

## *The Rate of Self-Medication and Its Related Factors in Nursing Students in Behbahan, Southwest of Iran in 2020*

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### **ABSTRACT**

**Background:** Today, Self-medication among nursing students against illnesses has become one of the biggest threats to their health, which should be avoided. Considering that the knowledge and attitudes, in this case, lead to less use of drugs without prescribing and teaching nursing students to other people in the community, therefore, this study was conducted with the aim of determining the rate of self-medication and its related factors nursing students in Behbahan in 2020.

**Methods:** In this cross-sectional analytical study, convenient sampling was done in nursing students of Behbahan Faculty of Medical Sciences in 2020. The data collection tools were a demographics information checklist and an approved checklist for self-medication. Data analysis was done with spss-20 software and using the Chi-square test.

**Results:** In this study, 120 students with an average of  $24.11 \pm 0.87$ , 41.7% of boys and the rest of the girls, were enrolled. The prevalence of self-medication with antibiotic, cold and cough, analgesic, neurological, gastrointestinal, cardiovascular, anti-psychoactive, opioid and psychedelic, skin, antimicrobial, vitamins and supplements and medicines were 53.3%, 82.5%, 52.5% 3.3%, 19.2%, 4.2%, 25.8%, 0.8%, 14.2%, 5.8%, 25.8% and 37% respectively. Females had more analgesic self-medication, more indigenous students than self-medication, and those with less than a weekly walking time had more self-medication and vitamin supplement supplementation ( $p < 0.05$ ).

**Conclusion:** The results indicate a high level of self-care in nursing students and should be considered especially as these future nurses should provide proper education and care to their patients. Also, by providing various strategies such as periodic and free visits to these people, advising them to exercise and providing useful educational workshops about the harm of self-medication will help reduce it. Further studies in this area will help students in the Department of Medicine and the Ministry of Education provide a clear blueprint on the status of self-care in students.

**Keywords:** Prevalence, Self-Medication, Students, Nursing, Antibiotics.

**Address for Correspondence Author****Dr. Alireza Rafi;** Student Research Committee, Behbahan Faculty of Medical Sciences, Behbahan, Iran.**E-mail:** [alirezarafi72@gmail.com](mailto:alirezarafi72@gmail.com)**Crossref Doi:** <https://doi.org/10.36437/irmhs.2021.4.3.F>**Introduction**

Disease and health are two words dating back to the history of human creation. In this regard, it seems that illness is more than the health of human attention and the use of medication in various forms has been one of the ways to fight disease from the past.<sup>1,2</sup>

Self-medication is an important part of the medical behavior of individuals; in fact, this is often the first choice to treat early symptoms of illness and is one of the most important tools used by patients in dealing with common health problems.<sup>3</sup> Although 75% of treatments are mediated, however, unreasonable use of it without consultation and medical treatment, in addition to non-treating the disease, can lead to long-term complications.<sup>4</sup> Today, unnecessary consumption of drugs and, in general, Self-medication, is one of the biggest socio-health and economic problems of various societies, including Iran, which may be due to self-medication or per capita consumption of drugs in the community.<sup>5-7</sup> Attempts to rationalize drug use have always been considered as one of the key issues in drug policy. According to the WHO, in order to achieve a rational use of drugs, it is necessary to use medicines with appropriate therapeutic effects that can meet the clinical needs. Patients can be accommodated within a specific geographical range with the lowest cost and lowest cost.<sup>8</sup> Iran's per capita consumption rate in Iran has almost tripled compared to the global average, with Iran accounting for only the world's first 20 countries, followed by China in Asia 2nd.<sup>9,2</sup> Self-medication leads to the hiding of the true severity of the disease, the delay in the diagnosis, the complexity of the treatment process, the unwanted poisoning.

Currently, arbitrary use of drugs has led to factors such as bacterial resistance, lack of optimal treatment, unwanted and even intentional poisoning, wasting costs, and increased per capita financial consumption of medication in the community.<sup>10</sup> So that, according to the World Health Organization, roughly 40% of medical budgets are spent on medications.<sup>6</sup>

Self-medication, which is considered the most common form of self-care, involves obtaining and taking one or more medications without the use of a physician's opinion or diagnosis, as well as prescription or therapeutic monitoring and the use of herbal and synthetic drugs.<sup>6,7</sup> According to studies, the main issue of this phenomenon is the use of medication and recovery, lack of financial resources to pay a visit, the free drug market, the convenience of prescription drugs, and the lack of health insurance.<sup>11</sup>

Studies have shown that women have a particular tendency to arbitrarily use drugs and are often repeated to treat problems such as dysmenorrhea, menopausal symptoms, mood disorders, osteoporosis prevention, as well as pregnancy and lactation problems. use. The World Health Organization's survey of 10 countries has shown that around 60% of women during pregnancy use at least one drug (other than iron, supplementary supplements, and vitamins).<sup>10</sup>

Self-medication is common in the world, with the prevalence of self-healing in Portuguese cities 26.2, in Pakistan 51, in India 31 and Nepal 59 percent, and in residents of northwest Tabriz, Qazvin, and Shahrekord, 63 and 6/9 respectively and 4.5% reported.<sup>7</sup> According to

research, every Iranian consumes 339 drugs every year, which is 2 to 4 times more than the global standard.<sup>2</sup> According to previous studies, the most commonly used Self-medication are acetaminophen, analgesics, cold tablets, and herbal remedies.<sup>11</sup> Unfortunately, in developing countries, the misuse of drugs is long rooted in the belief that harmless and unnecessary consumption of herbal or traditional herbal medicines originates in the most commonly occurring countries of the developing world. In the study of Sawalha in Palestine, Self-medication was a common problem among students.<sup>5</sup>

In this regard, Self-medication in students as educated in the community is one of the most important social-health issues that can, in many cases, create important issues for the individual and the community. These include the role of student influencers in the media and the Internet in promoting self-care behaviors, the responsibility of some scholars in the future as factors affecting the health and health of students on their academic performance.<sup>6</sup> Therefore, this study was conducted to determine the prevalence of Self-medication and its related factors among nursing students in Behbahan. We hope that according to the findings of this review and other studies in this field and their comparison, factors that are effective in this behavior will be identified and controlled.

## Methods

This is a cross-sectional analytical study using convenient sampling. Factors related to the arbitrary and uncontrolled use of drugs are studied. The subjects were nursing students of Behbahan Faculty of Medical Sciences.

According to the total number of students in Faculty, 120 people eventually co-operated with the study and complete the questionnaires.

The researcher and his colleague for the sampling method referred to the Universities from mid-May to June at different times and on different days of the week are randomly and after explaining the purpose of the research, the manner of implementation, and Consent, a Self-medication questionnaire is provided to the participants.

The questionnaire consists of two parts: the first part consists of diseases that the individual takes to arbitrarily dispose of them, and the second part includes the possible causes that cause the clients to arbitrarily take the drug in the number of samples to be considered. Which includes the following: Important patient disability, previous experience of illness, lack of insurance record book, high cost of doctor's visit, friends and acquaintances' impact, availability of medication, high individual drug information, and non-physician's opinion.

In addition to the above mentioned, some items such as age, gender, occupation, marital status, education level, monthly income, housing status, insurance record book, distance from the clinic of the participants were also examined. The questionnaire was presented in the face and content validity was measured so that the questionnaires were prepared according to the authoritative sources and books in this regard. The data were collected and then were entered into the SPSS-20 and through descriptive statistics and Chi-square test were analyzed.

## Results

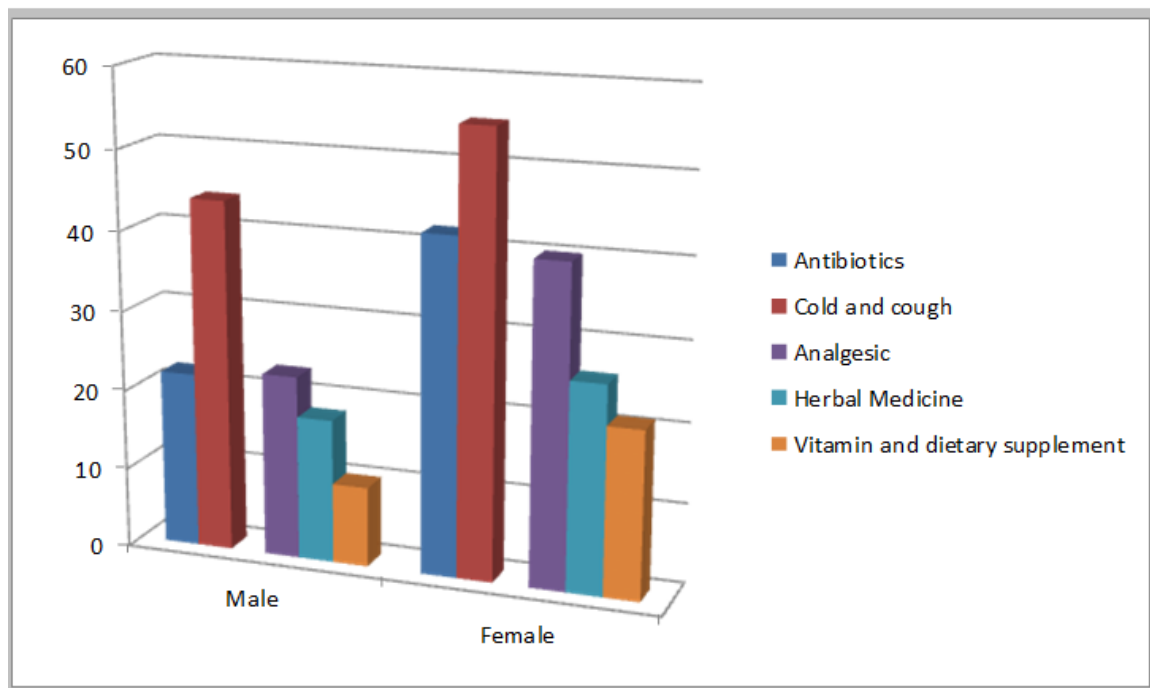
In this study, 120 students with an average of  $24.11 \pm 0.87$ , 41.7% of boys and the rest of the girls, 51.7% of the second year and 33.3% of first-year were enrolled. Of these, 45.8% of the students of Behbahan Faculty of Medical Sciences were 71.7% of the men married and 6.7% of the cases had an illness and 79.2% of the monthly household income was more than 700 thousand. Also, 70.8% were covered under

cover and the rest were without insurance coverage and 20.8% were employed. The prevalence of self-medication with antibiotic, cold and cough, analgesic, neurological, gastrointestinal, cardiovascular, anti-psychoactive, opioid and psychedelic, skin, antimicrobial, vitamins and supplements and medicines were 53.3%, 82.5%, 52.5%, 3.3%, 19.2%, 4.2%, 25.8%, 0.8%, 14.2%, 5.8%, 25.8% and 37% respectively.

The most important cause of self-medication is the experience of the patient and the cost of the appointment. The most common illness that led

to self-medication was in the cold, in the opposite sense.

Women had more self-treatment with analgesics, the most native students had self-medication in colds and those with less than a weekly walking time more than self-medication with vitamin and supplementation ( $p < 0.05$ ). But there was a significant relationship between self-care and demographic variables ( $p < 0.05$ ). Despite the fact that female students used antibiotics, colds and antispasmodics, analgesics, herbal and vitamin supplementation more than boys, this difference was not statistically significant ( $p < 0.05$ ). (Figure1).



**Figure1.** Comparison of Frequencies of the Most Common Types of Self-medication Based on Gender in Nursing Students in Behbahan

### Discussion and Conclusion

The results of this study showed a higher prevalence of drug abuse among female students compared to male students. In the study by Asefzade et al., Figueiras et al., and study of Ausra et al., The incidence of self-medication in female students was more frequent, while in the Baghianimoghadam and Ehrampoush study, the prevalence of self-

treatment was higher in male students<sup>6</sup>, which is consistent with our study. The most common cause of self-medication in this study was the previous experience of drug use, which was consistent with the results of Tabiei et al. The most common reason for self-medication in Khaksar et al. was adequate information about medicine and disease, and then the similarity of the disease with the previous cases.<sup>11</sup> In

another study in India, the most common cause of self-treatment among students is the impact of scientific books and the suggestion of friends and family members.<sup>12</sup> In the study of Ghafouri et al., Uncertainty in the practice of physicians, lack of time to go to a clinic or hospital, high fees for doctors' visits, and the easy provision of drugs from the pharmacy were important causes of self-medication.<sup>6</sup>

In this study, we found that the most common drugs used were cold and coughing medicines (82.5%), antibiotics (53.3%), analgesic (52.5%), herbal drops (37%) These results may be due to easy access and sales of these drugs at the pharmacy. In the study of venkateswarlu et al., The most commonly used drugs were anti-fever drugs (78%), analgesics (72%), antihistamines (42%), and antibiotics (38%).<sup>13</sup>

In a study conducted in 2013 among Gorgan medical students, it was found that the most commonly used drugs were analgesics, and antihistamines and anti-cold medicines were in the next category.<sup>14</sup> In another study, conducted in Nepal in 2016, 95% of medical students were self-medication, and the most commonly used drugs among these students were fever prescriptions, then antibiotics, and later analgesics.<sup>15</sup> Other studies found that medical students (N = 68) used more types of antibiotics than non-medical students (N = 69), which may be due to their knowledge of antibiotics.<sup>16</sup>

In the present study, the lowest frequency of self-medication related to narcotics and psychotropic drugs (0.8%). In the study of Pirzadeh et al., The lowest frequency of self-treatment was related to respiratory diseases.<sup>1</sup> In a study conducted between pregnant women in Ilam, it was found that 25% of pregnant women were arbitrarily taking chemical drugs and 94% had taken herbal medicine arbitrarily.

This indicates that arbitrary use of herbal medicines in pregnant women is high in Iranian women.<sup>10</sup>

The results of this study showed that single people receive self-medication more than married ones. In a study conducted in Gonabad among the elderly, it was found that, meaningfully, single (96.6%) (Those living alone who consisted of single and deceased spouses) were more self-medication than married (71.8%).

Davani and colleagues, and Antonov and Isacson in Sweden also showed that single people were more self-medication.<sup>17</sup> This may be because single people care less about their health and less likely to take more self-care when they are ill.

Regarding the high prevalence of self-medication among students in order to control drug use, it is important to hold classes on the rational use of drugs and to understand the side effects of drug abuse in order to promote the culture of drug use. Also, by increasing the availability of medical services, including strengthening the position of the family physician and deploying medical counseling bases in universities and educational centers, and providing various strategies such as periodic and free visits, correcting medical behavior, and motivating them to treat the principles of the disease have increased.

### **Acknowledgments**

This article is the result of a research project approved by the Research Vice Council of Behbahan Faculty of Medical Sciences with the code number ethics IR.BHN.REC.1399.033. Researchers would like to thank the Vice Chancellor for Research, the officials of Behbahan Faculty of Medical Sciences, as well as the students participating in this study for

their patience and trust in the researchers and all the dear ones who helped us to carry out this research.

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**How to cite this Article:** Pouriya Darabiyan, Zahra Sokhansanj, Alireza Rafi, Hadis Nazari, Roya Geravandian, Zeinab Raiesifar; *The Rate of Self-Medication and Its Related Factors in Nursing Students in Behbahan, Southwest of Iran in 2020*; Int. Res. Med. Health Sci., 2021; (4-3): 40-46; doi: <https://doi.org/10.36437/irmhs.2021.4.3.F>

**Source of Support:** Nil,

**Conflict of Interest:** None declared.

**Received:** 12-4-2021; **Revision:** 20-6-2021; **Accepted:** 25-6-2021