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SELF-MEDICATION PRACTICE AMONG BASRA UNIVERSITY STUDENTS AT BAB AL-ZUBAIR CAMPUS

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ABSTRACT

Background: self-medication is when an individual consumes medicines based on their self-diagnosis of a disease, without consulting a medical practitioner or taking any clinical assays to justify their assumptions self-medication. Self-medication does not only refer to consuming medicines based on acute symptoms, rather, it also involves repetitive self-administration of medicines for chronic diseases.

Objective: To identify the prevalence of the practice of self-medication among the students of Bab Al-Zubair colleges in Basra

Methods: The study was conducted in Bab Al-Zubair Colleges, and 400 students from five colleges participated in filling out the questionnaire (100 nursing students, 100 law students, 100 Al- Zahra medical students, 50 Administration and economics students, 50 arts students). This study was a cross-sectional study using a self-administered questionnaire.

Results: Females were more likely to use self-medication (51%), while males were (49%), and they were mostly young (range 19 – 25 years. 53.25% of the sample lived in the center of the governorate, while 46.75% lived in the parties. With regard to the economic situation, 38.75% had good while 52.5% middle and 8.75% little the results of our research showed that the most common medications used by university students for therapeutic purposes were headache medications (81.75%) and analgesics (78%), the main sources of information were pharmacists (47.75%) and (previous medication use) with (27%) Most of the drugs were obtained from a private pharmacy without a prescription.

KEYWORDS: Self-Medication, Practice among Basra University Students, Bab Al-Zubair campus

INTRODUCTION

According to the World Health Organization (WHO), when an individual consumes medicines based on their self-diagnosis of a disease, without consulting a medical practitioner or taking any clinical

assays to justify their assumptions it is termed as self- medication [1] Self-medication does not only refer to consuming medicines based on acute symptoms, rather, it also involves repetitive self-administration of medicines for chronic diseases [2]

Evidence suggests that people who adhere to self-medication themselves have also been found to advise their family members, relatives, and friends to do the same [3] Self-medication is a major healthcare concern as it may result in various detrimental effects such as misdiagnosis of the illness, antimicrobial resistance, harmful drug interactions, or even delay in the diagnosis of a serious disease [4].

Self-medication has now become a global practice, where people tend to buy over-the-counter drugs merely based on symptom mapping. The active and passive effects of self-medication on health management have enlisted it as a global public health concern [5].

Studies conducted in Europe reported at least 21% of the population took self-medication [6].

The prevalence rate for self-medication was found to be 38.8% and 75.7% in Asia and Africa respectively [7] [8]

Over the counter medicines typically include the common medications like pain killers, cough and cold remedies, critically treating cardiovascular disease, vitamins and other essential supplements [9,12].

The outcome of this practice can lead to antibiotic resistance, and other serious consequences which can lead to inappropriate dosing, drug duplication, drug interaction, treatment failure, masking of health problems and symptoms, and delay in prescribing the appropriate treatment [10,13]. Insomnia, depression, kidney failure, liver cirrhosis and ultimately death are also some of the outcomes of self-medication [11,14]. Found that while game addiction leads to negative academic performance, moderate engagement in gaming can lead to improved performance in an academic setting. This is of great significance to adolescents, as using effective social interactions is essential for behavioral, emotional adaptation and successful functioning. Children and adolescent socialization ability improve their communication skills and makes them more receptive to social influence, and grow better with good communication skills [44].

Definition of self-medication

Self-medication (SM): is a global and growing phenomenon

that represents a public health problem. Currently, there is not a consensus on the definition of SM, which makes it difficult to address this problem and therefore find an adequate solution [15,16]

However, in general, we can define a self-medication as the selection and use of medications by individuals (or an individual's family member) to treat self-recognized or self-diagnosed conditions or symptoms [17]. Several studies have indicated that inappropriate self-medication results in adverse drug reactions, disease masking, and inaccurate diagnosis of disease, increased morbidity, drug interactions, antibiotic resistance and wastage of healthcare resources [18].

2-1 Characteristics of self-medication

According to a report published by the World Health Organization, in order to safely and effectively use an over-the-counter product, the consumer must perform a number of functions normally performed by a physician who treats a patient with a prescribed drug [19].

These functions include:

- 1- Accurate recognition of the symptoms.
- 2- Setting of therapeutic objectives.
- 3- Selection of a product to be used.
- 4- Determination of an appropriate dosage and dosage schedule.
- 5- Taking into account the person's medical history contraindications, concomitant diseases and concurrent medications.
- 6- Monitoring of the response to the treatment and of possible adverse effects.

Urge of self-care, feeling of sympathy toward family members in sickness, lack of time, lack of health services, financial constraint, ignorance, misbelieves, extensive advertisement and availability of drugs in other than drug shops are responsible for growing trend of self-medication. [20]

METHODOLOGY

This study was a university-based cross-sectional study using a self-administered questionnaire. It was conducted among undergraduate students at the University of Ibadan, in the Faculty of Pharmacy, Departments of Medicine and Surgery, as well as Nursing, between August and November 2019. Presently in Nigeria, the Bachelor of Pharmacy and Bachelor of Nursing degrees are a 5-year program, while the Bachelor of Medicine and Surgery degree is a 6-year program

3-1 Design of the study:

Design of a descriptive cross-sectional study that was implemented at the University of Basra, the site of Bab Al-Zubayr colleges, started from 6 of November 2022 to 16 of May 2023, in order to study the prevalence of the practice of self-medication among students the university.

3-2 Setting of the project:

The present study carried out in University of Basra the of Bab Al- Zubayr colleges, included five colleges

The College of Nursing, Law, Arts, Administration and Economics, in addition to Al-Zahra College of Medicine.

3-3 Sample of the study:

A convenient sample which consisted of (400) students (100 nursing students, 100 law students, 100 Al-Zahra medical students, 50 Administration and economics students, 50 arts students)

METHODOLOGY

3- 4 Project Tools

A closed questionnaire was used for the purpose of data collection. The questionnaire contains two parts; the first part consists of 5 items related to the social and demographic characteristics of students, including: gender, age, college, housing, and monthly income. The second part of the questionnaire consists of 7 questions related to the use of medicines without reviewing or consulting a doctor, as the first question contains the types of medicines that were used without reviewing or consulting a doctor, The second question when feeling better, what are the measures taken, and the third question is whether the same medicine is used when the same occurs Symptoms and the fourth question about the source of the student's information on how to use these medicines, and the fifth question related to the reason for using these medicines instead of seeing a doctor, and the sixth question about the source of obtaining the medicines, while the seventh question included the students' knowledge of (how to use the medicine, the appropriate amount and dose of the medicine, The duration required to use the drug, the risks of not completing the medication). The already conducted questionnaire was distributed to 400 students, who read and answered the form, then the researchers collected it, and each form was scored according to the correct model answer.

3-5 Descriptive and inferential Data Analysis 1-Frequency

2-Percentage (%)

3-Arithmetic mean

RESULT

4-1 Distribution of the Variables Related Demographic Characteristics, N= 400 students

| Demographic Variables | Variables Classes | Frequency | Percent% |
|-----------------------|-------------------|-----------|----------|
| Sex | Male | 196 | 49% |
| | Female | 204 | 51% |
| | Total | 400 | 100% |
| Age | 19-21year | 277 | 69.25% |
| | 22-25year | 108 | 27% |
| | 25-and above | 15 | 3.75% |
| | Total | 400 | 100% |
| Living | Center | 213 | 53.25% |
| | Parties | 187 | 46.75% |
| | Total | 400 | 100% |
| Economic Status | Good | 155 | 38.75% |
| | Middle | 210 | 52.5% |
| | Little | 35 | 8.75% |
| | Total | 400 | 100% |

The table shows the demographic characteristics of the studied sample. 49% were male and 51% were female. 69.25% were in the age period (19 - 21), 27% were in the age period (22-25) and 3.75% were in the age group 25 and over. 53.25% of the sample lived in the center of the governorate, while 46.75% lived in the parties. With regard to the economic situation, 38.75% had good while 52.5% middle and 8.75% little, monthly income.

4-2 Medications used for self-medication practice:

| Class of medication used for self-medication | Yes | | No | | Total | |
|--|-----------|----------------|-----------|----------------|-----------|----------------|
| | Frequency | Percentage (%) | Frequency | Percentage (%) | Frequency | Percentage (%) |
| Cough medication | 292 | 73% | 108 | 27% | 400 | 100% |
| Headache medications | 327 | 81.75% | 73 | 18.25% | 400 | 100% |
| Fever medications | 306 | 76.5% | 94 | 23.5% | 400 | 100% |
| Analgesics medications | 312 | 78% | 88 | 22% | 400 | 100% |
| Anti-inflammatories medications | 216 | 54% | 184 | 46% | 400 | 100% |
| Antacids medications | 134 | 33.5% | 266 | 66.5% | 400 | 100% |
| Antidiarrheal Medications | 175 | 43.75% | 225 | 56.25% | 400 | 100% |
| Anti-allergic Medications | 126 | 31.5% | 274 | 68.5% | 400 | 100% |
| Vitamins and nutritional supplements | 249 | 62.25% | 151 | 37.75% | 400 | 100% |
| Antibiotics | 169 | 42.25% | 231 | 57.75% | 400 | 100% |

Medications used for Self-medication the medication category. The most commonly used among students of Bab Al-Zubair colleges was headache medications (81.75%), followed by analgesics (78%) and fever medications (76.5%), while cough medicines the rate of their use was (73%) Vitamins and nutritional supplements (62.25%) while other medicines were in the following proportion Anti- inflammatories (54%), antidiarrheal (43.75%) antibiotics (42.25%), antacids (33.5%) and anti-allergic (31.5%).

4-3 when they feel better, do they stop using the medicine:

| The answers | Frequency | Percentage (%) |
|-------------|-----------|----------------|
| Yes | 312 | 78% |
| No | 27 | 6.75% |
| Sometimes | 61 | 15.25% |

78% of the participants answered that they stop using the drug when feeling better, while 6.75% of the participants completed the treatment, and 15.25% of the participants answered (sometimes).

4- 4 Use the same medication when the same symptoms occur:

| The answers | Frequency | Percentage (%) |
|-------------|-----------|----------------|
| Yes | 291 | 72.75% |
| No | 109 | 27.25% |

72.75% of the participants were using the same drug when the same symptoms occurred, while 27.25% of the participants answered (No).

4-5 the student's source of information on how to use these medications:

| The answers | Frequency |)(Percentage |
|--------------------------|-----------|---------------|
| Pharmacist | 191 | 47.75% |
| Relatives or Friend | 72 | 18% |
| Previous use of the drug | 108 | 27% |
| Ads or social media | 29 | 7.25% |

The students' knowledge of the way to use these medicines came through Pharmacist (47.75%), previous use of the drug (27%) Relatives or Friend (18%), Ads or social media (7.25%).

4-6 the reason for using these medications instead of seeing a doctor: -

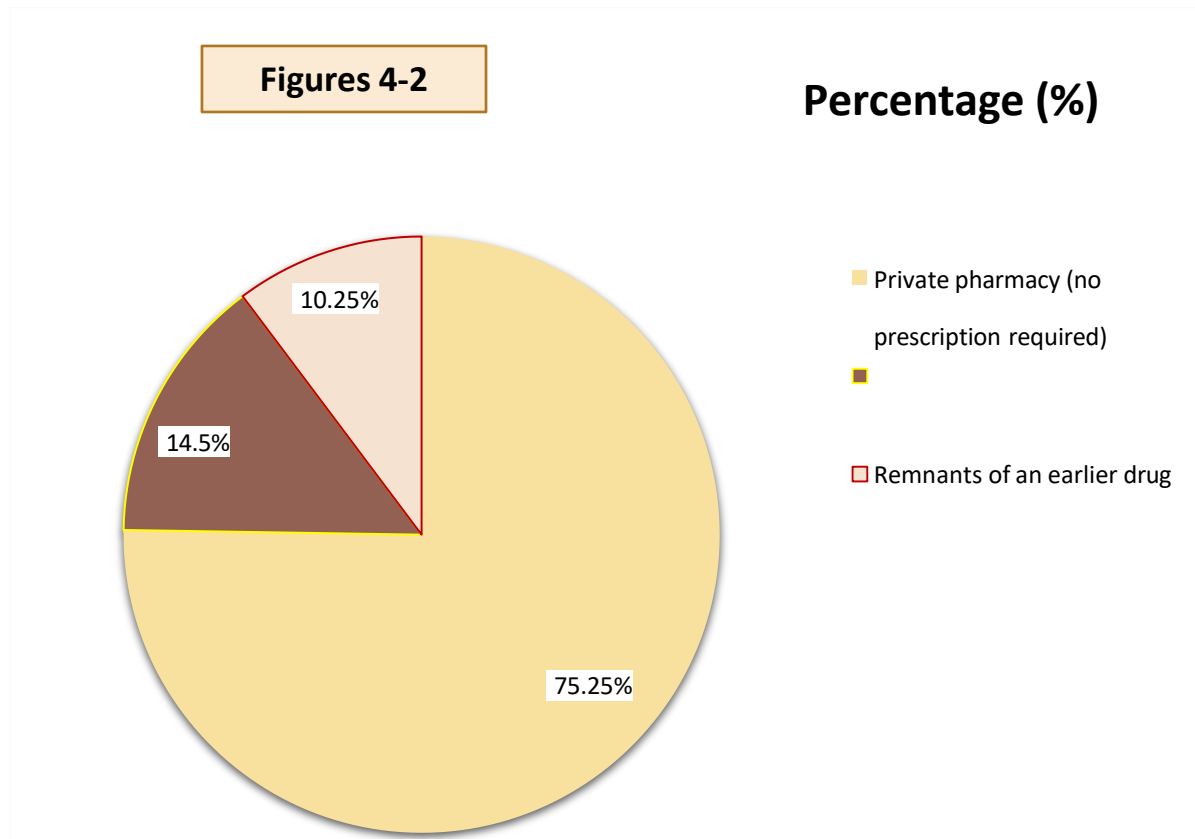
| The answers | Frequency | Percentage (%) |
|---|------------------|-----------------------|
| The disease was slight(mild) | 244 | 61% |
| No medical service available | 28 | 7% |
| Lack of time to come to medical care centers | 66 | 16.5% |
| The cost | 24 | 6% |
| Waiting time in medical care centers is long | 38 | 9.5% |

The most important reasons for the spread of self-medication, according to the estimation of the sample members is: The disease was slight (mild) (61%), Lack of time to come to medical care centers (16.5%), Waiting time in medical care centers is long (9.5%), No medical service available (7%), The Cost (6%).

4-7 the source of obtaining medicines:

| The answer | Frequency | Percentage (%) |
|--|------------------|-----------------------|
| Private pharmacy (no prescription required) | 301 | 75.25% |
| Family or Friends | 58 | 14.5% |
| Remnants of an earlier drug | 41 | 10.25% |

The source of obtaining these drugs is Private pharmacy (no prescription required) (75.25%), Family or Friends (14.5%), Remnants of an earlier drug (10.25%).

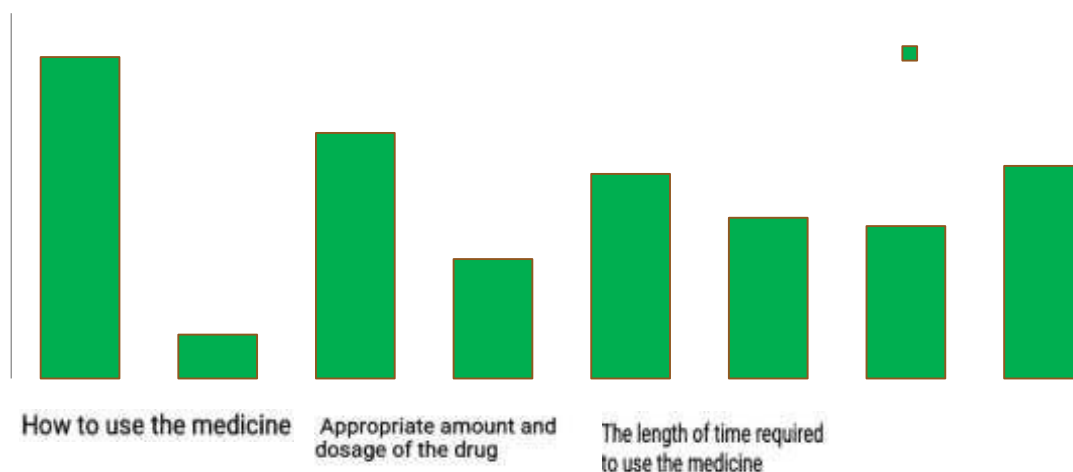


4-8 Students' knowledge of:

| <i>Questions</i> | <i>Frequency</i> | <i>Percentage (%)</i> |
|--|------------------|-----------------------|
| How to use the medicine | Yes 352 | 88% |
| | No 48 | 12% |
| | Total 400 | 100% |
| Appropriate amount and dosage of the drug | Yes 269 | 67.25% |
| | No 131 | 32.75% |
| | Total 400 | 100% |
| The length of time required to use the medicine | Yes 224 | 56% |
| | No 176 | 44% |

| | | | |
|---|--------------|------------|---------------|
| | Total | 400 | 100% |
| Risks of don't completing the medication | Yes | 167 | 41.75% |
| | No | 233 | 58.25% |
| | Total | 400 | 100% |

88% of the students in the sample have knowledge in how to use the medicine, while only 67.25% know the appropriate amount and dose of the drug, 56% of them who know the period required to use the drug, and only 41.75% have knowledge in the risks of don't completing Medicine.



DISCUSSION

The aim of this study was to assess the prevalence and associated factors of self-medication among students of college, the current study revealed that the prevalence of self-medication practice among the participants was found to be 57.65%; this is almost similar to the studies that made at King Sound University (50.9%) [24], Chittagong Hill Tracts, Bangladesh 49.9% [22], Nigerian 54.6% [23], and the University of.] Dammam city (49.3%) in Saudi Arabia [25].

Whereas our study finding was higher than those studies conducted in this difference might be Rwanda (12.1%) [26], and China (47.8%) [27]. due to the respondents' cultural difference, healthcare systems, and. sociodemographic characteristics On the other hand, the finding of this study was lower than those studies carried out in Egypt (62.9%) [28], Iran (72%) [29], and Jordan 96% [21].

This difference might be due to the variation in sociodemographic and economic profiles, geographical and study time variation in which self- medication practice was assessed, and availability of drugs on over-the-counter Females were more likely to use self-medication (51%), while males were (49%),

and they were mostly young (range 19 – 25 years and above) with an average age of 21 years. This finding is consistent with studies conducted in Ghana [30] , Mekelle University [31] and Jimma town [32] . A possible reason may be that female students experience frequent illnesses. More than their male counterparts, they are associated with their relatively low immunity and constant menstrual cycle due to hormonal influence.

The current study showed an increase in the practice of self-medication among students who live in the city center, and this could be due to the fact that medical clinics are crowded with patients, and the false sense of confidence in self-diagnosis and management through the information they acquire from social networking sites and other sources, while this was contrasted Lack of practice of self-medication among students who live on the outskirts. The reason may be due to their fear of using any medication and fear of its risks, and their preference to go to free service centers.

Our results indicate that medical students are more likely to practice self- medication (67.05%) while the prevalence of self-medication among non-medical students (48.25%) and these results were similar to studies conducted in Jordan [21] , and Gander University in Ethiopia [33] , this may be due to the fact that medical students have received more training courses on cases of disease in addition to drugs that can treat the disease, Which led them to gain higher knowledge. This knowledge, in turn, led medical students to a false sense of confidence in self-diagnosis and management. However, our results differ with studies conducted at Karachi University, Pakistan [34] and Ghana [30] . The differences in prevalence between students in our study might be due to the variable sample size or the level of knowledge about self-medication between students.

In this study, people with a middle monthly income were more likely to self-medicate (by 52.5%), compared to those with higher incomes (by 38.75%). A possible justification may be that students with middle incomes may not be able to afford to visit healthcare institutions and consult licensed health professionals. Therefore, they may be induced to purchase medicines at a lower cost than over the counter centers without a prescription, which in turn leads to a high practice of self- medication, while the percentage of those who use self-medication is of low monthly income (8.75%) and justifies that low-income students may visit health centers that provide free service, or they may ignore cases of communicable diseases such as the common cold. Other studies conducted at Arsis University Ethiopia [35], showed that students with lower incomes are more likely to use self-medication than others, however, this finding contrasts with studies conducted in southern China [27] and Pakistan [36].

The results of our research showed that the most common medications used by university students for therapeutic purposes were headache medications (81.75%) and analgesics (78%), followed by fever medications (76.5%), cough medications (73%), and cough medications (73%). And anti-inflammatory (64%). Research mentioned in this regard that these types of drugs such as headache drugs [21], analgesics and fever drugs [24] [37] , and anti-inflammatory drugs [38] are the most common types of drugs 78% of the participants stopped using the drug when feeling better, in addition

to that 72.75% of the participants used the same drug when the same symptoms occurred regarding the source of information for self-medication, the main sources of information were pharmacists (47.75%) and previous experience (previous medication use) with (27%) , This finding is in line with the study conducted in Mekele, Ethiopia [39] and Yogyakarta, Indonesia [40].

The most common reason for using self-medication was that the disease was mild/non-serious (61%). This finding is in line with studies conducted in Ethiopia [35] and the University of Gondar [33] Most of the drugs were obtained from a private pharmacy without a prescription (75.25%) and this finding is consistent with studies conducted in Bangladesh [22] and Indonesia [40]. Conversely, other studies conducted in southern Ethiopia [41] and Basra, Iraq [42] showed that the source of medicines for self-medication is unused medicines stored at home.

Our results also revealed that 88% of the students in the sample have knowledge of how to use the medication, while only 67.25% know the appropriate quantity and dose of the medication, 56% of them know the duration required to use the medication, and only 41.75% have knowledge of the risks of not completing the medications, and this result is consistent With the study that was conducted in northern India [43] , and therefore ignorance of the use of medicine may be more harmful than the disease we are treating, so drug culture is required to reduce the extravagance in our consumption of medication or fascination with advertising about medicines, so the harm of medications may not be touched by the patient at the time or after use directly, and may have dire consequences over time .

CONCLUSION: -

- 1- The current study revealed a high prevalence of the practice of self- medication among university students.
- 2- There is a need for authorities to enact strong laws around over-the- counter medicines to ensure they are sold and used rationally.
- 3- The gender, high monthly income of the students, and the field of study were among the factors that affected the self-medication practices.
- 4- The main medication required was headache medications and painkillers.
- 5- More than half of the participants in the study stopped using the medicine when they felt better, and this reflects the extent of ignorance of the risks of not completing the medicine and the complications resulting from it.
- 6- Pharmacists were the most common source of self-medication information.
- 7- The most common reason for using self-medication was that the illness was mild.
- 8- Purchasing medicines without medical prescriptions involves risks, because the pharmacist does not have an accurate diagnosis of the condition and relies on the patient's description, so he dispenses the medicines guessing according to the apparent symptoms and without being examined the patient, and thus gives the patient a pain reliever, a fever reducer, antibiotics, vitamins, regardless of his need for all these. drugs
- 9- Community pharmacies were the most common source of obtaining medicines for self-treatment.

10- More than half of the participants did not receive any information about this practice.

Recommendation:

- 1- Provide education and information to everyone concerned with self-medication is a safe strategy to maximize benefits and minimize risks.
- 2- There is a need for authorities to enact strong laws around over-the-counter medicines to ensure they are sold and used rationally.
- 3- The Ministry of Health must have clear and effective legislation regarding the handling and dispensing of medicines so that these policies can be implemented, and the necessary measures can be taken. regarding illegal drug suppliers.
- 4- The Ministry of Health and the Regional Health Office may need to facilitate ways to increase health service delivery institutions so that. more people can access health facilities.
- 5- Future research should focus on interventions to create awareness about self-medication not only among students but also among members of society in general.
- 6- The solution to eliminate the phenomenon of dispensing medicines in pharmacies without a prescription is based on both sides of the issue, namely the pharmacist and the patient. The pharmacist must be abiding by the regulations and rules that define his duties without transgression, whatever the justification. As for the patient, he must be careful not to use the medicine except with a medical prescription, because that is the guarantee of his safety and achieving the desired result of the medicine 7-Finally, we recommend further studies on self-medication.

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