ORIGINAL ARTICLE

Impact and Prevalence of Toothache Pain on Behavioral Responses and Self-Care Practices among Adults in Saudi Arabia

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Abstract

Introduction: Dental pain is one of the most common causes of oral discomfort, often disrupting essential daily activities such as eating, working, and socializing. Its management usually involves both professional dental treatments and self-care remedies. Globally, self-medicating for a toothache is widespread, affecting 31–68% of adults, with rates reaching as high as 98% among university students. This behavior often includes using over-the-counter (OTC) medications and traditional home remedies, often with limited awareness of potential risks. The COVID-19 pandemic further reduced access to dental services, leading to increased reliance on self-care methods and highlighting the importance of alternative solutions such as teledentistry. Although global research has examined the connection between toothache pain, behavioral responses, and self-care practices, there is limited evidence in the Saudi Arabian context. **Objective:** This study aims to investigate the association between toothache pain and its impact on daily activities as well as to evaluate the prevalence, types, and perceived effectiveness of self-care practices among Saudi adults. **Materials and Methods:** A cross-sectional, questionnaire-based study was conducted among adults aged 18 years and above residing in various regions of Saudi Arabia who have experienced a toothache within the past 12 months. Participants were recruited using convenience sampling through social media, dental clinic waiting areas, public events, and primary healthcare centers. A culturally adapted 21-item questionnaire collected data on sociodemographic characteristics, pain severity (measured on a 0–10 numerical scale), behavioral responses, and self-care strategies. Pain levels were categorized according to Bloom's cut-off point. The minimum calculated sample size is 384 participants, based on a 50% prevalence estimate, 5% margin of error, and 95% confidence interval. Data were analyzed using SPSS version 20. The findings from this study will help guide public health interventions and inform improved dental pain management strategies in Saudi Arabia. **Results:** Of the 324 respondents, the majority were female (78%) and Saudi (93%), predominantly aged 18–30 years, and residing in the Western Region. Moderate to severe pain was prevalent (64%), with significant interference in eating, sleeping, work/study, and social activities. Nearly three-quarters reported psychological or emotional distress due to toothache, and a minority had work or educational absences. About 89% practiced self-treatment, most commonly using OTC analgesics (67%) and traditional home remedies (43%). Pharmacists, family, and online sources were primary channels for medication and advice. The perceived effectiveness of self-remedies was rated as somewhat or very effective by most participants, although inappropriate use and delayed dental consultation were highlighted as risks. 72.5% sought professional dental care, while barriers included improved symptoms, cost, fear, or time limitations. **Conclusion:** Toothache pain substantially disrupts daily functioning and is often managed through

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self-care, which is widespread and perceived as moderately effective but carries risks. Public health strategies should prioritize increasing awareness about safe practices, improving access to dental services, and encouraging timely professional assessment to mitigate the consequences of untreated oral pain in Saudi adults.

Key words: Behavioral responses, dental health, Saudi Arabia, self-care, toothache pain

INTRODUCTION

Pain is defined as an uncomfortable physical and emotional sensation that arises from real or possible damage to body tissues.[1] Dental pain is the leading source of discomfort in the mouth and may interfere with everyday tasks such as eating, job performance, and interacting with others.[2] Relieving pain is a primary goal in managing dental discomfort, and both opioid and non-opioid pain relievers are frequently used for this purpose.[3] Parents' knowledge, beliefs, and attitudes about dental health can significantly impact how their children receive dental care and manage dental pain.[4]

Self-medication for dental pain affects 31–68% globally (up to 98% in universities), mainly using home remedies or over-the-counter (OTC) drugs, with low awareness of their risks.[5] Especially in COVID-19 lockdowns, reduced dental visits, increasing reliance on self-medication and home remedies, highlighting the need for safe alternatives like teledentistry.[6] Oral health significantly impacts overall well-being, with toothache pain severely affecting daily life. Barriers like limited access to dental care often lead individuals to seek alternatives, such as self-care or non-dental professionals, especially among low-income and minority groups.[7,8] For toothache relief, those lacking access to dentists often rely on alternatives such as emergency departments, physicians, pharmacists, lay healers, prayer, medications, and home remedies.[9] Socioeconomic factors and healthcare access shape these behaviors globally.[10] Middle Eastern contexts, like Saudi Arabia, lack empirical evidence. This study explores toothache-related behaviors and self-care strategies in Saudi adults to guide public health interventions.[11] The onset and nature of dental pain play a crucial role in determining when and why patients seek dental care.

Objectives

This study aims to assess the association between toothache pain and its impact on daily activities, as well as to evaluate the prevalence, types, and perceived effectiveness of self-care practices among Saudi adults.

MATERIALS AND METHODS

Study design and setting

A cross-sectional, questionnaire-based study was conducted in public spaces, primary health care centers, and through online platforms across various regions of Saudi Arabia from July 2025 to December 2025.

Subject: Participants, recruitment, and sampling procedure

Participants included adults aged 18 years and above who had experienced a toothache in the past 12 months. Recruitment utilized convenience sampling through social media, waiting rooms in dental clinics, and public events. Informed consent was obtained.

Sample size

The sample size calculation was conducted to determine the minimum number of adult participants in Saudi Arabia required to represent the population for this study. Using the Rao soft sample size calculator, and assuming a prevalence of toothache-related self-care practices of 50%, with a 5% margin of error and a 95% confidence interval, the calculated sample.

Inclusion and exclusion criteria

Participants eligible for inclusion in the study were adults aged 18 years or older who resided in Saudi Arabia and presented with a chief complaint of tooth-related pain. Individuals were excluded if they were under 18 years of age, lived outside Saudi Arabia, or if their primary complaint was not related to tooth pain.

Method for data collection, instrument

A structured questionnaire was used as the study tool. This tool was developed after consulting relevant studies conducted in Riyadh, Saudi Arabia.[12] The questionnaire was modified from a previously used instrument to better align with the cultural context and specific goals of this study.

The final version of the questionnaire consisted of 21 items classified into two main sections. Section one contained questions on sociodemographic characteristics such as gender, age, nationality, marital status, education level, occupation, income, and region of residence. The second section included questions assessing behavioral responses and self-care strategies related to dental pain. These questions covered the experience and severity of toothache, types and sources of self-medication used, reasons for preferring self-care

over seeking professional dental help, and the outcomes of such practices. Dental students and dentists collected the information using online platforms after obtaining informed consent from participants.

Scoring system

Pain was assessed using a numerical scale ranging from 0 to 10. The responses were scored as follows: 0–1 was considered no pain and scored as 0; 2–3 was considered mild pain and scored as 1; 4–5 was moderate pain and scored as 2; 6–7 was severe pain and scored as 3; 8–9 was very severe pain and scored as 4; and 10, which indicated the worst possible pain, was scored as 5. The overall level of pain was categorized using Bloom's cut-off point, where a score between 80% and 100% (4–5 points) was considered high pain, 60–79% (3 points) moderate pain, and <60% (0–2 points) was classified as low pain.

Pilot test

The questionnaire was delivered to 20 people and asked them to complete it. This was done to assess the questionnaire's simplicity and the study's practicality. The data from the pilot study were omitted from the study's final results.

Analyzes and entry method

Data were entered on a computer using Microsoft Office Excel software (Windows version 2021). Afterward, the data were analyzed using the SPSS application, version 20 (IBM SPSS Statistics for Windows, Version 20.0, Armonk, NY: IBM Corp.). Descriptive statistics were used to summarize numerical variables for baseline characteristics. For categorical variables, frequencies and percentages were calculated. The Chi-square test was applied to identify associations between categorical variables.

RESULTS

The sample size of the 324 respondents has a sociodemographic profile that is mainly female (78.1) and Saudi (92.6), with almost half of them being aged between 18 and 30 years. The participants are mostly married or single people with bachelor's degrees and above, meaning that it is a well-educated population. There is also diverse employment, significant percentages of students, and unemployment, and these factors can affect health-seeking behavior and access to healthcare. Household income distribution implies a large distribution of income in the socioeconomic range; however, most of them are classified in the middle-income groups. The Western Region concentrates the sample to a large portion (87.7%), and this is to be taken into consideration when generalizing health-related findings [Table 1].

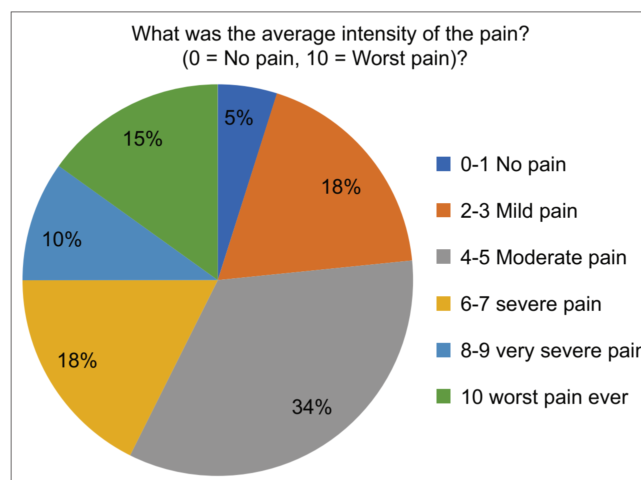

Figure 1: The average intensity of the toothache pain of the participants (*n*=324)

Figure 1 shows the proportion of the reported levels of pain on a 0–10 numeric scale rating. The highest percentage of the respondents (34) were experiencing moderate pain (score 45), which means that mid-level pain was the most prevalent one. It is also notable that significant numbers also indicated severe (17.6), very severe (9.9), and severe pain (severe, very severe, and worst possible 15.1) as well. The percentage that responded to no pain is very low (4.9%).

Table 2 indicates that the level of pain was diverse, but the majority of the respondents had moderate to severe levels, which is clinically significant. The most frequently reported pain was intermittent and throbbing. The pain period for many people was more than 1 day. Toothache was significantly affecting the day-to-day functioning, especially in eating and sleeping, where improved percentages of respondents experienced moderate to severe interruption. There was also an impact on work or study performance and social interactions which highlights the psychosocial effects of dental pain. Almost three-quarters of respondents indicated that they were affected, to some extent, psychologically or emotionally, which underscores the chronicity of stress related to chronically experienced oral discomfort. Even though the majority of people did not miss working days or educational days, a substantial percentage of them had reported such absences, which proves the economic consequences that untreated dental pain could have.

This statistic indicates that most people (72.5%) had professional dental treatment for their toothache, and 27.5% did not. This is a positive indication of health-seeking behavior in general, but the large proportion who failed to seek care could be more exposed to the risk of complications such as development of dental caries, infection, or chronic pain [Figure 2].

Table 3 shows some of the major behavioral responses to individuals with toothache. The majority of the participants (72.5%) were interested in professional dental care, which

Table 1: Sociodemographic characteristics of participants (*n*=324)

Parameter	No.	Percentage
Gender		
Female	253	78.1
Male	71	21.9
Nationality		
Saudi	300	92.6
Non-Saudi	24	7.4
Age group		
18–30 years old	161	49.7
31–45 years old	100	30.9
46–70 years old	63	19.4
Marital status		
Widowed	4	1.2
Single	148	45.7
Married	160	49.4
Divorced	12	3.7
Educational qualification		
High school or less	74	22.8
Bachelor's degree or higher	189	58.3
Diploma	35	10.8
Postgraduate (Master's/PhD)	21	6.5
University student	5	1.5
Employment status		
Self-employed	26	8.0
Student	85	26.2
Unemployed	80	24.7
Retired	20	6.2
Government sector employee	80	24.7
Private sector employee	33	10.2
Monthly household income		
<3000 Saudi Riyal	62	19.1
More than 20000 SAR	55	17.0
10001–20000 SAR	99	30.6
5001–10000 SAR	108	33.3
Region of residence		
Southern region	9	2.8
Eastern region	5	1.5
Northern region	5	1.5
Western region	284	87.7
Central region	21	6.5

implies appropriate health-seeking behavior, in general. Nevertheless, a considerable proportion (27.5%) did not seek care, with symptom improvement, cost, and fear cited as the most common barriers. Such results indicate that monetary issues, dental phobias, and misunderstanding of short-term

Table 2: Parameters related to toothache pain experience and its effect on daily activities (*n*=324)

Parameter	No.	Percentage
Have you experienced a toothache during the past 12 months?		
Yes	324	100.0
What was the average intensity of the pain? (0=No pain, 10=Worst pain)?		
0–1 no pain	16	4.9
2–3 mild pain	60	18.5
4–5 moderate pain	110	34.0
6–7 severe pain	57	17.6
8–9 very severe pain	32	9.9
10 worst pain ever	49	15.1
What type of pain did you experience? (Select all that apply)		
Throbbing	86	26.5
Intermittent	196	60.5
Sharp	55	17.0
Continuous	41	12.7
How long did the pain last?		
1–3 days	137	42.3
4–7 days	60	18.5
<1 day	87	26.9
More than 7 days	40	12.3
To what extent did the pain affect the following activities? (1=Not at all, 5=Extremely) Eating		
1	71	21.9
2	44	13.6
3	87	26.9
4	57	17.6
5	65	20.1
To what extent did the pain affect the following activities? (1=Not at all, 5=Extremely) Sleeping		
1	108	33.3
2	57	17.6
3	60	18.5
4	40	12.3
5	59	18.2
To what extent did the pain affect the following activities? (1=Not at all, 5=Extremely) Work or study		
1	125	38.6
2	49	15.1
3	64	19.8

(Contd...)

Table 2: *(Continued)*

Parameter	No.	Percentage
4	41	12.7
5	45	13.9
To what extent did the pain affect the following activities? (1=Not at all, 5=Extremely) Social interaction		
1	116	35.8
2	51	15.7
3	62	19.1
4	45	13.9
5	50	15.4
To what extent did the pain affect the following activities? (1=Not at all, 5=Extremely) Daily activities		
1	113	34.9
2	44	13.6
3	75	23.1
4	47	14.5
5	45	13.9
Did the pain affect your psychological or emotional state?		
No	89	27.5
Yes, a lot	75	23.1
Yes, a little	160	49.4
How many days of absence due to toothache?		
1–2 days	69	21.3
3–5 days	27	8.3
More than 5 days	5	1.5
None	223	68.8

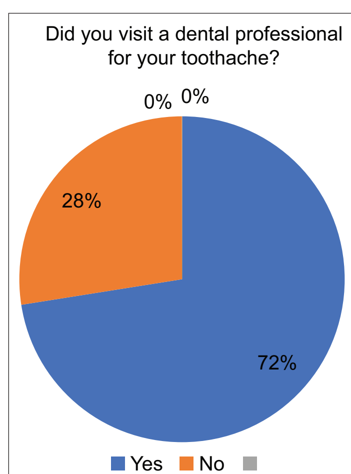

Figure 2: If participants visit a dental professional for their toothache (*n*=324)

Table 3: parameters related to behavioral responses and seeking care (*n*=324)

Parameter	No.	Percentage
Did you visit a dental professional for your toothache?		
No	89	27.5
Yes	235	72.5
If no, what were the main reasons for not seeking professional dental care? (select all that apply)?		
Fear	27	8.3
Cost	28	8.6
Symptoms improved	42	13.0
Limited time	26	8.0
Have you ever used any self-treatment methods?		
No	36	11.1
Yes	288	88.9

symptom alleviation can postpone the treatment. Moreover, the fact that the prevalence of self-treatment techniques (88.9) is very high reinforces the necessity of better awareness of the population about the dangers of putting off professional assessment and the possible complications involved in improperly managing the dental pain.

According to the data, the practice of self-treatment is widespread among the participants, and the most used methods were OTC medications (67.4%) and traditional home remedies (43.1%). The majority of the individuals indicated some level of effectiveness (65.6%) and high levels of pain management (83.7%). The most common was oral ingestion (53.1%), mostly of analgesics (72.9%), with topical and mouthwash applications regularly using saltwater solutions (44.1%) and clove (31.9%). Most of them applied these interventions during a few days to 1 week, and when pain persisted, they sought the services of professional help, most of them being dentists (62.5%). The primary source of substances (48.3%), as well as advice (38.2%), was pharmacists, but family and social media were also involved. All in all, these results indicate that self-medication is common and is usually felt to be somewhat effective though professional advice is needed in cases where symptoms do not disappear [Table 4].

Most of them complained of low pain (57.4), 25.0% had high pain, and 17.6% complained of moderate pain, meaning that most of the participants reported mild pain [Figure 3].

The data in Table 5 explain how the pain of toothache was distributed among the participants (n = 324). Most of them complained of low pain (57.4), 25.0% had high pain, and 17.6% complained of moderate pain, meaning that most of

Table 4: Parameters related to self-treatment methods of the participants (*n*=288)

Parameter	No.	Percentage
What methods did you use (select all that apply)		
Over-the-counter medications	194	67.4
Traditional home remedies	124	43.1
Applying a cold or warm compress	9	3.1
Herbal treatment	12	4.2
Avoid certain foods	55	19.1
How effective were they?		
Somewhat effective	189	65.6
Not effective	17	5.9
Very effective	52	18.1
I do not know	30	10.4
How satisfied are you with these sources?		
Satisfied	107	37.2
Very satisfied	75	26.0
Very dissatisfied	5	1.7
Dissatisfied	10	3.5
Neutral	91	31.6
Did you turn to alternative sources such as pharmacist, herbal healer, or telemedicine?		
No	159	55.2
Yes	129	44.8
What type of self-medication did you use?		
Oral ingestion	153	53.1
Mouth wash	86	29.9
Topical	49	17.0
If topical or mouthwash, what did you use? (Select all that apply)		
Antibiotics	59	20.5
Aspirin	41	14.2
Saltwater solution	127	44.1
Clove	92	31.9
If oral ingestion, what did you use? (Select all that apply)		
Analgesic	210	72.9
Antibiotic	65	22.6
Herbs	14	4.9
Typically, how long do you use these substances?		
1 week or less	54	18.8
3–4 weeks	14	4.9
5–8 weeks	9	3.1
2 weeks	13	4.5
A few days	188	65.3
Same day	9	3.1
No improvement	1	0.3
Did you experience pain relief?		
No	47	16.3
Yes	241	83.7
Typically, how long do you use these substances?		
8–14 days	8	2.8
1 week or less	110	38.2
More than 14 days	18	6.3
Symptoms worsened	2	0.7
Same day	113	39.2
No improvement	37	12.8
If the pain persists, what do you usually do?		
Other	13	4.5
Continues on the same medicine	46	16.0
Visit the dentist	180	62.5
Visit the general practitioner	34	11.8
Do nothing	15	5.2
Where do you obtain the substances you use for treatment?		
Previous prescriptions	99	34.4
Pharmacists	139	48.3
Family members	94	32.6
Friends	38	13.2
What is the source of the advice or information for using these substances?		
Pharmacist	110	38.2
Relative	74	25.7
Social media	46	16.0

Table 5: Toothache pain level of the participants (*n*=324)

Pain level	Frequency	Percentage
High pain	81	25.0
Low pain	186	57.4
Moderate pain	57	17.6
Total	324	100.0

the participants reported mild pain.

The data presented in Table 6 reveal that participants' pain

Table 6: Relation between pain score level of the participants, behavioral responses, and self-treatment methods (*n*=288)

Parameters	Pain score			Total (*n*=288)	*P*-value*
	High	Low	Moderate		
What methods did you use (select all that apply)					
Over-the-counter medications	65	95	34	194	0.001
	82.3%	58.6%	72.3%	67.4%	
Traditional home remedies	46	58	20	124	0.004
	58.2%	35.8%	42.6%	43.1%	
Applying cold or warm compress	1	5	3	9	0.279
	1.3%	3.1%	6.4%	3.1%	
Herbal treatment	2	7	3	12	0.572
	2.5%	4.3%	6.4%	4.2%	
Avoid certain foods	17	20	18	55	0.000
	21.5%	12.3%	38.3%	19.1%	
How effective were they?					
Somewhat effective	57	96	36	189	0.005
	72.2%	59.3%	76.6%	65.6%	
Not effective	7	8	2	17	
	8.9%	4.9%	4.3%	5.9%	
Very effective	12	31	9	52	
	15.2%	19.1%	19.1%	18.1%	
I do not know	3	27	0	30	
	3.8%	16.7%	0.0%	10.4%	
Did you experience pain relief?					
No	22	22	3	47	0.003
	27.8%	13.6%	6.4%	16.3%	
Yes	57	140	44	241	
	72.2%	86.4%	93.6%	83.7%	
Did you visit a dental professional for your toothache?					
No	12	56	14	82	0.007
	15.2%	34.6%	29.8%	28.5%	
Yes	67	106	33	206	
	84.8%	65.4%	70.2%	71.5%	

**P*-value was considered significant if $\leq$0.05

score level was significantly related to their usage of self-treatment methods such as OTC medications and traditional home remedies, avoidance of certain foods, effectiveness of self-treatment methods, experience of pain relief, and if a participant visited a dentist while it was insignificantly related to apply cold or warm compress and herbal treatment.

DISCUSSION

This study aimed to investigate the association between toothache pain and its impact on daily activities, as well as to evaluate the prevalence, types, and perceived effectiveness of self-care practices among Saudi adults. In light of the sociodemographically heterogeneous sample with predominance of young, educated, and middle-income participants largely from the Western Region, this study provides valuable insight into behavioral responses and pain management strategies for dental pain during the previous 12 months.

The findings revealed that moderate to severe toothache pain is highly prevalent, with around 64% of participants reporting at least moderate pain and a notable impact on core daily functions such as eating and sleeping. Nearly three-quarters of respondents perceived a psychological or emotional impact arising from their dental pain, and a

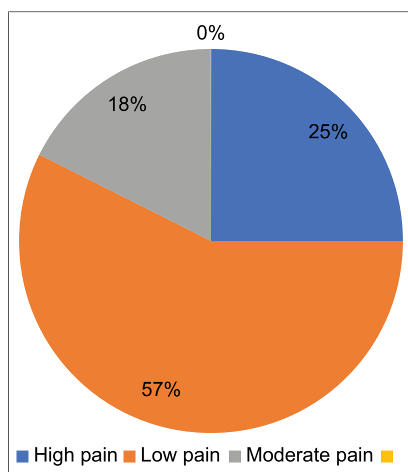

Figure 3: The toothache pain level of the participants (*n*=324)

substantial minority reported work or educational absences, which aligns closely with global epidemiological data on the burden of untreated oral pain.[13] The impacts on daily functioning, evident in domains of eating, sleeping, work, and social interaction, substantiate existing research highlighting the multidimensional consequences that dental pain can have on quality of life, well-being, and productivity.[14]

Most participants practiced self-treatment for dental pain, with approximately 89% using some form of self-medication. The most common interventions, namely OTC analgesics (67%) and traditional home remedies (43%), parallel results reported from similar cross-sectional studies in Saudi Arabia and other regional research. For example, Jamal *et al*. (2021) reported a prevalence of self-medication for oral health problems of 63.2% in Riyadh, with salt in hot water and acetaminophen being the most widely used remedies, aligning with our cohort's findings.[14] The predominant reasons for self-medication across studies include perceived improvement of symptoms, fear of dentistry, time constraints, and, importantly, the cost and availability of professional care.[13,15]

Regarding sources of advice and medication, our results demonstrate the strong influence of pharmacists, family, and online/social media, echoing findings from previous literature where pharmacists are often the primary contact for advice on self-care and procurement of non-prescription remedies.[17] Consequently, the population's reliance on these sources underscores a pressing need for public health education that targets erroneous beliefs, safe self-medication, and proper timing for dental consultations.

The perceived effectiveness of self-treatment methods was favorable among the majority, with 65.6% rating self-medication as "somewhat effective" and 18.1% as "very effective." This is congruent with systematic reviews examining direct-acting analgesics such as acetaminophen and non-steroidal anti-inflammatory drugs for acute dental pain, suggesting that when properly used, these medications offer significant relief.[18] However, clinical recommendations remain circumspect due to variability in adherence, dosing, and follow-up among self-medicating individuals.[18] Traditional remedies, especially saltwater and clove, were also widely reported; home-based management showed some benefit for mild pain, supporting previous studies from Saudi Arabia and neighboring countries, but clinical evidence for long-term efficacy remains limited.[19] Awareness of the risks of inappropriate use such as antibiotic misuse or delayed professional care remains suboptimal, as highlighted in both Saudi and international surveys.[16,17]

Interestingly, while most respondents sought professional dental care (72.5%), a considerable proportion avoided it, mainly due to resolved symptoms, fear, financial constraints, or time pressures. These findings are mirrored in previous works identifying similar barriers to care in Saudi Arabia and the wider Middle East.[16,15] Delayed access to treatment due to pain temporarily subsiding, as reported by our sample, can prompt a cyclic pattern of recurrent pain and self-care attempts, an issue with both clinical and socioeconomic consequences.[13]

The psychological and emotional burden of persistent dental pain, as observed in nearly three-quarters of our participants, is well supported by contemporary literature showing strong associations between orofacial pain and anxiety, depression, and social withdrawal.[13,14] This highlights the importance of holistic management approaches that include appropriate referral to dental services and psychological support when indicated.

Limitations of this study include its cross-sectional design, precluding causal inference; possible recall bias regarding pain episodes; and the use of convenience sampling, which may limit generalizability despite robust efforts at regional coverage. In addition, the concentration of participants from the Western region and the overrepresentation of females and young adults could limit the applicability of findings to the wider Saudi population. The absence of clinical verification of pain or diagnoses and reliance on self-reported perceptions of effectiveness and psychological impact also represent inherent limitations. Future work should employ longitudinal and interventional designs and prioritize efforts to assess objective clinical endpoints and education impacts on self-care behaviors.

CONCLUSION

Our findings corroborate previous studies indicating that self-medication for dental pain is widespread in Saudi Arabia. The preference for OTC analgesics and traditional remedies reflects patterns reported nationally and internationally. Furthermore, the significant functional and psychosocial impacts of toothache pain found here reaffirm the need for multifaceted public health interventions focusing on improving access, health literacy, appropriate self-care, and

timely professional referral. Evidence-based educational programs directed at both the public and pharmacists are recommended to optimize outcomes and reduce the risks associated with improper self-medication for dental pain.

ACKNOWLEDGEMENT

We acknowledge all volunteers who provided samples for this research.

ETHICAL APPROVAL

The study was fully explained to all participants, and it was emphasized that participation was voluntary. Written informed consent was obtained from each participant before enrollment. All collected information was securely stored and used exclusively for research purposes.

INFORMED CONSENT

Written informed consent was obtained from all study participants.

DATA AND MATERIALS AVAILABILITY

All data generated or analyzed during this study are included in this published article.

REFERENCES

1. Shukr BS, Mandorah A, Altalhi FK, Alqurashi YA, Shawli HT, Alqarni AA, *et al*. Acute dental pain and the different management methods among adults in Taif, Saudi Arabia: A cross-sectional study. Saudi J Oral Sci 2024;11:211-21.
2. Alshammari AA, Algarni SM, Almulhim AN. Self-management of dental pain by patients of imam Abdurrahman bin Faisal university's dental hospital. EC Dent Sci Res Artic 2019;11:221-7.
3. Mittal P, Chan OY, Kanneppady SK, Verma RK, Hasan SS. Association between beliefs about medicines and self-medication with analgesics among patients with dental pain. PLoS One 2018;13:1-11.
4. Mason C, Porter SR, Madland G, Parry J. Early management of dental pain in children and adolescents. J Dent 1997;25:31-4.
5. Jamal M, Baig MZ, Shahid AM, Basit S, Siddiqi KM. Trends of self-care remedies among the patients with dental pain: A cross-sectional study. J Saidu Med Coll 2024;14:384-8.
6. Jarwan RK, Alhindi AK, Iskandar RM, Bashihab SO, Nassar AA, Sembawa SN. Assessment of self-care methods for acute dental pain among adults during COVID-19 dissemination and the implementation of teledentistry in Makkah, Saudi Arabia: A cross-sectional study. Cureus 2023;15:e33687.
7. Dolce MC. Integrating oral health into professional nursing practice: An interprofessional faculty tool kit. J Prof Nurs 2014;30:63-71.
8. Cohen LA, Bonito AJ, Akin DR, Manski RJ, Macek MD, Edwards RR, *et al*. Toothache pain: A comparison of visits to physicians, emergency departments and dentists. J Am Dent Assoc 2008;139:1205-16.
9. Cohen LA, Bonito AJ, Akin DR, Manski RJ, Macek MD, Edwards RR, *et al*. Toothache pain: Behavioral impact and self-care strategies. Spec Care Dentist 2009;29:85-95.
10. Daize AS, Akter Lima ML. Traditional profession and livelihood strategies of Bede community in Bangladesh: A sociological study. Soc Sci Rev 2022;38:109-32.
11. Emrick JJ, Von Buchholtz LJ, Ryba NJ. Transcriptomic classification of neurons innervating teeth. J Dent Res 2020;99:1478-85.
12. Aldeeri A, Alzaid H, Alshunaiber R, Meaigel S, Shaheen N, Adlan A. Patterns of self-medication behavior for oral health problems among adults living in Riyadh, Saudi Arabia. Pharmacy (Basel) 2018;6:15.
13. Daffa HI, Alotaibi MM, Alhusayni AA. Epidemiological and oral public health aspects of dental pain: A narrative review. Int J Dent 2024;2024:4381098.
14. Broomhead T, Gibson B, Parkinson CR, Vettore MV, Baker SR. Gum health and quality of life-subjective experiences from across the gum health-disease continuum in adults. BMC Oral Health 2022;22:512.
15. Cohen LA, Bonito AJ, Akin DR, Manski RJ. Prevalence and predictors of self-medication for oral health problems in Riyadh, Saudi Arabia. Int Dent J 2007;57:330-6.
16. Alhur A, Alhur A, Alfayiz A, Alotaibi A, Hansh B, Ghasib N, *et a*l. Patterns and prevalence of self-medication in Saudi Arabia: Insights from a nationwide survey. Cureus 2023;15:e51281.
17. Gowdar IM, Alhaqbani MM, Almughirah AM, Basalem SA, Alsultan FI, Alkhathlan MR. Knowledge and practice about self-medication for oral health problems among population in Riyadh region, Saudi Arabia. J Pharmacy Bioallied Sci 2021;13:S246-50.
18. Abou-Atme YS, Melis M, Zawawi KH. Efficacy and safety of acetaminophen and caffeine for the management of acute dental pain: A systematic review. Saudi Dent J 2019;31:417-23.
19. Pharmascope Foundation. Home remedies for patients suffering from dental pain during lockdown-A questionnaire survey. Pharmascope J 2020;2(2):1-6.

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