SELF-MEDICATION ASSOCIATED WITH TOOTHACHE: A SYSTEMATIC LITERATURE REVIEW

Automedicação associada à dor de dente: uma revisão sistemática da literatura

Automedicación asociada al dolor de dientes: una revisión sistemática de la literatura

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ABSTRACT

Introduction: Self-medication consists of selecting and using medication without a poprescription or guidance from a healthcare professional. This practice has been widely reported worldwide, which has contributed to a series of adverse health outcomes, such as delayed diagnosis, worsening of clinical conditions, drug interactions, intoxication, and adverse reactions, which tend to compromise patient safety. **Objective**: To analyze the prevalence of self-medication associated with toothache, the main factors associated with self-medication in dental patients, as well as outline the profile of medications used by these individuals, the preferred route of administration, and the main sources of medication. **Methodology:** A systematic review was developed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Relevant articles published in the last ten years, without limitations of language were searched using the following descriptors/MeSHterms and keywords: "self-medication" and (toothache or "dental pain") not Child. **Results:** The initial search returned 61 manuscripts. Fourteen papers, all cross-sectional studies, were eligible for inclusion in the systematic review. **Conclusions:** The prevalence of self-medication for toothache ranged from 6.5% to 100.0%. Cultural and economic factors, barriers to access, the high cost of dental treatments, lack of time and money, and the perception that dental problems are not a serious problem are among the main factors associated with the practice. Regarding the drugs used, the most used classes were paracetamol, especially anti-inflammatory drugs, particularly ibuprofen, and analgesics administered orally.

Keywords: Drug Utilization. Public Health Dentistry. Self Medication. Toothache.

RESUMO

Introdução: A automedicação consiste na escolha e uso de medicamentos sem prescrição ou orientação de um profissional de saúde. Essa prática tem sido amplamente divulgada em todo o mundo, o que tem contribuído para uma série de desfechos adversos à saúde, como atraso no diagnóstico, piora do quadro clínico, interações medicamentosas, intoxicações e reações adversas, que tendem a comprometer a segurança do paciente. **Objetivo**: Analisar a prevalência da automedicação associada à dor de dente, os principais fatores associados à automedicação em pacientes odontológicos, bem como traçar o perfil dos medicamentos utilizados por esses indivíduos, a via preferencial de administração e as principais fontes de medicação. **Metodologia:** Uma revisão sistemática foi desenvolvida de acordo com os itens de relatório preferidos para revisões sistemáticas e meta-análises (PRISMA). Foram pesquisados artigos relevantes publicados nos últimos dez anos, sem limitação de linguagem, utilizando os seguintes descritores/MeSHterms e palavras-chave: "self-medication" e (toothache or "dental pain") não Child. **Resultados:** A busca inicial encontrou 61 manuscritos. Quatorze artigos, de delineamento transversal, foram considerados elegíveis e incluídos para a revisão. **Conclusões:** A prevalência de automedicação para dor de dente variou de 6,5% a 100,0%. Fatores culturais e econômicos, barreiras de acesso, alto custo dos tratamentos odontológicos, falta de tempo e dinheiro e a percepção de que os

problemas odontológicos não são um problema grave estão entre os principais fatores associados à prática. Em relação aos medicamentos utilizados, as classes mais utilizadas foram o paracetamol, principalmente os anti-inflamatórios, principalmente o ibuprofeno, e os analgésicos por via oral.

Palavras-Chave: Uso de Medicamentos. Odontologia em Saúde Pública. Automedicação. Odontalgia.

RESUMEN

Introducción: La automedicación consiste en seleccionar y utilizar medicamentos sin receta ni orientación de un profesional sanitario. Esta práctica ha sido ampliamente reportada a nivel mundial, lo que ha contribuido a una serie de resultados adversos para la salud, como retraso en el diagnóstico, empeoramiento de las condiciones clínicas, interacciones medicamentosas, intoxicaciones y reacciones adversas, que tienden a comprometer la seguridad del paciente. **Objetivo:** Analizar la prevalencia de automedicación asociada al dolor de muelas, los principales factores asociados a la automedicación en pacientes odontológicos, así como delinear el perfil de medicamentos utilizados por estos individuos, la vía de administración preferida y las principales fuentes de medicación. **Metodología:** Se desarrolló una revisión sistemática de acuerdo con los Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Se buscaron artículos relevantes publicados en los últimos diez años, sin limitaciones de idioma, utilizando los siguientes descriptores/MeSHterms y palabras clave: "self-medication" y (toothache or "dental pain") not Child. **Resultados:** La búsqueda inicial arrojó 61 manuscritos. Catorce artículos, todos estudios transversales, fueron elegibles para su inclusión en la revisión sistemática. **Conclusiones:** La prevalencia de automedicación para el dolor de muelas osciló entre 6,5% y 100,0%. Los factores culturales y económicos, las barreras de acceso, el alto costo de los tratamientos dentales, la falta de tiempo y dinero, y la percepción de que los problemas dentales no son un problema grave se encuentran entre los principales factores asociados con la práctica. En cuanto a los fármacos utilizados, las clases más utilizadas fueron el paracetamol, especialmente los antiinflamatorios, especialmente el ibuprofeno, y los analgésicos por vía oral.

Palabras clave: Utilización de Medicamentos. Odontología en Salud Pública. Automedicación. Odontalgia.

Introduction

Self-medication consists of selecting and using medication without a prescription or guidance from a healthcare professional[1]. This practice has been widely reported worldwide, which has contributed to a series of adverse health outcomes, such as delayed diagnosis, worsening of clinical conditions, drug interactions, intoxication, and adverse reactions, which tend to compromise patient safety[2].

Research indicates that the practice of self-medication may be associated with factors such as advertisements for medicines that are not prescribed, difficulties in accessing health services, low quality of medical care and ease of obtaining medicines[3,4].

In dentistry, dental emergencies, especially toothache, have been reported to be the primary motivation for self-medication and the search for dental services[5]. However, using medication without guidance has reverberated in the worsening of oral health conditions, loss, and impairment of dental function, in addition to the imminent risks associated with using analgesics, anti-inflammatory drugs, and antibiotics, the preferred classes sought by patients with orofacial pain[6].

Given the high prevalence of self-medication in individuals with oral health problems, as well as lack of knowledge about dentistry, the current study aims to analyse, through a systematic literature review, the prevalence of self-medication in toothache, the main factors associated with self-medication, the profile of medications used the preferred route of administration and the main source of medication.

Methodology

The methodology used in this systematic review was developed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)[7].

Search Strategy

To identify relevant articles, published in the last ten years (2013-2023), without language limitations, a search was performed in the following electronic databases: Pubmed/MEDLINE, Cochrane, Scopus, Web of Science, and Clinical Trials, using the following descriptors/MeSHterms and keywords: "self-medication" and (toothache or "dental pain") not Child. The search took place during the month of February 2023. The details of the search strategy are presented in Table 1.

Table 1. Database search strategy

Database	Search strategy	n
PubMed	"self medication" and (toothache or "dental pain") not Child.	26
Cochrane	"self medication" and (toothache or	1

	"dental pain") not Child.	
Web of Science	"self medication" and (toothache or "dental pain") not Child.	32
Clinical Trials	"self medication" and (toothache or "dental pain") not Child.	0
Scopus	"self medication" and (toothache or "dental pain") not Child.	2

Eligibility Criteria

An article was considered eligible for this systematic review if it was an interventional or observational study, published in the last ten years, and evaluated the practice of self-medication for the treatment of toothache. No language restrictions have been applied. Clinical trials or quasi-experimental studies, review studies and/or case reports, and qualitative studies were excluded.

Study selection and data extraction

Article titles and abstracts were independently assessed by two reviewers (MSF and AFSFN) for relevant articles using Rayyan, a software that helps in the initial screening of abstracts and titles. Studies that met the inclusion criteria in the initial phase had their eligibility confirmed by reading the full article. The articles that met all inclusion criteria were included in the review. If the reviewers could not agree on whether an article should be included, a third reviewer (CTC) was consulted.

Details of the included studies were extracted independently by the reviewers (MSF and RSG.) using a data extraction form. The extracted data included information related to the title, author, country, year, population, study design, number of subjects, prevalence of self-medication, medication used, and factors associated with self-medication.

Quality assessment

The quality of the articles included was assessed independently by two reviewers (ASFSFN and CTC). The Joanna Briggs Institute Critical Appraisal Checklist (JBI) was used to assess the methodological quality of the studies.

The JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies. Studies contain questions, with 4 possible answers for each question: yes (Y), no (N), uncertain (U), and not applicable (NA). The methodological quality of a study was calculated by the sum of "Y" selected in the checklist. Questions with "NA" answers were not considered in the calculation. The percentage of affirmative answers up to 49%, 50% to 70%, and above 70%, indicated low-, moderate-, and a high-quality study, respectively[5].

Results

Selected studies

The initial search yielded 61 manuscripts, 15 of which were duplicates. After screening titles and abstracts, 46 studies were analyzed for inclusion criteria, with 23 excluded (Figure 1). Subsequently, the references of the included studies were manually searched for relevant articles, but none were identified. The reasons for excluding articles were: the study design (qualitative study and review studies)[8-11], the study did not analyze the relationship between self-medication and toothache[12-15], the participants were not adults[16, 17], did not specify the number of participants using antibiotics for the specified outcome[18].

Figure 1: PRISMA 2020 flow diagram for new systematic reviews which included searches of databases and registers only
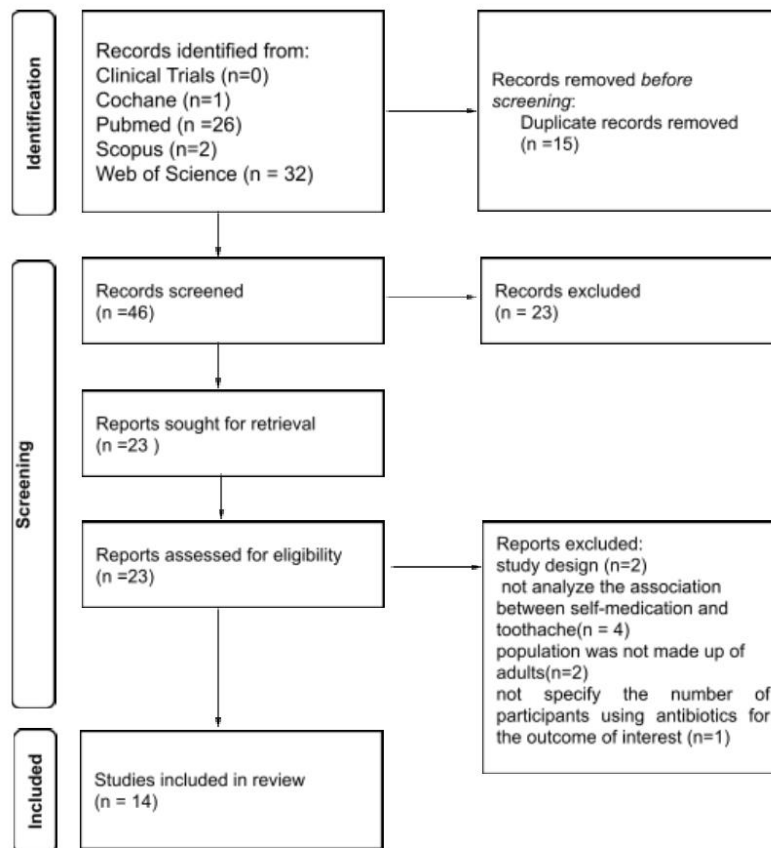
Study characteristics

Fourteen studies were eligible for inclusion in the systematic review, all of which had a cross-sectional design[14, 19-31]. From 2015 to 2021, four were published from India, three from Saudi Arabia, and one each from Argentina, Belgium, Ecuador, Malaysia, the United Arab Emirates, Turkey, and Yemen (Table 2).

Table 2. Characteristics of the studies eligible for inclusion the systematic review.

Title	Author	Country	Year	Population	Study design	Number of Participants	Prevalence of self-medication	Medication used	Factors associated with self-medication
Oral health attitudes related to the socioeconomic level in adults	Dhó MS [22]	Argentina	2015	People aged 35 to 44 years who live in the City of Corrientes; Argentina.	Cross-sectional study	381	49.6%	NR	Low socioeconomic level
Association between beliefs about medicines and self-medication with analgesics among patients with dental pain	Mittal P, Chan OY, Kanneppady SK, Verma RK, Hasan SS [28]	Malaysia	2018	Adult patients with toothache visiting dental clinics associated with the Oral Health Center of the International Medical University, Malaysia	Cross-sectional study	153	29.4%	Acetaminophen (42.2%), ibuprofen (15.6%), and mefenamic acid (13.3%)	Stronger beliefs about the benefits of drugs and weaker beliefs about seeing drugs as harmful and overused.
Analgesia (mis)usage on a dental emergency service: a patient survey	Hommez, et al.[25]	Belgium	2018	Adult patients consulting a dental care at the Ghent University Hospital Emergency Dental Service	Cross-sectional study	98	40.8%	Analgesics: acetaminophen (69.4%), ibuprofen (65.3%), tramadol hydrochloride (5.1%), acetylsalicylic acid (4.1%), and codeine (4.1%)	NR
Patterns of Self-Medication Behavior for Oral Health Problems Among Adults Living in Riyadh, Saudi Arabia	Aldeeri et. al. [19]	Saudi Arabia	2018	Adults visiting shopping malls in all five regions of Riyadh.	Cross-sectional study	400	63.25%	Acetaminophen (47.4%), ibuprofen (37.1%), and antibiotics (17.8%)	Male sex and nationality (non-Saudi)
Practice of Self-Medication for Dental Problems in Uttar Pradesh, India.	Jain et al.[26]	India	2016	Individuals from Moradabad, Meerut, Bareilly and Ghaziabad, which are 4 of 14 cities in Western Uttar Pradesh.	Cross-sectional study	352	72%	Analgesics (59.0%), and antibiotics (25.5%)	Age (31 to 40 years), illiteracy, low income, urban area and motivation from relatives and friends.
Prevalence of Self-medication Practice among People Attending Oral Health Outreach Programmes in Madurai East, Tamil Nadu	Subhashini et al.[29]	India	2017	Population that participated in a community outreach programme in Madurai, India.	Cross-sectional study	238	25%	Drugs/substances were analgesics (65.54%), warm saline (38.23%) and hot drinks (27.73%).	Previous experience of successfully treating a similar illness, male sex, urban locality, and upper-being satisfied from previous antibiotic use, test fees, drug store, and surrounding advice;

									and lower-middle class
Self-diagnosis & pain management in dental students in Riyadh, KSA	Halawani et al. [14]	Saudi Arabia	2019	dental students in Riyadh, KSA	Cross-sectional study	505	NR	NR	NR
Self-medication in the dental field in an adult population	Torres-Bustamante et al. [31]	Ecuador	2021	Adults from the city of Guayaquil	Cross-sectional study	402	88,31%	anti-inflammatories (31%), analgesics, and antibiotics with 24% and 18% respectively, and anxiolytics in a minimum quantity of 1%	being a young adult, per capita income less than US$400 and being a woman
Self medication practices for oral health problems among dental patients in bangalore: a cross sectional study	Komal Raj et al. [27]	India	2015	Patients who were 18 years and above, patients visiting outpatient department of Rajarajeswari Dental College and Hospital, Bengaluru	Cross-sectional study	175	100%	Analgesics (48.0%), native herbs (29.7%), and antibiotics (6.9%)	Minor illness, lack of time, previous experience of treating a similar illness, lack of money, unavailability of doctor and traditional/religious beliefs
Knowledge and practice about self-medication for oral health problems among population in Riyadh Region, Saudi Arabia	Gowdar et al. [24]	Saudi Arabia	2021	Users of social networks in the Riyadh region	Cross-sectional study	800	50.4%	Pain killers (68.8%), homemade medicines (17.6%), and antibiotics (2.2%)	Age (over 40 years), sex (female), education (holding a degree graduate) and lack of time
Knowledge, attitude, and practice of self-medication with antibiotics among nursing students	Donmez et al. [23]	Turkey	2018	All classes of nursing students from Gaziantep University Faculty of Health Sciences.	Cross-sectional study	570	23,7%	NR	Being satisfied from previous antibiotic use, test fees, drug store, and surrounding advice.
Self-medication for oral health problems among adults attending the University Dental Hospital, Sharjah	AlQahtani, Haif A. et al. [21]	Arab Emirates	2019	usuários do University Dental Hospital Sharjah (UDHS)	Cross-sectional study	566	78.8%	Analgesics (45.3%), native herbs (20.0%), and antibiotics (11.3%)	Lack of time to visit a dental clinic (37.6%) and the perception that dental diseases were not serious health problems (36.8%).
Self-medication with antibiotic amongst adults	Alfadly et al. [20]	Yemen	2017	Eight community pharmacies	Cross-sectional study	400	6.5%	Antibiotics: amoxicillin (52.3%), ampicillin	Financial constraints and previous experience of using a particular antibiotic

attending community pharmacies in Mukalla district, Yemen								(20.0%), tetracycline (11.2%), and cefadroxil (8.5%)
Trends in self-medication for dental conditions among patients attending oral health outreach programs in coastal Karnataka, India.	Simon, et al.[30]	India	2015	Adult dental out patients aged 18 years or above presenting at dental outreach programs of the Manipal College of Dental Sciences, Mangalor	Cross-sectional study	400	30%	Analgesics (42.5%), traditional medicines (14.2%), and antibiotics (10.0%)	Lack of access to dental services, dental prescription not necessary, dental visits are expensive, long queues at hospital and belief that traditional medications are the best.

NR- not reported

In total, 5 440 participants were included in the studies. The prevalence of self-medication for toothache treatment ranged from 6.5% to 100.0%, and the higher values were found in studies conducted in developing countries such as India, Ecuador, and the United Arab Emirates[21, 27, 31].

The duration of self-medication practice ranged from one to eight weeks[19]. The most common drugs taken through self-medication observed in the included studies were: analgesics, mainly paracetamol, anti-inflammatory drugs, especially ibuprofen, and antibiotics[14, 19-31]. The preferential route of administration used for using medications was oral[27]. Many study participants used painkillers.

Community pharmacies and leftover medication from previous prescriptions were the main sources of medication. In terms of the guiding source for the selection and use of medicines, the included studies suggest that sellers, family members, and friends were the ones who most frequently recommended medications to relieve toothaches[30]. In terms of the patient profile most likely to resort to self-medication, females were foundmore likely to use medication without the supervision of a health care professional[19].

Cultural and economic factors, barriers to access, the high cost of dental treatment, lack of time and money, and the perception that dental problems are- not a serious health problem are the motivating factors to self-medicate. In addition, fear of the dentist, ease of access to medicines, and belief in their benefits also contributed to the adoption of self-medication[19, 21, 22, 30].

Quality of the included studies

According to the JBI Critical Appraisal Checklist, eleven studies were considered high-quality[14, 20–23, 25, 26, 28–31] and three studies were considered moderate quality [19, 24, 27]. The methodological quality ranged from 66.7% to 100.0% (Table 3).

Table 3. Methodological quality of the included studies

Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Total (%)	Metodological quality
Aldeeri et al. (2018) [19]	Y	N	Y	N	NA	NA	Y	Y	66.7	Moderate
Jain et al. (2016) [26]	Y	Y	Y	N	NA	NA	Y	Y	83.3	High
Simon et al. (2015) [30]	Y	Y	Y	Y	NA	NA	Y	Y	100.0	High
Dhó (2015) [22]	Y	Y	Y	Y	NA	NA	Y	Y	100.0	High
Gowdar et al. (2021) [24]	N	N	Y	N	NA	NA	Y	Y	50.0	Moderate
AlQahtani et al. (2019) [21]	Y	Y	Y	N	NA	NA	Y	Y	83.3	High
Mittal et al. (2018) [28]	Y	Y	Y	Y	NA	NA	Y	Y	100.0	High
Halawani et al. (2019) [14]	N	Y	Y	Y	NA	NA	Y	Y	83.3	High
Hommez et al., (2018) [25]	Y	Y	Y	Y	NA	NA	Y	Y	100.0	High
Donmez et al. (2018) [23]	Y	Y	Y	N	NA	NA	Y	Y	83.3	High
Alfadly et al. (2017) [20]	Y	Y	Y	N	NA	NA	Y	Y	83.3	High
KomalRaj et al. (2015) [27]	Y	Y	Y	N	NA	NA	Y	U	66.7	Moderate
Torres-Bustamante D, et al. (2021) [31]	Y	Y	Y	Y	NA	NA	Y	Y	100.0	High
Subhashini et al. (2017) [29]	Y	Y	Y	Y	NA	NA	Y	Y	100.0	High

Discussion

The main findings in the present systematic review indicate that self-medication for toothache relief is recurrent and is identified as one of the main forms of self-care in oral health, worldwide. In the included studies, its prevalence ranged from 6.5% to 100.0%. These are worrying results, since self-medication is a critical health concern that could cause several problems, such as antibiotic-induced drug resistance, increased drug use per capita, nondesired treatment, drug toxicity,

congenital abnormalities, and on some occasions, could impose extra costs on a health care system[32].

Furthermore, studies from developing countries, such as India, Ecuador, and the United Arab Emirates, found a higher level of self-medication for the prevalence of toothaches[21, 27, 31]. This finding can be attributed to the ease of obtaining medications without a prescription in these countries, the ineffective functioning of health systems, and flaws in drug regulations[21, 30].

The duration of self-medication ranged from one week to eight weeks[19]. This finding captures our attention, given that research has shown that the longer the period of self-medication, the greater the associated risks[31]. Furthermore, in dentistry, delay in seeking care can worsen clinical conditions and contribute to the need for more complex procedures[34].

Analgesics were one of the most commonly reported medications to relieve toothache, particularly acetaminophen[25]. The widespread use of analgesics, as well as the risks associated with their indiscriminate use, low cost, and effectiveness for various symptoms associated with the inflammatory process, can be justified by their ease of access and belief in pain management[35]. Furthermore, due to the high availability of analgesics, patients tend to use these drugs before seeking dental care [24]. In addition, many of the studies' participants combine painkillers. Moreover, these medications are frequently combined or manufactured with additives. However, analgesics must be used cautiously as they can cause harmful side effects and affect people's health [25].

Another pharmaceutical class widely used while self-medicating for toothache was anti-inflammatory drugs, especially ibuprofen[19, 25, 28]. This finding is consistent with that of studies that investigated the practice of self-medication for other reasons and found similar results[36, 37]. The literature presents evidence that using non-steroidal anti-inflammatory drugs have been associated with an increased risk of adverse cardiovascular events, stroke, and gastrointestinal bleeding[36, 37] further substantiating the risks of self-medication for toothache and the need to develop strategies aimed at the rational use of anti-inflammatory drugs[38].

Antibiotics were the second most used pharmacological class by study participants[19–21, 24, 26, 27, 30]. Self-medication with antibiotics is a medical concern due to the emergence of bacterial resistance, it is currently a global public health problem, even more alarming in developing countries, where antibiotics are usually available without a prescription[20].

Notably, although drugs of this class are still used in self-medication to relieve toothache, in recent decades there has been a marked reduction in this practice[39]. This finding is associated with greater vigilance and control– over the dispensing of antimicrobials, given the risks associated with their irrational use. Despite this, the results found in this study reinforce the need for greater rigor in the distribution and dispensing of these drugs[40].

Regarding the route of administration, the studies indicated that oral and topical routes were preferred in self-medication to manage toothache. The preference for using drugs through these routes may be associated with their convenience, ease of acquisition and administration, low cost, and safety[41, 42].

Community pharmacies and leftover medication from previous prescriptions were the main sources of self-medication. Regarding the recommended source for medication selection and use, the included studies suggest that salespeople, family members, and friends were the most likely to recommend medications to relieve toothache[30]. These results reiterate the importance of the role of the community pharmacist, as this health professional can advise on rational use of medicines and provide appropriate referrals to people with toothache[45].

Among the factors that contribute to the practice of self-medication for toothache, barriers to accessing dental services and low income were highlighted in the included studies as factors contributing to the self-medication practice. This result is in line with that of previous publications showing that a greater accumulation of oral problems, especially toothache, is more common among low-income individuals[38,45-47].

Regarding barriers to accessing dental services, a study conducted by Cohen concluded that this problem is even more significant among individuals with greater disparities in oral health[46]. In Canada, an investigation conducted with low income

workers showed that toothache is the predicting factor in the demand for dental services, and that the unavailability of cost-effective dental care, whether in the public or private sector, contributes to tooth loss, and further, to inequities in oral healthcare[38]. These results highlight the need for public health interventions aimed at dentistry, considering the promotion and prevention of oral health, given that toothache and self-medication can have a negative impact on quality of life and health[46].

Regarding the profile of patients who are most often self-medicating, women are reportedly more likely to use medication without the guidance of a healthcare professional[19]. Previous studies indicate a moderate to the high prevalence of self-medication among women[32]. In addition, a greater self-perception of oral health and fear of the dentist may explain this finding. Furthermore, the lower salary and unemployment rates are higher in women, contributing to the lower demand for dental services and the greater self-medication practice[30].

Among the motivations for self-medication, studies reported cultural and economic factors, access barriers, high cost of dental treatments, lack of time and money, and ae perception of dental problems as a non-serious health problem. In addition, fear of the dentist, ease of access to medicines, and belief about their benefits also contributed to the adoption of self-medication[19, 21, 22, 26, 30]. This indicates the need to adopt measures that deal with prevention and promotion in dentistry, as well as greater, long-term access to services and oral health care[45].

This systematic review has strengths and limitations. This is a comprehensive evaluation of the evidence, including all available published studies on self-medication associated with odontogenic pain. Strengths also include using the JBI Critical Appraisal Checklist to assess the methodological quality of the included studies, the high quality of the majority of included studies, and the relevance of the topic considering the prevalence and risks associated with self-medication for toothache relief.

An important limitation is that all included studies had a cross-sectional design, limiting the possibility of making causal inferences. Another limitation pertains to the different ways of obtaining information regarding using nonprescription drugs to

relieve toothache. The articles included in this systematic review evaluated this information through self-reported data by applying questionnaires, which favors memory bias and can underestimate or overestimate exposure.

Conclusions

The results showed a prevalence of self-medication for toothache ranging from 6.5% to 100.0%, and higher values were found in studies conducted in developing countries such as India and the United Arab Emirates. Cultural and economic factors, barriers to access, the high cost of dental treatments, lack of time and money, and the perception that dental problems are not a serious health problem are among the main factors associated with practice. In addition, fear of the dentist, ease of access to medications, and belief about their benefits also contribute to the adoption of self-medication. Regarding the drugs used, the most used classes were paracetamol, especially anti-inflammatory drugs, particularly ibuprofen, and analgesics administered orally.

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