

DETERMINANTS OF PATIENT SATISFACTION IN DENTAL HOSPITALS: EXAMINING THE IMPACT OF ACCESS, AFFORDABILITY, QUALITY, PAIN MANAGEMENT, AND WORD OF MOUTH

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ABSTRACT

Patient satisfaction is a crucial indicator of healthcare quality, particularly in dental services, where factors such as accessibility, affordability, pain management, and service quality influence overall experiences. Understanding these determinants is essential for improving patient-centered care and ensuring positive word-of-mouth recommendations. This study aims to examine the impact of access, affordability, pain management, and quality on patient satisfaction in dental hospitals and how satisfaction influences word-of-mouth behavior.

A structured survey was conducted among dental patients in Sindh, Pakistan, using the Dental Satisfaction Questionnaire (DSQ) framework. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to analyze relationships between variables.

The findings indicate that access, affordability, and quality significantly contribute to patient satisfaction, aligning with prior studies emphasizing the importance of service accessibility and financial considerations in healthcare experiences. However, pain management did not show a significant relationship with satisfaction, suggesting that other factors, such as provider communication and emotional support, may mitigate the impact of pain perception. Additionally, patient satisfaction was found to strongly influence word-of-mouth recommendations, reinforcing the role of positive experiences in shaping public perceptions of dental care.

These results underscore the need for healthcare administrators to enhance accessibility, ensure affordability, and improve service quality to elevate patient satisfaction. Addressing non-clinical aspects of pain management, such as communication and empathy, may further enhance patient experiences. Future research should explore additional mediating factors, including psychological and emotional influences, to develop a more comprehensive model of patient satisfaction in dental healthcare settings.

Keywords: Patient Satisfaction, Dental Hospitals, Access to Care, Affordability, Quality of Care, Pain Management, Word of Mouth, Healthcare Services, Patient Experience, Dental Healthcare

INTRODUCTION

Patient satisfaction is a fundamental measure of healthcare quality especially in dental services due to the fact that level of satisfaction indicates how much a patient's expectation was agreed with by the real experience observed. Traditionally, providers were the center of the process, but in the last few years patient centric models are

getting more popular (Akbolat et al., 2021), hence there is a strong need for services which conducts those services that are catered and oriented for patients. This shift demonstrates the need for instruments such as the Dental Satisfaction Questionnaire (DSQ) to examine salient dimensions of patient experience, such as

accessibility, quality and affordability. Even though these dimensions have been widely researched globally, their specific applications in Sindh's dental hospitals have not been analyzed; therefore, this research is necessary.

Access to healthcare is strongly influenced by affordability and in turn patient satisfaction. In Pakistan, as well as in many developing countries, high healthcare costs act as a barrier to timely treatment for patients resulting in widening health inequities (Rahman et al., 2023). Affordability in dental care, however, is less well known with regard to its relationship with patient satisfaction. This study bridges this gap in the knowledge by integrating affordability into the DSQ framework to examine how cost related factors impact perceptions and behaviors among patients.

Patient satisfaction has been demonstrated to influence word-of-mouth behaviors globally and conversely influence the reputation and financial sustainability of the healthcare institutions (Akbolat et al., 2021). The importance of high patient satisfaction becomes even more important in educational dental hospitals where services are provided, more often than not, by students under supervision. According to Hasibuan et al. (2023), the relationship between service quality and word of mouth intention is mediated by patient satisfaction. Yet, this relationship should be diagnosed further in the context of Pakistan's dental healthcare.

However, the DSQ has been widely validated as a patient satisfaction tool for dental care, and has been in use in various socio-economic and cultural environments; however, the tool is limited. The DSQ has been shown to capture patient perspectives in studies in Indonesia and Jordan, but lacks important factors, like affordability and cultural sensitivities, according to Ismail et al. (2024) and Akthar et al. (2023). Also, the adaptation of framework of satisfaction should be accommodated to local healthcare dynamics according to researchers in Saudi Arabia and Tanzania (Alshali et al., 2024; Wencheslaus et al., 2024).

Dental health care was found to feature differential qualities of services, access, and affordability in Pakistan. The challenge of affordable care at the same time providing a high education experience for students is gilt upon educational dental hospitals (Matofari et al., 2021).

However, comprehensive studies in the region on the multi-dimensional effects of DSQ dimensions combined with affordability on patient satisfaction have been lacking. Dental hospitals are inhibited from designing interventions to improve patient experience and build loyalty due to this gap.

The study aims to address the following objectives:

1. To analyze the impact of access, pain management, and quality of dental care on patient satisfaction in Sindh's dental hospitals.
2. To investigate the influence of affordability on patient satisfaction in dental healthcare services.
3. To examine the relationship between patient satisfaction and word-of-mouth recommendations.
4. To assess the combined effect of DSQ dimensions and affordability on overall patient satisfaction.
5. To develop actionable recommendations for enhancing patient satisfaction in dental hospitals.

The study addresses the following research questions:

1. What is the impact of access to dental care on patient satisfaction in Sindh's dental hospitals?
2. How does pain management influence patient satisfaction in dental healthcare services?
3. In what ways does the quality of dental care affect patient satisfaction?
4. What role does affordability play in determining patient satisfaction in dental hospitals?
5. How does patient satisfaction contribute to word-of-mouth recommendations?
6. What is the combined effect of the Dental Satisfaction Questionnaire (DSQ) dimensions and affordability on overall patient satisfaction?
7. What practical strategies can be implemented to enhance patient satisfaction in dental hospitals?

Literature Review

It is a complex interplay between patients' expectations, and what is actually delivered in the actual service. The Expectancy Disconfirmation Theory (EDT) is a critical framework for understanding this dynamic because it states that satisfaction is generated when patient expectations of service are matched or exceeded by the service performance. Finally, positive disconfirmation (i.e., when performance exceeds expectations) induces satisfaction and negative disconfirmation induces dissatisfaction when expectations are unfulfilled (Zhang et al., 2021). Furthermore, this theory is very relevant in dental care where service quality, affordability, and accessibility touch patients' perception (A'aqoulah et al., 2022). Nevertheless, recent studies support the importance of EDT in healthcare; they show that Smail et al. (2024) have shown that treatment quality expectations and communication related expectations from the treatment are both unmet and dissatisfaction is report by patient and both the expectations are proportional to the expectation of treatment quality. Also, research by Matofari et al. (2021) and Wencheslaus et al. (2024) in Tanzania shed light on how satisfaction with pain management and accessibility has to do with patient expectations. It also emphasizes the need to set expectations properly, especially in developing countries with small health resources. Affordability is a main determinant of satisfaction according to Ali (2016) and Alshali et al. (2024). In addition, Durmuş and Akbolat (2020) and Abdullah et al. (2021) discovered the relationship that exists among patient satisfaction, trust, loyalty and commitment of patients to the healthcare provider over a longer period of time.

Theoretical Development of Hypotheses

A most important determinant for patient satisfaction not only refers to access to healthcare services but also to the access of dental care in particular. Access is more than just provider availability; it's about how patients can get services. There is a long research tradition underlining the key role of access as an important component of patients' satisfaction especially considering dental care. An example includes Brown et al. who indicated that access to care is central primarily to patient satisfaction where in the case of breast cancer, it is important that the patient has good access (2020). "It directly affects satisfaction levels

when delays or barriers to accessing specialized care occur," they argue. Similarly, North et al. also studies (2020) observe that technological disruption (new Electronic Health Records (EHR)) systems negatively affect patient satisfaction. In their research, the researchers find that patients chronically complain about how difficult it is to obtain care, which makes sense – access to care is key – but that technological issues make things even worse by throwing other factors into the calculus of accessibility. Additionally, healthcare access is not a one-off phenomenon and diagnostic delays, mis diagnosis or insurance related problems are also important factors for patient dissatisfaction, especially for rare disease patients (Bogart et al., 2022). While access is critical, these studies suggest access alone is not sufficient because satisfaction is confounded with systemic factors including technological disruptions and inefficiencies of healthcare delivery. Additionally, Xie et al. (2022) discovered that patients with high satisfaction with the patient-physician relationship were associated with better outcomes; specifically, higher completion rates on bariatric surgery. However, this stresses the importance of thinking both about interpersonal relationships and access factors together to completely understand patient satisfaction. Combined, these studies recommend an integrated approach that encompasses both structural aspects as well as quality of patient-provider relationship in order to boost satisfaction. This leads to the formulation of Hypothesis 1: The satisfaction levels of patients who have received dental health services are positively related with access factor.

Within the realm of dental care, pain management is a vital element in the provision of patient satisfaction but stretching the meaning of this beyond physical pain relief. Patient preferred the clear communication when it comes to available analgesia, expectation of outcomes and side effects of pain management related to patient satisfaction. Effective communication between a patient and a nurse is a concern in nursing research brought out in Mohamed et al. (2020) as they point out the fact that satisfaction with care is determined by how well a patient understands pain control options. In dental care case this means that besides informing the patient about pain management options clinical practice should also inform the patient's emotional concerns. In

addition, Mubita et al. (2020) highlight that the role of empathy is crucial: whereby if the patients sense that their healthcare providers empathize with what they are encountering, they are more satisfied with their experience. In dental care, where most of the procedures cause a lot of pain, both physical and emotional, this is very true. Furthermore, psychological factors like anxiety, depression and patient's readiness to change may lead them to choose how they want to perceive pain and satisfaction level. On the other hand, Li and Hapidou (2021) discuss how psychological conditions such as pain related anxiety and PTSD affect patients' perception and reaction to pain. This shows that pain care in dental environments must relate to both the physical and psychological aspects of provision in order to result in improved overall patient satisfaction.

Thus, Hypothesis 2 is postulated: There is a positive relationship between pain management factor and the level of satisfaction of patients receiving dental health care services.

Another key in determining the level of satisfaction a patient has with regard to dental care is determined through tools such as the Dental Satisfaction Questionnaire (DSQ). Across care settings, the quality of care is consistently correlated with satisfaction. The DSQ plays a role in evaluating patient satisfaction (Hasibuan 2023) which concludes that patient's perceived quality of treatment is both in the form of physical outcome and the quality of interaction which will condide in evaluating patient's satisfactio. More generally, in healthcare care is shown to be influenced by both technical and interpersonal aspects of care, which all contribute to patient experiences (Afrashtehfar et al., 2020). Given that at dental care effective communication and empathetic interactions are very important, and studies show that "soft" elements of care often have more of an impact on patient satisfaction than the technical aspects of their treatment. According to Afrashtehfar et al. (2020), poor patient-provider relationships seem to matter more than the objectivity of care in determining satisfaction, suggesting that quality management practices may be as important as technical care. Besides, pain management is also an important part of the whole quality of care. According to Orzeszek et al. (2023) dental procedures, among those for temporomandibular disorders included, require adequate comfort in order to be effective.

Consequently, Hypothesis 3 is proposed: Satisfaction levels of patients receiving dental healthcare are positively related with the quality factor.

Another factor that significantly determines patient satisfaction is the affordability of dental care. Financially constrained families also tend to delay or forego treatment that worsens their health outcomes and leaves them dissatisfied. Unaffordability of dental services acted as a barrier to obtaining timely care resulting in undesirable outcomes to oral health including untreated caries (Akthar et al., 2023). In addition, Gao et al. (2022) showed that patients are happier with dental services when they are able to afford them and find them to be within reasonable distance. And this is especially applicable to rural populace where care may be quite affordable. Siripipatthanakul and Chana (2021) also discovered that services which are affordable are essential to enhance satisfaction levels, similarly. The importance of affordability and access to alternative care models, such as telehealth and tele-dentistry, is also evident from the rise of telehealth particularly tele-dentistry, during the COVID-19 pandemic when traditional care options (Kaur et al., 2022) are not financially accessible.

These studies underscore the importance of affordability in shaping patient satisfaction, leading to the formulation of Hypothesis 4: Satisfaction levels of patients receiving dental healthcare are positively related to affordability.

Thirdly, patient satisfaction is a critical component of healthcare marketing and reputation thesis, and the relationship between patient satisfaction and word of mouth (WOM) is very important. Patient loyalty and good reputation of dental practices significantly improve when the patients recommend dental services to other people. It has been found that PM acts as a mediating variable between service quality and WOM intentions. Higher satisfaction levels lead to positive WOM behavior directly (Akbolat et al., 2021). Moreover, Siripipatthanakul (2021) indicated that good service quality and patient satisfaction result in returning visits and referrals. Indriana et al. (2021) even further stated that patients who were satisfied tend to actively promote dental services. Trust and engagement leading to satisfaction has been evidenced, according to research by Fattahi et al.

(2022), as more engaged, more satisfied patients are more likely to share their positive experiences. The relationship between patient satisfaction and how it impacts on the success of acquiring

prospective patients and the public perception is noticed here.

As a result, Hypothesis 5 is formulated: Word of mouth intention has a positive relationship with patient's satisfaction level in getting dental care.

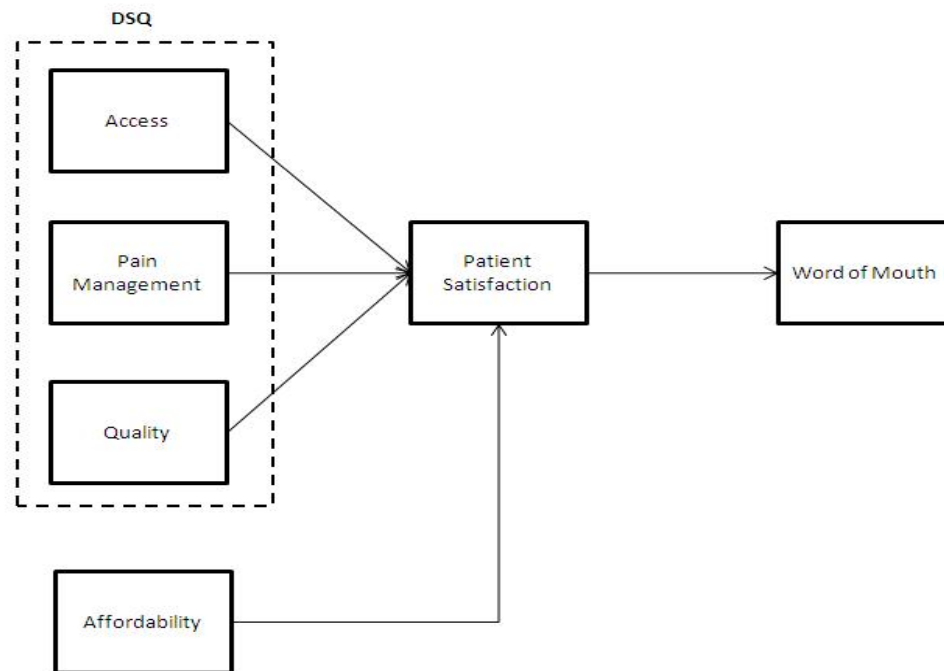


Figure 1 Theoretical Framework

Methodology

In this study a quantitative and deductive approach is utilized to investigate the factors that affect patient satisfaction and their impact on overall patient satisfaction and word-of mouth (WOM) intention in dental care settings in Sindh, Pakistan. In particular, study objectives were focused on analyzing how access, pain management, quality of dental care and affordability influenced patient satisfaction, and how the combination of these variables affects satisfaction and WOM intention. The systematic approach advocated by Hall et al. (2023) was followed whereby hypotheses based upon pre-existing theories and literature were tested within a deductive framework. According to Walliman (2021) the correlational design allowed for the exploration of relationships between variables.

This study population consisted of patients who received outpatient dental care services at public and private hospitals in Karachi, Sukkur and Hyderabad. In order to ensure responses were collated around the experiences patients had with dental services within a day, the data collection was targeted at patients at outpatient service hours

as outlined in Adinew et al. (2021). Salvatore (2023) recommends the use of a consecutive sampling method to include all eligible patients presenting during the study period for healthcare research, which was followed in this study. Using Cheung et al.'s (2024) recommendations for sample size for sem analysis, 200 responses were collected.

We collected data through a structured questionnaire to measure key constructs developed on the basis of prior studies including, Afrashtehfar et al. (2020) and Akbolat et al. (2021). Demographic data were obtained with the help of questionnaire that gauged access, pain management, quality of dental care, affordability, overall patient satisfaction and WOM intention. Items were adapted from validated scales and measured on a five point Likert scale (Clark et al., 2021) with a range from 1 (strongly disagree) to 5 (strongly agree) because this style of scale has the benefit of being able to reflect subjective perceptions. In order to clarify and make the instrument reliable a pre test of instrument was conducted of 20 participants and some adjustments were made for comprehensibility.

The study objectives were reflected in the structure of the data collection process. Patients were approached by research assistants within 30 minutes following their treatment, informed of the study purpose, and provided informed consent. Data collection was timed so participants' responses reflected their immediate perceptions of dental service quality, as recommended by Afrashtehfar et al. (2020). Inclusiveness was sought with no influence on responses and assistance was provided to respondents with limited literacy.

The study upheld ethical consideration rigorously. The participants were told in a great amount of detail about the research they were asked to participate in, how much their participation is completely voluntary, and how their information will be kept strictly confidential. Before data

Data Analysis and Results

Table 1 Respondent Profile

Category	Subcategory	Frequency	Percentage (%)
Gender	Male	134	67
	Female	66	33
Age Bracket	30-35	56	28
	36-40	86	43
	41-45	44	22
	45 and Older	14	7
City	Karachi	128	64
	Sukkur	36	18
	Hyderabad	36	18

The respondent profile in table 1 highlights a diverse sample, with a higher male representation (67%) and a predominant age group of 36-40 years (43%), indicating that mid-aged adults are

collection, we got an informed consent which follows the ethical guidelines stated by Walliman (2021). Data were anonymized to ensure participant privacy and the protocol was prereviewed by the institutional review board.

Structural Equation Modeling (SEM) through Smart PLS is very common for examining complex relationships between latent variables and performed data analysis. SEM was chosen, because it allowed for simultaneous analysis of direct and combined effect of access, pain management, quality of care and affordability on patient satisfaction, as well as a relationship between satisfaction and WOM intention. Following Cheung et al. (2024) recommendations, this approach made certain that the analysis satisfied all the study objectives.

key dental service users. Karachi has the most respondents (64%), reflecting its larger healthcare access, while Sukkur and Hyderabad contribute 18% each.

Table 2 Outer Loadings

	Access	Pain Management	Quality	Affordability	Patient Satisfaction	Word of Mouth	of
A1	0.771						
A2	0.812						
A3	0.896						
PM1		0.784					
PM2		0.771					
PM3		0.865					
PM4		0.859					
Q1			0.806				
Q2			0.835				
Q3			0.862				

Q4	0.844	
Aff1	0.838	
Aff2	0.910	
Aff3	0.873	
PS1	0.819	
PS2	0.832	
PS3	0.894	
PS4	0.874	
WoM1		0.797
WoM2		0.867
WoM3		0.854
WoM4		0.870

In table 2, the outer loadings confirm strong indicator reliability, with all values exceeding the 0.70 threshold. Access, pain management, quality, affordability, patient satisfaction, and word of mouth exhibit high factor loadings, ensuring construct validity. Item A4 was removed to enhance model fit, improving measurement accuracy and the robustness of the analysis.

Table 3 Construct Reliability and Validity

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Access	0.778	0.865	0.685
Affordability	0.845	0.849	0.764
Pain Management	0.840	0.864	0.674
Patient Satisfaction	0.878	0.884	0.732
Quality	0.859	0.871	0.700
Word of Mouth	0.873	0.901	0.718

Table 3 demonstrates strong construct reliability, with Cronbach's Alpha values exceeding 0.70, ensuring internal consistency. Composite Reliability values surpass 0.80, confirming model robustness. AVE values above 0.50 indicate adequate convergent validity. These results validate the measurement model's reliability in assessing patient satisfaction determinants in dental hospitals.

Table 4 Discriminant Validity - HTMT

	Access	Affordability	Pain Management	Patient Satisfaction	Quality	Word of Mouth
Access						
Affordability	0.689					
Pain Management	0.800	0.753				
Patient Satisfaction	0.580	0.740	0.675			
Quality	0.863	0.780	0.810	0.859		
Word of Mouth	0.612	0.494	0.741	0.677	0.811	

Table 4 confirms discriminant validity using the HTMT criterion, as all values remain below the 0.90 threshold, ensuring distinctiveness among constructs. The highest correlation (0.863) occurs between access and quality, indicating a strong but acceptable relationship. These findings validate the model's ability to measure separate aspects of patient satisfaction effectively.

Table 5 Bootstrapping - Path Coefficient

Hypotheses	Original Sample (O)	T Value	P Value	Remarks
Access → Patient Satisfaction	0.320	2.315	0.021	Significant
Pain Management → Patient Satisfaction	0.037	0.221	0.866	Not Significant
Quality → Patient Satisfaction	0.723	3.735	0.000	Significant
Affordability → Patient Satisfaction	0.285	2.042	0.042	Significant
Patient Satisfaction → Word of Mouth	0.633	4.144	0.000	Significant

The bootstrapping results in Table 5 provide crucial insights into the factors influencing patient satisfaction in Sindh's dental hospitals. The study objectives aimed to assess the impact of access, pain management, quality, and affordability on patient satisfaction and its subsequent effect on word-of-mouth recommendations. These results validate most of the hypothesized relationships, confirming their significance in shaping patient experiences.

Access to dental services significantly influences patient satisfaction ($\beta = 0.320$, $p = 0.021$), highlighting that ease of reaching and utilizing dental care plays a vital role in patient perceptions. Similarly, quality of care demonstrates the strongest effect on satisfaction ($\beta = 0.723$, $p = 0.000$), reinforcing that superior service standards are crucial in ensuring positive patient experiences. Affordability also emerges as a significant predictor ($\beta = 0.285$, $p = 0.042$), confirming that cost considerations directly impact patient satisfaction levels.

However, pain management does not exhibit a significant effect ($\beta = 0.037$, $p = 0.866$), suggesting that while pain relief is important, other factors such as service quality and affordability may hold greater weight in shaping overall satisfaction. This finding highlights the need for further exploration into how patients perceive pain management in dental care.

Finally, patient satisfaction significantly influences word-of-mouth recommendations ($\beta = 0.633$, $p = 0.000$), demonstrating that satisfied patients are more likely to promote services. These findings address the study's objectives by identifying key satisfaction drivers and their implications for improving service delivery in educational dental hospitals.

Discussion

The findings of this study provide a comprehensive understanding of the factors influencing patient satisfaction in dental hospitals

in Sindh. The results confirm that access, quality of care, affordability, and word-of-mouth recommendations significantly impact patient experiences, while pain management alone does not appear to be a major determinant of satisfaction.

The study establishes that access to dental care positively influences patient satisfaction, supporting previous research that emphasizes the importance of timely and efficient healthcare services. This is consistent with the findings of Brown et al. (2020), who highlighted that delays or barriers to accessing specialized care negatively affect satisfaction. Similarly, North et al. (2020) found that systemic inefficiencies and technological disruptions exacerbate dissatisfaction, reinforcing that ease of access is a fundamental aspect of a positive healthcare experience. In dental care, where delays can lead to worsening oral health conditions, the strong association between access and satisfaction underscores the necessity of improving service availability and minimizing wait times.

The quality of care is another significant factor contributing to patient satisfaction, aligning with Afrashtehfar et al. (2020), who emphasized that both technical proficiency and patient-provider interactions shape the patient experience. The role of the Dental Satisfaction Questionnaire (DSQ), as highlighted by Hasibuan (2023), further supports this finding by demonstrating that patients' perception of treatment quality is influenced by both clinical outcomes and the quality of communication with providers. Similarly, Orzeszek et al. (2023) underscored that ensuring comfort during dental procedures is integral to improving satisfaction. These results suggest that fostering empathetic communication, enhancing service delivery, and ensuring technical excellence can significantly improve patient perceptions of dental care.

Affordability also emerges as a crucial determinant of patient satisfaction, consistent with the studies

by Akthar et al. (2023) and Gao et al. (2022), who found that financial constraints often force patients to delay or forgo dental treatment, leading to dissatisfaction. This issue is particularly relevant in rural areas, where the combination of high costs and limited accessibility creates significant barriers to care. Siripipatthanakul and Chana (2021) further highlighted that patients report higher satisfaction when they can afford dental services without financial strain. The rise of alternative care models such as tele-dentistry, as noted by Kaur et al. (2022), further reflects the growing need for cost-effective solutions that improve accessibility. These findings emphasize that financial considerations play a central role in shaping patient experiences and should be addressed to enhance overall satisfaction.

The study also confirms a strong relationship between patient satisfaction and word-of-mouth recommendations. This aligns with the findings of Akbolat et al. (2021), who demonstrated that satisfied patients are more likely to recommend services, contributing to a provider's reputation and patient retention. Similarly, Siripipatthanakul (2021) and Indriana et al. (2021) found that higher satisfaction levels result in increased patient loyalty and referrals. Fattahi et al. (2022) also emphasized that trust and engagement foster positive patient experiences, making individuals more likely to share their favorable opinions with others. These results suggest that improving service quality and ensuring positive patient interactions can strengthen the reputation of dental care providers and encourage patient retention.

Interestingly, the study does not find a significant relationship between pain management and patient satisfaction, which contrasts with previous research. While Mohamed et al. (2020) emphasized the importance of effective communication in pain control and Mubita et al. (2020) highlighted the role of empathy, these factors did not emerge as primary predictors of satisfaction in our study. One possible explanation is that patients may place greater importance on access, affordability, and overall quality of care rather than on pain management alone. Li and Hapidou (2021) found that pain-related anxiety and PTSD influence how patients perceive pain, making it a complex variable that may not directly determine satisfaction. These findings indicate that while pain management

remains important, an integrated approach that includes emotional support and clear communication may be more effective in improving patient experiences.

The findings of this study align with its objectives by identifying the key factors influencing patient satisfaction and offering evidence-based insights to improve dental healthcare services. The confirmation of access, quality, affordability, and word-of-mouth as significant determinants provides practical guidance for healthcare providers seeking to enhance patient experiences. Additionally, the unexpected finding regarding pain management suggests that future research should explore the psychological dimensions of pain perception in dental care. These insights contribute to both academic research and practical improvements in healthcare service delivery, supporting efforts to optimize patient satisfaction in dental hospitals.

Conclusion and Future Directions

This study provides valuable insights into the factors influencing patient satisfaction in dental hospitals in Sindh. The findings confirm that access, quality of care, affordability, and word-of-mouth recommendations significantly contribute to patient satisfaction, emphasizing the need for healthcare providers to improve service availability, enhance communication, and address financial barriers. While prior research suggested pain management as a key determinant, this study found no significant relationship, indicating that patients may prioritize broader aspects of care over pain relief alone. The results highlight the importance of integrating structural improvements with patient-centered approaches to enhance satisfaction. By aligning with existing literature while offering new perspectives, this study contributes to the understanding of patient experiences in dental healthcare. Future research should further explore the psychological aspects of pain perception and patient-provider interactions. These findings provide practical guidance for policymakers and healthcare administrators aiming to improve the quality and accessibility of dental care services.

The findings of this study carry important managerial implications for healthcare administrators and policymakers in dental hospitals. Improving patient satisfaction requires a multi-faceted approach that enhances access,

ensures affordability, and prioritizes service quality. Hospital management should streamline appointment systems, reduce waiting times, and expand service availability to enhance accessibility. Additionally, affordability remains a crucial factor, suggesting the need for subsidized treatment options, installment-based payment plans, or public-private partnerships to reduce financial barriers. Quality improvement efforts should focus on strengthening patient-provider communication, fostering empathetic interactions, and maintaining high clinical standards.

Although pain management did not significantly influence satisfaction in this study, hospitals should not overlook its psychological dimensions, such as anxiety reduction and patient counseling. Future research could explore the emotional and behavioral factors influencing satisfaction, particularly the role of trust and expectations in dental care. Expanding this study to diverse geographic regions and incorporating longitudinal data could provide a more comprehensive understanding of patient satisfaction trends over time. Additionally, investigating how digital health interventions, such as tele-dentistry, influence satisfaction may offer new solutions to accessibility issues. By addressing these aspects, healthcare institutions can develop patient-centered strategies that improve satisfaction, foster loyalty, and ultimately enhance oral healthcare outcomes.

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