

Influence of Patient Behavioral Factors on Clinical Decision-Making and Treatment Planning Among Dental Practitioners in Libya: A Cross-Sectional Study

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Abstract:

Clinical decision-making in dental practice is influenced by multiple factors, including patient behavior, communication, and cooperation. Understanding how behavioral characteristics affect treatment planning may improve patient management and support evidence-based clinical practice. This study aimed to assess the influence of patient behavioral factors on clinical decision-making and treatment planning among dental practitioners and to evaluate whether these perceptions differ according to professional characteristics. An online cross-sectional questionnaire-based study was conducted among dental practitioners. The survey evaluated the influence of different patient behavioral factors on clinical decision-making and treatment planning. Data were analyzed using IBM SPSS Statistics version 27. Descriptive statistics, Cronbach's alpha, Mann-Whitney U test, Kruskal-Wallis H test, and Chi-square test were used where appropriate. Data from 185 respondents were analyzed. The questionnaire demonstrated acceptable internal consistency (Cronbach's $\alpha = 0.733$). Good patient communication (mean = 4.51) and patient cooperation in treatment selection (mean = 4.04) were identified as the most influential factors affecting clinical decision-making, followed by treatment delays related to patient behavior (mean = 3.82), aggressive patient behavior (mean = 3.61), and ethical challenges during treatment planning (mean = 3.55). No statistically significant differences were observed between practitioners from private and government sectors regarding the impact of patient behavior on clinical decision-making (all $P > 0.05$). Likewise, years of professional experience did not significantly influence responses across most survey items, although the influence of patient questioning on treatment choices approached statistical significance ($P = 0.050$). No significant association was found between practitioners' specialty and the occurrence of negative clinical outcomes ($P = 0.961$). Patient behavioral factors represent important considerations in dental treatment planning and clinical decision-making. Dental practitioners appear to share similar perceptions regarding the impact of patient behavior regardless of professional background. Integrating behavioral assessment and effective communication strategies into dental practice may enhance patient-centered care and support more individualized treatment planning.

Keywords. Patient Behavior, Clinical Decision-Making, Treatment Planning, Dentist-Patient Communication.

Introduction

Patient behavior is increasingly recognized as a critical factor in dental clinical decision-making and treatment planning. In daily dental practice, treatment decisions are not based on diagnosis alone; they are also influenced by the patient's cooperation, anxiety, communication style, understanding of the proposed treatment, compliance with instructions, and willingness to attend follow-up visits. These behavioral factors may encourage the dentist to choose a more conservative and comprehensive plan, or they may require the practitioner to simplify, stage, or modify treatment according to the patient's ability to cooperate and accept care. For this reason, patient behavior is an essential element of patient-centered dental practice [1]. The dentist-patient relationship represents a dynamic interaction in which clinical decisions are influenced not only by disease-related factors but also by patient-related behavioral characteristics. Contemporary dental practice emphasizes shared decision-making, where clinicians integrate professional expertise and scientific evidence with patients' values, expectations, and individual circumstances. This approach aims to improve patient engagement and treatment satisfaction; however, its successful implementation depends largely on effective communication, patient understanding, trust, and willingness to participate in the treatment process [2,3].

The importance of effective dentist-patient communication has received increasing attention in recent years because it plays a fundamental role in establishing trust, improving treatment acceptance, and enhancing patient satisfaction. Patients who clearly understand their diagnosis, available treatment options, and expected outcomes are more likely to adhere to professional recommendations and continue with follow-up care. Conversely, ineffective communication may result in misunderstanding, dental fear, treatment refusal, and interrupted continuity of care. A study conducted in Libya similarly demonstrated that effective dentist-patient communication positively influenced patient satisfaction, trust, and utilization of dental services, emphasizing the importance of communication within the local healthcare setting [1].

Dental anxiety and fear are among the most common behavioral barriers encountered in clinical practice. Many patients postpone dental visits because of fear of pain, injections, previous negative experiences, or concern about invasive procedures. This can result in late presentation, increased disease severity, and a narrower range of available treatment options. Recent systematic reviews have confirmed that dental anxiety remains common among adults and can negatively affect oral health outcomes if not appropriately managed. In practice, anxious patients may require more reassurance, shorter appointments, staged treatment, or less invasive alternatives to complete care successfully. Therefore, anxiety is not only a psychological concern but also a clinical factor that directly affects treatment sequencing and treatment planning

[4]. Many dental procedures require active patient participation, including maintaining appointments, following preventive instructions, accepting recommended interventions, and adhering to postoperative care protocols. Poor cooperation or limited compliance may influence dentists' perceptions of treatment feasibility and may lead to modifications in treatment plans, selection of simpler alternatives, or postponement of complex procedures when the likelihood of successful outcomes is reduced [5]. Consequently, dentists may need to incorporate additional behavioral management strategies, improve communication approaches, and adapt treatment plans according to patients' psychological responses and ability to tolerate procedures [6,7].

Communication and trust are fundamental components of effective dentist–patient relationships. High-quality communication allows practitioners to identify patient concerns, explain available treatment options, clarify expected outcomes, and support informed decision-making. Conversely, inadequate communication or reduced trust may negatively affect treatment acceptance and may influence dentists' perceptions regarding treatment complexity and predictability [8]. Recent dental literature has emphasized that communication skills are essential clinical competencies that contribute to patient engagement, satisfaction, and improved therapeutic relationships [9]. Studies conducted in Libya have also demonstrated that patients' attitudes toward root canal treatment and dental implants influence their willingness to accept these procedures [10,12]. Although awareness of dental implants has been reported to be relatively high, treatment cost and duration remain important barriers to acceptance [11]. Similarly, patients' perceptions of root canal treatment have been shown to influence both their understanding of the procedure and their willingness to proceed with treatment [10,12]. These findings further support the importance of patient understanding and attitudes in determining treatment acceptance and the feasibility of clinicians' recommendations.

Beyond anxiety and communication-related factors, patients' behaviors during the treatment process may directly influence clinical decision-making. Patients who frequently question treatment recommendations, demonstrate limited understanding of proposed procedures, or express uncertainty regarding clinical advice may affect how dentists explain, prioritize, or modify treatment options. Similarly, low levels of patient trust may require clinicians to adjust treatment complexity to improve acceptance and cooperation. These behavioral interactions highlight the importance of considering patient characteristics as part of comprehensive treatment planning rather than focusing exclusively on clinical findings. Behavioral factors may also influence the timing and progression of dental care. Delayed attendance, poor adherence to recommended follow-up, and failure to comply with treatment instructions can interrupt treatment continuity and potentially compromise outcomes. Furthermore, challenging behaviors such as aggression, unrealistic expectations, or conflicts between patient preferences and professional recommendations may create ethical and clinical challenges. Dentists are frequently required to balance respect for patient autonomy with professional responsibility, clinical judgment, and evidence-based practice [13].

Recent evidence has further highlighted the importance of integrating behavioral considerations into contemporary dental practice. The concept of shared decision-making has gained increasing attention as a framework that promotes collaboration between patients and clinicians. Current approaches suggest that treatment decisions should incorporate not only clinical evidence but also patient understanding, expectations, and personal circumstances. However, the extent to which dentists incorporate behavioral factors into daily decision-making and whether these perceptions differ according to professional characteristics remain insufficiently explored [3,1]. Although previous studies have investigated individual aspects of patient behavior, such as dental anxiety, communication, and satisfaction, limited evidence exists regarding the combined influence of multiple behavioral factors on dentists' clinical decision-making and treatment planning. Additionally, variations according to professional characteristics, including workplace setting, specialty, and years of clinical experience, remain unclear.

Understanding these relationships may provide valuable insight into how behavioral considerations are incorporated into routine dental practice. Therefore, this study aimed to assess the influence of patient behavioral factors on clinical decision-making and treatment planning among dental practitioners using a cross-sectional questionnaire-based design. Furthermore, this study evaluated whether dentists' perceptions differed according to workplace setting, dental specialty, and years of professional experience. It was hypothesized that patient behavioral factors, including cooperation, dental anxiety, communication, treatment preferences, financial constraints, and adherence to professional recommendations, significantly influence dentists' clinical decision-making and treatment planning.

Methods

Study design

This study was a cross-sectional survey conducted to assess the influence of patient behavioral factors on clinical decision-making and treatment planning among dental practitioners in Libya.

Study Population

The target population included dental practitioners actively involved in clinical practice in Libya. Participants included dentists with different professional backgrounds and levels of experience. Practitioners who were not currently practicing clinically or who did not complete the questionnaire were excluded.

Sample Size and Sampling

A total of 185 dental practitioners participated in the study. The sample included practitioners from different age groups, years of experience, and workplace type to provide a broad perspective on the topic.

Data Collection Tool

Data were collected using a structured self-administered questionnaire. The questionnaire consisted of two sections. The first section collected demographic and professional information, including age group, years of experience, specialty, and workplace type. The second section included 10 Likert-scale items designed to measure practitioners' perceptions of how patient behavioral factors influence treatment planning and clinical decision-making. The items addressed issues such as patient cooperation, non-compliance, aggressive behavior, fear and anxiety, communication, trust, delayed treatment, and ethical challenges in dental practice.

Validity and Reliability

The questionnaire was reviewed for clarity, relevance, and content by experienced dental professionals before distribution. Internal consistency reliability was assessed using Cronbach's alpha coefficient, yielding an overall value of 0.733, indicating acceptable internal consistency for the ten Likert-scale items included in the questionnaire.

Ethical Considerations

Participation in the study was voluntary, and informed consent was obtained electronically from all participants before completing the questionnaire. Participant anonymity and confidentiality were maintained throughout the study, and all collected data were used exclusively for research purposes.

Statistical Analysis

Data were analyzed using IBM SPSS Statistics for Windows, Version 27.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics were used to summarize participants' demographic characteristics and questionnaire responses. Categorical variables were presented as frequencies and percentages, whereas responses to the Likert-scale items were summarized using the mean, standard deviation (SD), median, and mode. The internal consistency of the questionnaire was assessed using Cronbach's alpha coefficient. A Cronbach's alpha value of ≥ 0.70 was considered indicative of acceptable reliability. The overall internal consistency of the 10-item questionnaire was 0.733, indicating acceptable reliability. Because the questionnaire responses were obtained using a five-point Likert scale (ordinal data), non-parametric statistical tests were employed for inferential analyses. The Mann-Whitney U test was used to compare questionnaire responses between two independent groups (dentists working exclusively in governmental hospitals versus private clinics). Comparisons among dentists with different years of professional experience (<5 years, 5–10 years, 11–20 years, and >20 years) were performed using the Kruskal-Wallis H test. Associations between categorical variables, including dental specialty and reported negative clinical outcomes, were examined using the Pearson Chi-square test of independence. All statistical tests were two-tailed, and a P-value < 0.05 was considered statistically significant.

Results

Through statistical analysis of the data collected from the questionnaires, the following results were obtained: A total of 185 dental practitioners participated in the study. The largest proportion of respondents were aged 40–49 years (35.7%), followed by those aged 50 years and above (31.9%). Regarding years of experience, most participants had more than 20 years of experience (41.6%), while 36.8% had 11–20 years of experience. In terms of workplace type, 54.1% worked in both private clinics and government hospitals, 23.8% worked in government hospitals only, and 22.2% worked in private clinics only (Table 1).

Table 1. Demographic Characteristics of the study participants

Characteristic	Category	Frequency	Percent
Age(years)	Less than 30 years	10	(5.4%)
	30-39	50	(27.0)
	40-49	66	(35.7)
	≥ 50	59	(31.9%)
Years of professional experience	Less than 5 years	14	(7.6%)
	5-10 years	26	(14.1)
	11-20 years	68	(36.8)
	More than 20 years	77	(41.6)
Workplace setting	Government hospital	44	(23.8)
	Private clinic	41	(22.2)
	Both	100	(54.1%)

The reliability analysis showed that the questionnaire had acceptable internal consistency, with a Cronbach's alpha value of 0.733 for the 10 Likert-scale items. This indicates that the items measured the same general construct adequately. Descriptive analysis of the Likert-scale items revealed that respondents strongly agreed that patient behavior influences treatment planning. Descriptive statistics demonstrated generally high levels of agreement regarding the influence of patient behavioral factors on clinical decision-making. The highest mean score was recorded for the item "Good communication improves outcomes" (mean = 4.51, median = 5.00, mode = 5.00), indicating very strong agreement. The item "Cooperation affects choice" also received a high mean score (mean = 4.04). Other relatively high-scoring items included "Behavior delays treatment" (mean = 3.82), "Aggressive behavior affects decisions" (mean = 3.61), and "Low trust reduces complexity" (mean = 3.53). Moderate agreement was observed for "Adjust plan based on understanding" (mean = 3.41), "Fear/anxiety affects treatment" (mean = 3.36), and "Non-compliant simpler plans" (mean = 3.22). The item "Questions affect choices" had the lowest mean score (mean = 2.68), suggesting that this factor was considered less influential compared with the other behavioral variables (Table).

Table 2. Descriptive statistics of questionnaire responses

Quires	Mean	Medium	Mode	Std. Deviation
Cooperation affects choice	4.0432	4.0000	4.00	.94309
Non-compliant simpler plans	3.2216	4.0000	4.00	1.03712
Aggressive behavior affects decisions	3.6108	4.0000	4.00	1.23794
Fear/anxiety affects treatment	3.3568	4.0000	4.00	1.09459
Questions affect choices	2.6757	2.0000	2.00	1.12419
Good communication improves outcomes	4.5081	5.0000	5.00	.61784
Adjust plan based on understanding	3.4054	4.0000	4.00	1.04931
Low trust reduces complexity	3.5297	4.0000	4.00	1.10848
Behavior delays treatment	3.8216	4.0000	4.00	.85055
Ethical challenges conflict	3.5514	4.0000	4.00	.89005

Inferential analysis using the Mann-Whitney U test showed no statistically significant differences between practitioners working in government hospitals and those working in private clinics for any of the Likert-scale items (Table 3). This suggests that workplace type did not significantly influence practitioners' perceptions of patient behavioral factors. The Kruskal-Wallis H test showed that years of experience did not significantly affect responses for most items. The item "Questions affect choices" had a p-value of 0.050, which is at the borderline of statistical significance but was still interpreted as non-significant in this study (Table 4). A Chi-square test of independence showed no significant association between specialty and reporting of negative outcomes ($\chi^2 = 14.783$, df = 26, p = 0.961) (Table 5). This indicates that negative outcomes were not related to specialty among the participants. Overall, the findings demonstrate a broad consensus among dental practitioners in Libya that patient behavioral factors, especially communication, cooperation, trust, anxiety, and compliance, have a clear influence on clinical decision-making and treatment planning.

Table 3. Comparison of questionnaire responses according to workplace (Mann-Whitney U test)

Likert Item	U-Statistic	p-value	Mean Rank (Private)	Mean Rank (Gov)
Cooperation Affects Choice	849.5	0.638	42.19	43.72
Non-Compliant Simpler Plans	980.5	0.493	45.33	40.55
Aggressive Behavior Decisions	993.5	0.559	44.93	40.96
Fear/Anxiety Affects Treatment	1019.5	0.709	44.15	41.75
Questions Affect Choices	940.0	0.287	45.71	40.16
Communication Improves Outcomes	874.5	0.784	42.80	43.10
Adjust Plan on Understanding	1033.5	0.792	43.95	41.95
Low Trust Reduces Complexity	1037.0	0.812	43.89	42.02
Behavior Delays Treatment	1070.0	0.991	42.51	42.48

Table 4. Comparison of questionnaire responses according to years of professional experience (Kruskal-Wallis H test)

Variable	P-value	Decision
Cooperation affects choice	0.367	Not significant
Non-compliant simpler plans	0.163	Not significant
Aggressive behavior affects decisions	0.354	Not significant
Fear/anxiety affects treatment	0.314	Not significant
Questions affect choices	0.050	Borderline or not significant*

Good communication improves outcomes	0.843	Not significant
Adjust plan based on understanding	0.398	Not significant
Low trust reduces complexity	0.215	Not significant
Behavior delays treatment	0.454	Not significant
Ethical challenges conflict	0.876	Not significant

Table 5. Association between dental specialty and negative clinical outcomes (Chi-square test)

Chi-Square Tests	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.783 ^a	26	.961
Likelihood Ratio	17.526	26	.892
N of Valid Cases	185		
a. 48 cells (88.9%) have expected counts less than 5. The minimum expected count is .16.			

Discussion

The present study investigated the influence of patient behavior on clinical decision-making among dental practitioners. Overall, the findings demonstrated that patient behavior substantially affects treatment planning, communication, and clinical management. The questionnaire also showed acceptable internal consistency (Cronbach's $\alpha = 0.733$), indicating that the study instrument was sufficiently reliable for evaluating practitioners' perceptions. An alpha value above 0.70 is generally considered indicative of satisfactory reliability in behavioral and healthcare research, suggesting that the questionnaire items consistently measured the intended construct. This level of reliability is comparable to that reported in recent healthcare behavioral research employing similar Likert-scale instruments. The demographic profile revealed that most participants were between 40–49 years (35.7%) or 50 years and above (31.9%), while 41.6% had more than 20 years of professional experience. Furthermore, more than half of the respondents (54.1%) worked in both governmental and private sectors. This distribution indicates that the study mainly reflects the opinions of experienced clinicians who have been exposed to a broad range of patient behaviors in different clinical settings.

Experienced practitioners are generally more capable of recognizing how behavioral factors influence treatment planning because they have accumulated extensive clinical encounters over time. Similar participant characteristics have been reported in recent studies evaluating dentist–patient communication and clinical decision-making, where experienced clinicians constituted the majority of respondents [1]. One of the most important findings of this study was that good communication improves treatment outcomes, which achieved the highest mean score (4.51 ± 0.62). More than half of the respondents strongly agreed with this statement, indicating widespread professional consensus regarding the central role of effective communication in dental care. This finding is consistent with recent evidence demonstrating that patient-centered communication improves patient satisfaction, treatment adherence, trust, and overall clinical outcomes. Effective communication also reduces misunderstandings, increases patient confidence, and facilitates shared decision-making, ultimately enhancing treatment success [1]. Similarly, respondents strongly agreed that patient cooperation affects treatment choice (mean = 4.04). Cooperative patients are generally more likely to comply with treatment instructions, attend follow-up appointments, and tolerate complex procedures, allowing clinicians to select more comprehensive treatment plans.

Conversely, poor cooperation often forces clinicians to modify or simplify treatment to ensure patient safety and maximize treatment success. These observations are supported by recent systematic reviews showing that patient cooperation, autonomy, and therapeutic alliance directly influence clinical decision-making and treatment acceptance in dentistry [14]. A notable finding of the present study was that participants agreed that patient non-compliance often leads clinicians to simplify treatment plans (mean = 3.22). Although the level of agreement was moderate, nearly half of the respondents selected a score of 4, indicating that non-adherence is an important factor influencing treatment planning. This finding can be explained by the fact that clinicians frequently modify or postpone complex procedures when patients demonstrate poor attendance, inadequate oral hygiene, or failure to follow postoperative instructions. Such modifications aim to reduce the risk of treatment failure and improve the likelihood of achieving acceptable clinical outcomes. These observations are consistent with recent evidence indicating that patient adherence is a fundamental determinant of successful dental treatment and that behavioral characteristics frequently influence the selection of treatment strategies [15]. The present study also demonstrated that aggressive patient behavior influences clinical decision-making (mean = 3.61). Most participants agreed that hostility or verbal aggression affects treatment decisions. This may be attributed to clinicians prioritizing safety, minimizing treatment duration, or postponing elective procedures until effective communication and trust have been established. Recent literature similarly emphasizes that behavioral support techniques and a strong therapeutic alliance are essential when managing challenging patient behaviors, as they improve cooperation and facilitate safer treatment delivery [14].

Regarding fear and anxiety, respondents agreed that these factors significantly affect treatment decisions (mean = 3.36). Dental anxiety often limits patient cooperation, reduces pain tolerance, and increases appointment cancellations, making clinicians more likely to adapt treatment plans or use staged approaches. This finding agrees with contemporary systematic

reviews showing that dental anxiety remains one of the major barriers to successful dental care and frequently requires behavioral or psychological interventions before definitive treatment can be completed [16]. Interestingly, patient questioning had the lowest mean score (2.68) among all questionnaire items. This suggests that most practitioners did not perceive patient questions as substantially altering their clinical decisions. A possible explanation is that experienced clinicians base their decisions primarily on clinical examination and evidence-based guidelines rather than patient preferences alone. Nevertheless, patient questions remain an important component of shared decision-making because they improve understanding, strengthen trust, and promote informed consent without necessarily changing the clinician's final judgment. Recent reviews on dentist–patient communication similarly conclude that encouraging patient participation enhances satisfaction and confidence while preserving evidence-based clinical decision-making [15].

Another important finding was that practitioners generally agreed that they adjust treatment plans according to the patient's level of understanding (mean = 3.41). This reflects the principles of patient-centered care, where treatment recommendations are tailored not only to clinical findings but also to the patient's health literacy and ability to comprehend available options. Clear explanations enable patients to make informed decisions and improve treatment acceptance and adherence. Recent literature consistently supports this approach, emphasizing that adapting communication to the patient's educational level enhances engagement, trust, and long-term clinical outcomes [15]. Furthermore, respondents agreed that low patient trust reduces treatment complexity (mean = 3.53). When trust is lacking, clinicians may avoid extensive or invasive procedures until a stronger therapeutic relationship has been established. This finding is supported by recent qualitative evidence identifying trust as one of the strongest predictors of successful dental care. Patients who trust their clinicians are more willing to accept comprehensive treatment plans, whereas diminished trust is associated with hesitation, poor compliance, and reduced treatment acceptance [14].

The present study further demonstrated that patient behavior may contribute to treatment delays, with a relatively high mean score (3.82 ± 0.85). More than 80% of participants agreed or strongly agreed that unfavorable patient behavior can postpone treatment. This finding is clinically important because delayed dental treatment may allow disease progression, increase treatment complexity, and negatively affect prognosis. Behavioral factors such as missed appointments, poor compliance, dental anxiety, and reluctance to accept treatment recommendations frequently result in interruptions to planned care. Recent studies have similarly reported that patient-related behavioral barriers are among the most common causes of delayed dental treatment and reduced treatment efficiency, emphasizing the importance of behavioral management strategies to improve continuity of care [9,17]. The participants also agreed that patient behavior may create ethical challenges during clinical practice (mean = 3.55 ± 0.89). Ethical dilemmas often arise when clinicians must balance patient autonomy with professional responsibility to provide evidence-based treatment. For example, patients may refuse recommended procedures, request unnecessary interventions, or decline essential follow-up care. In these situations, clinicians must carefully weigh the ethical principles of beneficence, non-maleficence, autonomy, and justice while maintaining professional integrity. Recent literature on dental ethics supports these findings and highlights that behavioral conflicts remain a frequent source of ethical decision-making in modern dental practice [2,3,18].

An important finding of the present study was the absence of statistically significant differences between practitioners working in governmental hospitals and private clinics. The Mann–Whitney U test showed no significant differences across all questionnaire items ($p > 0.05$). This suggests that dentists' perceptions regarding the influence of patient behavior are largely independent of workplace setting. One possible explanation is that challenging patient behaviors—including anxiety, poor compliance, aggression, and communication difficulties—are encountered universally across different healthcare systems. Consequently, clinicians tend to develop similar behavioral management approaches regardless of whether they practice in governmental or private institutions. Comparable findings have been reported in recent international studies, which indicate that patient-centered decision-making is primarily influenced by professional standards rather than workplace characteristics [2,3]. Similarly, the Kruskal–Wallis analysis demonstrated no statistically significant differences according to years of professional experience for nearly all questionnaire items. This finding indicates that both junior and senior practitioners recognize the importance of patient behavior in clinical decision-making. Although experienced clinicians may possess greater confidence in managing difficult patients, awareness of behavioral influences appears to develop early during professional training and remains relatively stable throughout clinical practice. The only variable approaching statistical significance was "patient questions affect treatment choices" ($p = 0.050$). Although this result did not reach conventional statistical significance, it may indicate that experienced clinicians are somewhat less likely to modify treatment decisions based solely on patient questioning, instead relying more heavily on clinical evidence and accumulated professional judgment.

Younger practitioners, on the other hand, may be more influenced by patient discussions while developing their clinical confidence [15,18]. The Chi-square analysis also revealed no significant association between practitioners' specialty and the occurrence of negative outcomes ($p = 0.961$). This finding suggests that behavioral challenges are not confined to a particular dental specialty but represent a common aspect of clinical practice across all disciplines. Whether clinicians work in oral surgery, restorative dentistry, prosthodontics, orthodontics, or other specialties, they encounter similar behavioral issues that may influence treatment planning and patient management. This observation is consistent with contemporary evidence emphasizing that effective communication and behavioral management are universal competencies required across all dental specialties [15,17]. Overall, the findings of this study support the growing body of evidence indicating that patient behavior is an integral determinant of clinical decision-making. While clinical examination

and scientific evidence remain the foundation of treatment planning, behavioral factors—including cooperation, trust, communication, anxiety, and adherence—substantially influence how treatment is delivered in daily practice. The strong agreement regarding the importance of communication and cooperation further reinforces the shift toward patient-centered care, where successful treatment depends not only on technical excellence but also on effective interpersonal relationships between clinicians and patients [2].

One of the major strengths of this study is the inclusion of practitioners with diverse ages, professional experience, and workplace settings, providing a comprehensive overview of current clinical perceptions. In addition, the questionnaire demonstrated satisfactory internal consistency (Cronbach's $\alpha = 0.733$), supporting the reliability of the collected data. However, several limitations should be acknowledged. The cross-sectional design precludes establishing causal relationships, and the use of self-reported responses may introduce response and social desirability bias. Furthermore, the study was conducted within a single national context, which may limit the generalizability of the findings to other healthcare systems. Future multicenter studies involving larger and more diverse populations are recommended to further investigate how patient behavior influences objective clinical outcomes and long-term treatment success.

Conclusion

The patient behavioral factors play an important role in dental clinical decision-making. Although no significant differences were found according to workplace setting or years of experience, dentists recognized the importance of considering patient-related factors during treatment planning. Integrating behavioral aspects with clinical considerations may support more patient-centered dental care.

Conflict of interest. Nil

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