ORIGINAL ARTICLE

Practices of Self-Medication for Oral health Problems in Dental Patients of Peshawar: Hospital based study

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Abstract

Introduction: Self-medication is termed as the use of medicines or its substitutes without the prior consultation or suggestion of the healthcare providers. The center for disease control and prevention estimated the prevalence of oral health problems 26%. The WHO estimated 50-70% of Pakistani population with dental caries. With the high prevalence of Oral health problems, the increase in practice of self-medication is likely.

Objectives: To assess the description of practices of Self Medication among the dental patients of Peshawar for oral health problems. The secondary objective was to determine factors of self-medication practice and ignorance to purse treatment for oral health problem.

Methodology: It was a cross sectional analytical study. 377 participants were included in the study. The data was collected from two dental colleges and three dental departments in the Peshawar city. Convenient sampling technique was used, and data was collected through a pre-tested questionnaire. The participants' minimum age was 18 years. The questionnaire included three parts one for the sociodemographic data, second for the practices of self-medication and the later part was about the awareness of oral health hygiene.

Results: Practice of self-medication for all health-related problems was statistically significant for education status with P=0.02. The participants reported causes of Self-medication as swelling 42.7%, dental caries 40.6% and bleeding gums 16.7%. Age P=0.00 and occupation status P=0.00 were found highly significant with causes of self-medication. The sources of information for self-medication were family members 40.6%, pharmacy 25.7%, friends 22.3% and social media 11.4%. It was found highly significant with occupation status P=0.00. Reasons for self-medication were pain severity 34%, poor access to dental care 29.2% and cost of healthcare 21.5%. It was associated with occupation status by P=0.00. The awareness about oral health hygiene was recorded well in 62.1% of participants, poor in 28.6% and excellent in 9.3% of participants.

Conclusion: The results showed practices of self-medication for all health-related problems in 60% of the patients, and 52% in the patients for oral health problems. The health authorities and health awareness and promotion interventions need to be focused on this issue.

Keywords: Self-medication, oral health, dental, toothache

Introduction:

Self-medication is the practice of a patient taking medication without first seeing a doctor, either on their own initiative or at the suggestion of a doctor, a dentist, pharmacist, or other authority figure.[1-3] It covers non-drug self-treatment, self-medication, social support during disease, and first aid in daily life.[4]

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Around the world, self-medication is a popular habit. [5-7] Self-medication has advantages such as lower expenses, more patient autonomy, and possibly fewer doctor visits. Nevertheless, the clinical assessment of the ailment by a qualified medical expert is absent from these alternative medical methods, which could lead to improper drug interactions, delayed delivery of suitable, effective treatments, and missed diagnoses. [8-9]

Aside from dental anxiety stemming from a phobia of dentists and their work, toothaches are the most common symptoms in the dental field that could lead a patient to start taking medicine on their own. [10-11] As a result, there is increasing evidence that self-medication among dental patients who have experienced toothaches is widespread in developing nations, even though it has a negative clinical effect on the dentition. [12]

The objective of this study was to determine the prevalence of self-medication for oral health issues among dental patients in Peshawar, as well as to pinpoint triggering factors that may have an impact on these practices, which medications are used frequently, sources of information about medication used, and reasons for self-medication.

Methodology:

It was a cross sectional analytical study. This study was conducted in the city of Peshawar, the capital of Khyber Pakhtunkhwa. The sample size was calculated through the online software of RaoSoft. The population was determined as 1 million, with 50% of the prevalence, when the prevalence of the disease is not clear within the population settings. The confidence interval was kept at 95% with a 5% of bound error. The calculated sample size with a 10% of refusal rate was 377. 377 participants were included in the study. 51.2% female and 48.8% male participants. The data was collected from two dental colleges: Sardar Begum Dental College and Peshawar Medical College and three dental departments in the Peshawar city. Convenient sampling technique was used, and data was collected through a pre-tested questionnaire. The data was collected from the 1st of November 2021 to the 30th of January 2022. The questionnaires were arranged, and data were entered into the SPSS (Statistical Package for Social Sciences) version 22. The participants' minimum age was 18 years. The questionnaire included three parts one for the sociodemographic data, second for the practices of self-medication and the later part was about the awareness of oral health hygiene.

Results:

The practice of self-medication for all heath related problems as noted in 60.7% of the participants. It was recorded 65.28% in the female participants and 51.2% in the male. (figure1)

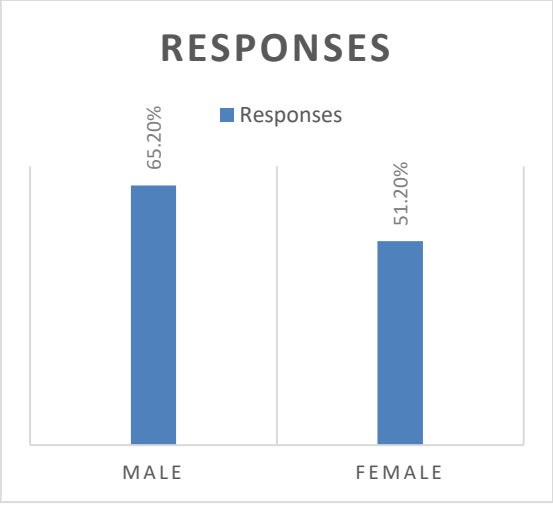

Figure 1: Graphic representation of gender wise distribution of responses.

Three hundred and seventy-seven participants were recruited for the study. Out of which one hundred and ninety-three with fifty-one percent were female participants and the remaining approximately forty-nine percent were male participants.

Participants were divided into four groups based on age. The first group was comprised of participants aging from fifteen to twenty-five years of age. The second group was from twenty-six to thirty-five years of age. The third group ranged from thirty-six to forty-five years of age and the last group was comprised of the participants above the age of forty-five years of age.

Table 1: Age Groups of the Participants

Age	Number	Percentage
15-25	121	32.1
26-35	129	34.2
36-45	50	13.3
45 & above	77	20.4
Total	377	100.0

Practice of self-medication for all health-related problems was statistically significant for education status with P=0.02. Practice for oral health problems was recorded in 52% of the participants. 50% in the male and 50% in the female participants.

Practice of self-medication for oral health problems and occupation status were statistically significant by P=0.00. 48.3% had practiced it once in the last year, 37.4% twice, 10.3% five to seven times in the past year and only 5% had practiced it more than eight times. Occupation status was found statistically significant for practice of self-medication with P=0.02. 39.5% of participants had practiced antibiotics and 60.5% practiced painkillers as self-medication. Antibiotics us was 55% in female and 45% in male participants. Painkillers were used in 51.3% of male and 48.7% female participants. 34.5% of participants were regularly using painkillers. Age P=0.00, education level P=0.00, and occupation status P=0.00 were associated with use of painkillers on daily basis.

The participants reported causes of Self-medication as swelling 42.7%, dental caries 40.6% and bleeding gums 16.7%. Age P=0.00 and occupation status P=0.00 were found highly significant with causes of self-medication. (figure 2).

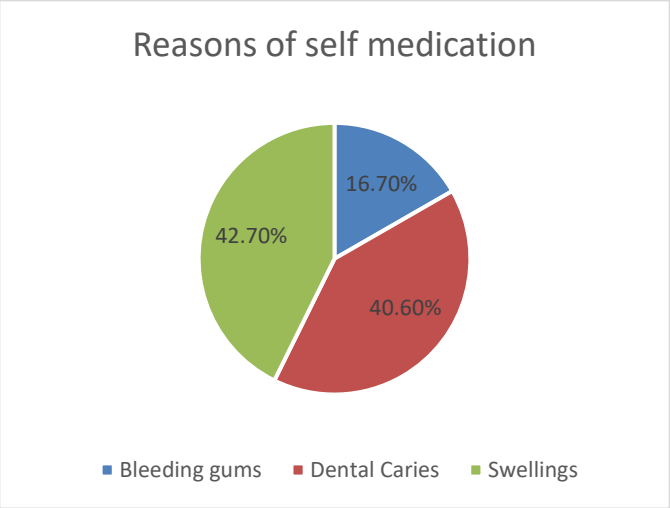

Figure 2 Graphic presentation of reasons of self-medication

The most frequency was recorded in the group of participants that were having PSM twice a day. The percentage in this group was recorded as thirty-nine percent with one hundred and forty-seven participants. The second major group with a high FSM was recorded in the group "Don't know". This group had ninety-five participants with twenty-five percent of participants. Use of SM in the group of "once a day" was recorded in ninety-three participants with a percentage of twenty-four. The least frequency was noted in the "weekly" group which had a percentage of eleven and some forty-two participants.

The sources of information for self-medication were family members 40.6%, pharmacy 25.7%, friends 22.3% and social media 11.4%. Education status P=0.00, and occupation P=0.00 were found associated with the sources of information for self-medication. 41.4% of respondents had prescribed medications to family members. Application of topical medication for toothache relieve was practiced by 42.2% of participants. It was found highly significant with occupation status P=0.00. Reasons for self-medication were pain severity 34%, poor access to dental care 29.2% and cost of healthcare 21.5%. It was associated with occupation status by P=0.00. The awareness about oral health hygiene was recorded well in 62.1% of participants, poor in 28.6% and excellent in 9.3% of participants.

Discussion:

The results showed that the highest percentage of PSM was in the higher education groups. The correlation showed a small negative association between the education status and the PSM for all HRC. Although the P-value was 0.50 as P>0.05, the result was not statistically significant. The results of Gowdar *et al.*, 2021[13] showed a positive association between education level and PSM. The study recorded 68% of PSM in the graduates. Dhedhi *et al.,* 2021[14] stated 76.3% of PSM in the participants that had completed conventional schooling. In the study of AlQahtani *et al.*, 2022 [15] 99% of the population were literate and 50% of the participants were graduates.

For the use of painkillers on regular basis, 34.5% of participants were found using it, and 65.5% were not found to use painkillers regularly. The chi-square for age was P=0.00, which showed a highly significant value. The correlation was -0.75 which showed a small negative association. The level of significance was 0.14, that is P>0.05. The chi-square for gender was P=0.10, which was not significant. The correlation was 0.62 which showed a small positive association. The level of significance was 0.22, that is P>0.05. The chi-square for education status was P=0.00, which showed a highly significant value. The correlation was -0.25 which showed a small negative association. The level of significance was 0.62, that is P>0.05. The chi-square for occupation status was P=0.00, which showed a highly significant value. The correlation was 0.00 which showed no association. The level of significance was 0.88, that is P>0.05. The PSM in the pharmacy students was assessed by Alduraibi & Altowayan in 2022 [16], the study stated the PSM in 63.9% of the participants in the last 6 months. The study found that the most prevalent drug in PSM was painkillers with a percentage of 88%. It was followed by Abs with 34.81%. The PSM for pain killers was reported at 68.8% by Gowdar *et al.* in 2021(13). The studies of Zareef *et al* in 2018[17], Baig et al. in 2012. [18] Shamsudeen et al., 2018 [19], and Sen Tunc et al., 2021[4] studied the various PSM for OHP, but the FSM on regular basis hasn't been reported.

The highest prevalence of 42.7% was recorded for swelling, followed by 40.6% in dental caries and 16.7% for bleeding gums. The PSM for causes of OHP had a correlation of -0.84 that showed a small negative association. The significance for association was 0.10 which is P>0.05. Although the Chi-square showed a highly significant value of P=0.00. For the gender the correlation was -0.60 which showed no association to a small negative association. The value of significance was 0.24 which is P>0.05. The chi-square result was not significant with P=0.40. The education status was too found not significant with a chi-square result of P=0.27 is P>0.05. The correlation was 0.10 which showed a small positive association and was found significant with P=0.03. The occupation status had a chi-square high significance of P=0.00. The association was -0.1 which was a small negative association. The level of significance was found P=0.00. Gowdar *et al.*,in 2021 [13] studied toothache as the main variable and found it cause of PSM in 62% of the participants. Contrary to our findings AlQahtani *et al.,*in 2019(15) studied two variables of OHP and toothache to assess the PSM.

Conclusion:

The results showed practices of self-medication for all health-related problems in 60% of the patients, and 52% in the patients for oral health problems. Severity of pain, poor access to dental care and availability of drugs at pharmacies in the proximity were found the associated factors for practices of self-medication. The health authorities and health awareness and promotion interventions need to be focused on this issue.

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Author Contributions

1. Kamran Shah- Literature Review, and Data collection,
2. Rab Nawaz- Literature review, Conceptualization and Methodology of Study
3. Abdul Basit- Manuscript Writing, and Data Analysis
4. Omer Rahim Khan- Literature Review and Data Interpretation