Journal of Cardiovascular Disease Research

ISSN: 0975-3583,0976-2833 VOL13, ISSUE 05, 2022

ORIGINAL RESEARCH

TO DETERMINE THE PREVALENCE OF SELF-MEDICATION AMONG ADULT PATIENTS SUFFERING FROM DENTAL PROBLEMS

[1]Abhishek Pathak, [2]Ajay Pillai

[1]MDS, Oral and Maxillofacial Surgery, Peoples Dental Academy, Bhopal, Madhya Pradesh, India

[2]Professor and HOD, Department of Oral and Maxillofacial Surgery, Peoples Dental College, Bhopal, Madhya Pradesh, India

Correspondence:

Ajay Pillai

Professor and HOD, Department of Oral and Maxillofacial Surgery, Peoples Dental College, Bhopal, Madhya Pradesh, India

Abstract

Aim: To determine the Prevalence of self-medication among adult patients suffering from dental Problems.

Methods: After obtaining ethical approval, this investigation was carried out in the dentistry department. 100 adult patients who came to the dental department for the first time with dental discomfort. To obtain data from the patients, a systematic, pre-tested open-ended and closed-ended questionnaire was employed. The questionnaire was used to collect information on the respondents' socio-demographic status, the duration of self-medication, the reasons for resorting to self-medication, the drug(s) used for self-medication, the source of the drug(s), the type of self-medication, the posology determined, knowledge about the side effects of the drug(s) used, and awareness of the consequences of self-medication.

Results: 100 of the 120 individuals who came in with tooth discomfort had self-medicate. 40(40%) of patients self-medicate due to discomfort, 26(26%) due to financial constraints, and 19(19%) due to a lack of time to contact a dentist. 11 (11%), dental phobia, 3 (3%), family advice, and 1 (1%), others. Nonsteroidal anti-inflammatory medications were utilised by 39(39%) of the patients, analgesics by 31(31%), antibiotics by 18(18%), and traditional treatments by 10(10%). Food seasonings, wine, and vinegar were among the other substances eaten by patients. 39(39%) self-medicate with paracetamol, 22(22%) with ibuprofen, 20(20%) with amoxicillin, and 19(19%) with other medications. Almost half of the people (48%) acquired their medications from pharmacies, 40(40%) got them from their first aid kit at home, and 12(12%) got them from roadside sellers.

Conclusion: In our research, we found that self-medication is quite common. The public has to be made aware of the risks associated with drug abuse. The community's drug control policy, both in terms of prescription and availability, has to be strengthened.

Keywords: self-medication; dental pain; drugs

ISSN: 0975-3583,0976-2833 VOL13, ISSUE 05, 2022

Introduction

Instead of seeing a doctor, patients who self-medicate may rely on guidance from a pharmacist or another layperson. This includes getting medications from unofficial sources, reusing old prescriptions to buy medications, giving or receiving medications from friends, family, and acquaintances, and utilising medications that have expired because they were not properly disposed of. Newspapers, periodicals, TV, radio, and even social media may all provide suggestions for self-medication. Medication already recommended by a doctor, as well as recommendations from friends, relatives, pharmacists, and neighbours. [1,2] In many parts of the globe, people treat their own medical conditions by taking medicine without the help of a doctor. Depending on the demographics of the sample population and the age range, the rate of self-medication may be higher or lower. Numerous studies show that self-medicating is prevalent among citizens of both industrialised and developing nations. The practise of self-medication has gradually been acknowledged as a vital component of the healthcare system. Self-medication has become more viable as a treatment option because of rising levels of public consciousness, education, and economic stability in many countries. Self-medication for general health issues was reported by 68–78% of the population in three European countries, whereas it was recorded by 80–94.5% of the population in many Asian countries. [3,4] Estimates put the rate of self-medication anywhere from 80 to 100 percent in countries throughout Africa, including Cameroon, Nigeria, and Egypt, and at 98 percent in Palestine. Headaches, coughs, fevers, and pains accounted for a large percentage of self-medication cases. Sixth, studies in India and Nigeria show that the majority of people in those countries treat their own oral health problems using home remedies. [5,6] Self-medication is commonplace, and the majority of the time, this involves the use of non-prescription or "over the counter" (OTC) drugs. Accurate medical data must be used to ensure the supply of these drugs. When health care personnel or services are understaffed, insufficient, or unavailable, the WHO has advocated responsible self-medication in rural and remote places for effective and speedy treatment of certain common diseases. The Top Benefits of Lack of time, money, or access to healthcare services are all reasons why people choose to self-diagnose and self-medicate rather than seek proper professional healthcare guidance.[7] There is some evidence that responsible self-medication may help cut down on medical expenses, trip durations, and doctor visits. [8,9] However Several studies on the topic show that there are risks associated with self-medication, including incorrect diagnosis, drug resistance or improved pathogen resistance, overdose, improper dosing, prolonged use, drug interactions, and polypharmacy. [10,11] Self-medication is also often used as an alternative treatment for a variety of dental issues, including pain, gingival bleeding, discomfort, and bad breath. Many people with pulpalgia seek relief from their discomfort with medical advice, alternative therapies, self-medication, or the use of clove oil, cigarettes, and aspirin. More so, current research has revealed that up to 70% of people who have tooth pain continue to complain even after they have self-medicated with painkillers. [12-15]

Methods and materials

After obtaining ethical approval, this investigation was carried out in the dentistry department. 100 adult patients who came to the dental department for the first time with dental discomfort. To obtain data from the patients, a systematic, pre-tested open-ended and

ISSN: 0975-3583,0976-2833 VOL13, ISSUE 05, 2022

closed-ended questionnaire was employed. The questionnaire was used to collect information on the respondents' socio-demographic status, the duration of self-medication, the reasons for resorting to self-medication, the drug(s) used for self-medication, the source of the drug(s), the type of self-medication, the posology (dose taken) determined, knowledge about the side effects of the drug(s) used, and awareness of the consequences of self-medication.
Data was gathered in Microsoft Excel 2010 and processed in SPSS version 25.0. The data was given in the form of frequencies, percentages, means, and standard deviations. Fisher's exact test was used for comparative statistics, and P 0.05 was deemed significant.

Results

100 of the 120 individuals who came in with tooth discomfort had self-medicate. This includes 45% of employees, 39% of students, 15% of jobless people, and 1% of retired people. In the practise of self-medication, females outnumbered males 65(65%) to 35(35%). A third (30%) of self-medicated patients were between the ages of 25 and 35, with individuals under the age of 25 accounting for the remaining 28(28%). The average age was 36.11±2.55.

Table 1 Demographic Profile

Gender	Number	Percentage
Male	35	35
Female	65	65
Age		
below 25	28	28
25-35	30	30
35-45	15	15
45-55	15	15
above 55	12	12
Students	39	39
Employed	45	45
Unemployed	15	15
Retired	1	1
Educated	64	64
Uneducated	36	36

40(40%) of patients self-medicate due to discomfort, 26(26%) due to financial constraints, and 19(19%) due to a lack of time to contact a dentist. 11 (11%), dental phobia, 3 (3%), family advice, and 1 (1%), others. (Table 2)

Table 2: Reasons for self-medication.

Reasons	Number	Percentage
Unbearable pain	40	40
Financial difficulties	26	26
Lack of time	19	19

ISSN: 0975-3583,0976-2833 VOL13, ISSUE 05, 2022

Dental phobia	11	11
Advice from family	3	3
Others	1	1

Nonsteroidal anti-inflammatory medications were utilised by 39(39%) of the patients, analgesics by 31(31%), antibiotics by 18(18%), and traditional treatments by 10(10%). Food seasonings, wine, and vinegar were among the other substances eaten by patients (Table 3)

Table 3: Drug class used for self-medication

Drug class	Number	Percentage
Non-steroidal anti-inflammatory drugs (NSAIDs)	39	39
Analgesics	31	31
Antibiotics	18	18
Traditional medicine	10	10
Mouthwash	1	1
Others	1	1

39(39%) self-medicate with paracetamol, 22(22%) with ibuprofen, 20(20%) with amoxicillin, and 19(19%) with other medications.

Almost half of the people (48%) acquired their medications from pharmacies, 40(40%) got them from their first aid kit at home, and 12(12%) got them from roadside sellers.

More than half (60%) self-medicate willingly without any guidance, 30(30%) with the advice of family and friends, 4(4%) with the advice of a non-certified medical staff, 3(3%) with the advice of a nurse, and 3(3%) with the advice of a pharmacist. A few others identified a roadside seller and the internet as additional sources.

The posology (drug dose) was largely established by the consumers themselves (25%), 20(20%) by pharmacists, 20(20%) by family and friends, 10(10%) by reading the medication booklet, 8(8%) by the drug vendor, 7(7%) by existing prescriptions from earlier dental appointments, and 6(6%) by a doctor (Table 3).

Table 4: Determination of the self-medicated drug dosage

Ways by which drug dosage were determined	Number of respondents	Percentage (%)
Instinct	25	25
Pharmacist	20	20
Family-friends	20	20
Drug leaflet	10	10
Drug vendor	8	8
Old prescription	7	7
Doctor	6	6
Nurse	5	5
Internet	3	3

ISSN: 0975-3583,0976-2833 VOL13, ISSUE 05, 2022

75 (75%) of patients were unaware of the risks of self-medication, 25 (25%) reported microbiological resistances, 2(8%) allergies, 3(12%) dizziness, 2(8%), stomach ulcers, 5(20%), and drug overdose 13(52%).

Discussion

The immediate demand for palliation of pain, discomfort, or mental distress has a lot of methods of affecting the health seeking behaviours. Self-medication accounts for only around 5–10% of medicine sales in industrialised nations due to stringent pharmacovigilance regulations. [16] Self-medication was used by 83.33 percent of participants in this research. This is a really high number, and it's consistent with the findings of Anyanechi et al. from a Nigerian city. [17] The lack of convenient oral health care options may be contributing to the high rates of self-medication. In an earlier research conducted in Cameroon, Agbor and Azodo discovered a high incidence of self-medication, and one of the main reasons was the ease with which people could get drugs that did not need a prescription. [12]

Women may have been overrepresented in this research because of the prevalence of dental anxiety and a lower average pain tolerance among females. Despite the fact that women are more likely to seek medical attention, their greater familiarity with pharmaceuticals may lead them to resort to self-medication. [17,18] Patients between the ages of 25 and 35 accounted for one-third (30%) of the self-medicated population in the current research, with those younger than 25 making up the next largest age group, with 28(28%) of the sample. The average age was 36.112.55 years. This demographic consists of busy, productive adults who don't have time to see a dentist but will try to treat their pain on their own first if it becomes bad enough. One possible explanation is that young people' eating habits and consumption of cariogenic foods contribute significantly to the prevalence of dental caries, the most common cause of tooth discomfort among this age group. These findings are in line with the findings of Azodo and Ololo (with a sample age range of 21–30) and Anyanechi et al. (with a sample age range of 28–37). [17,19]

Pain led to self-medication in 40% of the patients. Earlier research by Souaga et al., Azodo and Ololo, and Anyanechi et al. reported the same thing. 16,17,19 Patients often only go to the dentist when the pain becomes intolerable, and self-medication is seldom effective. [12,16]

Another issue patients indicated was the expensive expense of dental care, which drove them to try home remedies. Agbor and Azodo found the same thing. [12,16] Patients also mentioned a shortage of time while discussing their experiences at the dentist's office. They chose self-medication because they were too busy going about their everyday lives to make an appointment. Similar findings were found in a research by Anyanechi et al., who found that 18.7% of people self-medicated because they didn't have time to see a doctor. 16 Agbor and Azodo and Souaga et al.[12,19] also found that 11% of patients admitted to being terrified of dentists and only sought consultation when in severe pain. Some people avoided going to the dentist because they were under the impression that extractions were the only kind of care offered there. Souaga et alresearch .'s in Ivory Coast demonstrated this (11.54%). [19]

Non-steroidal anti-inflammatory medicines (NSAIDs), antipyretic analgesics, and antibiotics were the most regularly utilised medications among patients in our research. Our data showed that 39% of participants used paracetamol, 22% used ibuprofen, 20% used amoxicillin, and 19% used other medications. This finding is consistent with the work of souaga et al.19 and

ISSN: 0975-3583,0976-2833 VOL13, ISSUE 05, 2022

Anyanechi et al.16. The fact that these people complained of discomfort and that these medications are readily available at pharmacies and other businesses may account for this. However, in the study conducted by Azodo and Ololo, analgesics were shown to be the most popular medication, with 39 (17.1%) of the patients also using antibiotics such amoxicillin and 9 (3.9%) using tetracycline. However, nonsteroidal anti-inflammatory medications were not employed in this investigation. [17] This may still be attributable to differences in research population and behavioural norms. In contrast to the results of Agbor and Azodo and Simon et al., in India, who found that traditional medicines were the second most utilised medication, our research found that only a small percentage of participants really took such remedies. [12,20]

Nearly half (48%) received their medicine from pharmacies, while 40% relied on their own first-aid kits and 12% bought medications from street sellers. This is much lower than the results observed by Agbor and Azodo (64.5%) in Cameroon and Giriraju (86.5%) in India. [12,18] Drugs are more reasonably priced outside of the pharmaceutical industry, which is why the vast majority of individuals did not have health insurance to cover their medical problems and prescriptions. Some people (16.3%) bought drugs from street sellers, marketplaces, or transportation vehicles; the rest relied on medications stored in their homes' pharmacies. Agbor and Azodo obtained 26.1% for roadside sellers and 5.3% for street vendors, whereas Souaga et al., in Ivory Coast, found that 14.10% of their study population purchased drugs on the streets or market areas. It's clear that people are buying narcotics from strangers by the side of the road, which is risky since the medicines may be counterfeit or outdated. More laws and more regulation of the drug trade are needed in our area. To the opposite of what has been found in previous research, none of the patients in our study relied on alternative medicine practitioners for their pharmacological needs. [12,19] Patients who relied on traditional treatments (herbs like thyme and cloves, mango bark) often obtained them from a trusted family member or friend.

Sixty percent of those who self-medicated did so without consulting a doctor, thirty percent followed the recommendations of friends and family, four percent sought the counsel of an unlicensed healthcare provider, and three percent received recommendations from a pharmacist or nurse. The internet and street vendors were cited by some as additional resources. Drug merchants selected the dosage for the others who self-medicated. This is supported by the data showing that while knowing they should seek professional help, three quarters of respondents instead choose to self-medicate. Evidence from many research shows that people turned to pamphlets, family, and friends for health guidance. [17,18,21]

Seventy-five percent of patients in this study were unaware of the risks associated with self-medication; twenty-five percent of patients cited microbial resistances; two percent cited allergies; three percent cited dizziness; five percent cited gastric ulcers; and thirteen percent cited drug overdoses. This is concerning since irresponsible use of certain medications, such antibiotics, may create harmful side effects like drug resistance and addiction as well as hepatotoxicity and gastrointestinal problems. [20,22]

Conclusion

In our research, we found that self-medication is quite common. The public has to be made aware of the risks associated with drug abuse. The community's drug control policy, both in terms of prescription and availability, has to be strengthened.

ISSN: 0975-3583,0976-2833 VOL13, ISSUE 05, 2022

References

1. Shah SJ, Ahmad H, Rehan RB, Najeeb S, Mumtaz M, Jilani MH et al. Self-medication with antibiotics among non-medical university students of Karachi: a cross-sectional study. BMC Pharmacology and Toxicology. 2014;15(1):1-7.
2. Komalraj MR, Bhat PK, Aruna CN. Self medication practices for Oral health problems among Dental patients in Bangalore: a cross sectional study. IOSR Journal Of Pharmacy. 2015; 5(10):68-75.
3. Shah AP, Parmar SA, Kumkishan A, Mehta AA. Knowledge, attitude and practice (KAP) survey regarding the safe use of medicines in rural area of Gujurat. Adv Trop Med Public Health 2011;1:66- 70.
4. Al-Worafi Y.A., Long C., Saeed M., Alkhoshaiban A. Perception of self-medication among university students in Saudi Arabia. Arch. Pharm. Pract. 2014; 5:149–152.
5. Anyanechi C, Saheeb B. Toothache and self-medication practices: A study of patients attending a niger delta tertiary hospital in Nigeria. Ann Med Health Sci Res. 2014;4(6):884- 8.
6. Mohammadi N, Dehghani M, Emad S, Dehghani Z, Abedi S, et al. Prevalence of Self-Medication with Analgesics Among People Referring to Outpatient Dental Clinics in an Iranian Population, Int J High Risk Behav Addict. 2019; 8(3):e89423.
7. Asha V, Yadav KD.Knowledge, attitude and practice of using antibiotics as self-medication among non-medical graduates. International Journal of Dental Research 2017;5:101-102.
8. Bennadi D (2013) Self-medication: A current challenge. J Basic Clin Pharm 5: 19-23.
9. Pandya RN, Jhaveri KS, Vyas FI, Patel VJ. Prevalence, pattern and perceptions of self-medication in medical students. Int J Basic Clin Pharmacol. 2013;2(3):275-80.
10. Togoobaatar G, Ikeda N, Ali M, Sonomjamts M, Dashdemberel S, Mori R & Shibuya K. Survey of nonprescribed use of antibiotics for children in an urban community in Mongolia. Academic Journal. 2010; 88: 877- 953.
11. Rawlani SM, Rawlani S, Bhowte R, Degwekar S, Rawlani S, et al. Prevalence of self-medication among dental patients in rural area of Maharashtra, India: A cross-sectional study. Indian J Oral Sci. 2015; 6(2):51.
12. Agbor MA, Azodo CC. Self-medication for oral health problems in Cameroon. Int Dent J. 2011; 61(4):204–9.
13. Khalil H., Abdullah W., Khawaja N., AlSalem A., AlHarbi S., Salleeh H.B., Shah A.H. Self-prescribed antibiotics by Saudi patients as a routine self-management of dental problems. Life Sci. J. 2013;10:1939–42.
14. Aldeeri A, Alzaid H, Alshunaiber R, Meaigel S, Shaheen NA, Adlan A. Patterns of Self-Medication Behavior for Oral Health Problems Among Adults Living in Riyadh, Saudi Arabia. Pharmacy (Basel). 2018;6(1):15.
15. Zahoor A, GoharH, Khan S, Karim A, Niazi A and Zahoor H. Self-medication practices for dental pain in the general population of Pakistan. ejbps, 2021;8(2):288-91
16. Montastruc JL, Bagheri H, Geraud T, Lapeyre-Mestre M. Pharmacovigilance of self-medication. Therapie. 1997; 52(2):105–110.

ISSN: 0975-3583,0976-2833 VOL13, ISSUE 05, 2022

17. Anyanechi C, Saheeb B. Toothache and self-medication practices: A study of patients attending a niger delta tertiary hospital in Nigeria. Ann Med Health Sci Res. 2014; 4(6):884–888.
18. Giriraju A. Perception about self-medication practices for oral health problems among the general population of Davangere city, Karnataka, India. J Indian Assoc Public Health Dent. 2014; 12(3):219.
19. Azodo CC, Ololo O. Toothache among dental patients attending a Nigerian secondary healthcare setting. Stomatologija. 2013; 15(4):135– 140.
20. Jain A, Bhaskar DJ, Gupta D, Agali C, Yadav P, et al. Practice of self- medication for dental problems in Uttar Pradesh, India. Oral Health Prev Dent. 2015; 30(1):5–11.
21. Simon A, Rao A, Rajesh G, Shenoy R, Pai MH. Trends in self-medication for dental conditions among patients attending oral health outreach programs in coastal Karnataka, India. Indian J Pharmacol. 2015; 47(5):524–529.
22. Vidyavati SD, Sneha A, Kamarudin J, Katti SM. Self-medication - reasons, risks and benefits. Int J Healthc Biomed Res. 2016; 4(4):21–24