

# The Effect of Clinical Rotation Students' Quality of Service on Patient Satisfaction Through Service Experience at the Islamic Dental and Oral Health Education Hospital

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The author(s) declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## ABSTRACT

**Purpose:** This study aims to analyze the effect of the quality of care provided by dental internship students on patient satisfaction through service experience as a mediating variable at RSIGMP UMI.

**Research Method:** This study employed a quantitative cross-sectional design. The sample consisted of 308 respondents selected using purposive sampling. The independent variables included medical history, clinical examination, diagnosis and treatment plan, dental care procedures, and post-treatment education and instructions. Service experience was used as the mediating variable, and patient satisfaction as the dependent variable. Data were analyzed using path analysis.

**Results and Discussion:** Medical history had a direct, positive, and significant effect on patient satisfaction. Clinical examination, diagnosis and treatment planning, dental treatment procedures, and post-treatment education and instructions did not have a significant direct effect on patient satisfaction. Medical history, diagnosis and treatment plan, treatment procedures, and post-treatment education and instructions had a significant effect on service experience, whereas clinical examination did not. Service experience mediated the effects of medical history, diagnosis and treatment plan, treatment procedures, and post-treatment education and instructions on patient satisfaction.

**Implications:** Service experience plays a crucial role as a mediating mechanism between the quality of service provided by medical students and patient satisfaction. Efforts to improve service quality should emphasize communication, patient involvement, clear information, safe, comfortable procedures, and post-treatment education.

**Originality:** provide the clear explanation regarding the original of your research.

**Keywords:** quality of service; medical students; patient satisfaction; service experience; educational dental and oral hospital.

## 1. Introduction

Oral health is an integral part of overall health and is linked to an individual's quality of life. Oral health problems that are not adequately addressed can interfere with chewing, speech, aesthetics, and



psychosocial well-being. In Indonesia, oral health problems remain prevalent. Data from the 2018 Riskesdas survey indicate that approximately 57.6% of the population experiences oral health problems, while the proportion of the population utilizing dental care services remains relatively low. This situation underscores the importance of providing high-quality, patient-centered oral health care services. The quality of health care services is not only related to technical or clinical aspects but also to how those services are delivered to patients. Service quality can be understood through the dimensions of tangibility, reliability, responsiveness, assurance, and empathy. These five dimensions reflect the condition of facilities, the timeliness of service, responsiveness, assurance of competence and safety, and attention to patient needs. Good service quality can improve patients' perceptions of service quality and, in turn, contribute to patient satisfaction.

Patient satisfaction is one of the key indicators in evaluating the quality of health care services. Satisfaction describes the extent to which the services received meet patients' needs and expectations. Satisfied patients tend to have a positive perception of healthcare facilities, are willing to use the services again, and are willing to recommend the services to others (Anggraini *et al.*, 2025). In addition to satisfaction, the concept of service experience is becoming increasingly important in patient-centered healthcare. Service experience encompasses the patient's entire interaction with healthcare providers and the service environment. This experience includes communication, comfort, attentiveness, patient involvement, and patients' perceptions of the overall service process. Thus, service experience can provide a more specific picture of the service process compared to measuring satisfaction alone (Wolf *et al.*, 2021; Altinay *et al.*, 2023).

The context of care at the Educational Dental and Oral Hospital (RSGMP) is increasingly complex because the institution serves a dual function: providing healthcare services and serving as a clinical training site for dental students. Clinical students provide direct patient care under the supervision of the dentist in charge of the service. The care provided by clinical students includes taking a medical history, conducting clinical examinations, establishing a diagnosis and treatment plan, performing treatment procedures, and providing patient education. In this context, the quality of care provided by dental students can be a key factor in shaping patients' perceptions and experiences. Since patients interact directly with dental students, aspects such as communication, active listening, empathy, clarity of information, comfort, and safety during procedures can significantly influence the perceived quality of care.

The UMI Educational Dental and Oral Hospital (RSIGMP UMI) is an educational dental and oral hospital that provides healthcare services and serves as a clinical training facility for dental students. Based on a preliminary survey conducted as part of this study, the hospital has a fairly high volume of patient visits, averaging approximately 50 patients per day and 1,559 visits per month. Results from initial interviews indicated that the majority of patients were fairly satisfied, particularly with the friendliness, communication, and comfort of the care provided; however, complaints regarding wait times during certain periods were still noted. While numerous studies have examined service quality and patient satisfaction, research specifically examining the stages of care provided by dental student interns and treating service experience as a mediating variable remains relatively limited, particularly in the context of public dental hospitals in Indonesia. Therefore, this study was conducted to analyze the effect of the quality of care provided by dental student interns on patient satisfaction, both directly and through service experience as a mediating variable.

The remainder of this paper is organized as follows. Section 2 provides a literature review and hypothesis development. Section 3 presents the research method and design. Section 4 provides the results and discussion. Section 5 presents concluding remarks and Recommendations.

## 2. Literature Review and Hypothesis Development

### 2.1 Literature Review

#### 2.1.1 Quality of Health Care

Healthcare service quality refers to the degree to which services align with service standards, professional standards, and patient needs. Quality encompasses not only technical quality but also functional quality—that is, how services are delivered to patients. Agustina *et al.*, (2025) explain that technical quality relates to competence and the accuracy of procedures, while functional quality pertains to the interaction process and the manner in which services are delivered. In this study, the quality of care provided by dental students was operationalized into five stages: medical history-taking, clinical examination, diagnosis and treatment planning, dental procedures, and post-treatment education and instructions. These five aspects represent the sequence of care experienced by patients from the beginning to the end of the treatment process.

#### 2.1.2 Anamnesis

Anamnesis is the process of gathering information about a patient's health before any procedures are performed. In addition to obtaining clinical information, anamnesis serves as the initial stage in establishing therapeutic communication between dental students and patients. The ability to listen to complaints, show concern, and allow patients to describe their condition can enhance their sense of being valued and trusted. Doctor-patient communication is a crucial component in shaping patient satisfaction. Matsuoka *et al.*, (2021) demonstrated that doctor-patient communication is associated with patient satisfaction in the decision-making process. Kim *et al.*, (2024) also indicated that patient-centered communication is a key factor in shaping the patient experience.

#### 2.1.3 Clinical Examination

A clinical examination is a technical procedure used to assess the condition of the oral cavity and associated tissues. Although it is an essential part of the diagnostic process, patients generally lack the technical expertise to objectively evaluate the accuracy of a clinical examination. Consequently, patients' perceptions of the clinical examination are likely influenced more by how the medical student conducts it—including thoroughness, patient comfort, communication, and the level of attention provided.

#### 2.1.4 Diagnosis and Treatment Plan

Establishing a diagnosis and developing a treatment plan are critical stages of care because they provide patients with an understanding of their health condition and treatment options. Explanations regarding the diagnosis, treatment options, risks, benefits, and stages of care can enhance patients' sense of security and trust. Matsuoka *et al.*, (2021) highlighted the importance of physicians' communication regarding diagnoses and treatment options in improving patient experience and satisfaction.

### 2.1.5 Dental Treatment Procedures

Treatment procedures involve implementing clinical interventions based on the diagnosis and treatment plan. The quality of these procedures can be assessed based on procedural appropriateness, precision, safety, hygiene, and patient comfort. Although technical aspects are important, patients may not be able to objectively assess the clinical quality of the procedures. Therefore, interpersonal experience during treatment can be a key component in shaping satisfaction. Research by Aldossary *et al.*, (2023) indicates that communication, information provision, and aspects of service as perceived by patients are important predictors of satisfaction with dental care.

### 2.1.6 Post-Treatment Education and Instructions

Post-treatment education helps patients understand treatment outcomes, medication use, follow-up care, signs of complications, and follow-up schedules. Clear information can reduce uncertainty and enhance patients' readiness to undergo the recovery process. Aldossary *et al.*, (2023) found that communication and education are important predictors of patient satisfaction in dental care. Post-treatment education is also part of the patient experience because the care interaction does not end when the clinical procedure is complete.

### 2.1.7 Quality of Care and Service Experience

Service experience refers to the overall experience a patient has throughout the care process. This experience is influenced by communication, the environment, attention, comfort, and interactions with healthcare providers (Wolf *et al.*, 2021; Altinay *et al.*, 2023). A medical history interview conducted with open, empathetic communication can be a positive experience. Kim *et al.*, (2024) demonstrated that the opportunity to voice complaints, active listening, empathy, and patient involvement are key factors in the patient experience.

### 2.1.8 Service Experience as a Mediating Variable

Conceptually, service quality can influence satisfaction through patients' perceived experience. Good service does not always directly lead to satisfaction if patients do not perceive it as positive. Service experience translates interactions, communication, information, comfort, and service processes into satisfaction ratings. This concept aligns with Altinay *et al.*, (2023), who demonstrated that positive experiences during care can enhance patients' perceptions of overall care.

## 2.2 Hypothesis Development

Based on this framework, the research hypotheses are:

- H1:** *The medical history interview has a positive effect on patient satisfaction.*
- H2:** *The clinical examination has a positive effect on patient satisfaction.*
- H3:** *Diagnosis and treatment planning have a positive effect on patient satisfaction.*
- H4:** *Dental treatment procedures have a positive effect on patient satisfaction.*
- H5:** *Post-treatment education and instructions have a positive effect on patient satisfaction.*
- H6:** *Medical history-taking has a positive effect on the service experience.*
- H7:** *Clinical examinations have a positive effect on the service experience.*
- H8:** *Diagnosis and treatment planning have a positive effect on the service experience.*

**H9:** Dental treatment procedures have a positive effect on the service experience.

**H10:** Post-treatment education and instructions have a positive effect on the service experience.

**H11:** Service experience mediates the effect of medical history on patient satisfaction.

**H12:** Service experience mediates the effect of clinical examination on patient satisfaction.

**H13:** Service experience mediates the effect of diagnosis and treatment plan on patient satisfaction.

**H14:** Service experience mediates the effect of dental treatment procedures on patient satisfaction.

**H15:** Service experience mediates the effect of post-treatment education and instructions on patient satisfaction.

### 3. Research Method

This study used a quantitative cross-sectional design and was conducted at the University of Muslim Indonesia's Islamic Dental and Oral Education Hospital (RSIGMP UMI) in July 2026. The study population consisted of patients who received care from dental students. A total of 308 respondents were included in the study. Data were collected using a structured questionnaire to assess patients' perceptions of the five stages of care, service experience, and patient satisfaction. Multivariate analysis used path analysis with bootstrapping to estimate the direct effects of the five stages of care on patient satisfaction, the effects of the five stages on service experience, and the indirect effects on satisfaction via service experience. Statistical significance was assessed based on T-statistics  $> 1.96$  and  $p < 0.05$ .

**Table 1.** Operational Definitions of Research Variables

| Variables                               | Operational Definition (concise)                                                                                                          | Criteria                                                   | Scale   |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|---------|
| Medical History                         | Gathering patient health information prior to treatment (chief complaint, medical/allergy/family history, listening skills).              | Good ( $\geq 61\%$ );<br>Poor ( $\leq 60\%$ )              | Nominal |
| Clinical Examination                    | Examination of the oral cavity and related tissues: thoroughness, adherence to procedure, care, instrument use, patient comfort.          | Good ( $\geq 61\%$ );<br>Poor ( $\leq 60\%$ )              | Nominal |
| Diagnosis & Treatment Plan              | Explanation of the patient's condition and treatment plan, opportunity to ask questions, ease of understanding, consent to treatment.     | Good ( $\geq 61\%$ );<br>Poor ( $\leq 60\%$ )              | Nominal |
| Dental Procedures                       | Performance of clinical procedures in accordance with protocols, precision, instrument/hand hygiene, patient safety and comfort.          | Good ( $\geq 61\%$ );<br>Poor ( $\leq 60\%$ )              | Nominal |
| Post-Treatment Education & Instructions | Explanation of treatment outcomes, post-treatment instructions, oral health education, explanation of medications and follow-up schedule. | Good (76–100%); Fair (56–75%); Poor ( $\leq 55\%$ )        | Ordinal |
| Service Experience                      | The patient's overall experience (sensory, emotional, cognitive, behavioral, relational) during the care process.                         | Good ( $\geq 61\%$ );<br>Poor ( $\leq 60\%$ )              | Nominal |
| Patient Satisfaction                    | Patient satisfaction following care: alignment with expectations, comfort, willingness to return, and willingness to recommend.           | Satisfied ( $\geq 61\%$ );<br>Dissatisfied ( $\leq 60\%$ ) | Nominal |

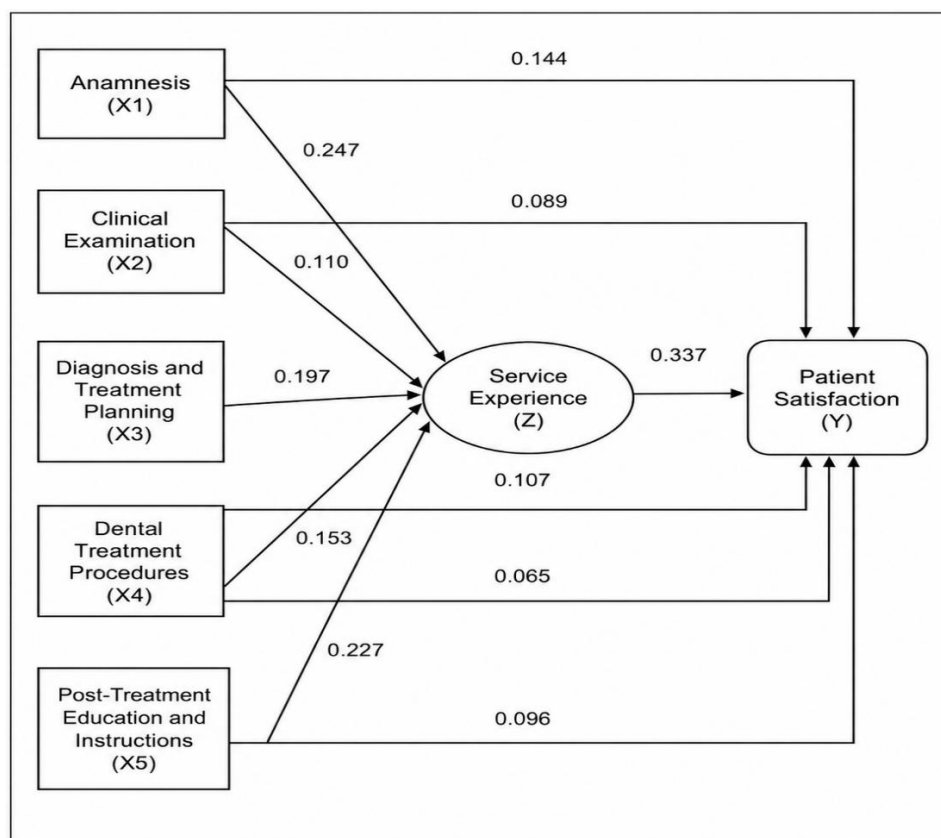
## 4. Results and Discussion

### 4.1 Analysis Results

#### 4.1.1 Analysis Results

The study involved 308 patients. There were 176 female respondents (57.14%) and 132 male respondents (42.86%). Most respondents were aged 20–29 years, totaling 184 people (59.74%), while those aged over 50 years constituted the smallest group, with 8 people (2.60%). The descriptive results showed generally positive evaluations of the services.

**Figure 1.** Path Analysis Results



**Table 3.** Direct Effects of Independent Variables on Patient Satisfaction

| Chain of Influence                                             | Coefficient (O) | T-Statistics | P-Values |
|----------------------------------------------------------------|-----------------|--------------|----------|
| Medical History → Patient Satisfaction                         | 0.144           | 2.137        | 0.033*   |
| Clinical Examination → Patient Satisfaction                    | 0.089           | 1.224        | 0.222    |
| Diagnosis & Treatment Plan → Patient Satisfaction              | 0.107           | 1.255        | 0.210    |
| Dental Treatment Procedures → Patient Satisfaction             | 0.096           | 1.461        | 0.145    |
| Post-Treatment Education & Instructions → Patient Satisfaction | 0.065           | 1.308        | 0.192    |

Source: primary data, 2026 (analyzed using path analysis/bootstrapping). \*Significant at  $p < 0.05$ .

**Table 4.** Direct Effects of Independent Variables on Service Experience

| Pathways of Influence                                        | Coefficient (O) | T-Statistics | P-Values |
|--------------------------------------------------------------|-----------------|--------------|----------|
| Medical History → Service Experience                         | 0.247           | 4.509        | 0.000*   |
| Clinical Examination → Service Experience                    | 0.110           | 1.399        | 0.163    |
| Diagnosis & Treatment Plan → Service Experience              | 0.197           | 2.596        | 0.010*   |
| Dental Treatment Procedures → Service Experience             | 0.153           | 2.279        | 0.023*   |
| Post-Treatment Education & Instructions → Service Experience | 0.277           | 4.933        | 0.000*   |

**Source:** primary data, 2026 (analyzed using path analysis/bootstrapping). \*Significant at  $p < 0.05$ .

**Table 5.** Indirect Effects of Independent Variables on Patient Satisfaction through Service Experience

| Pathway of Influence                                                                | Coefficient (O) | T-Statistics | P-Values |
|-------------------------------------------------------------------------------------|-----------------|--------------|----------|
| Medical History → Service Experience → Patient Satisfaction                         | 0.083           | 3.232        | 0.001*   |
| Clinical Examination → Service Experience → Patient Satisfaction                    | 0.037           | 1.244        | 0.214    |
| Diagnosis & Treatment Plan → Service Experience → Patient Satisfaction              | 0.067           | 2.200        | 0.028*   |
| Dental Treatment Procedures → Service Experience → Patient Satisfaction             | 0.052           | 1.974        | 0.049*   |
| Post-Treatment Education & Instructions → Service Experience → Patient Satisfaction | 0.093           | 2.999        | 0.003*   |

**Source:** primary data, 2026 (analyzed using path analysis/bootstrapping). \*Significant at  $p < 0.05$ .

The path analysis results indicate that medical history is the only dimension with a significant direct effect on patient satisfaction ( $\beta = 0.144$ ;  $p = 0.033$ ). Four independent variables had a significant direct effect on service experience: medical history, diagnosis and treatment plan, dental procedures, and post-treatment education and instructions ( $p < 0.05$ ), with post-treatment education and instructions having the largest path coefficient (0.277), whereas clinical examination did not have a significant direct effect on service experience ( $p = 0.163$ ). In the indirect effect analysis, service experience was found to significantly mediate the effects of medical history, diagnosis and treatment plan, dental treatment procedures, and post-treatment education and instructions on patient satisfaction ( $p < 0.05$ ). In contrast, the effect of clinical examination on patient satisfaction was not significant, either directly or through the mediation of service experience ( $p = 0.214$ ). The path coefficient for service experience on patient satisfaction was 0.337, confirming service experience's central role as the primary link between the quality of service provided by dental students and patient satisfaction.

## 4.2 Discussion

### 4.2.1 The Effect of Medical History on Patient Satisfaction

The results of the study show that the medical history interview has a positive and significant effect on patient satisfaction, with a  $\beta$  coefficient of 0.144, a T-statistic of 2.137, and a p-value of 0.033. These findings indicate that the better the medical history interview conducted by medical students, the higher the level of patient satisfaction. Medical history-taking is a crucial initial interaction because it allows patients to express their complaints, medical history, and needs. At the same time, medical students have the opportunity to build a therapeutic relationship through active listening, empathy, and effective communication. These results align with those of Matsuoka *et al.*, (2021), who demonstrated that doctor-patient communication influences patient satisfaction with decision-making. These findings are also consistent with Aldossary *et al.*, (2023), who identified communication as a key aspect of patient satisfaction with dental care. A study by Hasna *et al.*, (2022) in Indonesia further supports the importance of communication quality in shaping patient satisfaction. Thus, the research findings indicate that for patients, the medical history-taking process is not merely an activity for collecting clinical data but rather a communicative experience that forms the basis for evaluating the service.

### 4.2.2 The Effect of Clinical Examination on Patient Satisfaction

Clinical examination did not have a significant effect on patient satisfaction ( $\beta = 0.089$ ;  $T = 1.224$ ;  $p = 0.222$ ). These results should be interpreted with caution, as clinical examinations remain an important part of patient care. However, patients generally lack the technical expertise to objectively assess the accuracy of the examination. Patients are better able to evaluate aspects they experience directly, such as communication, friendliness, comfort, and attentiveness. This finding differs from the bivariate relationship reported in the thesis, in which clinical examinations were associated with patient satisfaction ( $p=0.001$ ). However, when the variables were analyzed simultaneously via path analysis, the direct effect became insignificant. These results are relatively consistent with the approach of Cheuk *et al.*, (2024), who emphasized that interpersonal communication is a key component of the quality of dentist-patient interactions. Wibisono and Tan (2025) also highlighted the importance of patients' perceptions of service quality in shaping satisfaction. The difference between the bivariate and multivariate analyses suggests that the influence of clinical examination may be overshadowed by other factors that patients perceive more readily, particularly communication and service experience.

### 4.2.3 The Influence of Diagnosis and Treatment Plans on Patient Satisfaction

Diagnosis and treatment plans do not have a significant direct effect on patient satisfaction ( $\beta = 0.107$ ;  $T = 1.255$ ;  $p = 0.210$ ). This finding suggests that the diagnosis and treatment planning processes do not automatically lead to satisfaction. Patients may not evaluate the technical quality of the diagnosis, but rather focus on how the diagnosis and plan are explained to them. These findings are not entirely consistent with those of Matsuoka *et al.*, (2021) and Tian *et al.*, (2024), who emphasize the importance of communication and patient involvement in decision-making for patient experience and satisfaction. This discrepancy may arise because this study evaluated diagnosis and treatment plans as a single stage of care provided by dental students. In contrast, previous studies placed greater emphasis on communication and shared decision-making. Interestingly, this study shows that diagnosis and

treatment plans have a significant effect on service experience. This implies that their impact on satisfaction likely does not occur directly but rather through the patient's experience.

#### **4.2.4 The Effect of Dental Treatment Procedures on Patient Satisfaction**

Dental treatment procedures do not have a significant direct effect on patient satisfaction ( $\beta = 0.096$ ;  $T = 1.461$ ;  $p = 0.145$ ). Patients may undergo the procedures directly but are not necessarily able to objectively assess the technical quality of the procedures. Patients tend to evaluate their sense of safety, comfort, communication during the procedure, and the dental students' attitude. These results differ from the theoretical expectation that the quality of clinical procedures would directly increase satisfaction. However, the study findings actually indicate that treatment procedures have a significant effect on service experience. Thus, the technical aspects of the procedure appear to translate into patient satisfaction through their experience during the procedure. These findings reinforce the view of Aldossary *et al.*, (2023) that communication and the experience of interaction are crucial components of satisfaction with dental care.

#### **4.2.5 The Effect of Post-Treatment Education and Instructions on Patient Satisfaction**

Post-treatment education and instructions did not have a direct effect on patient satisfaction ( $\beta = 0.065$ ;  $T = 1.308$ ;  $p = 0.192$ ). This finding suggests that education does not necessarily lead to a direct increase in satisfaction. Patients may recall their experiences during treatment more vividly than the information they received afterward. These results align with those of Othman and Kadasah (2025), who found that patient satisfaction is more strongly influenced by perceptions of overall service quality—particularly communication, professionalism, and interaction—while education is not the most dominant factor. However, these results do not align with those of Sindi *et al.*, (2022), who found that structured patient health education programs can improve adherence and satisfaction. This discrepancy is likely related to the educational methods used. Sindi *et al.*, employed a structured audio-based education program. In contrast, the education in this study was provided as part of routine care by medical students, meaning the quality of delivery could vary. This difference was also discussed in the thesis.

#### **4.2.6 The Effect of Anamnesis on Service Experience**

Anamnesis has a positive and significant effect on service experience ( $\beta = 0.247$ ;  $T = 4.509$ ;  $p < 0.001$ ). These results indicate that anamnesis is one of the primary determinants of the patient experience. Patients have the opportunity to express their complaints and feel heard. This communication process can foster feelings of being cared for, valued, and involved. These findings align with those of Gualandi *et al.*, (2021), who identified the patient experience as a crucial component of the care journey. They also align with Matsuoka *et al.*, (2021) regarding the importance of communication in the relationship between patients and healthcare providers. Thus, the medical history plays two roles in this study: it directly influences satisfaction and simultaneously shapes the service experience.

#### **4.2.7 The Effect of Clinical Examination on Service Experience**

Clinical examination did not have a significant effect on service experience ( $\beta = 0.110$ ;  $T = 1.399$ ;  $p = 0.163$ ). The thesis results also indicate that although a bivariate relationship exists between clinical examination and satisfaction, the path analysis showed that the effect of clinical examination on service experience was not significant. Patients likely perceive clinical examinations as routine procedures that

must be performed. Variations in patients' experiences with clinical examinations are relatively small, so their contribution to the overall experience is not strong enough. These results differ from the theoretical assumption that every stage of service will contribute to the patient experience. However, these results align with the approach of Cheuk *et al.*, (2024), who emphasize that the quality of interaction and communication is an important aspect of the service experience.

#### **4.2.8 The Influence of Diagnosis and Treatment Plans on Service Experience**

Diagnosis and treatment plans have a significant effect on service experience ( $\beta=0.197$ ;  $T=2.596$ ;  $p=0.010$ ). Patients need explanations regarding their health conditions and the planned course of action. When information is provided clearly, and patients are allowed to ask questions, they feel more informed and engaged in their care. These findings align with those of Tian *et al.*, (2024) regarding the relationship between shared decision-making and patient experience and satisfaction. They also align with Matsuoka *et al.*, (2021), who highlighted the importance of communication in the decision-making process. Thus, diagnosis and treatment plans play a stronger role in shaping the patient experience than they do in directly contributing to satisfaction.

#### **4.2.9 The Effect of Dental Treatment on Service Experience (H9)**

Nursing interventions have a significant effect on the service experience ( $\beta = 0.153$ ;  $T = 2.279$ ;  $p = 0.023$ ). These interventions are the stages that patients experience firsthand. During these procedures, patients experience comfort, safety, pain, attention, and communication with medical students. Therefore, nursing interventions become real-life experiences that can shape patients' emotional and relational evaluations. These findings align with the concept of patient experience described by Gualandi *et al.*, (2021) and Wolf *et al.*, (2021), namely that it is shaped by interactions encountered throughout the care journey.

#### **4.2.10 The Effect of Post-Treatment Education and Instructions on Service Experience**

Post-care education and instructions are the variables with the greatest influence on service experience ( $\beta=0.277$ ;  $T=4.933$ ;  $p<0.001$ ). These findings indicate that the final stage of care is crucial in shaping the patient's experience. Education provides information regarding treatment outcomes, medications, home care, and follow-up schedules, thereby helping patients feel better prepared to continue their care. These results align with those of Okrainec *et al.*, (2022), which highlight the importance of patient-centered information during the care transition process. They also align with the findings of Sindi *et al.*, (2022) regarding the importance of patient education, although Sindi *et al.*, study found a direct effect on satisfaction. This difference is interesting because the present study shows that education does not directly affect satisfaction but has a very strong influence on service experience. In other words, post-treatment information in the context of RSIGMP UMI first shapes the patient's experience, then translates into satisfaction.

#### **4.2.11 The Effect of Medical History on Satisfaction via Service Experience**

The analysis results show that anamnesis has a significant effect on patient satisfaction through service experience ( $\beta=0.083$ ;  $T=3.232$ ;  $p=0.001$ ). This finding indicates that anamnesis has two pathways of influence: a direct pathway and an indirect pathway through the patient's experience. The process of listening to complaints, showing concern, and providing responses can create a positive experience that

subsequently enhances satisfaction. These findings align with those of Matsuoka *et al.*, (2021), who highlighted the importance of communication in shaping satisfaction. These results also support the concept proposed by Gualandi *et al.*, (2021) that interactions throughout the care journey shape the patient experience.

#### **4.2.12** *The Effect of Clinical Examinations on Satisfaction via Service Experience*

Clinical examinations did not have a significant effect on patient satisfaction via service experience ( $\beta=0.037$ ;  $T=1.244$ ;  $p=0.214$ ). These results indicate that the effect of clinical examinations on service experience is not significant. Since clinical examinations are not strong enough to shape the patient experience, the mediating path toward satisfaction is also not significant. This finding differs from the hypothesis that clinical examinations would shape satisfaction through the patient experience. However, this result can be explained by the fact that patients tend to evaluate communication and comfort more easily than the technical accuracy of the examination.

#### **4.2.13** *The Effect of Diagnosis and Treatment Plan on Satisfaction through Service Experience*

Diagnosis and treatment plans have a significant effect on satisfaction through service experience ( $\beta=0.067$ ;  $T=2.200$ ;  $p=0.028$ ). This finding is particularly important because diagnosis and treatment plans do not directly affect satisfaction but become significant when mediated by service experience. This indicates a mediating role. Patients may not directly assess students' ability to make a diagnosis. However, they can evaluate whether explanations are provided clearly, whether they are involved in the process, and whether they understand the treatment plan. These results align with Tian *et al.*, (2024) regarding the importance of patient experience and shared decision-making. Thus, service experience can explain why a stage of care that does not directly affect satisfaction can still contribute to satisfaction.

#### **4.2.14** *The Effect of Treatment Procedures on Satisfaction via Service Experience*

Dental treatment procedures have a significant effect on satisfaction via service experience ( $\beta=0.052$ ;  $T=1.974$ ;  $p=0.049$ ). This finding indicates that treatment procedures do not automatically lead to satisfaction, but the experience formed during the procedure can enhance satisfaction. A sense of safety, comfort, attention, and communication during the procedure constitute the experience directly felt by patients. Therefore, dental students need to combine technical competence with interpersonal skills. These findings support Gualandi *et al.*, (2021) and Wolf *et al.*, (2021), who explain that the patient experience results from various interactions during the service process.

#### **4.2.15** *The Influence of Post-Treatment Education and Instructions on Satisfaction through Service Experience*

Post-treatment education and instructions have a significant indirect influence on patient satisfaction through service experience ( $\beta=0.093$ ;  $T=2.999$ ;  $p=0.003$ ). The  $\beta$  value of 0.093 represents the largest indirect effect compared to medical history (0.083), diagnosis and treatment plan (0.067), and treatment procedures (0.052). Thus, post-treatment education is a strategic point in shaping the patient experience. These findings align with Okrainec *et al.*, (2022), who emphasized the importance of information in the patient experience during care transitions. The findings also align with Javadi (2025), who identified the patient experience as a crucial component in improving dental care. However, these

results differ from those of Sindi *et al.*, (2022) in terms of the pathways of influence. Sindi *et al.*, found that structured education can directly increase satisfaction, whereas this study indicates that the effect of education on satisfaction primarily occurs through service experience. These differences may be attributed to the form of education, delivery methods, and service characteristics. Overall, the study results indicate that service experience mediates four of the five tested relationships. Significant mediation pathways were found in medical history taking, diagnosis and treatment planning, treatment procedures, and post-treatment education and instructions. Clinical examination was the only pathway that did not show significant mediation. These findings make an important contribution by demonstrating that patient satisfaction is shaped not only by the technical aspects of care but also by patients' experiences of care. Thus, efforts to improve patient satisfaction at dental and oral health teaching hospitals should focus on communication, patient involvement, comfort, information provision, and continuity of care.

## 5. Concluding Remarks and Recommendation

This study shows that the quality of care provided by dental students has different patterns of influence on patient satisfaction and service experience. Medical history taking is the only variable that has a direct, positive, and significant influence on patient satisfaction. Clinical examinations, diagnosis and treatment plans, dental procedures, and post-treatment education and instructions did not have a significant direct influence on patient satisfaction. Conversely, medical history, diagnosis and treatment plan, treatment procedures, and post-treatment education and instructions had a significant effect on service experience. Post-treatment education and instructions were the variable with the greatest influence on service experience.

Service experience was found to mediate the effects of medical history, diagnosis and treatment plan, treatment procedures, and post-treatment education and instructions on patient satisfaction. However, service experience did not mediate the effect of clinical examination on patient satisfaction. These findings confirm that patient experience is a crucial mechanism linking the quality of the service process provided by dental students to patient satisfaction.

This study has limitations, including its cross-sectional design, reliance on self-reported questionnaire data, and its single-site setting at a dental teaching hospital. These conditions limit the interpretation of causality and the generalizability of the results. Future research could employ a longitudinal design and involve multiple teaching hospitals.

## Statement of Use of Generative AI

During the preparation of this work, the author used generative artificial intelligence tools to support the scientific writing process. Grammarly was used to check grammar, refine writing style, and improve clarity in scientific writing. All interpretations, analyses, and conclusions presented in this study are the sole responsibility of the author.

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