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INVESTIGATION ON AWARENESS, KNOWLEDGE AND ATTITUTES OF PATIENTS REGARDING ANTI-BIOTICS AND NON-NARCOTIC ANALGESICS

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ABSTRACT

A patient may experience adverse side effects from the misuse of antibiotics and non-narcotic analgesics. An investigation of whether patients are aware, knowledgeable, and feel comfortable using antibiotics and non-narcotic analgesics at the dentist was undertaken in this survey. Using similar surveys, 20 questions were incorporated into the questionnaire. Patients of the Department of Endodontics were asked to fill out a validated self-administered questionnaire. One operator gave the questionnaires and retrieved them. No personal information was collected about the patients. Accessibility, attitude toward usage, efficacy, side effects, resistance, and dental use were questioned in the questionnaire. We were able to use 90% of all questionnaires distributed. Analgesics and antibiotics were the most commonly used self-medications (45% and 20%, respectively). 77 percent of respondents claim to know when to use antibiotics, but only 55% follow it. When respondents thought they were better, most (45%) quit using antibiotics. 42% of antibiotics are used to relieve dental pain, and 32% are used after root canal treatment. Among those who reported swelling, 26% recommended taking antibiotics before a dental appointment. Many misconceptions and inadequate knowledge contribute to the misuse of antibiotics and non-narcotic analgesics. Respondents also had uncertainty regarding the use of antibiotics and non-narcotic analgesics during dental procedures and to treat dental disease.

Key words: Antibiotics, Dental procedures, Non-narcotic analgesics.

INTRODUCTION

A number of infections may have been relieved or treated with antibiotics if antibiotics had been available. [1] Unwise use of antibiotics may cause gastrointestinal problems, anaphylactic shock, and even death. [2] It is possible that use of antibiotics inappropriately could also increase the number of bacteria that are resistant to antibiotics strains. [2, 3]

Dentistry is characterized by pain as one of its main symptoms. Dentists often prescribe analgesics in their routines. As well as adverse effects, improper use of analgesics may result in drug interactions, side effects, and increases in treatment costs [4, 5, 6] The World Health Organization (WHO) describes self-medication as "the act of selecting and taking medicines for self-recognized illnesses or symptoms." Self-medication is on the rise due to the availability of antibiotics and analgesics without prescriptions. [7, 8] Self-medication is a global problem that is affecting the world. In some European nations, self-medication is more common than in others[9]. It is not possible to purchase antibiotics without a prescription, but inappropriate antibiotic use persists as a significant problem. A higher self-medication rate is also associated with the fact that analgesics are sold without a prescription [10, 11].

Inappropriate use of antibiotics exacerbates the spread of antibiotic-resistant bacteria into the community [12]. Patients, medical doctors, dentists, and pharmacists may be responsible for this growth. Patients are taking insufficient antibiotic doses or incomplete antibiotic treatment processes that contribute to this increase [13, 14] and some doctors prescribe antibiotics solely to eliminate symptoms without considering how antibiotic-resistant bacteria are

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Increasing [15, 16, 17], while others prescribe antibiotics without any clear indications[18].

The purpose of antibiotic prescription by dentists is to avoid and treat infections caused by odontogenic bacteria and other organisms. A literature review has demonstrated that antibiotics are prescribed without a sign and in excessive amounts because insufficient information is provided. [17, 19] Researchers have examined how antibiotic awareness is affecting treatment decisions. [1, 13, 17, 18, 19] These studies did not examine the level of self-medication in society, but rather the knowledge and attitude of doctors regarding prescriptions. Antibiotics and analgesics were studied to assess patient knowledge, attitudes, and awareness [20].

MATERIAL AND METHODS

Those who are excluded from the study are patients under the age of 18, those undergoing antibiotic prophylaxis, people who do not want to fill out the questionnaire, and persons with intellectual disabilities who do not have the ability to understand and answer the questionnaire independently.

Studies that adapted the questionnaires adopted the same questions [20, 21]. Patients were informed about the purpose of the survey before receiving questionnaires, and they were not forced to answer the questions. Identities of participants were not collected. It consisted of three parts: distributing the questionnaires and collecting them manually by the same operator. In the first part of the questionnaire, patients were asked to indicate their attitudes regarding drug intake. In the second part, we discussed antibiotic resistance, its effects, and its side effects. Patient information on drugs used to treat dental problems was provided in the third section. Percentages were calculated based on the answers provided to survey questions.

RESULTS

It was determined that all of the distributed questionnaires could be used. There were no gender discrimination issues in the study, which included individuals between the ages of 18 and 70.

A total of 25% of patients responded that they were unable to get an appointment with a dentist, and another 27% reported long waiting periods at hospitals as the reason for using non-prescribed drugs without consulting a dentist. 17% of the participants said they did not read the prospectus, while 29% said they read it but did not understand it. According to Table 1, participants self-medicate with different types and frequencies of medications, as well as their attitudes towards self-medication. Most participants (59%) believed antibiotic resistance could occur over time, but only 39% thought it would develop over shorter periods of antibiotic use than the doctors recommended. As shown in Table 2, participants answered questions about the effects and side effects of antibiotics and how antibiotic resistance is developed. In the survey, 42% of participants said antibiotics relieved toothache. Three percent of respondents reported using non prescription drugs for toothache when asked what kind of dental problem they had. During the section "knowledge related to drugs for dental treatments", the section "when and with what kinds of beliefs" was evaluated.

TABLE 1: Attitudes toward medication use among patients

QUESTION	ANSWER	PERCENTAGE
During the past six months, have you used any drugs without a prescription from a dentist to treat dental problems?	Analgesics Antibiotics Traditional medicines Other	45 20 14 11
If you use a non-prescription medicine without consulting a dentist, what is the reason for doing so?	Prescription not necessary Unavailability of doctors Long queues at hospitals Scared A Dental visit is expensive Other	10 25 27 5 12 5
In one year, how many antibiotics do you use on average?	Never 1-3 4-5 More than 6	20 73 7 0
Are you a regular home stocker of antibiotics?	Yes No Unsure	30 62 11
When is the best time to take antibiotics? Are you following these times?	Yes, I follow Yes, I don’t follow No	55 15 19

If you feel better, will you stop taking antibiotics?	Yes No Unsure	39 33 25
Before using antibiotics, are you sure the expiration date is up to date?	Yes No Unsure	78 12 15
Is the antibiotic instruction label read? Can you understand what you are reading?	Yes and understand Yes and do not understand No	61 29 17

Table:2 Resistance, side effects, and efficacy of antibiotics

QUESTİON	ANSWER	PERCENTAGE
Can you tell me which one is an antibiotic?	Paracetamol Aspirin Amoxicillin Ibuprofen	22 4 63 17
Antibiotics	Kill bacteria Kill viruses Cure fever Cure infections Other	60 40 8 20 5
When self-medicating for dental problems, what are the potential hazards?	Not hazardous Worsen the existing illness Damage the organs Mental illness Addiction Drug resistance Poisoning Death Other	17 21 38 17 30 29 12 14 5
Are antibiotics capable of becoming resistant to people?	Yes No Unsure	55 24 27
Are antibiotics capable of causing bacterial resistance?	Yes No Unsure	45 21 22
Is it possible to develop resistance to antibiotics if you do not complete the entire course of antibiotics?	Yes No Unsure	39 17 44
When antibiotics are not taken for their full course, do you think their effectiveness is reduced?	Yes No Unsure	69 13 33
Can antibiotic resistance be attributed to overuse of antibiotics?	Yes No Unsure	59 6 40

DISCUSSION

Many studies have been conducted in our country regarding awareness of drug use [10, 17], but many of them are focused on evaluating the awareness of practitioners rather than the awareness of society as a whole. Moreover, there is a limited amount of information available in these studies regarding the use of drugs in dental problems. Study participants were selected because of their dental problems related to antibiotics and analgesics at a university hospital. We evaluated their knowledge, attitudes, and awareness regarding these issues. Based on similar studies, the questionnaire was modified. [20, 21] Participants were not asked their age or gender. Our research has this negative aspect. The majority of related studies found that women self-medicate more often than men. [4, 22, 23, 24] As in previous studies,

analgesics were the most frequently used drugs for self-medication. [4, 11] Our country may have had an effect on the results because it is possible to access analgesics without a prescription. According to the survey, 73% of participants take between 1 and 3 antibiotics per year. There was also a correlation between this frequency and studies. Having a difficult time getting an appointment with a dentist and long waiting periods at hospitals are the most frequent reasons why people use non-prescribed drugs without consulting a dentist. A similar issue has been reported in other studies[20] due to the long waiting times at hospitals and the high fees at dentists [4]. Inadequacy of dentists to meet the number of patients creates a problem in getting an appointment and resulting waiting periods that increase the level of self-medication.

The majority of participants (65%) answered "yes" to the question about knowing and following the antibiotic course. 39%, however, stopped taking antibiotics as soon as they felt better. The ratio was higher than previous studies, which reported 38.6%, 37% and 4.5%. According to our survey, there was a higher rate of noncompliance with antibiotic courses. Resistant bacteria strains thrive when antibiotics are used for shorter periods than recommended. In spite of this, only 39% of participants indicated that they were aware of it. When participants were asked whether they read the prospectuses for the drugs, 29 percent said they read them but did not understand them, and 17 percent said they didn't. They were taking antibiotics on the recommendation of pharmacists or doctors or because they were not knowledgeable enough. More information needs to be provided to patients about this subject so that the rate of patients stopping antibiotics early can be reduced, and problems like antibiotic resistance can be reduced.

A major health problem is the development of antibiotic resistance. According to the next question, 45% of participants said that bacteria could develop resistance to antibiotics, while 55% thought that people could develop resistance to antibiotics. This ratio was similar to those of previous studies [21]. About 59 percent of the respondents predicted antibiotic resistance could result from excessive antibiotic use. There were 69% of respondents who said antibiotics' efficacy would be diminished by taking them for a shorter time period than recommended. Furthermore, the high percentage of patients who answered questions about antibiotic resistance by stating that they were not sure indicates that they are confused about this topic and need more information.

Most participants (78%) say they check expiration dates before taking antibiotics, and only 30% keep antibiotics at home. 60 percent of respondents to the survey knew that antibiotics affect bacteria, but 40 percent thought they affect viruses. Related studies have found a similar level of knowledge. There is a possibility that patients might pick the wrong medication for their illnesses when they have this level of knowledge.

There was an 81% negative opinion expressed by participants about taking drugs without prescriptions. According to previous studies, the percentage of respondents was 66.7% [27], 69.6%[26], 53.9%[29], and 77.7%[21]. For 30% of the patients, non-prescribed drugs were used for toothache when asked what type of dental problems they had. According to the survey, 42% of respondents answered "yes," and 38% responded "not sure." Patients may begin taking antibiotics after experiencing toothaches because of these numbers.

According to the participants, 32% thought that antibiotics were necessary after root canal treatment, while 26% took antibiotics before going to the dentist if they had swelling in their faces. Compared to similar studies [20], these percentages were lower. After endodontic treatment, however, some patients may need antibiotics, explaining their desire to use them.

CONCLUSION

It was determined that the patients did not understand the importance of antibiotic use and exhibited incorrect attitudes toward it. Moreover, patients lacked knowledge regarding antibiotics used in dental care.

A comprehensive study covering a greater number would have provided a more detailed perspective on society's attitude toward medicine's use. A lifelong program should be developed to raise awareness of the indications for use of drugs, the effects of the drugs, and the side effects of the drugs among primary care physicians, pharmacists, and all health professionals involved in the process. It is also imperative that health professionals use their incentive to raise society's awareness of the dangers of non-prescription drug use by improving knowledge, attitudes, and practices

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