Patient Satisfaction in Dental Healthcare Settings at Saudi Ministry of Health: A Descriptive Study

Mohammed S Aldossary, Mateg A Alahmary, Mashaal M Almutawaa, Shahad M Alhajri, Abdulrahman O Almalki, Khalid A Alharbi, Afnan M Almuaddi, Mervat M El Dalatony

1General Directorate of Research and Studies, Ministry of Health, Riyadh, Saudi Arabia; 2Department of Prosthodontics, Vision Colleges, Riyadh, Saudi Arabia; 3General Directorate of Patient Experience Center, Ministry of Health, Riyadh, Saudi Arabia; 4Public Health & Community Medicine Department, Faculty of Medicine, Menoufa University, Shibin El Kom, Menoufa Governorate, Egypt

Correspondence: Mohammed S Aldossary, General Directorate of Research and Studies, Ministry of Health, Tower 2, PC. 12382, Alnakheel District, Digital City, Riyadh, Saudi Arabia, Tel +966-11-2124000, Email msaldossary@moh.gov.sa

Background: Patient satisfaction is crucial for assessing healthcare quality and identifying strengths and weaknesses in healthcare organizations. In Saudi Arabia, the Ministry of Health (MOH) implemented the Patient Experience Measurement Program to enhance patient experience and healthcare quality. This study aimed to identify specific aspects of patient satisfaction with dental visits in Saudi Arabia to improve dental care quality and inform dental services development.

Methods: The study used a standardized self-administered questionnaire (Health Links/Press Ganey) and analyzed surveys from patients who visited MOH-specialized dental clinics in Saudi Arabia during the first half of 2022. The dental section comprised 20 questions across five domains, with patients rating their experience on a 5-point Likert scale. Statistical analysis was performed using IBM SPSS Statistics 25.

Results: A total of 964 patients were surveyed. The overall patient satisfaction with dental settings was 3.61 out of 5.0 (72.2%). The highest satisfaction score was for personal issues with the dental clinic domain (3.93/5; 78.6%), while the least satisfaction score was for access to the dental clinic domain (3.29/5; 65.8%). Among all items, the cleanliness of the facility showed the highest satisfaction score (4.11/5; 82.2%). The least satisfaction was for the ease of contacting the dental clinic (2.71/5; 54.2%).

Conclusion: The study found high levels of satisfaction among Saudi patients with dental services provided through MOH facilities across various component domains. This highlights the crucial role of dentists in ensuring high-quality dental care and serves as an indication of the overall healthcare quality in MOH facilities.

Keywords: patient satisfaction, patient-centered care, patient satisfaction, dental care, Saudi Arabia, Press Ganey

Introduction

Good health and well-being are among the 17 global Sustainable Development Goals (SDGs) established by the United Nations in December 2015 as part of the 2030 Agenda. In 2018, the World Health Organization (WHO) incorporated patient satisfaction as an indicator to evaluate the quality and safety of healthcare systems in their updated global reference list of 100 key health indicators. Although the literature lacks a precise definition for “patient satisfaction”, a fundamental understanding is that it represents the patient’s assessment of their treatment experience, taking into account both the actual care provided and individual patient characteristics.

Patient satisfaction scores and rankings have been utilized in administrative decisions for over 40 years, influencing various aspects of healthcare. These satisfaction surveys are increasingly employed to assess the quality of care provided by physicians, often impacting their income, employment, and other incentives. In modern healthcare assessments, patient satisfaction has garnered significant attention. While these ratings are frequently used to evaluate healthcare quality, they function as proxies. By identifying strengths and weaknesses within healthcare organizations, patient satisfaction contributes to improved treatment quality and more effective future planning.
In Saudi Arabia, the Ministry of Health (MOH) has introduced the Patient Experience Measurement Program as part of a national transformation project aimed at enhancing patient experiences and achieving exceptional healthcare. The program monitors beneficiaries’ satisfaction with various health services offered by MOH facilities through tailored surveys for each visit, empowering patients and their families to contribute to quality improvement. Designed for use by hospitals, specialized centers, primary healthcare centers, blood banks, tobacco cessation centers, premarital screening centers, 937 Service Call Centers, and other therapy centers, the program expands its reach to encompass all MOH facilities.

The MOH manages surveys and publishes program-related reports in collaboration with an independent third party, Health Links/Press Ganey, ensuring adherence to the highest standards. Press Ganey, a global leader in evaluating and enhancing patient experiences, partners with over 35,000 healthcare facilities worldwide, including more than 50% of the United States (US) hospitals. In alignment with the MOH’s vision to enhance healthcare services in Saudi Arabia, this study aimed to identify detailed dimensions of patient satisfaction with dental visits and to identify strengths and weaknesses that form a framework for further development of the delivered dental services and to improve the quality of dental care provided.

Methods

Study Design and Setting
This retrospective descriptive study was conducted to assess patient satisfaction in MOH specialized dental clinics across the Kingdom of Saudi Arabia during the first half of 2022. The study received ethical approval (No. 22-42M) from the Central Institutional Review Board (NCBE-KACST, KSA: II-01-R-009) of the Saudi MOH. Consent was obtained implicitly from participants who agreed to complete the questionnaire, including a statement about the study’s objectives and methodologies. We confirm that this study was conducted in full accordance with the ethical guidelines of the Declaration of Helsinki.

Data Collection and Participants
Data were obtained from Health Links/Press Ganey surveys administered to patients who visited MOH specialized dental clinics in the Kingdom of Saudi Arabia between January and June 2022. Patients who completed the survey were included in the study, while incomplete questionnaires were excluded. A total of 964 completed questionnaires were analyzed. The survey was shared with the MOH dental clinics’ visitors via their registered mobile phones or emails two days after their dental clinic visit. Participants were informed of the survey objectives and confidentiality of the information they provided through the questionnaire.

Inclusion and Exclusion Criteria
Completed surveys submitted from specialized dental clinics throughout the Kingdom of Saudi Arabia during the first half of 2022 were included. Incomplete questionnaires were excluded from the study.

Survey Instrument
The Press Ganey survey questionnaire, developed and administered by Health Links/Press Ganey, is a standardized self-administered questionnaire used to assess patient experiences with various specialties within MOH facilities, including dental services. The dental section of the questionnaire consists of 25 questions, categorized into five primary domains: access, moving through, dentist, personal issues, and overall assessment of the clinic. Questions were presented in both Arabic and English languages. Patients rated their experiences on a 5-point Likert scale (1-very poor, 2-poor, 3-fair, 4-good, and 5-very good). No questions were mandatory, allowing patients to freely respond to the questionnaire. The survey covered topics related to facilities, services, and treatments.

Statistical Analysis
Data from the 964 participants were analyzed using IBM Statistical Package for the Social Sciences (SPSS v.25). Descriptive statistical analysis, including frequency, percentage, and mean, was employed to evaluate patient satisfaction. The results were presented in frequency tables.
Results

A total of 964 participants were recruited through completed surveys. The overall patients’ satisfaction with dental settings was 3.61 out of 5.0 (72.2%). The highest satisfaction score was for personal issues with the dental clinic domain (3.93/5; 78.6%), while the lowest was access to the dental clinic domain (3.29/5; 65.8%). Table 1 demonstrates the overall satisfaction scores of the five domains.

In the access domain items, patients reported a mean satisfaction score of 3.00 (60.0%) for the availability of appointments at a day/time that met their needs, 3.11 (62.2%) for the ease of scheduling appointments, 2.71 (54.2%) for the ease of contacting the dental clinic, 3.77 (75.4%) for the ease of the registration process upon arrival, and 3.86 (77.2%) for the courtesy of the receptionist. For the moving through domain items, patients reported a mean satisfaction score of 3.21 (64.2%) for how well they were kept informed about any delays, 3.38 (67.6%) for the comfort of the reception room, and 3.54 (70.8%) for the wait time at the dental clinic (from arriving to leaving), as shown in Table 2.

In the dentist domain, patients reported mean satisfaction scores of 3.86 (77.2%) for how well the dentist listened, 3.83 (76.6%) for explanations about their condition, 3.74 (74.8%) for the dentist’s efforts to include them in care decisions, 3.70 (74%) for the explanation of treatment options, and 3.64 (72.8%) for likelihood to recommend the dentist to others. In the personal issues domain, patients reported mean satisfaction scores of 4.11 (82.2%) for facility cleanliness, 3.96 (79.2%) for staff concerns and protection from infectious diseases and radiation, 4.00 (80%) for infection control features in the exam room, and 3.66 (73.2%) for information provided to avoid future dental problems. In the overall assessment domain, patients reported mean satisfaction scores of 3.68 (73.6%) for the support provided to

### Table 1
The Overall Results of Satisfaction Score of the Five Domains of the Press Ganey Survey in Dental Settings

<table>
<thead>
<tr>
<th>Domain</th>
<th>Access to Dental Clinic</th>
<th>Moving Through Dental Visit</th>
<th>Dentist</th>
<th>Personal Issues with Dental Clinic</th>
<th>Overall Assessment</th>
<th>Overall Patient Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean of satisfaction score (%)</td>
<td>3.29 (65.8)</td>
<td>3.38 (67.6)</td>
<td>3.75 (75)</td>
<td>3.93 (78.6)</td>
<td>3.67 (73.4)</td>
<td>3.61 (72.2)*</td>
</tr>
</tbody>
</table>

Note: *The overall satisfaction for all domains and subdomains.

### Table 2
Descriptive Results of Patient Satisfaction with the Access Domain, and Moving Through Domain, of Press Ganey Survey (n=964)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access domain items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of appointments at a day/time that met your needs</td>
<td>297 (30.8%)</td>
<td>89 (9.2%)</td>
<td>156 (16.2)</td>
<td>158 (16.4)</td>
<td>264 (27.4)</td>
<td>3.00 (60.0)</td>
</tr>
<tr>
<td>Ease of scheduling your appointment</td>
<td>264 (27.4)</td>
<td>108 (11.2)</td>
<td>151 (15.7)</td>
<td>137 (14.2)</td>
<td>304 (31.5)</td>
<td>3.11 (62.2)</td>
</tr>
<tr>
<td>Ease of contacting (eg, email, phone, internet) the dental clinic</td>
<td>325 (33.7)</td>
<td>119 (12.3)</td>
<td>214 (22.2)</td>
<td>118 (12.2)</td>
<td>188 (19.5)</td>
<td>2.71 (54.2)</td>
</tr>
<tr>
<td>Ease of registration process upon arrival</td>
<td>119 (12.3)</td>
<td>64 (6.6)</td>
<td>165 (17.2)</td>
<td>187 (19.4)</td>
<td>429 (44.5)</td>
<td>3.77 (75.4)</td>
</tr>
<tr>
<td>Courtesy of the receptionist</td>
<td>101 (10.5)</td>
<td>47 (4.9)</td>
<td>171 (17.7)</td>
<td>211 (21.9)</td>
<td>434 (45.0)</td>
<td>3.86 (77.2)</td>
</tr>
<tr>
<td><strong>Moving through domain items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well you were kept informed about any delays</td>
<td>213 (22.1)</td>
<td>95 (9.9)</td>
<td>206 (21.3)</td>
<td>180 (18.7)</td>
<td>270 (28.0)</td>
<td>3.21 (64.2)</td>
</tr>
<tr>
<td>The comfort of the reception room</td>
<td>161 (16.7)</td>
<td>84 (8.7)</td>
<td>230 (23.9)</td>
<td>201 (20.9)</td>
<td>288 (29.9)</td>
<td>3.38 (67.6)</td>
</tr>
<tr>
<td>Wait time at the dental clinic (from arriving to leaving)</td>
<td>151 (15.7)</td>
<td>56 (5.8)</td>
<td>225 (23.3)</td>
<td>188 (19.5)</td>
<td>344 (35.7)</td>
<td>3.54 (70.8)</td>
</tr>
</tbody>
</table>
nervous or afraid patients, 3.72 (74.4%) for how well the staff worked together to care for patients, and 3.62 (72.4%) for the overall rating of care provided by the dental clinic, as shown in Table 3.

**Discussion**

Over the past years, healthcare systems have evolved to become more aligned with patient-centered care.\(^ {10}\) Quality in healthcare has gained increasing importance, as recognized by healthcare professionals, patients, and policymakers. To assess the level of quality, healthcare organizations utilize various metrics. Patient experience evaluations have been developed to gauge patient-centered care, which is defined as “respecting and responding to the unique preferences, needs, and values of patients, and ensuring that their values drive all clinical decisions”.\(^ {11}\)

Several international studies have explored patient experiences, identifying several key factors that contribute to patient satisfaction. These factors include the behavior of dental professionals, the amount of time spent addressing

### Table 3 Descriptive Results of Patient Satisfaction with the Dentist Domain, Personal Issues Domain, and Overall Assessment Domain, of Press Ganey Survey (n=964)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dentist domain items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well the dentist listened to you</td>
<td>145 (15.0)</td>
<td>47 (4.9)</td>
<td>104 (10.8)</td>
<td>172 (17.9)</td>
<td>496 (51.5)</td>
<td>3.86 (77.2)</td>
</tr>
<tr>
<td>Explanations the dentist gave you about your problem or condition</td>
<td>141 (14.6)</td>
<td>70 (7.3)</td>
<td>99 (10.3)</td>
<td>156 (16.1)</td>
<td>498 (51.7)</td>
<td>3.83 (76.6)</td>
</tr>
<tr>
<td>Dentist’s efforts to include you in decisions about your care</td>
<td>157 (16.3)</td>
<td>73 (7.6)</td>
<td>99 (10.3)</td>
<td>167 (17.4)</td>
<td>468 (48.5)</td>
<td>3.74 (74.8)</td>
</tr>
<tr>
<td>Explanation of your options for treatment</td>
<td>167 (17.3)</td>
<td>68 (7.1)</td>
<td>118 (12.2)</td>
<td>143 (14.8)</td>
<td>468 (48.5)</td>
<td>3.70 (74)</td>
</tr>
<tr>
<td>Likelihood to recommend this dentist to others</td>
<td>192 (19.9)</td>
<td>74 (7.7)</td>
<td>90 (9.3)</td>
<td>139 (14.4)</td>
<td>469 (48.7)</td>
<td>3.64 (72.8)</td>
</tr>
<tr>
<td><strong>Personal issues domain items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleanliness of the facility</td>
<td>72 (7.5)</td>
<td>32 (3.3)</td>
<td>123 (12.8)</td>
<td>227 (23.5)</td>
<td>510 (52.9)</td>
<td>4.11 (82.2)</td>
</tr>
<tr>
<td>Staff concerns/steps taken to protect you from infectious disease and excess radiation</td>
<td>90 (9.3)</td>
<td>55 (5.7)</td>
<td>122 (12.7)</td>
<td>234 (26.9)</td>
<td>463 (48.0)</td>
<td>3.96 (79.2)</td>
</tr>
<tr>
<td>The infection control features used in the exam room (wearing gloves, washing hands … etc.)</td>
<td>83 (8.6)</td>
<td>46 (4.8)</td>
<td>131 (13.6)</td>
<td>229 (23.7)</td>
<td>475 (49.3)</td>
<td>4.00 (80)</td>
</tr>
<tr>
<td>Information provided on ways to avoid future dental problems</td>
<td>149 (15.5)</td>
<td>88 (9.1)</td>
<td>118 (12.2)</td>
<td>200 (10.7)</td>
<td>409 (42.4)</td>
<td>3.66 (73.2)</td>
</tr>
<tr>
<td><strong>Overall assessment domain items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you felt nervous or afraid while at the dental clinic, support the staff (including the dentist) gave you</td>
<td>125 (13.0)</td>
<td>58 (6.0)</td>
<td>213 (22.1)</td>
<td>171 (17.7)</td>
<td>397 (41.2)</td>
<td>3.68 (73.6)</td>
</tr>
<tr>
<td>How well the staff (including the dentist) worked together to care for you.</td>
<td>139 (14.4)</td>
<td>51 (5.3)</td>
<td>197 (20.4)</td>
<td>134 (13.9)</td>
<td>443 (46.0)</td>
<td>3.72 (74.4)</td>
</tr>
<tr>
<td>Overall rating of care provided by this dental clinic</td>
<td>153 (15.9)</td>
<td>59 (6.1)</td>
<td>204 (21.1)</td>
<td>130 (13.5)</td>
<td>418 (43.4)</td>
<td>3.62 (72.4)</td>
</tr>
</tbody>
</table>
patients’ concerns, and the duration of waiting times. In our study, we employed the Press Ganey survey to investigate the specific elements affecting patient satisfaction with dental services offered at specialized dental centers under the Ministry of Health in Saudi Arabia.

Dental pain often prompts individuals to seek immediate access to dental care and high-quality services, which increases the likelihood of choosing private clinics where they can receive prompt attention. Previous research indicates that patients who experience significant difficulties scheduling convenient appointments tend to report dissatisfaction. In line with this, our study found that satisfaction with appointment access and coordination was the lowest among all factors. Challenges in scheduling appointments and communicating with the dental clinic through phone, email, or the internet emerged as primary sources of dissatisfaction. One potential solution for improving patient access to dental care is the use of tele-dentistry, which can deliver preventive or diagnostic treatments remotely, thus increasing the availability of in-person appointments. Additionally, implementing an online referral system could streamline referrals, particularly in rural areas.

In the present study, the majority of patients expressed satisfaction with the cleanliness of the facility, with a mean score of 4.11 out of 5 (82.2%). This was followed by satisfaction regarding infection control features, which scored 4.0 out of 5 (80%). These results align with those of previous research, where 91% of participants reported that the waiting area was clean, and another study found that 83.1% of patients were satisfied with the cleanliness of equipment and materials. As a result, it has been suggested that dental institutions should strive to achieve the highest level of satisfaction in terms of cleanliness for facilities, equipment, instruments, and materials. This highlights that proper infection control measures are maintained in clinics.

The current study revealed that patients expressed 70.8% satisfaction with the waiting time from arrival to departure at the dental clinic. While various studies have reported different findings, they all concur that waiting time is a significant factor in patient satisfaction. For example, Patel’s study found that long waiting times for treatment were a primary cause of patient dissatisfaction. Similarly, Alnemer et al’s study concluded that longer waiting times, particularly at the registration counter, contributed to increased patient dissatisfaction. They also suggested that reducing the number of patients admitted to the clinic or increasing the number of dental staff in a specific department could be effective strategies for decreasing patient waiting times.

Dental professionals play a crucial role in shaping their patients’ experiences. In the dentist domain of our study, patients were primarily satisfied with the dentist’s attentiveness (3.86/5; 77.2%) and the clarity of the explanations provided about their oral problems or conditions (3.83/5; 76.6%). These results emphasize the significance of communication and the dentist’s consideration of patients’ expectations and needs, which can greatly influence patient satisfaction. El Dalatony et al, conducted a study to examine the influence of patient satisfaction with a dentist on their loyalty towards that dentist in Saudi MOH dental clinics. Their findings showed that the highest average satisfaction score was related to the dentist’s attentive listening (3.86 out of 5; 77.2%). A significant correlation was found between each dentist-related item and the likelihood of the patient recommending that dentist to others, reflecting patient loyalty (p<0.001). The dentist’s explanation of treatment options emerged as the strongest predictor of patient loyalty. This highlights the crucial role dentists play in enhancing patient satisfaction and, consequently, patient loyalty.

A previous study conducted in Saudi Arabia utilized a 16-parameter survey and discovered that a “compassionate dentist” received the highest rating (97.2%) among factors contributing to patient satisfaction in dental settings, followed by “pleasant staff” (95.1%). Similarly, in a Brazilian dental primary healthcare study, a high degree of patient satisfaction was associated with the dentist’s personality and attentiveness to patient concerns. Our results also align with a previous study, which reported that dentist performance received the highest ratings. This positive feedback for dentists may be attributed to the Kuwaiti Ministry of Health’s long-standing continuing education program. Additionally, Fernandez et al highlighted factors influencing patients’ decision-making, such as cost, personal appearance, office location, wait time before seeing the dentist, and completion of insurance forms. Furthermore, recommendations from friends and family and the clinic’s proximity were the two primary deciding factors. Likewise, Ali D. discovered that while respondents were generally satisfied, internal differences were observed. Satisfaction with dentists’ performance ranked highest, followed by satisfaction with dental assistants’ services. Clinical settings came in third, followed by
overall satisfaction and satisfaction with reception staff. The least satisfactory aspects were the reception area and accessibility.

Limitations
Despite the widespread use of the Press Ganey Survey as a patient-reported survey to assess patient satisfaction with healthcare in numerous countries, there are significant and well-acknowledged limitations to using such data. These limitations include incomplete response bias and non-response issues. Furthermore, demographic information, such as gender and age, which could affect satisfaction outcomes, is absent from this standardized, pre-designed survey. We also recommend further exploration of potential predictors for other critical factors influencing patient satisfaction, such as care quality and additional satisfaction indicators.

Conclusions
Our findings revealed high levels of satisfaction among Saudi patients across various component domains of the Press Ganey patient satisfaction survey (personal issues, dentist, moving through, and access), as well as an overall high level of patient satisfaction with the dental services delivered through MOH dental facilities across the kingdom. This study highlights the vital role of the dentist in ensuring high-quality dental care. These results serve as an indication of the quality of healthcare provided in MOH facilities.

Implications
Measuring patient-centered care is a crucial indicator of the quality of care. This study provides insights for policymakers, academics, and healthcare providers on how to assess patient-centered care, emphasizing its two key components: the right of individuals to be treated with respect and dignity when using healthcare services and the connection between patient-centered care and improved healthcare outcomes and utilization. Adopting this approach can help health systems work towards achieving Universal Health Coverage (UHC), a central component of Sustainable Development Goal (SDG) No. 3. Ultimately, this can contribute to enhancing the quality of health services through evidence-based approaches.

Acknowledgement
The authors would like to thank CTI Clinical Trial and Consulting Services for their counseling and publication support.

Funding
No funding was received for the present work.

Disclosure
The authors have no conflicts of interest to disclose.

References