ORIGINAL ARTICLE

SELF MEDICATION PRACTICE AMONG DENTAL PATIENTS OF AFID: A CROSS SECTIONAL STUDY

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ABSTRACT

To determine the prevalence and cause of self-medication among dental patients, a cross sectional study was conducted on 335 patients of AFID Rawalpindi. Patients were interviewed on basis of questionnaire highlighting age, gender, income and educational qualification, history of past practice of self-medication, substances used and causes of it. Frequency tables were generated and statistical relationship between the variables was analyzed by SPSS version 16. 31.34% of the respondents claimed to be involved in self medication. 48% respondents used self-prescribed antibiotic and analgesics, 22% used clove oil, tobacco or tablet aspirin in tooth cavity, 17% had got their treatment by roadside unqualified dentists and 13% consulted faith healer to relieve tooth pain. 33% felt that their complaints were minor enough to consult dentist, 53% were short of time to visit hospital and were prompted by family members to self medicate, 10% were afraid of dental treatments while only 4% claimed that these were cheaper options for them. Self-medication practices were common in participants of this study. Government should enforce relevant legislation which limits the practice of road side local tooth healers and restricts the sales of drugs without prescription.

Keywords: *Self medication, Antibiotics, Road side unqualified dentist.*

INTRODUCTION

Self medication is a universal phenomenon and practiced globally with varied frequency upto 68% in European countries[1] while much higher in low and middle income countries[2] with rates going as high as 92% in the adolescents of Kuwait.[3] Our neighboring countries have prevalence rates of 31% in India[4] and 59% in Nepal.[5] It is also alarming that the prevalence rates are on the rise despite efforts to limit this problem.[2,6]

Self Medication means taking drugs without the advice of a physician and getting treatment from road side unqualified dentists.[7] When people suffers any physical discomfort or emotional distress, different societies have different ways of helping themselves or getting help from family members. In remote and deprived areas, basic health care, including dental treatment, is often part of a pluralistic medical system available that exists with traditional medicine, which includes self-care with medicinal plants and consultation with traditional healers.[8] Benefits of self medications include decreased potential frequency of physician visits, increased patient autonomy and reduced

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costs. However these alternative medical practices lack clinical evaluation of the condition by a trained medical professional, which could result in missed diagnosis, delays of appropriate effective treatments, adverse drug interactions and increased risk of drug toxicity as result of under or overdosing.[9] Toothache is very agonizing experience and those who experience pulpalgia seek relief through medical counseling, complementary therapies, self-medication or application of clove oil, tobacco and tablets Asprin.[10,11] Other causes of self medication includes poor socioeconomic status, high cost of modern medical treatments and difficulties that often arise in accessing modern health care, easy availability of the drugs over the counter, unchecked sales, economic & time constraints, influence of family & friends, media campaign by pharmaceuticals, lack of awareness, lack of good primary health care system and false claims by road side unqualified persons.[7,10,11]

Some recent studies have stated high rate of 76% and 80% for self medication in university students of Pakistan[2,6] but to the best of author's knowledge none has examined self medication practices among dental patients. The aim of this study was to determine the prevalence of self-medication and to determine factors associated with these practices among dental out patients presenting at a post graduate dental teaching institute.

METHODOLOGY

A cross sectional study was conducted on 335 randomly selected patients (both entitled and non entitled) of either sex attending the Out Patient Deptt (OPD) of Armed Forces Institute of dentistry (AFID) from Oct 2011 to March 2012. Patients, who consented to participate in the survey, were interviewed on the basis of pre-structured questionnaire highlighting age, gender, income and educational qualification, history of past practice of self-medication, substances used and reasons for resorting to self-medication. Patients under the age of 16 years were excluded. Confidentiality of the data and anonymity of participation was ensured to all respondents of the study who had the right to withdraw at any stage of data collection.

Data obtained were analyzed with the SPSS version 16. Frequency tables were generated and statistical relationship between the variables was analyzed using the Chi-square test. Statistical significance was set at $P<0.05$.

RESULTS

A total of 335 patients participated in the study. The age of the respondents ranged between 22 and 50 years, with a mean age of 28.30 ± 6.33 years. 31.34% claimed that they had been involved in self medication previously. 82.85% of those had at least passed secondary school examination while the rest were having education less than that or were non educated. (Fig 1)

In this study most of the respondents (48%) claimed that they had been taking self-prescribed antibiotic & pain killers, 22% used topical application of clove oil, tobacco or tablet aspirin in tooth cavity, 17% were those who got their treatment (filling, fixed partial denture or tooth whitening) by roadside non qualified dentists, 13% had consultation with faith healer (*PEER)* for relief of tooth pain. (Fig 2)

33% of the respondents attributed the fact they felt that their complaints were minor enough for professional consultation or they had easy access to self treatment, 53% were having less time to visit hospital and were prompted by family members and friends. 10% were afraid of dental treatments while; only 4% claimed that these were cheaper options for them. (Fig 3)

DISCUSSION

Self medication is a phenomenon of increasing global relevance. It is now evident that developing countries such as Iran, Sudan, Jordan and Pakistan as well as developed countries such as Spain, Greece, Russia, Romania, Lithuania, USA, Italy and Malta are experiencing many aspects of inappropriate use of medication.[2,6,7,12] This study demonstrated that 31.34% were involved in various forms of self medication, out of which 48% were involved in self medication with antibiotic and analgesics. This proportion is lower than the 79% and 85% for ophthalmic[13] and general out patients reported in Owo town of Nigeria.[14] Other studies in Sudan showed a higher prevalence of 81.8% and 73.9%,[15,16] 48% in Spain, 94% in Hong Kong and 53% in Iran.[7,12] Surprisingly results of the present study were quite lower than a recent survey on univer-

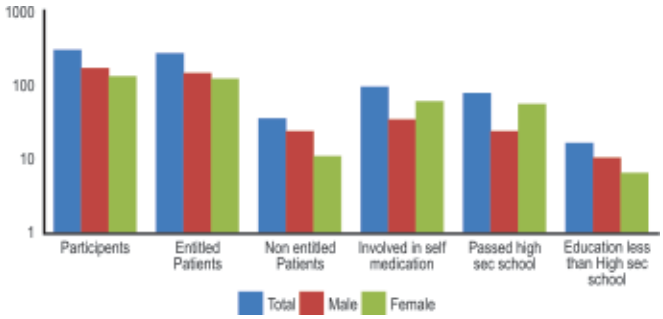

Fig 1

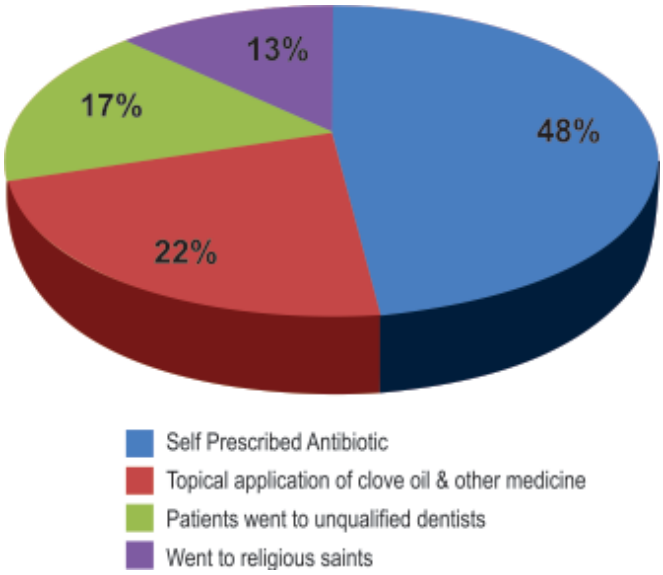

Fig 2 Patients Involved In Self Medication

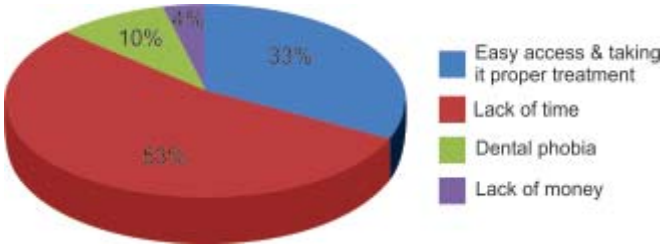

Fig 3 Reasons For Resorting To Self Medication

sity students in Pakistan which shows 80% and 76% for self medication.[2,6] Possible reason for lower number of score may be that most of sample (88.65%) were entitled to free dental treatment.

In the present study 22% were found to involve in insalubrious practices such as use of concentrated clove oil, tobacco or tablet asprin inside tooth cavity to relieve tooth pain. This was in agreement with 21.6% patients found in Ibadan and in Southern India who used concentrated alcohol, battery water and tobacco to relieve tooth pain.[7] Cohen LA had shown in his study that 79.8% of the sample population used home remedy (clove oil, salt water, alcohol and tobacco) to relieve tooth pain. Use of topical application of asprin tablets cause chemical burn of mucosa and tobacco is a predisposing factor of squamous cell carcinoma.[10,11]

17% of sample of this survey used to visit roadside non qualified persons for their dental problems. This is in agreement of 12.2% of the sample in Ibadan who used to visit local healers for consultation.[7] Treatment from these non qualified dentists may be deleterious for several reasons. They are usually illiterates and are not likely to practice proper infection control measures; thus, the potential for spread of diseases such as HIV/AIDS and hepatitis B, C is high among their patients. Also, they give people false hope; hence, delay in seeking proper medical attention and the constituents of concoctions that they prescribe (which are usually not disclosed) may be caustic or even potentially carcinogenic.[7,10,17,18]

This study revealed that 13% of the population visited faith healer (*PEER*) to relieve their dental pain. Sample of this study are more inclined and influenced by the mystic powers of faith healers, who offer remedies for every medical problem through rituals and recitation of specific verses of The Holy Scriptures. Cohen LA in his study showed that 8.1% of the sample population reported to faith healers to pray in order to relieve odontolgia while 75.4% prayed Allah to relieve their tooth pain.[10]

In this study 68% females were involved in self medication compared with their male counterparts. This was in agreement with the study of Awad et al.[7,15,16] It is generally believed that women are more health conscious and have better health practices than men, but they also have lower pain threshold and are more likely to be scared of dental procedures, moreover females are more emotional and get easily black mailed by unqualified dentists and faith healers (*PEER*) so this may have been the reasons for the significantly higher percentage of females used self medication in this study. This is supported by other studies where higher percentage of females involved in self medication.[7,19,20,21]

In this study 33% of respondents attributed reason for self medication to the fact they felt that their complaints were minor enough for professional consultation or they had easy access to self treatment. This proves the level of ignorance among study population where more than 82.85% are educated. 53% of the sample claimed that were having no time to visit dental clinic and were prompted by family members and friends who had good past experience with the medication or have easy access to these modes of treatment. Cohen LA showed in his study that 62.5% of the population was compelled by relatives and friends to take home remedies to relieve pulpalgia instead of going to dentists.[10] In this study 10% population were afraid of dental treatment. This ratio is high than that recorded in Burkina Faso (4%) but in a study on West Indian adults shown that dental anxiety caused over a third of the participants to avoid dental treatment.[20,22] Only 4% in this survey claimed that they were not able to afford the costly dental treatment which is much less than in Burkina Faso (69.3%) because most of sample of this study were having entitlement for free dental treatment.[22]

Most (82.85%) of the respondents who had been involved in self medication had at least passed secondary school examination while the rest were having education less than that or were non educated. It is also worthy to note here that participants of this survey belong to the educated class and entitled for free dental treatment and if the prevalence of self medication is so high in people who are aware of its dangers, then the prevalence in the rest of the people maybe an even more serious cause for concern. This was corroborated by many other studies[7,15,23] that showed that educational variables were major contributors to self-medication practices, with higher education being associated with the tendency to engage in self-medication. It has also been shown by recent studies that familiarity and easy access to certain pharmaceuticals are determinants for self medication. This brings us to the issue of advertising of medicines by pharmaceutical companies (like *home dentist, one paste for all dental problems*). Although it was not researched in this study, previous research[24,25] has demonstrated that advertising directly affects the youth decision to self medication. Thus further research and strict rules and regulations also need to be placed in this regard.

CONCLUSION

Self-medication practices were high in this study and the most disturbing findings were the high prevalence among educated people and the fact that people still indulged in some unwholesome practices such as use of concentrated clove oil, tobacco, topical application of tablet asprin and treatment by local tooth healers. The Pakistan Medical & Dental Council (PMDC) need to ensure stricter regulations, particularly with prescription drugs such as antibiotics and eradication of road side non qualified dentists. Furthermore, public enlightenment programs need to be intensified to make people aware of the dangers inherent in non-doctor consultation practices.

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