

Practices of self-medication of dental pain in the general population of india

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Received: 12-12-2020 / Revised: 21-01-2021 / Accepted: 10-02-2021

Abstract

Background: Self-medication is the term used according to one's own diagnosis and not through a medical professional's recommendation to describe the usage and administration of drugs and medication. It has been commonly practiced for a long period of time, particularly because it is cheaper and more convenient for the subject. The increased accessibility and affordability of drugs and prescriptions in pharmacies and medical stores is a major reason why the practice of self-medication is growing. Antibiotic medicines are one of the most common and widely used medicines, and in self-medication, they have also been found to be the most consumed drug. **Objectives:** This research was carried out to study the practice of self-medication in dental pain among India's general population and to assess the extent of people's awareness. **Methods:** This was a cross-sectional descriptive study. The study was performed over a six-month period and data from 150 participants was obtained. The study was community-based, and data from India's general population was collected. **Results:** During their lifespan, 116 (77 %) of the participants suffered from toothache, while the remaining 34 (23 %) did not. 58 (50 %) of those 116 individuals would still seek medical attention, while 36 (31 %) would not. A high prevalence of self-medication in India was seen in our research. Paracetamol, which is a strong analgesic, was the most popular drug taken. **Conclusion:** In order to decrease the practice of self-medication, health care services should be made readily available and accessible to everyone and also at reasonable rates.

Keywords: Self-Medication, Prescription drugs, Toothache, Oral hygiene.

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Introduction

Self-medication is a universal phenomenon and is practiced internationally in European countries with varying frequencies of up to 68% and even higher in low and middle-income countries with rates of up to 92% [1,2]. It is also worrying that, despite attempts to limit this problem, the prevalence rates are on the increase. Self-medication involves taking medications without a doctor's recommendation and receiving help from unqualified dentists on the roadside [3]. Different cultures have distinct ways of treating themselves or getting support from family members when people experience some physical pain or emotional distress. Basic health care, including dental treatment, is also part of a pluralistic medical system accessible in remote and impoverished areas that operates with conventional medicine, including self-care with medicinal plants and consultation with traditional healers. Self-medicine advantages include decreased possible frequency of clinic visits, improved patient control, and reduced costs [4,5]. However, these alternative medical methods do not require a qualified medical practitioner to clinically diagnose the disease, which may result in missed diagnosis, delays in adequate successful care, adverse drug reactions, and increased risk of drug toxicity as a result of overdose [6]. Toothache is a rather agonizing experience, and through medical therapy,

complementary treatments, self-medication or application of clove oil, nicotine and Aspirin tablets, those who experience pulpalgia seek relief. Other causes of self-medication include low socioeconomic status, high cost of modern medical treatments and problems that often occur in accessing modern health care, easy drug availability over the counter, unregulated sales, economic & time constraints, family & friends impact, pharma-ceutical media campaign, lack of awareness, lack of good primary health care system [7,8]. Self-medication is the term used according to one's own diagnosis and not through a medical professional's recommendation to describe the usage and administration of drugs and medication. It has been commonly practiced for a long period of time, particularly because it is cheaper and more convenient for the subject [9,10]. Instead of pursuing proper professional health care advice, the move towards self-diagnosis and prescription is directly related to the lack of time, resources, or accessibility of health care facilities, as well as religious or cultural convictions and previous treatment for a similar condition [11,12]. There are, however, many self-medication problems and disadvantages, including misdiagnosing the issue, generating drug resistance by misusing the medication, and, most importantly, wasting certain resources. The increased accessibility of medications and drugs in pharmacies is a major reason why the practice of self-medication is growing [13,14]. Antibiotic medicines are one of the most common and widely used medicines, and in self-medication, they have also been found to be the most consumed drug. This is possibly due to the fact that the general public is not aware of the mechanism of action and, in particular, of the antibiotic drug resistance concept. Many research have been carried out on the

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question of self-medication, as it is an important topic that needs to be properly addressed. A significant step in controlling this problem is to educate the general public and raise knowledge about the side effects and disadvantages of self-medication. In India, this research was carried out to determine the extent of self-medication practice and the types of drugs consumed in cases of dental pain and toothaches [15]. This research was carried out to study the practice of self-medication in dental pain among India's general population and to assess the extent of people's awareness.

Materials and methods

This was a cross-sectional descriptive study. The study was performed over a six-month period and data from 150 participants was obtained. The study was community-based, and data from India's general population was collected.

Inclusion criteria: The study included participants of both genders, aged 12 and above.

Criteria for exclusion: Individuals under the age of 12 and those who were not able to take part in the study were excluded. Also omitted were dentists and other medical practitioners.

Sampling technique and collection of data: Consecutive sampling technique was used and data was collected over a six-month period from 150 participants. Consent from each enrolled subject was received. Patients were interviewed on the basis of a questionnaire highlighting age, gender, income and educational qualifications, prior practice background, drugs used and causes of self-medication.

Statistical analysis: On a preformed questionnaire, all information was collected and statistical analyses were then performed using

SPSS version 25 (Statistical Package for the Social Sciences, SPSS Inc. USA).

Results

40 (27 %) were male and 110 (73 %) were female out of 150 participants participating in our research. The age range was 14-60 years, with an average of 28 years (SD 7.23). 110 (73 %) of the participants were mainly graduates. During their lifespan, 116 (77 %) of the participants suffered from toothache, while the remaining 34 (23 %) did not. (Table 1) 58 (50 %) of those 116 individuals would still seek medical attention, while 36 (31 %) would not. Depending on the pain, the majority of them, namely 22 (19 %), will periodically seek medical advice. (Table 2) 87% of respondents agree that toothaches may become complicated and may intensify in the future, while the remaining 1% of respondents were not sure of that. When we asked the study participants about the dentist's consultation for toothache, 75 % of people believe that consultation should only be performed in serious cases, but 24 % believe that it is mandatory. Just 1 % assumes that it is not appropriate for the study participants. Maximum of the study participants' i.e. 61% used paracetamol for relieving pain followed by ibuprofen in 41 % individuals. 40 % of the individuals used some or the other kind of a home remedy along with drugs. 21 % of the individuals injudiciously used antibiotics without any prescription. However it was found out that overall maximum %age of the study participants were using combination of drugs & various therapies for toothache (Table 3).

Table 1: Number of individuals who suffered from toothache

Consultation	Number of individuals who suffered from toothache (n= 116)
Regularly	58
Occasionally	22
Never	36

Table 2: Individuals taking self-medication for toothache

Individuals taking self-medication for toothache	(n= 116)
Yes	42
No	42
Sometimes	32

Table 3: Over the counter medication usually taken

Over the counter medication usually taken	% age (n= 116)*
Antibiotics	32 (21%)
Paracetamol	92 (61 %)
Ibuprofen	62 (41 %)
Homeopathic medicines	8 (5 %)
Home remedies	40 (27%)

*multiples entries were there.

Discussion

A high prevalence of self-medication in India was seen in our research. Paracetamol, which is a strong analgesic, was the most popular drug taken. Home remedies are often widely used by individuals and, due to fewer risks of side effects and complications, are at least a safe option. The prevalence of self-medication was also high at 42% in a similar study conducted in Nigeria[6], and they also found, like our findings, that analgesics were the most commonly taken drug in another Nigerian study[7]. A high degree of self-medication was also seen in numerous other studies, such as the study by Baig et al[8] and Komalraj et al[9], where prevalence rates were 57 % and 100 %, respectively. In his study, Cohen LA[10] demonstrated that 80% of the population of the sample used home remedies (clove oil, salt water, alcohol and tobacco) to alleviate tooth pain. Chemical burning of mucosa is caused by the topical application of aspirin tablets, and tobacco is a predisposing factor for squamous cell carcinoma. For many factors, care by these non-qualified dentists can be harmful[11,12]. They are typically illiterate and are not likely

to carry out proper infection prevention measures; thus, their patients have a high propensity for the transmission of diseases such as HIV/AIDS and hepatitis B, C[13,14]. They often offer false hope to people; therefore, it may be caustic or even potentially carcinogenic to delay pursuing proper medical treatment and the constituents of concoctions they prescribe (which are typically not disclosed) [15,16]. The key source of medicine was found to be pharmacies, which is close to previous studies in Saudi Arabia (94%)[17], India (86%)[9], Cameroon(56%)[18] and Brazil (46%)[19]. Self-medication was also found to be more common among married respondents, comprising more than half of the respondents (72%). The findings of the present survey show that in the general population, oral self-medication is a widespread experience [20,21]. The prevalence of self-medication in our sample was lower than in studies in Palestine (87%)[22] and Chile, according to related studies(75%)[23]. Analgesics (especially over the counter and non-opioids) are among the most widely used medications worldwide [24]. Potential deleterious side effects can still be identified, considering the

relatively low risk associated with most over-the-counter analgesics. More than 94 % of the participants in our sample population had the impression that analgesics had no side effects. It can also be inferred that it can preclude self-medication to warn individuals about the side effects of analgesics[25,26].The self-report questionnaire, which could challenge its overall reliability, was one of the limitations of the present study.However, our analysis has been succinct and has many limitations. It was a basic prevalence analysis designed to assess the self-medicating %age of individuals. In order to expand our understanding and thus make necessary improvements to minimize the degree of self-medication, various related factors need to be studied as well.

Conclusion

In our study, the prevalence of self-medication in cases of dental pain was found to be high, with analgesic agents being the most frequently used medication. In order to decrease the practice of self-medication, health care services should be made readily available and accessible to everyone and also at reasonable rates. Some unhealthy habits, such as the usage of concentrated clove oil, cigarettes, topical application of tablet aspirin and care by local tooth healers were still practiced by individuals.Stricter regulations, particularly for prescription drugs such as antibiotics and the eradication of roadside non-qualified dentists, must be ensured by the Indian Dental Council. In addition, to make individuals aware of the risks involved in non-doctor consulting procedures, public enlightenment campaigns need to be strengthened.

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Conflict of Interest: Nil

Source of support: Nil