

Reasons for First Dental Visit in Saudi Arabia: A Systematic Review

Khalid Aljohani¹, Ali Alqarni², Abdullah F Alshammari³, Ahmed Abdel Aziz Hassan¹, Hebah AlDehlawi¹, Nadia A Al-Hazmi⁴, Samah Mourad⁵, Tahni Binalajadm⁶, Alla T Alsharif⁷

¹Department of Oral Diagnostic Sciences, Faculty of Dentistry, King Abdulaziz University, Jeddah, Saudi Arabia; ²Department of Oral & Maxillofacial Surgery and Diagnostic Sciences, Faculty of Dentistry, Taif University, Taif, Saudi Arabia; ³Department of Basic Dental and Medical Science, College of Dentistry, University of Ha'il, Ha'il, Saudi Arabia; ⁴Oral Biology Department, Faculty of Dentistry, King Abdulaziz University, Jeddah, Saudi Arabia; ⁵Department of Oral & Maxillofacial Diagnostic Sciences, College of Dentistry, Taibah University, Al Madinah, Saudi Arabia; ⁶Department of Substitutive Dental Science, College of Dentistry, Taibah University Al Madinah Saudi Arabia; ⁷Department of Preventive Dental Sciences, College of Dentistry, Taibah University, Al Madinah, Saudi Arabia

Correspondence: Khalid Aljohani, Department of Oral Diagnostic Sciences, Faculty of Dentistry, King Abdulaziz University, Jeddah, Saudi Arabia, Email koalgehani@kau.edu.sa

Background: Reasons for First Dental Visit (RFV) represent patients' subjective motives for seeking dental care and often reflect their most urgent needs. These complaints, frequently related to pain, directly influence diagnosis and treatment planning. Addressing RFV is crucial for patient satisfaction and the delivery of quality oral health care. This systematic review aimed to identify the most commonly reported RFVs at initial dental visits in Saudi Arabia (SA) and to explore the underlying motivations for seeking dental care.

Methods: Following a PRISMA-guided protocol, a systematic online search was conducted through PubMed, EMBASE, OVID and Web of Science databases, supplemented by manual searches in regional journals, to identify studies reporting dental RFVs in SA published between 2002 and June 2025. Eligible cross-sectional studies in English and Arabic were screened independently by two reviewers. Data were extracted on study characteristics, demographics, and RFV prevalence/types. Study quality was assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Analytical Cross-Sectional Studies.

Results: Ten cross-sectional studies met the inclusion criteria. The JBI appraisal revealed that 2(20%) were at low risk of bias, 7(70%) were at moderate risk (of which 3 were classified as low-to-moderate), and 1(10%) was high-to-moderate risk. First-visit attendance was largely symptom-driven—pain/emergency (19.8–71.5%) and caries (17.9–45.2%)—while preventive motives were less frequent (check-up 10.5–27.3%; one outlier 40.3%; fluoride/cleaning 3.2–20.5%). Other indications were infrequent (generally ≤10%; eg, trauma 0–9.2%, extraction 2.4–10.6%, malocclusion ~8.8%, discoloration ~5.1%, referral 0.8–0.9%), indicating predominance of restorative or endodontic demand over preventive care.

Conclusion: Initial dental visits in SA are predominantly symptom-driven, led by pain and caries, while preventive and elective reasons remain limited. Strengthening public health and clinical initiatives that encourage early, routine attendance through education and recalls is vital to shift dental care utilization toward prevention.

Keywords: reasons for first dental visit, chief complaint, dental pain, oral health, preventive care, dental visits, Saudi Arabia

Introduction

A Reason for First Dental Visit (RFV) is the patients' own, concise statement of why they seek dental care.^{1,2} Recording the RFV verbatim can significantly impact the diagnosis decisions and/or treatment sequencing.^{1–4} Although some oral conditions are asymptomatic (eg, early carious lesions), patient tend to prioritize what they feel – pain, swelling, or aesthetic issues – over subclinical finding.^{5–7} If a dentist postpones a patient's primary concern (eg, postponing relief of pain until after lengthy restorative or orthodontic procedure), patient satisfaction and compliance may decline.^{1,2,8,9}

Globally, epidemiological studies show that dental pain and discomfort are the most frequently cited dental chief complaints, followed by concerns such as caries, malocclusion, or routine check-ups.^{6,7,10–14} However, the prevalence of

RFV varies across different geographical regions worldwide. A significant proportion of children were presented with dental pain and/or dental caries vary from 27% to 36%.⁶ For example, in India, a study of 1014 patients (mean age 28.1 years) found “toothache” to be the top complaint (32.5%).¹⁵ Another analysis in Pakistan reported sensitivity and food lodgment as the primary reasons (40.7%).¹⁶

In SA, various cross-sectional and retrospective studies across Riyadh, Jazan, Makkah, Abha, the Eastern Province, Taif and other regions have consistently identified pain as leading RFV (7.1% to 58.2%).^{1–3,16–19} Routine checkups also rank high (6.6%–35.3%).^{1,2} Variation in RFV prevalence reflect differences in study design, sample demographics, and inconsistent terminology – patients often describe their complaints in lay terms, which may not align with standardized medical terminology, then later recorded by researchers. Consequently, this inconsistency impacts the accuracy and comparability of the findings.

A clear understanding of these RFV patterns is essential, which allows dentists to tailor the treatment plan effectively and ensure that the patient’s primary concerns are resolved promptly. Addressing the RFV is fundamental to delivering quality oral health care and improving patient trust and adherence.^{20–22} Similarly, knowing that a substantial fraction of adult visits solely for prevention (cleaning, check-ups) can guide public health initiatives to reinforce routine visits, especially for groups less likely to seek care (eg, women managing professional careers alongside family responsibilities).^{2,23}

This systematic review aims to identify the most common RFV reported during initial dental visits in SA and explores the underlying motivations for seeking dental care. Our findings will inform targeted prevention strategies and optimize clinical workflow in SA dental practices.

Material and Methods

The protocol was not prospectively registered (eg, PROSPERO) given the descriptive, cross-sectional scope of the included evidence. This review was conducted in accordance with the Preferred Reporting Items for Systematic Review and Meta-analysis (PRISMA) guidelines¹⁹ and followed the methodology of other systematic reviews.^{24,25}

Outcome Definition

Outcome definition: We use “reasons for first dental visit (RFV)” as the overarching construct. Within RFV, “chief complaint” denotes the problem-oriented subset (eg, pain/emergency, caries concern, swelling/infection, trauma, aesthetics/eruption issues), distinguished from non-problem reasons (routine check-up, fluoride/prophylaxis/sealants, referral/administrative). When primary studies reported only “chief complaint”, we mapped those categories to RFV accordingly and noted this in our synthesis.

Eligibility Criteria

The following eligibility criteria were applied: 1) study design: cross-sectional studies, 2) language: studies published in Arabic and English, 3) timeframe: published up to June 2025, 4) the PICOs (Patients, Interest, Context, and Study design) framework was used to guide the inclusion criteria and focused research question:

- **Population:** Patient presenting for their first dental visit at clinics in SA.
- **Interest:** Reasons for first dental visits reported during initial dental attendance.
- **Context:** Dental care setting in Saudi Arabia, including both private and public dental clinics.
- **Study design:** Only cross-sectional studies were included in this review because such designs are most appropriate for estimating the prevalence and distribution of dental chief complaints at a single point in time. Other study types (eg, longitudinal, interventional, qualitative, or case series) were excluded to maintain methodological consistency, reduce heterogeneity, and ensure comparability of results across studies.

Research question: What is the prevalence and what are the common types of RFV reported during initial dental attendance in Saudi Arabia?

The exclusion criteria for the review were as follows: Articles that were not specifically focused on the RFV of dental patients in Saudi Arabia were excluded. Additionally, studies published in languages other than English were not

considered. Articles that lacked sufficient data on the RFV of dental patients were excluded from the review. Reviews, editorials, commentaries, and non-peer-reviewed articles were also excluded.

Information Sources and Search Strategy

A comprehensive electronic search in PubMed/MEDLINE, EMBASE, OVID, and Web of Science databases were carried out to identify all relevant published studies up to 2025. A combination of the following MeSH terms and free text keywords were used:

("First dental visit" OR "initial dental visit" OR "dental care [MeSH]") AND ("complaint" OR "reason" OR "reason for seeking dental care" OR "reason for dental attendance" OR "dental visit reason") AND ("Saudi Arabia [MeSH]" OR Kingdom of Saudi Arabia).

Filters applied to refine the search included language (English and Arabic), publication date (up to June 2025), species (humans), and article type (cross-sectional studies only). Moreover, an adaptation of search terms according to each database was considered.

A hand search of the reference lists of the retrieved studies was also conducted to identify any additional studies. Additionally, a manual search was performed in the latest issues of prominent Saudi dental journals, including *The Saudi Dental Journal*, *The Journal of Contemporary Dental Practice*, *The Saudi Journal of Oral Sciences*, and *The Saudi Journal for Dental Research*.

The review protocol was designed by an investigative team including a lead reviewer and two independent investigators. Initially, the titles and abstracts of all retrieved studies were cross-checked by two independent investigators (A.A. and K.A.) for inclusion. Full texts of all potentially eligible studies were obtained and read independently by two investigators.

Quality Assessment

Risk of bias for each included cross-sectional study was evaluated with the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Analytical Cross-Sectional Studies (8 items, 2017 version).²⁶ Two investigators (AA and KA) independently applied the checklist after an initial calibration exercise on a random 10% sample of articles (Cohen's κ = 0.82 for overall agreement). For every domain (eg, clarity of inclusion criteria, strategies to address confounding) items were rated "Yes," "No," or "Unclear". Discrepancies were resolved through discussion or, when necessary, by a third investigator (ATA). Following JBI guidance, an article was deemed low risk when ≥ 7 items scored "Yes", moderate risk with 4–6 "Yes", and high risk with ≤ 3 "Yes". Domain-level judgments and overall risk ratings were recorded in a standardized extraction spreadsheet and informed the sensitivity analyses described below.

Data Extraction and Synthesis

Data extraction was then conducted independently by the two reviewers. For each included study, the following information was recorded: authors and publication year, study design, sample size and demographics, prevalence and types of RFV reported.

To manage inconsistency in terminology, the revised text explains that RFV (Reasons for First Visit) and *chief complaint* categories were standardized during data extraction by grouping conceptually similar terms (eg, "pain," "toothache," "discomfort") under unified analytic categories. Then, a structured narrative summary was used to present comparable findings by theme (eg, pain/emergency, dental caries, trauma, routine check-up/regular treatment or other preventive visits).

Ethical Considerations

Since this review involved previously published literature, ethical approval was not required. Nevertheless, principles of ethical research, such as transparency, accuracy, and integrity, were strictly followed throughout the review process.

Results

The systematic review was conducted in accordance with the (PRISMA) guidelines and was designed following established methodological frameworks applied in prior systematic reviews. Key aspects of the protocol are summarized in [Figure 1](#). The database search initially identified 416 records through electronic databases and 5 additional records through manual searching. After removing 32 duplicates, 384 records remained for title and abstract screening. Of these, 35 full-text articles were assessed for eligibility, and 25 were excluded for not meeting the inclusion criteria. Following the removal of duplicates and studies that did not meet the inclusion criteria, a total of 10 studies were included in the review.^{16–18,27–33}

Quality Assessment results (Risk of Bias)

Ten cross-sectional studies met the inclusion criteria, and JBI appraisal revealed that 2 (20%) were low risk, 7 (70%) were moderate risk—including 3 classified as “low–moderate”—and 1 (10%) was high–moderate risk ([Table 1](#)).

Characteristics of the Included Studies

Ten cross-sectional studies fulfilled the inclusion criteria for this systematic review ([Table 2](#)). A total of ≥ 5099 participants—4205 children and 894 adults (parents, guardians or dentists); the total is underestimated because two studies did not report sample size. Publication dates spanned 2002–2024. Regional distribution was comprehensive: central (Riyadh X 2, Qassim, Al Jouf), western (Jeddah X 2), eastern (Dammam and Eastern province), south-western (Abha), and one multi-centre study spanning multiple provinces.

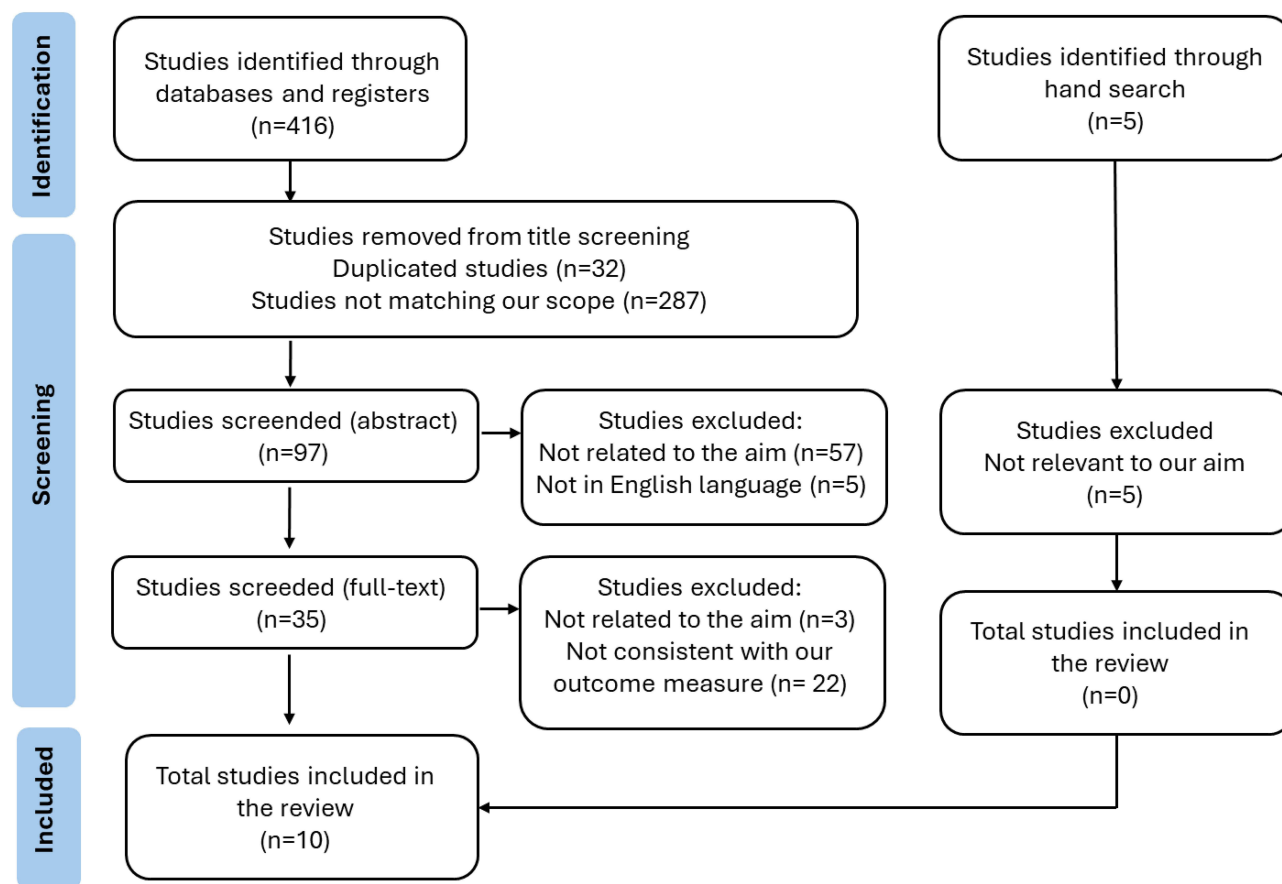


Figure 1 Flowchart of the search strategy.

Table 1 Risk of Bias Assessments results of the Included Studies

Study	Clearly Defined Inclusion Criteria	Description of Subjects and Setting	Valid and Reliable Measurement of Exposures	Objective Criteria for Outcome Measurement	Identification of Confounders	Strategies to Deal with Confounders	Valid and Reliable Outcome Measurement	Appropriate Statistical Analysis
Al-Shalan et al ¹⁶	Unclear	Yes	Unclear	No	No	No	Yes	Yes
Murshid ¹⁸	Yes	Yes	Mostly yes	Yes	No	No	Yes	Yes
AlHumaid et al ²⁰	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Alshahrani et al ¹⁷	Yes	Yes	Mostly yes	Yes	No	No	Yes	Yes
Nayak et al ²⁷	Yes	Yes	Mostly yes	No	No	No	Yes	Yes
Alhareky & Nazir ³¹	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Afeef et al ²⁹	Yes	Yes	Mostly yes	Mostly yes	Yes	Yes	Yes	Yes
Gudipani et al ²⁸	Yes	Yes	Yes	Mostly yes	Yes	Yes	Yes	Yes
Farsi et al ³²	Yes	Yes	Yes	Mostly yes	Yes	Yes	Yes	Yes
Alkhuwaiter et al ³³	Yes	Yes	Yes	Yes	No	No	Yes	Mostly yes

Table 2 General Characteristics of the Included Studies

No.	Authors (Year)	Location	Study Design	Study Participants	Sex/Age Range
1	Al-Shalan et al (2002) ¹⁶	Riyadh (King Saud University, College of Dentistry)	Cross-sectional, questionnaire	Adult parents attending dental school registration (n=887)	Parents: 62.6% male, 37.4% female; Age <20–>50 yrs, children age <10 yrs
2	Murshid (2016) ¹⁸	Riyadh, (King Saud University & private dental clinics), Saudi Arabia	Cross-sectional, dental records (retrospective)	Dental records of new paediatric patients (first visit) (n=594)	Both sexes; Age groups: <1–3, 3–5, 6–8, >8 yrs [mostly 3–5 yrs (52.9%)]
3	AlHumaid et al (2018) ³⁰	Eastern Province (six cities), Saudi Arabia	Cross sectional (school survey and clinical exam)	6–12-year-old schoolchildren (n=2306)	Both sexes [majority males (59.2%); Age 6–12 yrs (mean 10.4±3.2)
4	Alshahrani et al (2018) ¹⁷	Abha (King Khalid University), Saudi Arabia	Cross-sectional questionnaire	320 parents/guardians of children at first visit	Children: both sexes; Age groups 0–1, 1–3, 3–6, 6–9, >9 yrs [majority 3–6 yrs (29%)]
5	Nayak et al (2020) ²⁷	Saudi Arabia (government and private hospitals nationwide)	Cross-sectional, two questionnaires	151 parents, 101 general dentists, 53 paediatric	Children: both sexes; Age groups >1 year (6.6%), 1 to >3years (27.8), 3 to < 6 years (36.4%, the majority), 6 to < 9 years (17.2%), 9 years and above (11.9%)
6	Alhareky & Nazir (2021) ³¹	Dammam (Eastern Province), Saudi Arabia	Cross sectional (school survey and clinical exam)	449 female primary schoolchildren (6–11 yrs)	Female only; Age 6–11 yrs
7	Afeef et al (2021) ²⁹	Jeddah, Saudi Arabia	Cross-sectional questionnaires	Visitors/caregivers during 10th Gulf Oral Health Week (n=348)	Children: 6 months–10 yrs; Sex NR (not reported)
8	Gudipani et al (2023) ²⁸	Al-Jouf Province, Saudi Arabia	Cross-sectional, multistage stratified random sample	566 parents/guardians of children ≤12 yrs	Children: both sexes; Age groups (1–3, 3–6, 7–12 [majority 7–12 yrs (56.4%)]
9	Farsi et al (2024) ³²	Jeddah (King Abdulaziz University Hospitals), Saudi Arabia	Cross-sectional questionnaire	Parents (n=631) of children 6 months–18 yrs attending paediatric dentistry or well-baby clinics	Children: both sexes (~50% each); Age 0.5–18 yrs (mean 7.6±3.2 at first dental visit)
10	Alkhuwaiter et al (2024) ³³	Qassim (Qassim University), Saudi Arabia	Cross-sectional questionnaire	Guardians of 211 children at first visit	Children: Sex NR; Age group 0–1, 1–3, 3–6, 6–9, >9 yrs [mostly 3–6 yrs (53.1%)]

Sample sizes ranged from 151 to 2,306 respondents. All cross-sectional studies relied on self-administered questionnaires, occasionally paired with brief school-based oral examinations, whereas Murshid (2016) analysed dental records of 594 paediatric patients. Children's age clustered in the preschool to early-primary years (6 months–10 years extending to 18 years in one study); parents cohorts ranged from <20 to >50 years. Both sexes were generally represented, although one survey included only girls and another reported a predominantly male parent sample (~63%).

Distribution of RFV in Saudi Arabia

Across ten studies (Table 3), the predominant presenting complaint at the first dental visit was pain/emergency, reported in 19.8–71.5% of cases (with 44.7% of first visits classified as emergencies in one study). Dental caries accounted for 17.9–45.2%. Preventive attendance was comparatively limited: routine checkup/"regular treatment" comprised 10.5–27.3% across most reports (one outlier at 40.3%), while fluoride/cleaning was uncommon (3.2–20.5%). Trauma was generally infrequent (0–9.2%), though single-study estimates reached 14.4% and 26.5%. Other indications were rare:

Table 3 Prevalence of Reason for First Dental Visit in the Initial Dental Attendance in Saudi Arabia

No.	Authors (Year)	Pain/Emergency	Dental Caries	Trauma	Routine Check-Up /Regular Treatment	Other Preventive Reasons
1	Al-Shalan et al (2002) ¹⁶	28.1% emergencies	-	-	40.3% regular treatment 25.6% check-up	-
2	Murshid (2016) ¹⁸	71.5% pain 44.7% emergencies	-	-	27.3% check-up	20.5% fluoride application 10.6% extraction of primary tooth
3	AlHumaid et al (2018) ³⁰	30.3% pain	-		14.4% check-up 7.4% treatment	-
4	Alshahrani et al (2018) ¹⁷	37.3% pain	21%	5.3%	17.3% check-up	6.3% fluoride application 10.7% extraction of primary tooth
5	Nayak et al (2020) ²⁷	31.8% pain	17.9%	3.3%	31.8% caries prevention	2.6% extraction of primary tooth 2% tooth-alignment concerns
6	Alhareky & Nazir (2021) ³¹	39.1% pain	-	-	14.5% regular treatment 18.6% check-up	-
7	Afeef et al (2021) ²⁹	24.2%	37.1%	-	26.5% check-up	7.2% fluoride application 4.2% extraction of primary tooth 0.8% dental referral
8	Gudipani et al (2023) ²⁸	63.1% pain	-	9.2%	18.9% check-up	8.8% tooth-alignment concerns
9	Farsi et al (2024) ³²	19.8% pain 10.5% abscess	45.2%	1.2%	10.5% check-up	5.1% discoloration/stain 3.2% cleaning/fluoride 2.4% “wiggly teeth” 1.2% extraction of primary tooth
10	Alkhuwaiter et al (2024) ³³	31.7% pain 8.3% abscess	32.8%	2.5%	6.1% check-up	4.2% fluoride application 5.8% extraction of primary tooth 4.2% discoloration/stain 2.8% tooth-alignment concerns 1.6% dental referral

abscess/swelling ~10.5%, extraction of retained primary teeth 2.4–10.6%, malocclusion/alignment concerns ~8.8%, tooth discoloration ~5.1%, and referral 0.8–0.9%.

Distribution of RFV by Dental Clinical Specialty

Across the included Saudi cross-sectional studies, first visit attendance was predominantly symptom driven (Table 4). Within paediatric dentistry/restorative care, dental pain accounted for 19.8–71.5% of presentations and dental caries for 31.8–45.2%, with abscess/swelling (infection) contributing 8.3–10.5%. Preventive indications were less frequent: routine check ups comprised 6.1–40.3% (upper bound from a dental school sample), and topical fluoride/cleaning 3.2–20.5%. Surgical/emergency pathways were uncommon overall—trauma 2.5–3.3%—although broader “emergency” categories (mixed acute issues) reached 28.1–44.7% in clinic-based reports. Orthodontic concerns were reported at about 2.8%; exodontia for retained/mobile primary teeth at 2.4–10.6%; aesthetic complaints (staining/discoloration) at 4.2–5.1%; and referral driven visits at approximately 0.8%.

Table 4 Reason for First Dental Visit for Saudi's Initial Dental Attendance, by Dental Specialty/Discipline

Specialty (Target Discipline)	Typical Reasons Reported Across the Saudi Cross-Sectional Studies	Prevalence Span Across Studies*
Pediatric dentistry / Restorative	Dental caries Dental pain Abscess/swelling (infection)	31.8%–45.2% (parents' survey across SA; hospital/clinic samples in Jeddah). 19.8%–71.5% (clinic/hospital and community samples). 8.3%–10.5% (university clinic vs hospital sample).
Dental public health / Preventive care	Routine check-up Topical fluoride application / cleaning	6.1%–40.3% (lowest in recent university clinic; highest in Riyadh dental school attendees). 3.2%–20.5% (hospital/clinic samples).
Oral surgery / Emergency care	Trauma "Emergency" (mixed: trauma, acute issues)	2.5%–3.3% (community and national parent samples). 28.1%–44.7% (Riyadh dental school attendees; mixed government/private clinics).
Orthodontics	Malocclusion/crowding	2.8%–8.8% (university clinic samples).
Pediatric oral surgery / Exodontia	Extraction of retained/mobile primary tooth	2.4%–10.6% (hospital vs combined settings).
Aesthetic	Staining/discoloration	4.2%–5.1% (university clinic vs hospital sample).
Referral-driven	Referral by dentist	0.8–1.6% (university clinic samples).

Note: *Span reflects the lowest and highest percentages reported for that reason across the included Saudi cross-sectional studies; not all studies reported every category.

Discussion

Understanding the RFV that motivate patients' first dental visits is crucial for improving oral health outcomes, as these concerns emphasize the complex interactions between patients' cultural beliefs and personal perceptions, and how these influence the timing of dental visit.³³ Pain and other dental emergencies (eg abscesses and swelling) were the most common reasons for seeking dental care, followed by untreated dental caries. Chronic obstacles including expense, dental anxiety, time restraints, and transportation difficulties together contribute to patients seeking care only when their pain becomes intolerable.³⁴

Analysis also indicates that first dental visits differ noticeably across age groups and are predominantly symptom-driven rather than preventive. Among children, the predominant motives were pain, dental caries, and emergency conditions such as abscess or swelling, reflecting a reactive pattern of care-seeking behavior.^{16,18,28} Adolescents and young adults, on the other hand, more frequently attended for routine check-ups, orthodontic assessments, and aesthetic concerns, such as malalignment or tooth discoloration.^{27,32} In contrast, adult and parental cohorts often reported restorative or preventive reasons, including scaling, follow-up care, and examinations for their children.³⁰ These findings collectively suggest that age influences both the perceived need for care and the type of services sought, with younger age groups presenting primarily for symptom relief, whereas older individuals demonstrate a gradual shift toward maintenance and preventive care.

The American Academy of Pediatric Dentistry recommends scheduling a child's first dental examination at the eruption of the first primary tooth and no later than 12 months of age.³⁵ Finding from this systematic review demonstrates a consistent and substantial deviation from these guidelines, with the majority of first dental visits occurring between three and six years of age, and noticeably fewer visits taking place before the age of three. This delay reflects a global trend, supported by several Saudi and international studies,^{6,27,36} which consistently link delayed attendance to a combination of parental misconceptions (eg, perceiving very young children as uncooperative or believing dental care is unnecessary until symptoms emerge), limited awareness of the recommended timing for the first visit, insufficient understanding of the preventive services provided at this stage, and persistent fear of dental procedures.^{1,16,18,28} Other studies indicate that mothers with higher education levels have more positive attitudes toward oral health and adopt better oral hygiene practices, both of which have a good impact on their children's dental health.^{37,38} Collectively, these

findings from diverse setting suggests that these barriers are deeply rooted and not context-specific, highlighting a systemic gap in parental education and public health messaging. Addressing this gap will require multi-level strategies—integrating anticipatory guidance into pediatric and primary healthcare encounters, improving communication about the value of the first dental visit, and normalizing preventive attendance in early childhood—to shift entrenched behaviors and align practice with established guidelines.

Preventive visits—such as routine examinations, fluoride application, or prophylactic cleaning—were comparatively uncommon, with higher uptake observed only in specific settings, such as dental school clinics. Multiple Saudi investigations have documented a low prevalence of routine check-ups among both adolescents and adults.^{1,2,39} This pattern is likely influenced by a combination of structural, social, and psychosocial barriers that limit preventive dental attendance in Saudi Arabia. Structural factors such as the cost of treatment, limited insurance coverage, and unequal distribution of dental services across regions have been consistently identified as major constraints.^{30,32,40} Moreover, socio-behavioral determinants, including limited oral-health literacy, misconceptions about the necessity of preventive visits, and the tendency to seek care only when symptoms arise, further reinforce a reactive rather than preventive care pattern.^{1,2,41} Cultural norms and family influences also play an important role, as parents often prioritize symptom relief over routine check-ups for their children.^{18,28} Additionally, psychological factors—notably dental anxiety and low perceived need for regular care—contribute to postponement of visits until pain becomes severe.³⁸ Collectively, these findings underscore the need for targeted health-promotion strategies and system-level interventions to improve access, awareness, and motivation for early preventive attendance in the Saudi population.⁴¹ They also emphasize the necessity to reshape recall systems and addressing structural barriers to preventive care in Saudi population to shift from emergency management toward sustained health.⁴¹

Other reasons for attendance, including trauma, tooth discolouration, and referral-based appointments, were reported infrequently. These findings align with national and global evidence indicating that early dental visits are predominantly driven by pain and untreated caries, reflecting a curative rather than preventive care pattern and underscoring a substantial gap in anticipatory oral healthcare.^{42–45}

Although the public's demand for teeth alignment correction is steadily rising, orthodontic presentations were rarer, most likely due to length of treatment, cost, and limited specialist availability; these trends support the need to shift evidence-based practice from curative to preventive priorities.^{46–48}

The review included several limitations. The evidence was restricted to cross-sectional studies and, on JBI appraisal, was dominated by moderate-risk articles, which limits causal inference and may introduce bias. Most included studies relied on self-administered questionnaires (with limited record-based analyses), raising concerns about recall and reporting bias, and two studies did not report their sample size, yielding an underestimated total sample. A quantitative meta-analysis of pooled prevalence was not performed due to substantial heterogeneity in study populations, outcome definitions, and data reporting formats across the included studies. Instead, the findings were organized and presented thematically using a structured narrative approach was considered the most appropriate approach to accurately present the available evidence. Moreover, variability and inconsistent terminology related to RFV across studies likely reduced precision and comparability, further limiting the feasibility of conducting a quantitative meta-analysis. Finally, inclusion was limited to English and Arabic publications and to the Saudi context by design, which may restrict generalizability and introduce language bias.

Practical Relevance and Recommendations

The study results suggest an immediate need to rebalance services toward prevention in both policy and practice. In the clinic, adopting RFV-based triage and documentation (with a standardized taxonomy in the electronic record) can streamline care, and ensure the patient's primary concern is addressed promptly. At the system level, integrating “age-one” preventive guidance into pediatric and primary-care encounters, activating recall systems tied to early childhood milestones, and strengthening physician–dentist referral pathways can shift demand toward timely preventive visits. Community-level actions—brief caregiver education, school-linked fluoride/cleaning programs, and culturally tailored outreach—can reduce misconceptions and access barriers, improving satisfaction, adherence, and oral-health outcomes while easing avoidable emergency load.

Conclusion

This review highlights that initial dental attendance in SA is predominantly symptom-driven, with pain/emergency and dental caries constituting the most common RFV, while preventive motives (routine check-ups, fluoride/cleaning) are comparatively infrequent; trauma and other indications are rare. These patterns suggest that motivations for seeking care are largely reactive (symptom relief) rather than preventive. Accordingly, this study analysed RFV reported in dental visits across multiple studies conducted in Saudi Arabia to provide insights on oral-health behaviours and attitudes. This study provides key findings that can directly focused interventions and educational initiatives and enhance patient satisfaction and compliance. Moreover, offering treatment planning and sequencing guidelines that will influence work-flow efficiency and resource allocation.

Disclosure

This research received no external funding, and the authors declare no conflicts of interest.

We used ChatGPT-4o (OpenAI) solely for English language editing of grammar and style; no content generation, data analysis, or interpretation was performed, and the authors reviewed all edits and take full responsibility for the paper.

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