

Methods: A total of 92 dental students undergoing clinical training were included in the study. Of the participants, 68.5% were female and 31.5% were male. Data were collected through a questionnaire, and categorical variables were presented as frequencies and percentages. Pearson's chi-square and Fisher's exact chi-square tests were used for statistical analyses, and the significance level was accepted as $p < 0.05$.

Results: The majority of participants brushed their teeth at least twice a day (84.9%) and applied professional brushing techniques (81.4%). However, the rates of regular dental floss use (37.2%) and mouthwash use (23.3%) were found to be considerably low. Smoking, reported by 45.3% of the students, emerged as a significant risk factor for oral health. Female students had significantly higher rates of brushing their teeth at least twice a day and using mouthwash compared to male students ($p < 0.05$). Additionally, the use of professional brushing techniques was significantly higher among non-smoking students ($p < 0.05$). Furthermore, students who regularly used mouthwash showed significantly higher rates of brushing their teeth at least twice a day and after every meal ($p < 0.05$).

Conclusion: Although basic oral hygiene habits among clinical dental students were found to be at an adequate level, supportive oral care practices were notably insufficient. In addition, the prevalence of smoking and its association with oral health behaviors highlight the need for targeted preventive approaches in this group.

Keywords: Dental students, oral health, attitude, hygiene, clinical

PP-8

Evaluation of the Presence of Bruxism and Parental Awareness in Children

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Introduction: Early diagnosis of childhood bruxism is critical in preventing its continuation into adulthood, parental awareness plays an important role in this process. This study aimed to evaluate the presence of bruxism in children aged 7-10 years and the level of awareness of the family.

Methods: Within the scope of the research, 200 children (101 girls, 99 boys) aged 7-10 years who applied to the dental faculty for routine check-ups and did not have systemic diseases and their parents were included in the study. The average age of the participants was recorded as 8.45 ± 1.08 . To measure parents' awareness, survey questions were asked, and then, during the intraoral clinical examination performed by the researcher, tooth wear, tooth marks on the tongue, and hyperkeratosis areas on the cheek mucosa were evaluated. SPSS software was used for the statistical analysis of the data, and a $p < 0.05$ value was considered statistically significant. Pearson chi-square test was used.

Results: In the study, the clinical bruxism prevalence in children was 9.0% ($n=18$), while according to parental statements it was 16.5%, and the difference between them was statistically significant ($p < 0.001$). There was no statistically significant difference between genders in terms of the frequency of bruxism ($p > 0.05$). A highly significant relationship was found between parental statements and clinical diagnosis ($p < 0.001$). In the bruxism group, tooth wear (94.4%), cheek hyperkeratosis (72.2%), and tongue marks (27.8%) were found to be significantly higher compared to the control group ($p < 0.001$). Compared to the control group, a statistically significant relationship was found between the presence of all these clinical symptoms and the diagnosis of bruxism ($p < 0.001$). While 80% of parents stated that psychological stress was the main cause of bruxism, 65.5% expressed their belief in the necessity of professional support for treatment.

Conclusion: In our study, the prevalence of bruxism in children was found to be 9%. Among the clinical examination findings, cheek hyperkeratosis and tooth wear were particularly highly influential in the diagnosis of bruxism. Although parental awareness was highly consistent with clinical findings, it was concluded that awareness of seeking professional help should be increased.

Keywords: Bruxism, tooth wear, hyperkeratosis, clinical examination, orthodontics

PP-9

Evaluation of the Prognosis of Surgical Miniscrew-related Teeth Using Cone Beam Computed Tomography

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Introduction: This study aims to evaluate the prognosis of teeth associated with surgical miniscrews using cone beam computed tomography (CBCT) and to identify radiological factors, including bone characteristics, miniscrew-root distance, root contact, periodontal ligament changes, and periapical pathologies, that may predict complication risk.

Methods: In this retrospective study, CBCT records of patients who underwent surgery between 2020 and 2024 were reviewed. A total of 1,269 postoperative tomographic images from 423 patients were evaluated, and only scans obtained 6-12 months after the procedure were included. Patients without CBCT data within this interval or with diagnostic artifacts were excluded, resulting in the removal of 352 cases. The analyses assessed miniscrew-root distance, root contact, root resorption, periodontal ligament space changes, and apical granuloma presence. Miniscrews positioned 5 mm or more from the tooth were excluded. All data were systematically recorded in Microsoft Excel and analyzed using SPSS 28.0 for statistical evaluation purposes.

Results: A total of 460 data points were obtained from miniscrews closely related to teeth in 71 patients. Root contact was detected in 163 teeth (35.4%), resorption in 68 (14.8%), and apical granuloma in 33 (7.2%). No PDL changes were observed in 267 teeth (58.0%), while 168 (36.5%) showed up to 2 mm and 25 (5.4%) over 2 mm widening. Resorption was 4.4% without contact and 33.7% with contact.

Conclusion: CBCT is a reliable method for three-dimensional, high-resolution evaluation of miniscrew-dentoalveolar relationships. Reduced miniscrew-root distance increases the risk of periodontal ligament widening, root resorption, and apical granuloma, negatively affecting tooth prognosis. Therefore, CBCT-based radiological assessment before miniscrew placement is essential to minimize complications and ensure safer clinical outcomes.

Keywords: Surgical miniscrew, CBCT, prognosis, root resorption, periodontal ligament

PP-10

Evaluation of the Anxiety and Fear Levels of Dentistry Students Regarding Oral and Maxillofacial Surgery Procedures

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Introduction: The practice of oral and maxillofacial surgery is a source of stress for dentistry students due to the risks involved. The aim of this study is to determine how the anxiety and fear levels of dentistry students towards surgical procedures change according to their grade levels and to examine the relationship between this situation and the self-confidence gained through clinical and theoretical education.

Methods: The research was conducted on 199 volunteer students (144 females, 55 males) from Bezmialem Vakıf University Faculty of Dentistry. Data were collected using a 5-point Likert-type questionnaire prepared by the researchers by modifying the dental environment stress questionnaire, consisting of two sub-dimensions: "fear and anxiety towards surgical procedures" (12 items) and "self-confidence and awareness gained through education" (9 items). In the statistical analysis of the data, Shapiro-Wilk, Mann-Whitney U, and Kruskal-Wallis tests, as well as Spearman correlation analysis, were used ($p < 0.05$).

Results: It was determined that the anxiety and self-confidence levels of the students in our study regarding surgical procedures did not follow a linear course throughout their education years, but rather fluctuated. When the mean surgical anxiety scores of the students were examined according to their grade levels; it was 2.77 in the 1st grade, increased to 3.01 in the 2nd grade, 2.76 in the 3rd grade, 2.67 in the 4th grade, and 2.82 in the 5th grade. Similarly, the self-confidence scores gained through clinical and theoretical education were measured as 3.64 in the 1st grade, 3.43 in the 2nd grade, 3.59 in the 3rd grade, 3.53 in the 4th grade, and 3.62 in the 5th grade. Although this trend between grades is clinically remarkable, it was not found to be statistically significant ($p = 0.265$ for anxiety; $p = 0.088$ for self-confidence). Furthermore, no direct correlation was found between the self-confidence levels gained through education and the anxiety levels of the students ($p = 0.332$).

Conclusion: It was observed that the theoretical knowledge acquired during dental education had no effect on anxiety scores and self-confidence, and similarly, the clinical experience gained during the transition from pre-clinical to clinical stages did not have a reflective effect on students' anxiety and self-confidence. Accordingly, it is of great importance to add stress management training and simulation practices for complication management to dentistry curricula.

Keywords: Dental education, surgical anxiety, self-confidence, maxillofacial surgery, biostatistics

PP-11

Evaluation of Bezmialem Vakıf University Faculty of Dentistry Students' Approaches to “Sustainability in Dentistry” at Preclinical and Clinical Levels

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Introduction: Sustainability includes practices that ensure the long-term viability of natural systems and plays a vital role in maintaining environmental, economic, and social well-being. Many materials and equipment used in dentistry negatively affect natural resources and limit sustainability. This study aims to evaluate the knowledge and attitudes of preclinical and clinical dental students regarding sustainability in dentistry through a survey.

Methods: The study was conducted among undergraduate students at Bezmialem Vakıf University. The minimum sample size was calculated as 243 participants with a 95% confidence level and 80% power. Data were collected using a 21-question, 5-point Likert scale questionnaire via Google Forms. Statistical analyses, including descriptive statistics and correlation analyses, were performed using SPSS (v28). Statistical significance was set at $p < 0.05$.

Results: Results showed that 76.6% of students believe they separate waste in clinical and preclinical settings. Additionally, 83.7% think that using recyclable or sterilizable materials instead of single-use items benefits the environment. About 65.2% believe digital technologies reduce the use of impressions and chemicals. Furthermore, 78% support using composite and resin-based materials instead of amalgam due to environmental concerns. A total of 73.9% emphasize informing patients about preventive care, brushing techniques, and dietary habits for sustainable oral health. A strong correlation (0.961) was found between recycling knowledge and attention to waste separation.

Conclusion: Students demonstrate a good level of knowledge regarding sustainability in dentistry. Increased awareness of recycling is associated with greater attention to waste management practices.

Keywords: Sustainability, biomedical waste, waste management

PP-12

The Effect of pH Cycling on the Microhardness of Microhybrid Composit Resins

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Introduction: The aim of this study was to evaluate the changes in surface hardness of microhybrid composites subjected to pH cycling.

Methods: A microhybrid composite resin (Filtek Z250, 3M ESPE) was used in this study. A total of 20 disc-shaped resin specimens were prepared using Teflon molds (8×2 mm) and polymerized according to the manufacturer's instructions using an LED curing unit (Valo, Ultradent, USA) (1000 mW/cm²). The samples were divided into two groups based on storage conditions: pH cycling and air (control). According to their groups, the specimens were stored in 20 mL solution in closed containers for 30 days, with 16 hours in remineralization solution and 8 hours in demineralization solution daily. Microhardness values were measured before and after storage in solutions and air using a Vickers microhardness tester from three different points on the upper surfaces of the specimens. Repeated measures analysis of variance was used for statistical analysis, and Bonferroni test was used for pairwise comparisons.

Results: Storage in air did not cause a significant change in surface microhardness. However, exposure to pH cycling resulted in a significant decrease in microhardness values.

Conclusion: pH cycling had a negative effect on the surface microhardness of microhybrid composite resin.

Keywords: Microhybrid composite resin, microhardness, pH cycling

PP-13

The Effect of pH Cycling on the Surface Roughness of Microhybrid Composite Resin

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Introduction: The aim of this study was to evaluate the changes in the surface roughness of microhybrid composite resin under intraoral pH conditions.

Methods: In this study, a microhybrid composite resin (Filtek Z250, 3M ESPE) was used. A total of 20 disc-shaped resin specimens were prepared using Teflon molds (8×2) and polymerized according to the manufacturer's instructions using an LED light-curing unit (Valo, Ultradent, USA) (1000 mW/cm²). The prepared specimens were randomly divided into two groups (n=10) according to storage conditions: a control group stored in air and a group subjected to pH cycling. The pH cycling was applied to simulate the oral environment, including demineralization and remineralization phases. Surface roughness (Ra) measurements of all specimens were performed from three different points on the upper surfaces using a contact profilometer (Marsurf M 300 C). Measurements were carried out at two different time points: 24 hours and 1 month. Surface roughness data were analyzed using two-way analysis of variance and Bonferroni tests (p<0.05).

Results: Storage in air and pH cycling did not cause a significant change in surface roughness.

Conclusion: pH cycling did not have any effect on the surface roughness of the microhybrid composite resin.

Keywords: Microhybrid composite resin, surface roughness, pH cycling, demineralization, remineralization

PP-14

Evaluation of the Mandibular Canal-root Relationship Using Panoramic Radiography: A CBCT-referenced Survey Study

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Introduction: Accurately evaluating the relationship between the mandibular canal and lower molar roots is critical to preventing complications during third molar surgeries. Rood's criteria are widely used for this assessment. This study aims to assess the diagnostic accuracy of oral and maxillofacial surgery residents and specialists when evaluating this relationship using only panoramic radiography, and to evaluate the impact of surgical experience on diagnostic accuracy.

Methods: The study included 88 participants, divided into three groups based on experience: junior residents (Group 1, n=54), senior residents (Group 2, n=20), and specialists (Group 3, n=14). Participants evaluated 10 panoramic radiographs to determine the relationship between the mandibular canal and the root. These radiographs were selected from patients who also had cone beam computed tomography (CBCT) data, which served as the gold standard for accuracy but was not shared with participants. Differences between groups were analyzed using the Kruskal-Wallis test.

Results: No statistically significant difference was found between the groups regarding the rate of correct identification ($p=0.289$). Similarly, no significant differences were detected for related-true ($p=0.494$), related-false ($p=0.494$), unrelated-true ($p=0.836$), or unrelated-false ($p=0.902$) evaluations. The mean accuracy scores were 4.91 for Group 1, 5.60 for Group 2, and 5.21 for Group 3.

Conclusion: Surgical experience does not significantly affect diagnostic accuracy when evaluating the mandibular canal-root relationship using panoramic radiography. These findings suggest that while Rood's criteria are easy to learn, their accuracy is limited. Panoramic radiography alone may have limited reliability; therefore, it should be supported by additional imaging such as CBCT in high-risk cases.

Keywords: Mandibular canal, panoramic radiography, CBCT, surgical experience, third molar

PP-15

Knowledge and Attitudes Regarding the Menopause-periodontal Disease Relationship Among Medical and Dental Students at Bezmialem Vakıf University

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Introduction: Menopause is a natural biological stage characterized by hormonal changes that may influence both systemic and oral health. This study aimed to evaluate the knowledge and attitudes of medical and dental students at Bezmialem Vakıf University regarding the relationship between menopause and periodontal disease.

Methods: This cross-sectional study included 295 medical and dental students from Bezmialem Vakıf University. Data were collected using a structured questionnaire administered via an online form (Google Forms). The questionnaire was designed to assess demographic characteristics, knowledge of menopause and periodontal diseases, and students' attitudes toward this relationship. Descriptive analyses were performed, and group comparisons were conducted using Pearson's chi-square test, the Fisher-Freeman-Halton exact test, and the Kruskal-Wallis test, with a p-value <0.05 considered statistically significant.

Results: A total of 295 students participated in the study (49.2% medical, 50.8% dental). Education on menopause was highest among sixth-year medical students but significantly lower among dental students ($p<0.001$). In contrast, education on periodontal diseases and knowledge of its association with menopause were significantly higher among dental students. Medical students, especially fifth-year students, showed lower levels regarding the relationship between menopause and periodontal diseases ($p<0.001$). Participants' attitudes were generally positive; however, they differed significantly across groups and were stronger among dental students ($p<0.05$).

Conclusion: Although students demonstrated a basic level of knowledge about menopause, awareness of its relationship with periodontal diseases was higher among dental students than medical students. These findings highlight the importance of strengthening interdisciplinary awareness of the relationship between menopause and oral health.

Keywords: Menopause, periodontal disease, oral health, medical students, dental students

PP-16

Evaluating the Effects of Experience on Dental Anxiety in Root Canal Treatment, Tooth Extraction, and Implant Treatments Among Inexperienced Patients: A Questionnaire Study

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Introduction: This study evaluates patients' anxiety levels regarding root canal treatments, tooth extractions, and dental implants, examining how demographic factors and past clinical experiences affect these anxieties.

Methods: A questionnaire was administered to 205 participants to gather demographic data, history of previous dental treatments, and procedure-specific anxiety levels. Statistical analyses included the Kruskal-Wallis test, Mann-Whitney U test, and Spearman correlation analysis.

Results: Gender significantly affected tooth extraction ($p=0.004$) and implant anxiety, but not root canal anxiety. Age created a statistically significant difference only in root canal treatment anxiety ($p=0.035$). Having a past history of root canal (mean=13-12), extraction (mean=14.5-13), or implant treatments (mean=15-16) did not cause a statistically significant difference in anxiety scores for the respective procedures ($p=0.336$, $p=0.112$, $p=0.693$). Additionally, a strong positive correlation was observed among the anxiety levels for all three treatments ($r=0.645$, $p<0.001$).

Conclusion: Demographic variables create minimal differences in specific dental anxiety types. Furthermore, previous experience with a specific dental procedure does not significantly alter the anxiety felt toward it. The strong positive correlation among treatment anxieties indicates that patients who are anxious about one procedure tend to approach others with high anxiety. These findings emphasize that anxiety management should adopt a holistic approach, regardless of the procedure type.

Keywords: Dental anxiety, root canal treatment, tooth extraction, dental implant, patient psychology

PP-17

Comparison of the Effects of Citric Acid, Cola, and Distilled Water on Surface Roughness (Ra, Rz) of Feldspathic Glass-ceramic Blocks

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Introduction: Increasing consumption of acidic beverages in daily diet threatens not only natural tooth structures but also the long-term clinical success of aesthetic restorations. Feldspathic ceramics, widely used in dentistry with computer-aided design (CAD)/computer-aided manufacturing (CAM) technology, are continuously exposed to such chemical challenges. This study aimed to comparatively evaluate the potential deteriorative effects of different acidic beverages (citric acid and cola) on the surface roughness of CAD/CAM feldspathic ceramic blocks.

Methods: Sirona CEREC feldspathic ceramic blocks were used. Specimens were standardized using a water-cooled micro-cut device. A two-step polishing protocol was applied to simulate clinical finishing, and surfaces were polished with EVE Diapol (blue, pink, gray/white) polishers. Samples were divided into three groups: citric acid (positive control), cola (experimental), and distilled water (negative control). Surface roughness values (Ra, Rz) were measured before and after procedures using a profilometer. Data were analyzed using appropriate statistical methods.

Results: Statistically significant differences were found between groups ($p < 0.05$). Both citric acid and cola groups showed increased Ra and Rz values compared to distilled water. The highest increase was observed in the citric acid group, while cola also caused a significant increase. Minimal changes were observed in the distilled water group.

Conclusion: Acidic beverages significantly increase surface roughness of feldspathic ceramics by inducing erosive effects. This may negatively affect long-term restoration success and plaque retention. Clinically, patients' acidic beverage consumption habits should be considered for the longevity of CAD/CAM restorations.

Keywords: Feldspathic ceramic, surface roughness, citric acid, cola, CAD/CAM, profilometry

PP-18

Investigation of the Knowledge Levels of 4th-Year Dentistry Students Regarding Antibiotic Use in Endodontic Diagnosis and Treatment Processes

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Introduction: This study aimed to evaluate the knowledge level and clinical approaches of fourth-year dental students regarding systemic antibiotic use and antibiotic prophylaxis protocols in endodontic infections.

Methods: A total of 168 fourth-year dental students who had completed their preclinical education were included in the study. Participants completed a questionnaire assessing their tendencies to prescribe antibiotics based on specific endodontic diagnoses, drug preferences, and knowledge of prophylaxis protocols. Data were analyzed using SPSS 25.0 software. Descriptive statistics were used to summarize the data. Chi-square tests were applied to evaluate the association between antibiotic selection criteria, prophylaxis knowledge, and demographic variables (gender, type of university). A significance level of $p < 0.05$ was considered statistically significant.

Results: Ninety percent of participants correctly identified the need for systemic antibiotic therapy in cases of acute apical abscess with diffuse swelling. However, a considerable proportion of students showed a tendency to prescribe antibiotics in vital conditions such as symptomatic irreversible pulpitis, where systemic antibiotic use is not indicated. This tendency was significantly associated with limited clinical experience ($p < 0.05$). While 74% of the participants selected appropriate alternative agents in cases of penicillin allergy, 93% demonstrated accurate knowledge regarding infective endocarditis prophylaxis. No statistically significant differences were found between antibiotic preferences and demographic variables ($p > 0.05$). The majority of students expressed the need for case-based antibiotic training prior to clinical practice.

Conclusion: Fourth-year dental students exhibit a strong theoretical foundation regarding the use of antibiotics in endodontics. However, to bridge the gap between theoretical knowledge and practical decision-making, and to minimize inappropriate antibiotic use, the integration of case-based training into the curriculum is recommended.

Keywords: Endodontics, fourth-year dental students, antibiotic prescribing, preclinical education, prophylaxis protocols

PP-19

Comparison of Bezmialem Vakıf University Dental Students' Opinions on Prosthodontics Before and After Clinical Training

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Introduction: Preclinical and clinical training processes in dental education are fundamental stages that influence students' professional development and specialty preferences. This study aimed to evaluate students' opinions regarding these processes and the impact of these experiences on their career orientations.

Methods: The study included 4th and 5th year students studying at Bezmialem Vakıf University Faculty of Dentistry during the 2025-2026 academic year. An 11-question questionnaire evaluating preclinical and clinical training processes and specialization preferences was administered to 121 volunteer participants, and the data obtained were statistically analyzed.

Results: According to the analysis results, statistically significant differences were found in two areas. Firstly, in the evaluations related to the clinical training process, a significant difference was found in the questions regarding the adequacy of preclinical practices and their impact on specialization choices ($p < 0.05$), with 5th-year students reporting more distinct and clear opinions based on clinical experiences. Furthermore, a significant difference was found between classes in the questions regarding the influence of clinical experiences on students' specialization choices ($p < 0.05$), with 5th-year students expressing more positive opinions about choosing prosthetic dentistry as a specialization. These findings indicate that students' professional perceptions and preferences become more pronounced as the educational process progresses.

Conclusion: According to the results of our study, preclinical and clinical training processes are one of the determining factors for students' professional development and career planning (such as specialization choice).

Keywords: Dental education, preclinical training, clinical experience, career choice, dental students

PP-20

Antibiotic Preferences and Clinical Decision-making Processes of 5th-Year Dental Students in the Management of Endodontic Infections

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Introduction: This study was conducted to evaluate the knowledge levels and clinical approaches of 5th-year Faculty of Dentistry students regarding systemic antibiotic use and prophylaxis protocols in endodontic infections.

Methods: One hundred six dental students in their clinical internship period were included in the study. The participants' tendencies to prescribe antibiotics in different endodontic diagnoses, drug preferences, and prophylaxis approaches in systemic diseases were questioned via a survey. Data analysis was performed using the SPSS 25.0 (IBM Corp., Armonk, NY, USA) software package. Participants' demographic characteristics and clinical responses were presented as numbers (n) and percentages (%). The Pearson chi-square test was used to evaluate the relationship between the antibiotic prescribing preferences based on endodontic diagnoses and the clinical internship experiences of 5th-year students. All findings were tested at a 95% confidence interval, and a value of $p < 0.05$ was considered statistically significant.

Results: Ninety-four percent of the participants correctly supported the use of antibiotics in cases of "acute apical abscess with diffuse swelling". A statistically significant relationship was found between the correct determination of clinical diagnoses, rational antibiotic use decisions, and clinical internship experience ($p < 0.05$). While amoxicillin+clavulanic acid was preferred at a rate of 78% as the first-choice antibiotic, clindamycin ranked first in case of penicillin allergy. It was observed that the variables of gender and university type did not create a statistically significant difference in drug selection criteria and prophylaxis knowledge ($p > 0.05$). Furthermore, the vast majority of participants (84%) stated that receiving additional clinical pharmacology training before graduation is necessary for professional competence.

Conclusion: It was observed that 5th-year students have a high level of awareness in managing serious endodontic infections and successfully apply standard treatment protocols. It was concluded that the clinical internship process has a positive effect on the ability to limit unnecessary antibiotic use and establish correct indications.

Keywords: Endodontics, antibiotic resistance, clinical decision making, 5th-year dental students, rational drug use

PP-21

Assessment of Changes in the Gingiva Associated With the Menstrual Cycle Using a Cross-polarized Filter

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Introduction: Hormonal fluctuations during the menstrual cycle may induce vascular and inflammatory changes in periodontal tissues. Cross-polarized filtering (CPF) eliminates specular reflections and may enhance the objectivity of gingival color assessment. This study aimed to evaluate the diagnostic performance of CPF imaging in detecting menstrual cycle-associated gingival color changes.

Methods: Thirty-six systemically healthy female dental students with regular menstrual cycles were enrolled. All participants were non-smokers, reported no use of hormonal or systemic medications, and had no known systemic conditions. Inclusion criteria also comprised probing pocket depths ≤ 3 mm, absence of mouth breathing, and no history of restorative, endodontic, or prosthetic treatment in the anterior region. Clinical examinations were performed on days 2, 14, and 21 of the menstrual cycle. Standardized intraoral photographs were obtained both with and without CPF under controlled conditions. Gingival color was quantified using CIELAB color space parameters, and color differences (ΔE), including CIEDE2000 values, were calculated. Periodontal parameters, including plaque index, gingival index, bleeding on probing (BOP), clinical attachment level, and probing pocket depth, were recorded.

Results: No statistically significant differences were identified in ΔE or CIEDE2000 values among the evaluated menstrual phases ($p > 0.05$). However, CPF-based image analysis demonstrated significantly greater reliability and sensitivity compared to non-filtered imaging ($p < 0.001$). Periodontal parameters remained largely stable across all time points, although BOP values were higher on day 2 compared to the other phases.

Conclusion: Menstrual cycle-related hormonal variations do not appear to induce gingival color changes detectable by objective digital analysis in systemically healthy individuals. Although CPF enhances measurement precision and analytical objectivity, it does not reveal clinically meaningful phase-dependent differences in gingival color stability.

Keywords: Menstrual cycle, cross-polarized filter, gingival color analysis, CIELAB

PP-22

Evaluation of Temporomandibular Disorders in Dental Students Using the Fonseca Anamnestic Index

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Introduction: The aim of this study is to evaluate the prevalence and severity of temporomandibular disorders (TMD) among dental students using the Fonseca Anamnestic Index.

Methods: A total of 316 dental students (240 females, 76 males) from a private university's faculty of dentistry were included in the study. Data were collected via online surveys prepared through Google Forms. The Fonseca Anamnestic Index, consisting of 10 questions, was used to determine the TMD status of the participants. The obtained data were transferred to Microsoft Excel and classified as: no symptoms (0-15 points), mild TMD (20-40 points), moderate TMD (45-65 points), and severe TMD (70-100 points). Descriptive statistics and the chi-square test were used for data analysis.

Results: TMD of varying severities was detected in 78.5% (n=248) of the participants. According to the scoring, 46.5% (n=147) of the students had mild TMD, 24.1% (n=76) had moderate TMD, and 7.9% (n=25) had severe symptoms. Only 21.5% (n=68) of the participants showed no symptoms. Statistical analysis revealed that the prevalence and severity of TMD were significantly higher in female students compared to male students ($p=0.001$). No statistically significant relationship was found between the students' grade level and TMD severity ($p=0.112$).

Conclusion: It was determined that TM disorders have a considerably high prevalence among dental students, and female sex is a significant risk factor for these disorders. The lack of significant difference between grade levels suggests that the intense workload and stress at all stages of dental education lead to a similar risk of TMD. In light of these findings, clinical follow-up of students, especially those in the risk group, and the development of preventive approaches to increase TMD awareness within the faculty are recommended.

Keywords: Fonseca Anamnestic Index, TMD, dentistry students

PP-23

Evaluation of Oral and Dental Health Care in Children Aged 0-6 and Their Mothers Applying to Bezmialem Vakıf University Faculty of Dentistry

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Introduction: Early childhood caries (ECC) is a highly prevalent, chronic infectious disease characterized by a multifactorial etiology and remains a major global public health challenge. Since biological, behavioral, and environmental risk factors play a collective role in its progression, evaluating these determinants is essential for developing effective preventive dental strategies. This study aims to evaluate the potential relationship between caries experience in children aged 0-6 years and their mothers' sociodemographic characteristics, oral hygiene habits, and specific oral health-related behaviors.

Methods: This cross-sectional and descriptive study included 35 child-mother pairs who presented for an initial dental examination at the Department of Pediatric Dentistry, Bezmialem Vakıf University, between March 12 and March 26, 2026. Intraoral examinations were performed visually in a clinical setting under reflector light on dry surfaces using mirrors and explorers. Caries experience was recorded via the dmft index following the 2013 World Health Organization Oral Health Assessment Manual. A comprehensive 15-question survey assessed maternal sociodemographics, oral hygiene habits, and children's nutritional and care patterns. Data were analyzed using chi-square, Fisher's exact tests, and Pearson correlation; significance was set at $p < 0.05$.

Results: Results indicated that 51.4% of mothers were university graduates. ECC was detected in 88.6% of children, with dmft values ranging from 0 to 9. While 60% of mothers reported brushing teeth several times daily, 82.9% of children consumed sugary foods every day. Statistical analyses revealed no significant difference between ECC presence and maternal education ($p = 0.302$), nighttime feeding ($p = 0.710$), sugary food frequency ($p = 0.546$), or meal counts ($p > 0.05$).

Conclusion: The absence of statistically significant correlations may be attributed to the limited sample size. Future prospective studies with larger cohorts investigating broader biological and environmental risk factors are necessary to provide a more comprehensive understanding of ECC etiology.

Keywords: Early childhood caries, dmft index, oral hygiene, maternal attitudes, pediatric dentistry

PP-24

Correlation Between Panoramic Radiographic Risk Factors and CBCT Findings in the Relationship of Mandibular Third Molars with the Inferior Alveolar Nerve

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Introduction: To evaluate the diagnostic accuracy of panoramic radiographic signs described by Rood and Shehab in predicting the relationship between mandibular third molars and the inferior alveolar canal, using cone beam computed tomography (CBCT) as the reference standard.

Methods: This retrospective study included 199 patients with both panoramic radiographs and CBCT scans. Seven panoramic radiographic signs (darkening of the root, interruption of the white line of the mandibular canal, diversion of the canal, deflection of the root, narrowing of the root, narrowing of the mandibular canal, and bifid or dark root apex) were assessed as binary variables. The presence of contact between the mandibular third molar and the inferior alveolar canal was determined on CBCT. The diagnostic performance of each sign was evaluated using contingency table analysis, and associations were analyzed using chi-square or Fisher's exact tests. A cumulative score based on the number of present signs was analyzed using logistic regression and receiver operating characteristic analysis.

Results: Narrowing of the mandibular canal and bifid or dark root apex demonstrated the highest diagnostic performance, with perfect specificity and positive predictive value. Root narrowing and canal diversion were also significantly associated with CBCT-confirmed contact, although with low sensitivity. In contrast, commonly observed findings such as darkening of the root and interruption of the canal wall showed limited discriminative value. The cumulative number of radiographic signs was significantly associated with canal contact (odds ratio=4.32, 95% confidence interval: 2.38-7.82, $p<0.001$), with moderate overall diagnostic accuracy (area under the curve=0.687). A threshold of three or more signs provided high specificity but limited sensitivity.

Conclusion: Not all panoramic radiographic signs have equal predictive value. While certain findings are highly specific indicators of canal involvement, their absence does not exclude a close anatomical relationship. A cumulative, criterion-based approach may improve preoperative risk assessment and support more selective use of CBCT.

Keywords: Third molar, inferior alveolar nerve, panoramic radiography, CBCT, Rood and Shehab criteria, mandibular canal