



Knowledge, Awareness, Prevalence and Risk Factors of Self-Medication among Young Adult Population

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ABSTRACT

Factors influencing frequency of self-medication in the previous studies are age, educational level, family attitudes, advertising of drug manufacturers, legislation regulating dispensing and sale of drugs, previous experiences with the symptoms or disease, significance attributed to the disease, home-kept prescription drugs and economic situation of respondents. Depression and anxiety may also be connected with self-medication. The aim of this research was to investigate prevalence and risk factors for self-medication among the population of medical students. A descriptive survey has been done among young adults in Chennai for 100 students ranging from first year to internship. The average cranial index for male is 71.32 and for female is 72.46, the average nasal index for male is 52.19 and for female is 51.57, the average Gnathic index for male is 93.61 and for female is 93.01. It is understood that both fever relieving medication and pain killers were up the main symptoms leading to self-medication. It is also understood that doctors were the most influential under source of information by 42% and advertisements, books and friends had the same value of (8%) and it is understood that young adults preferred idiopathic treatment compared, homeopathic treatment by a value of 54%.

Key words: Risk factors, Self-medication, Young adults, Aged population, Depression, Anxiety

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INTRODUCTION

According to the WHO's definition, self-medication is the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent diseases or symptoms [1]. Factors influencing frequency of self-medication in the previous studies are age, educational level, family attitudes, advertising of drug manufacturers, legislation regulating dispensing and sale of drugs, previous experiences with the symptoms or disease, significance attributed to the disease, home-kept prescription drugs and economic situation of respondents. Depression and anxiety may also be connected with self-medication [2].

Self-medication among university students

has been surveyed in different parts of the world. In the survey conducted among final year medical students in Slovenia, 94.1% students stated that they self-medicated. In the research among students of several different universities outside Europe, prevalence ranged from 38.5% in Ethiopia to 98.0% in Palestine [3]. A meta-analysis by Montgomery et al. which included 27 published studies from different countries showed that prevalence of self-medication among medical students and healthcare professionals was ranging from 12 to 99%. However, no larger study has been published which explores connection between depression, living conditions and demographic characteristics to self-medication [4] There are also no studies exploring self-medication among students, or the general population in Serbia. The only existing study was conducted among a population older than 65 years, in which 75% participants reported self-medication in the last month [5].

Survey of self-medication among the student

population is important because this population represents a segment of highly-educated members of the society that have better access to healthcare-related information. Of particular significance is research of self-medication among the population of medical students, because they are the future generation that will have the right to prescribe drugs and to work on healthcare education. Additionally, their attitudes towards pharmacotherapy could affect the way they will prescribe medication in the future, as it was previously shown for prescribing anti-inflammatory drugs [6].

Previous research showed that medical students and healthcare professionals are facing difficulties when seeking health care for themselves partially because of the competitive environment they are exposed to, where commitment and regularity in studying or work, and thus good health, are required [7]. The purpose of this paper is to investigate prevalence and risk factors for self-medication among the population of medical university students.

Previously our team had conducted several survey studies [8-10], anthropometric studies [11-12], in vivo animal experimental studies [12,13], genetics and bioinformatics studies [14]. Now we are focussing our research on epidemiological and related survey studies.

The aim of the present study was to analyse the knowledge, awareness, prevalence and risk factors of self-medication among the young adult population.

MATERIALS AND METHODS

A descriptive survey has been done among young adults in Chennai for 100 students ranging from first year to internship. These students were given a specially designed questionnaire that had 10 questions related to the risk factors on self-medication among young adults. The awareness of the depth of knowledge of each student was assessed using the survey questions. If the students were aware of the risk factors on self-medication to know the percentage of students who are aware of it. Other questions such as the source of information about drugs used in self-medication, to have a better understanding on how the message is delivered to the students as well as which medicinal systems they preferred

and a range of types of medicinal systems were given to choose. What are the symptoms leading to self-medication to understand the reason behind self-medication? Questions based on the individual taking this survey was also asked to calculate a proper percentage between the age gaps, questions such as if they were male or female, of their marital status and if they have a partner. Questions based on the year of the study of students were also asked.

RESULTS AND DISCUSSION

From the survey we can observe that, an equal percentage of 31% for both interns and second years had the highest number of students that took the survey, and a majority of the students that took this surgery are single with 85% of value and most of them live alone with a value of 46% compared to friends (31%) and family (23%), and it is understood that both fever relieving medication and painkillers were up the main symptoms leading to self-medication. It is also understood that doctors were the most influential under source of information by 42% and advertisements, books and friends had the same value of (8%) and it is understood that young adults preferred idiopathic treatment compared, homeopathic treatment by a value of 54% (Figures 1 to 7).

Self-medication is a human behavior in which an individual uses a substance or any exogenous influence to self-administer treatment for physical or psychological ailments. The most widely self-medicated substances are over-the-counter drugs used to treat common health issues at home, as well as dietary supplements

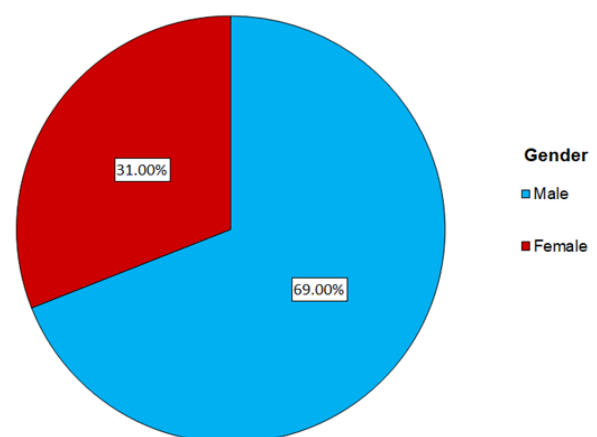


Figure 1: Decision analysis for diagnosis of endodontic-periodontal lesion.

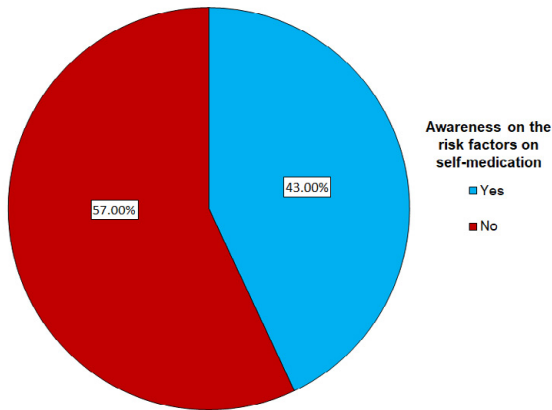


Figure 2: Shows the bar chart of the question “Are you aware of the risk factors of self-medication? X axis showing total number of young adults who answered and Y axis shows the awareness denoting “yes” and “no”. Majority of young adults that took part in this survey answered Yes (69) showing majority are aware while (31) of them were not aware.

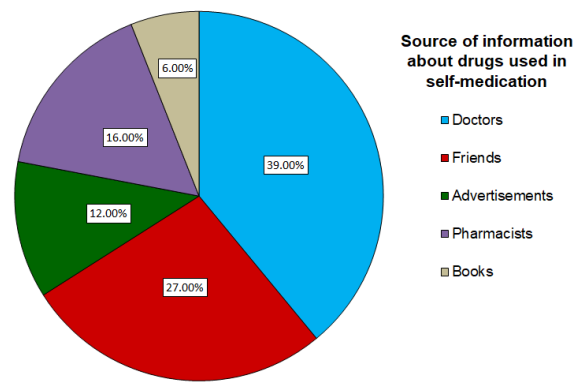


Figure 5: Shows a pie chart of the question “How did you obtain the source of information about drugs used in self-medication”. From the pie chart we can observe that, majority of the information gained by young adults were from Doctors (42%) followed by friends (33%) and the source of information from advertisements, Book and Pharmacists shows an equal value of (8%).

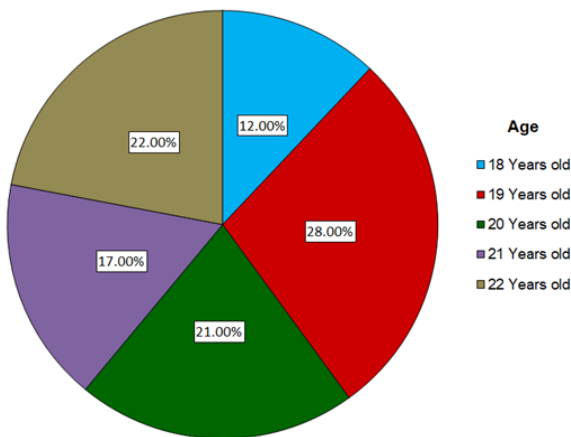


Figure 3: Shows a pie chart for the question “which year of study are you in?”. “Purple” colour denotes to “1st” year, “Blue” colour denotes to “2nd” year, “Green” colour denotes to “3rd” year, “Yellow” colour denotes to “4th” year and “Red” colour denotes to “CRRI”. The result shows an equal percentage of (31%) for both interns and second years had the highest number of students that took the survey, followed by third years (23%) and final years (15%).

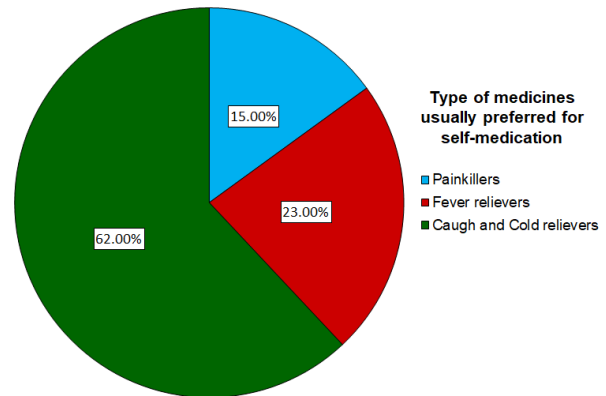


Figure 6: Shows a pie chart to the question “what are the symptoms leading to self-medication?”. From this chart we can observe that both “Fever relieving medications” and “Painkillers” play a major role with (62%).

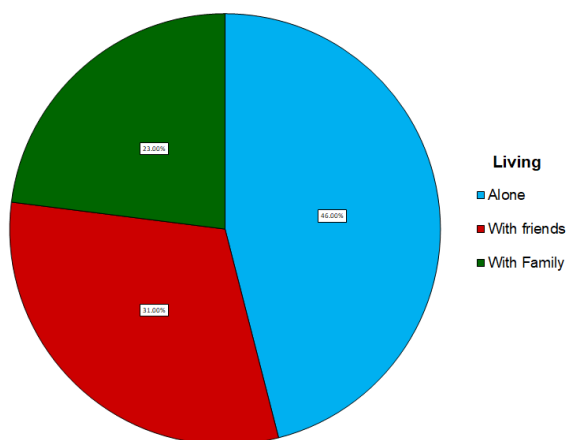


Figure 4: Shows a bar chart of the question “Whom do you live it?”. X axis showing the groups between “Alone”, “Friends” and “Family” Y axis showing the total number of young adults who answered. Majority of young adults live alone (46), followed by friends (31) and family (23).

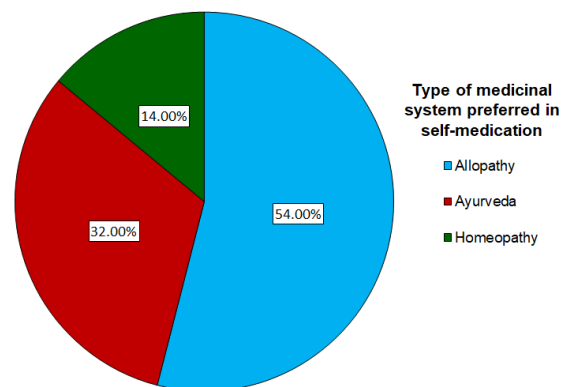


Figure 7: This figure shows a chart to the question “which medicinal systems do you prefer?”. From this chart we can observe that most students prefer “Allopathic” treatment (54%), followed by “Ayurveda” treatment (31%) and “Homeopathic” treatment was the least favorable (15%).

[15]. These do not require a doctor's prescription to obtain and, in some countries, are available in supermarkets and convenience stores. The field of psychology surrounding the use psychoactive drugs is often specifically in relation to the

use of recreational drugs, alcohol, comfort food, and other forms of behavior to alleviate symptoms of mental distress, stress and anxiety, including mental illnesses and/or psychological trauma, is particularly unique and can serve as a serious detriment to physical and mental health if motivated by addictive mechanisms. In postsecondary (university/college) students, the use of self-medicating study-drugs such as Adderall, Ritalin, and Concerta has been widely reported and discussed in literature [16].

Products are marketed by manufacturers as useful for self-medication, sometimes on the basis of questionable evidence. Claims that nicotine has medicinal value have been used to market cigarettes as self-administered medicines. These claims have been criticized as inaccurate by independent researchers. Unverified and unregulated third-party health claims are used to market dietary supplements [17]. Self-medication is often seen as gaining personal independence from established medicine and it can be seen as a human right, implicit in, or closely related to the right to refuse professional medical treatment. Self-medication can cause unintentional self-harm. Self-medicating excessively for prolonged periods of time with benzodiazepines or alcohol often makes the symptoms of anxiety or depression worse. This is believed to occur as a result of the changes in brain chemistry from long-term use. Of those who seek help from mental health services for conditions including anxiety disorders such as panic disorder or social phobia, approximately half have alcohol or benzodiazepine dependence issues [16].

Sometimes anxiety precedes alcohol or benzodiazepine dependence but the alcohol or benzodiazepine dependence acts to keep the anxiety disorders going, often progressively making them worse. However, some people addicted to alcohol or benzodiazepines, when it is explained to them that they have a choice between ongoing poor mental health or quitting and recovering from their symptoms, decide on quitting alcohol or benzodiazepines or both [18]. It has been noted that every individual has an individual sensitivity level to alcohol or sedative hypnotic drugs, and what one person can tolerate without ill health, may cause another to suffer very ill health, and even moderate drinking can

cause rebound anxiety syndrome and sleep disorders. A person suffering the toxic effects of alcohol will not benefit from other therapies or medications, as these do not address the root cause of the symptoms [19,20].

CONCLUSION

From the survey study it is understood that both fever relieving medication and pain killers were up the main symptoms leading to self-medication. It is also observed that doctors were the most influential under source of information and advertisements, books and friends had the same value and it is known that young adults preferred idiopathic treatment compared homeopathic treatment by many folds.

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CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest in the present study.

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