

EXPECTATIONS AND SATISFACTION OF PATIENTS WHO ATTEND DENTAL EMERGENCY CLINICS: A SYSTEMATIC REVIEW

Expectativas y Satisfacción de los Pacientes Atendidos en Clínicas de Urgencias Dentales: una Revisión Sistemática

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ABSTRACT

Objectives: This systematic review was conducted to evaluate patients' expectations upon visiting dental emergency clinics, the factors affecting patients' expectations and satisfaction negatively or positively, and assess the level of these satisfactions.

Material and Methods: A systematic search was conducted in accordance with the PRISMA guidelines. Articles published between 2010 and 2024 that meet the inclusion and exclusion criteria were selected from *PubMed*, *Scopus*, *Wiley*, and *Cochrane databases* using the keywords such as patient expectation, dental emergency, patient satisfaction, and visiting dental emergency clinic. The Newcastle-Ottawa Scale and Quality Assessment by the Joanna Briggs Institute was used to assess the study quality.

Results: A total of 145 articles were found after searching the database; seven of these studies were included in the review, comprising five cross-sectional, one qualitative, and one prospective study. Key findings indicate patients value respectful and empathetic dentist-patient relationships, efficient administrative services, and high-quality, pain-free treatment. Shorter waiting times were strongly associated with higher satisfaction levels, while delays in doctor arrival and prolonged treatment processes led to dissatisfaction. Safety measures, organised facilities, and accessible care contributed to positive experiences. Overall, patient satisfaction was high across studies, ranging from 76% to 96%. However, gaps remain in addressing specific patient expectations, particularly regarding service accessibility and individualised care. Quality assessments revealed moderate risks of bias, particularly in confounding factors and study designs, which may affect the reliability of findings.

Conclusion: While overall satisfaction rates were high, gaps remain in meeting specific patient expectations, particularly regarding service accessibility and individualised care. Addressing these concerns by improving waiting time, enhancing communication, and improving service delivery may improve patient experiences. However, the moderate risk of bias in some studies suggests the need for more rigorous research to strengthen the evidence base.

Keywords: *Dental emergency clinic; Patient expectation; Patient satisfaction; Emergency medical services; Systematic review; Physician-patient relations*

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RESUMEN

Objetivo: Evaluar las expectativas de los pacientes al acudir a clínicas de urgencias dentales, los factores que influyen en dichas expectativas y su satisfacción (tanto positiva como negativamente), y el nivel de satisfacción.

Materiales y Métodos: Se realizó una búsqueda sistemática siguiendo las directrices PRISMA. Se seleccionaron artículos publicados entre 2010 y 2024 que cumplieran los criterios de inclusión y exclusión de las bases de datos PubMed, Scopus, Wiley y Cochrane, utilizando palabras clave (en inglés) como «expectativa del paciente», «urgencia dental», «satisfacción del paciente» y «visita a clínica de urgencias dentales». Para evaluar la calidad de los estudios, se utilizó la Escala de Newcastle-Ottawa y la Evaluación de la Calidad del Instituto Joanna Briggs.

Resultados: Tras la búsqueda en las bases de datos, se encontraron 145 artículos; siete de ellos se incluyeron en la revisión, cinco transversales, uno cualitativo y uno prospectivo. Los principales hallazgos indican que los pacientes valoran las relaciones respetuosas y empáticas entre dentista y paciente, los servicios administrativos eficientes y un tratamiento de alta calidad y sin dolor. Los tiempos de espera más cortos se asociaron fuertemente con mayores niveles de satisfacción, mientras que las demoras en la llegada del médico y los tratamientos prolongados generan insatisfacción. Las medidas de seguridad, las instalaciones organizadas y la atención accesible contribuyeron a experiencias positivas. En general, la satisfacción del paciente fue alta en todos los estudios, oscilando entre el 76 % y el 96 %. Sin embargo, persisten deficiencias en la atención a las expectativas específicas de los pacientes, particularmente en lo que respecta a la accesibilidad al servicio y la atención individualizada. Las evaluaciones de calidad revelaron riesgos moderados de sesgo, especialmente en factores de confusión y diseños de estudio, lo que puede afectar la fiabilidad de los resultados.

Conclusión: Si bien las tasas de satisfacción general fueron altas, persisten deficiencias en la atención a las expectativas específicas de los pacientes, particularmente en lo que respecta a la accesibilidad al servicio y la atención individualizada. Abordar estas preocupaciones mediante la mejora del tiempo de espera, la comunicación y la prestación de servicios puede mejorar la experiencia del paciente. Sin embargo, el riesgo moderado de sesgo en algunos estudios sugiere la necesidad de una investigación más rigurosa para fortalecer la base de evidencia.

Palabras clave: *Clínica de urgencias dentales; Expectativas del paciente; Satisfacción del paciente; Servicios médicos de urgencia; Revisión sistemática; Relaciones médico-paciente*

INTRODUCTION

Dental emergency services are a specialised form of healthcare that provides urgent care for acute dental issues that demand immediate attention.¹ These services often operate outside standard hours and are managed by trained professionals. In some settings, they may be integrated with other healthcare services, such as functioning within hospital emergency departments.^{2,3}

Patients seek dental emergency treatment for various reasons, including pain caused by dental pulp or periapical lesions, cellulitis, maxillofacial injuries, and abscesses.^{4,5} However, definitive care for these conditions is often unavailable due to certain limitations in emergency dental services. Instead, the provided treatments primarily focus on managing infections with antibiotics, controlling pain with analgesics, and offering palliative care.⁶

Patients are typically required to return to dental clinics later to receive comprehensive and definitive treatment.⁷⁻⁹ The likelihood of a patient returning for a follow-up appointment is influenced by the limitations of emergency dental services and the quality of the initial care experience. Several factors influence a patient's likelihood to return, including logistical considerations, insurance coverage, and socioeconomic status, which play a role in enabling or hindering follow-up compliance.¹⁰ Additionally, patient satisfaction during the initial emergency treatment significantly impacts their decision to return. A positive experience, marked by effective communication, empathy, and quality care, fosters trust and motivates patients to engage in subsequent visits, which are often due to their experience that met the patient's expectation.¹¹

Patients' expectations are beliefs or attitudes that shape how they perceive and evaluate their healthcare experiences.¹² These expectations include anticipations about what should happen during treatment.¹³ With the growing emphasis on "*patient-centred*" care, recent studies have explored the influence of psychosocial factors on how patients perceive the quality of care. These factors are widely acknowledged as significant contributors to patient satisfaction with treatment outcomes.¹ The outcome of dental treatment has an impact on patients' attendance for dental treatment, with a poor outcome that may potentially delay future visits to the dental practitioner.^{14,15}

Patient satisfaction reflects the degree to which patients' needs and expectations are met, encompassing the technical proficiency in addressing their health issues and their subjective approval of the care provided.¹⁶ Various elements influence patient satisfaction, including clinical and technical expertise, the cost of treatment, interpersonal interactions, and the overall healthcare environment.¹⁷

In dentistry, treatment satisfaction can significantly influence patients' attendance for future dental visits, with negative experiences potentially reducing the number of patients returning for follow-ups.¹⁴ Satisfied patients, on the other hand, are more compliant with the instructions and recommendations given by dental practitioners, which leads to more favourable treatment outcomes.¹⁵ However, the evidence concerning patients' expectations remains inconclusive. We still lack a clear understanding of what patients anticipate when visiting dental emergency clinics and the factors influencing their satisfaction.

Consequently, these aspects require further theoretical and empirical investigation to help dentists improve the quality of emergency dental care. Moreover, such insights could aid health authorities in updating policies and optimising the structure of emergency departments.¹⁸ To address these issues, a systematic review was undertaken to critically analyse existing research on assessing patients' expectations in emergency dental clinics. Two focus questions were investigated:

- 1) What are the patients' expectations upon visiting the dental emergency clinic?
- 2) What are the satisfaction levels among patients after the treatment at these clinics?

MATERIALS AND METHODS

Study Protocol and Eligibility Criteria

A systematic search was conducted to identify patient expectations and factors contributing to their satisfaction. The protocol for the review was performed according to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines. This study was registered in the International Prospective Register of Systematic Reviews, and the protocol was approved

on October 15th, 2024, with the registration number CRD42024597466. Two independent reviewers conducted the searches.

Studies were included when they met the inclusion criteria:

- 1) Articles published in the English language only.
- 2) Studies conducted on patients who visit dental emergency clinics and have emergency issues.
- 3) Only patients aged 18 and above.

Studies that were implemented on patients aged 17 and below, incomplete reporting of patient expectations in satisfaction and articles written in other language versions were excluded.

Search Strategy and Data Resources

Articles published between 2010 and 2024 in *PubMed*, *Scopus*, *Wiley*, and *Cochrane databases* were reviewed. The search utilised keywords including “*dental emergency clinic*”, “*patient expectation*”, and “*patient satisfaction*”. Two independent reviewers conducted the search by screening titles, abstracts, and keywords to identify relevant articles aligned with the study objectives.

Full texts of potentially eligible articles were obtained, and additional articles were identified through the bibliographies of selected studies and systematic reviews. Articles meeting the inclusion and exclusion criteria were included in the analysis.

Data Extraction

Data were collected using a pre-designed data extraction sheet by two independent researchers. Any discrepancies in the extracted information were addressed through discussion and resolution.

The extracted data included details about the study characteristics (such as the author’s name and institution, publication year, study design, and number of participants), demo-

graphic information of the subjects (including age and gender), tools used for assessing patient expectations (e.g., questionnaires or interviews), and subsets related to satisfaction and expectations.

Additionally, the main findings, including overall patient satisfaction and the limitations of each study, were documented.

Quality and risk-of-bias assessment

To critically appraise the quality of an individual study, the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Analytical Cross-Sectional Studies was used to assess the cross-sectional study design.

The tool included sample selection, data collection, measurement validity and confounding factors. The qualitative study was also critically evaluated using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Qualitative Research. This tool evaluates methodological quality across multiple domains, including congruence between research methodology and objectives, data collection and analysis, representation of participant voices, and ethical considerations.

Regarding the prospective cohort study, Newcastle-Ottawa Scale (NOS) for Cohort Studies was used, which involved the assessment of patient selection, comparability, and outcome domains to evaluate the risk of bias.

Heterogeneity assessment and data analysis

Various factors, including the research site, patient age, dental exposure in different locations, volunteer numbers, and level of education in multiple locations, could cause heterogeneity in the included studies.

The following information can be used to conduct a meta-analysis if it is adequate and similar. Only a systematic narrative review would be carried out if heterogeneity were apparent.

RESULTS

Study Selection

The flowchart outlines the selection process for studies included in the systematic review. 145 records were retrieved from multiple databases, including *PubMed* (n=52), *Cochrane* (n=30), *Wiley* (n=35), and *Scopus* (n=28). After the initial screening, 75 records were removed—20 due to duplication and 55 for other reasons. This left 70 records for further screening. In the screening phase, 40 records were

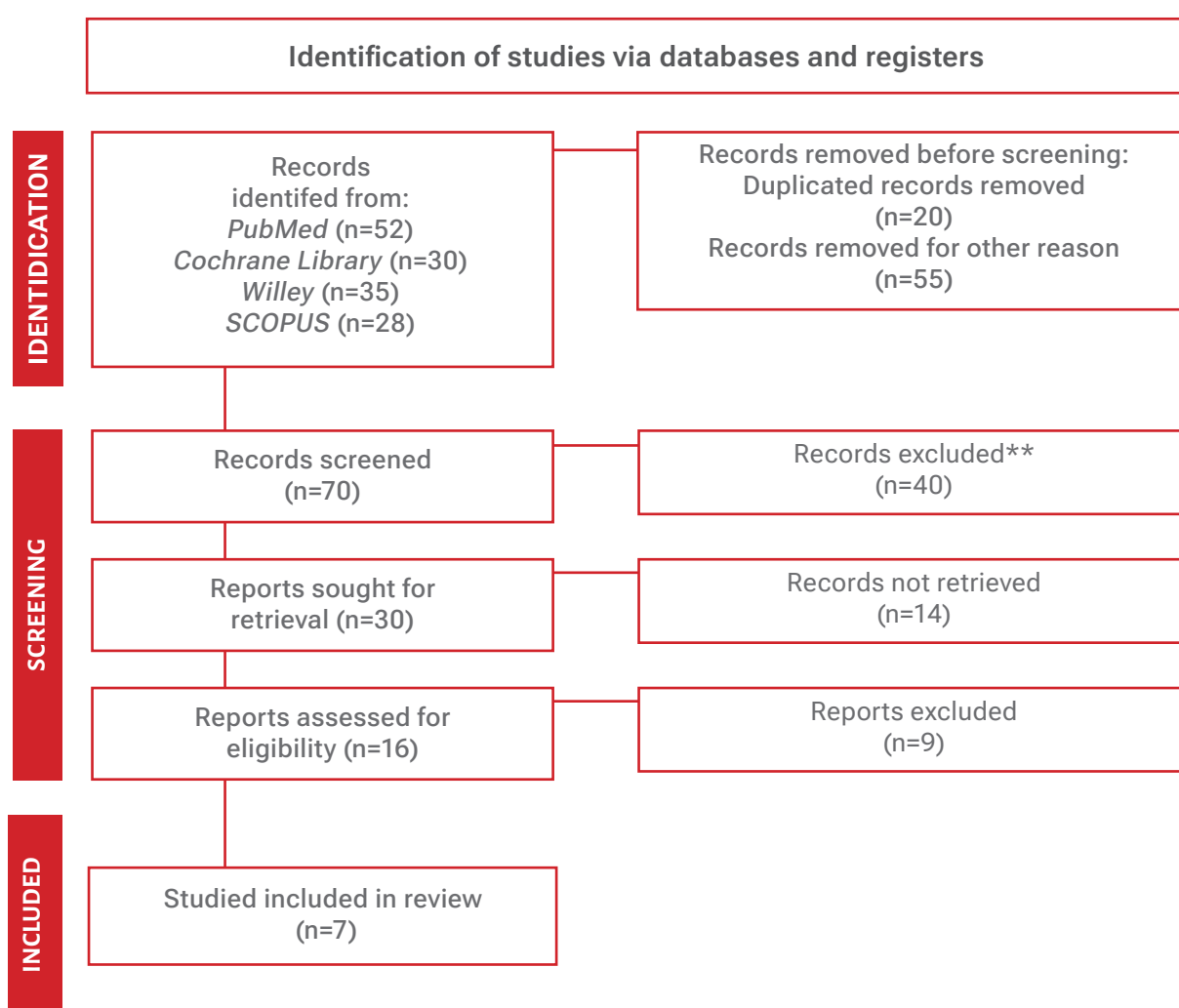
excluded based on relevance or eligibility criteria, and 30 reports were sought for retrieval. Of these, 14 reports could not be retrieved, leaving 16 reports for eligibility assessment. Out of the 16 studies, 9 reports were excluded, resulting in 7 studies being included in the final systematic review (Figure 1).

Study Characteristics

The systematic review included studies conducted across various countries, employing both qualitative and cross-sectional design-

Figure 1

Flow of information through the different phases of a systematic review or meta-analysis



ns. The studies investigated aspects of patient satisfaction and expectations in dental emergency services. Generally, sample sizes varied, with participant numbers ranging from 51 to over 300, and data were collected through questionnaires, interviews, and satisfaction indices. The definition of emergency services varies across studies. Most studies described emergency dental services as facilities aimed at managing acute dental conditions requiring immediate attention. These services are typically available after regular working hours and may be provided in various settings, including family health centres, dental hospital emergency departments, and maxillofacial and oral surgery departments. Some studies also highlighted military dental clinics as specialised units catering to patients with acute dental issues.

Subject Demographic Data

The demographic characteristics of the study populations varied. Age groups primarily included adults, with specific ranges reported between 21 and 63 years. Gender distribution was noted, with some studies reporting more female than male participants. However, a few studies did not explicitly state demographic details such as gender proportions or exact age ranges (Table 1).

Patient Expectations

Patient expectations in dental emergency services were explored to varying degrees across studies. Three studies highlighted expectations regarding the relationship between patients and healthcare providers. Patients described an ideal relationship as one that is kind, respectful, and empathetic, emphasising the importance of dentists

Table 1

Description of studies included in this review

Author	Year	Study Design	Number of participants	Number of questions	Population
Balkaran <i>et al.</i> ¹²	2014	Cross-sectional study	100	19	Age: 18 years above Gender: 31 Male, 69 Female
Demeestere <i>et al.</i> ¹⁴	2022	Prospective cohort study	376	Not stated	Age: 18 years above Gender: 59 Male, 41 Female
Goswami <i>et al.</i> ¹⁵	2022	Cross-sectional	51	13	Age: over 18 years old Gender: Male (not stated), Female (not stated)
Contreras-Ramirez <i>et al.</i> ¹⁶	2018	Qualitative	88	19	Age: Between 21-64 years old Gender: 23 Male, 66 Female
Yıldırım <i>et al.</i> ¹⁹	2023	Cross-sectional study	100	5	Age: 16 years above Gender: 48 Male, 52 Female
Motloba <i>et al.</i> ²⁰	2018	Cross-sectional Study	149	27	Age: Between 21- 40 years old Gender: 56 Male, 93 Female
Buss <i>et al.</i> ²¹	2023	Cross-sectional study	248,342	6	Age: 18 years above Gender: 190,682 Male, 57,453 Female

Table 2

Results of the Studies

Author	Type of emergency	Satisfaction subsets: 1. Waiting time 2. Healthcare center condition 3. Staff-patient relationship 4. Outcome of treatment 5. Symptoms relief	Expectation: 1. Shorter waiting time 2. Accessible location 3. Good environment 4. Good relationship	Methods 1. Questionnaire 2. Interview 3. Systematic Review	Result 1. Satisfied 2. Unsatisfied	Limitations
Goswami et al. 2022	Not stated	1. Yes 2. Yes 3. Yes 4. Yes	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes	1. Yes 2. Not included 3. Not included	1. Not included 2. Not included	Small sample size & short period of time
Contreras-Ramirez et al. 2018	Dental pain	1. Not included 2. Not included 3. Yes 4. Yes	1. Not included 2. Not included 3. Yes 4. Yes 5. Yes	1. Yes 2. Yes	1. Descriptive 2. Descriptive	Uses convenience sampling (involves one population only) and did not compare the out-comes across different social back-grounds.
Motloba et al. 2018	All type of emergencies (maxillofacial and oral surgery)	1. Yes 2. Yes 3. Yes 4. Yes	1. Yes 2. Not included 3. Yes 4. Yes 5. Yes	1. Yes 2. Not included 3. Not included	1. 60-80% 2. 20-40%	Includes non-emergency cases
Buss et al. 2023	General surgery, specialty care, "sick call" walk-in appointments, acute oral disease	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes	1. Yes 2. Yes 3. Yes 4. Yes	1. Yes 2. Not included 3. Not included	1. 1.96% 2. 2.4%	Potential selection bias related to multiple surveys answered by an individual and incomplete
Balkaran et al. 2014	Dental caries, cleaning, filling, root canal, crown/bridge, dentures, extraction/surgery dental checks	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes	1. Yes 2. Yes 3. Yes 4. Yes	1. Yes 2. Not included 3. Not included	1. 76.42% 2. 23.58%	Potential recall bias, inflated response, limited dental satisfaction questionnaire and includes non-emergency cases
Yildirim et al. 2023	Severe toothache, cyst, gum disease, tooth sensitivity, intra-oral wound, etc.	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes	1. Yes 2. Yes 3. Yes 4. Yes	1. Yes 2. Not included 3. Not included	1. Not included 2. Not included	Small sample size, potenrecall bias and includes non- emergency cases

Table 2 continues on the next page →

Author	Type of emergency	Satisfaction subsets: 1. Waiting time 2. Healthcare center condition 3. Staff-patient relationship 4. Outcome of treatment 5. Symptoms relief	Expectation: 1. Shorter waiting time 2. Accessible location 3. Good environment 4. Good relationship	Methods 1. Questionnaire 2. Interview 3. Systematic Review	Result 1. Satisfied 2. Unsatisfied	Limitations
Demeestere et al. 2022	Orofacial pain, reversible pulpitis, irreversible pulpitis, acute apical periodontitis, acute apical abscess, pericoronitis, ulcerative necrosis disease, alveolitis, cellulitis, temporomandibular disorder, oral mucosal pathology, prosthodontics	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes	1. Yes 2. Yes 3. Yes 4. Yes	1. Yes 2. Not included 3. Not included	1. 98% 2. 2%	Potential selection bias related to language and only focuses on daytime emergencies not out-of-hours periods

treating patients as a person. Additionally, administrative staff were expected to handle administrative tasks efficiently. Another significant expectation was the quality of care, where patients anticipated that healthcare providers would perform clinical procedures without causing pain or anxiety.^{14,19} A more detailed expectation has been described by a qualitative study

by Contreras-Ramirez *et al.*¹⁶ From a dental professionalism standpoint, patients expect that clinicians provide clear medical information based on sound research results, with information that may be interpreted as non-significant by the dentist and must be clear to patients. At all levels of care, from initial consultation to post-treatment follow-up, ongoing communication is essential.

Table 3

Quality assessment using Joanna Briggs Institute for Cross-sectional study

	Gosmawi et al. 2018	Motloba et al. 2018	Buss et al. 2023	Balkaran et al. 2014	Yıldırım et al. 2023
Were the criteria for inclusion in the sample clearly defined?	Yes	Yes	Yes	Yes	Yes
Were the study subjects and the setting described in detail?	Yes	Yes	Yes	Yes	Yes
Was the exposure measured in a valid and reliable way?	Unclear	Unclear	Yes	Yes	No
Were objective, standard criteria used for measurement of the condition?	Yes	Yes	Yes	Yes	No
Were confounding factors identified?	Unclear	Unclear	Unclear	No	No
Were strategies to deal with confounding factors stated?	Unclear	Unclear	Unclear	No	Unclear
Were the outcomes measured in a valid and reliable way?	Yes	Yes	Yes	Yes	Yes
Was appropriate statistical analysis used?	Yes	Yes	Yes	Unclear	Yes

Table 4

Quality Assessment using Joanna Briggs Institute for Qualitative Study

Criteria	Contreras-Ramírez et al. 2018
Is there congruity between the stated philosophical perspective and the research methodology?	Yes
Is there congruity between the research methodology and the research question or objectives?	Yes
Is there congruity between the research methodology and the methods used to collect data?	Yes
Is there congruity between the research methodology and the representation and analysis of data?	Yes
Is there congruity between the research methodology and the interpretation of results?	Yes
Is there a statement locating the researcher culturally or theoretically?	Yes
Is the influence of the researcher on the research, and vice-versa, addressed?	Unclear
Are participants, and their voices, adequately represented?	Yes
Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	Yes
Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	Yes

Table 5

Quality Assessment using Newcastle-Ottawa Scale for Cohort Study

Selection	Demeestere et al. 2022
Representativeness of the exposed cohort	*
Selection of the non-exposed cohort	
Ascertainment of exposure	*
Demonstration that outcome of interest was not present at start of study	
Comparability	
Comparability of cohorts on the basis of the design or analysis controlled for confounders	*
Outcome	
Assessment of outcome	*
Was follow-up long enough for outcomes to occur	*
Adequacy of follow-up of cohorts	*

Without communication, the dentist may be seen as overly remote, unfriendly, or with their attitude solely focused on the task at hand.¹⁶ Two studies particularly stressed the importance of shorter waiting times, noting that reduced waiting times contributed to higher patient satisfaction. Conversely, the patient did not anticipate the delays in doctor arrival, prolonged treatment durations, and extended administrative processes.^{19,20} On the other hand, patient expectations were not explicitly addressed in the studies by Goswami *et al.*,¹⁵ and Buss *et al.*²¹ Similarly, Balkaran *et al.*,¹² did not provide an in-depth discussion on this aspect, highlighting a gap in some research regarding patient expectations. (Table 2)

Satisfaction Subsets and Level of Patient Satisfaction

The results from the included studies highlighted several factors contributing to patient satisfaction in dental emergency services. Waiting time emerged as a crucial factor, with shorter waiting times being directly associated with higher satisfaction levels. Delays in doctor arrival or prolonged hospital stays negatively impacted patients' experiences.^{20,21} Additionally, the quality of care and pain management were consistently emphasised, with effective pain reduction (e.g., an average 83% decrease in pain) and reduced anxiety (e.g., a 40% decrease) being significant outcomes.^{12,21}

Access to care, as well as shorter appointment waiting times and convenient service delivery, further contributed to patient satisfaction.²⁰ Another key satisfaction was the effectiveness of treatment, with patients emphasising the importance of symptom relief. Additionally, safety measures such as fire safety systems, air filtration, and well-organised facilities were identified as other crucial factors (e.g., wide hallways and security arrangements).¹⁵

Interactions with healthcare providers played a critical role in shaping satisfaction levels. Patients valued dentists who alleviated anxiety, offered socio-affective support, demonstrated technical competence, and explained procedures clearly. Friendliness and attentiveness of dentists were also significant contributors to positive experiences.^{16,21} High levels of overall satisfaction were reported across the included studies. Goswami *et al.*,¹⁵ observed notable satisfaction with reception services and initial interactions. Motloba *et al.*,²⁰ highlighted that 80% of participants expressed satisfaction with waiting times and quality of care. Similarly, Buss *et al.*,²¹ reported an overall satisfaction rate of 96%, while Balkaran *et al.*,¹² quantified satisfaction using the Dental Satisfaction Index (DSI), achieving a score of 3.55. Contreras-Ramirez *et al.*,¹⁶ provided qualitative descriptions of satisfaction, emphasising positive patient perceptions without numerical metrics.

Favourable dental care was specified as the dentist's clinical competence and good communication. The preference of the patients was to have the dentist be able to respond to their main problems, show empathy, help reduce anxiety, and allow an appropriate amount of time for conversation with them, allowing them to express their feelings throughout the treatment. A psychological approach was considered as a necessary skill

for the dentist to create a more pleasant and engaging relationship, hence, not a mechanical and non-personal one¹⁶ (Table 2).

Inter-investigator agreement

The two reviewers, LTY and AS, scored 0.960 for the title and abstract selection and 0.952 for the full-text evaluation according to Cohen's kappa coefficient, which determines inter-rater agreement. As a result, it was considered that the two reviewers' agreement was almost perfect. Analysis of the third-reviewer agreement was not necessary.

Quality and Risk of Bias Assessment

The quality assessment of the studies using the Joanna Briggs Institute (JBI) checklist for cross-sectional studies revealed varying levels of quality. While all studies exhibit some strengths, most studies do not adequately address confounding factors. This may introduce bias and limit the validity of the findings (Table 3). The assessment of the qualitative research showed high quality in terms of methodology and ethical consideration (Table 4). Quality assessment of the prospective cohort study shows a moderate risk of bias due to lack of a comparison cohort, exclusion criteria, and missing data due to non-respondents (Table 5).

The PRISMA flow diagram in Figure 1 shows the identification and screening procedure for the chosen articles. There were 145 studies found in the first analysis. Records that were duplicated or incompatible were eliminated. Following 116 articles through the screening process, 68 were found ineligible for inclusion criteria due to certain limitations, while 54 publications were evaluated among the eligible studies.

Finally, seven articles were included in the analysis of this review following a thorough assessment of the studies in accordance with the eligibility criteria and the final

screening process (Figure 1). The chosen papers were subjected to independent and separate assessments and analyses by two researchers. The differences between the reviewers' conclusions were discussed and eventually brought together.

DISCUSSION

Patient satisfaction has become a key goal for healthcare providers, as it offers important insights into the quality of care that patients receive. In the context of emergency dental services, it would reflect the transpired clinical treatment and its outcomes and how patients feel about their care in a stressful and urgent situation. This review highlights the value of patient satisfaction, which captures patients' views on different aspects based on their experience, such as the effectiveness of treatment, staff interactions, waiting times, and the overall environment.¹⁵

This review also shows that patient satisfaction reviews can provide a deeper understanding of how well a healthcare system meets patient expectations, beyond just measuring overall satisfaction.²² While most patients in the reviewed studies were satisfied with their care, a relatively small number of dissatisfied patients would provide valuable feedback that can help improve future health care plans and services. Issues such as staff manners and communication are areas that should be given special attention. Successful communication among staff, patients, and care companions would improve the quality of care and satisfaction.^{23,24}

Healthcare organisations or centres should regularly review patient feedback, and the management team needs to implement the necessary updates and modifications to ensure patient safety, quality of care and

patient satisfaction.^{25,26} Based on the overall analysis, results suggest that improving both the quality of urgent clinical care and reducing waiting times and communication can significantly enhance patient satisfaction in emergency dental care.

Patient Expectations versus Satisfaction Factors

Patients who have visited a dental emergency clinic previously have certain expectations created by their current needs, prior experiences, and their perception of the quality of emergency care.¹⁶ Key expectations include shorter wait times, accessible services, a pleasant environment, a strong staff-patient connection, and effective symptom management.¹⁴ These expectations play an important role in determining the overall patient experience satisfaction.

A discrepancy between what patients expect and what they receive might result in differing levels of satisfaction. For example, a patient may wish to be seen promptly yet be unsatisfied if they are forced to wait for an extended period of time, even if they receive good care once they are treated.^{12,27}

In this systematic review, most of the selected articles have shown that patients may have a positive satisfaction as their perceptions were greater than expectations.

Importance of waiting time

Waiting time is frequently cited as one of the most important elements affecting patients' satisfaction. In this study, the reviewed articles have demonstrated that the main concern of patients worldwide continues to be exceptionally long waiting times, which rank higher than aspects of service quality like staff ethics and attitudes, communication, and service environment.^{12,14,15,19,20,21}

Patients in dental emergencies often seek rapid treatment for pain or discomfort. If

their waiting time exceeds the period, they can hold up, their satisfaction may proportionally reduce even if the eventual service is effective. This emphasises the need to manage both actual and perceived wait times, as well as effective triage procedures and clear communication during the waiting period.²⁰

It was concluded that patients are unlikely to return or recommend the facility to friends or family in the future if they feel that their previous waiting times were inordinate. It was also reported that patients have shown their dissatisfaction with the number of days they waited for emergency dental care.²¹

Healthcare Services and Outcomes

Another important component in determining satisfaction is the quality of healthcare services provided. Improving and updating the quality of emergency healthcare will improve outcomes, patient satisfaction, and future expectations. Patients want prompt and effective care that addresses their urgent issues. In certain cases, even if the treatment outcome is less than ideal, a patient who feels heard and understood is more likely to be satisfied. This can be correlated to a study by Demeestere *et al.*,¹⁴ which concluded that pain relief is still the primary patient expectation among the numerous medical and nonmedical factors influencing patient satisfaction, regardless of the patient's age, sex, or level of pain, and it is connected with patient expectations.¹⁴ Furthermore, providing a variety of treatment alternatives and detailed follow-up care plans helps patients feel more secure and satisfied.

In this systematic review, the analysed articles revealed that high-quality clinical practice, accurate diagnosis and suitable treatments will promote trust and satisfaction.

For example, a patient who receives a clear treatment plan after an emergency visit is more likely to be satisfied, even if the outcome requires future intervention. Furthermore, healthcare facilities should prioritise patient education, ensuring that patients understand their diagnoses and treatment plans and comply with postoperative instructions. Balkaran *et al.*,¹² stated that patient satisfaction and treatment outcomes are connected, whereas contented patients seem to follow their dentist's advice more accurately, which consequently improves treatment outcomes. In certain cases, patients may postpone or cancel their future appointment if they have a negative experience during the previous urgent treatment procedure.

Staff-Patient Relationship

The relationship between staff and patients has a major influence on satisfaction levels. Patients were satisfied with the overall care they received in the emergency dental clinics since the healthcare workers were kind, showed an appropriate attitude, respected their dental patients, were concerned, and explained why patients had to wait too long in certain circumstances.^{16,19,20}

Effective communication, empathy, and professionalism establish rapport and warmth, which can improve the whole patient experience. Patients who feel appreciated and valued are more likely to be satisfied, regardless of therapeutic outcome. A patient who feels rushed or dismissed during their treatment procedure might feel dissatisfied, a situation that requires the healthcare workers to be enrolled in an updated interpersonal skills training.²¹

Clinical Implications

Satisfaction is determined in emergency dental settings to a great extent by being

able to alleviate pain (the patient's main reason for attendance). Due to the fear or anxiety that may accompany pain, dentists are also required to be both skilled and communicate clearly, compassionately, and empathetically to have a satisfying quality of care. This systematic review revealed that shorter waiting times and personalised care are closely associated with higher patient satisfaction. It's therefore vital to develop appropriate triage systems, ensure adequate staffing, and maintain communication during waiting periods. Finally, institutional and policy changes, such as the inclusion of patient-centred communication and emergency care management in dental education programs, are encouraged in order to optimise future delivery of service.

Study Limitations

This systematic review has several limitations. First, the heterogeneity in terms of study designs and methodology was pronounced and did not allow for meta-analysis to be performed. Second, a variability of the study design, methods of data collection, patients' expectations, satisfaction

subsets, and type of dental emergency may lead to different results. Third, concerning the methods of data collection, several papers included in the review relied only on questionnaires and interviews. The diverse methodologies for evaluating patients' expectations and their satisfaction subsets increase the robustness of findings and decrease the credibility of the study. Therefore, further study should be directed toward an improvement of the study design with more uniform factors. It is recommended that a larger sample size and similar data collection methods be used to produce more reliable results.

CONCLUSIONS

It would also be interesting to improve patient satisfaction by matching service performance to previously recorded patient expectations. Due to the heterogeneity of the studies, further investigations are required to draw definitive insights into the expectations and satisfaction of patients attending emergency dental clinics.

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The authors declare no conflict of interest.

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