



SELF MEDICATION AMONG UNDERGRADUATE PHARMACY STUDENT

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Abstract:-This study explores the phenomenon of self-medication among undergraduate pharmacy students, aiming to assess their perceptions and the extent of this practice. A comprehensive investigation was conducted to understand the factors influencing self-medication behaviours within this unique demographic. The research employed a mixed-methods approach, combining surveys and qualitative interviews to gather in-depth insights. Findings indicate varying perceptions among pharmacy students regarding self-medication, shedding light on the prevalence and reasons behind such practices. Additionally, the study examines the impact of academic knowledge and awareness of potential risks on the self-medication trends within this cohort. The outcomes contribute to a nuanced understanding of self-medication patterns among pharmacy students, emphasizing the need for targeted educational interventions and healthcare policies tailored to this specific group.

The fundamentals of medication management encompass the storage, ordering, dispensing, and administration of medications, with each step being crucial for maximizing the benefits of the medicines. Nevertheless, global prevalence of self-medication often undermines these principles. Selfadministration of medication involves individuals using a medicine or drug to address symptoms or diagnosed disorders. It is an Individual's initiative to take medicines without consulting a doctor and commonly used to gain personal independence and autonomy to treat minor illness. Its prevalence in developing countries is significantly high and ranges from 12.7% to 95%. This review examines selfmedication practices among students of various health-care course.

Introduction:-

The world health organization (WHO)'s guideline for the regulatory assessment of medical product use in self-medication as the use of medical product by consumer to treat self-recognized disorder as well as symptoms .

Self-medication is a behavior observed in individuals (or their family members) wherein they independently choose and administer medicines or other substances to address self-identified or selfdiagnosed physical or psychological conditions. (1)

Internationally, there is a growing acknowledgment of self-medication as an integral facet of self care(2)

The World Health Organization advocates for responsible self-medication, emphasizing its costeffectiveness for both individuals and the healthcare system. (3)

Self-medication is the utilization of medications to address self-identified disorders or symptoms encompassing both sporadic and sustained use of prescribed drugs for chronic or recurring diseasesor symptoms(4).

Additionally, if seeking professional help for incomplete recovery, there is a risk of misdiagnosis since symptoms are temporarily masked (5)

Most drugs can have significant unwanted effects. This may result in serious clinical effects with potential life-threatening complications. Therefore, the diagnosis by the physician is very important for the proper treatment. The pharmacist in a community pharmacy has an important role in recommending drugs for self-medication. The pharmacist should distinguish between patients for whom pharmacists could recommend the drugs and patients who should be encouraged to consult physicians(6)

As per guidelines from the World Health Organization (WHO), practicing responsible self-medication can contribute to the prevention and treatment of non-serious illnesses, alleviating the strain on medical services, particularly in situations with limited resources.(7).

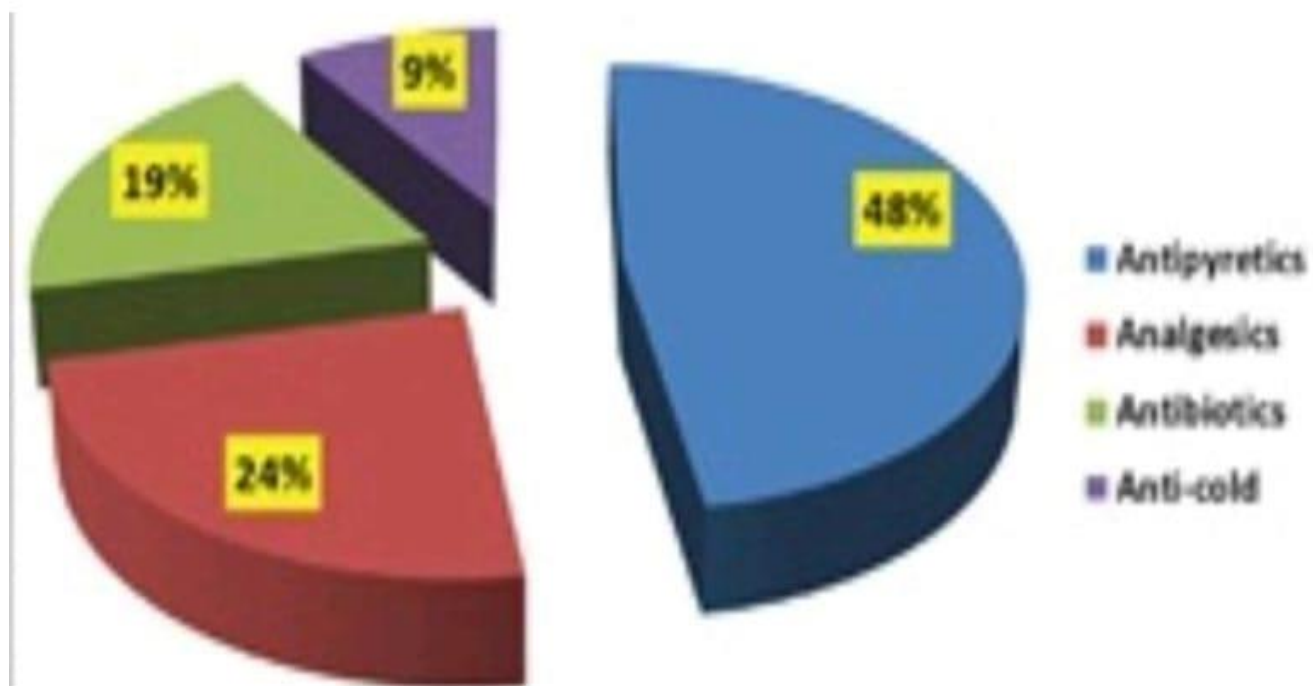
The practice of self-medication proportion rate under different areas, such as in Asia, becomes4-8% that can be considered comparatively higher than that of Northern Europe, which is about 2.5% (8)

Global trends in economics, politics, and culture have perpetuated a consistent rise in self-medication, transforming it into a significant public health concern(9)

Self-medication consists of two distinct categories, delineated by the approach employed: one characterized by responsible practices, and the other marked by irresponsible behaviour. When individuals are utilizing the medicines without any

prescription, but under professional advice that could be readily available is called over-the-counter (OTC) drugs. According to the Saudi FDA, it is included in responsible self-medication practice. Another category that is very dangerous and creates problems world wide is that the drugs are being used without medical practitioners' advice and not obtainable legally(10)

Exploring self-medication proves to be a significant research area given its growing prevalence worldwide and the consequential challenges, including inaccurate self-diagnosis, resource constraints, convenience factors, potential drug interactions, antibiotic resistance, and insufficient awareness. Numerous research endeavours have investigated the prevalence and patterns of self medication within the general population .Self-medication prevalence in developing nations exhibits a substantial range, ranging from 12.7% to 95%. Numerous investigations have highlighted that improper self-medication contributes to adverse drug reactions, masking of diseases, inaccurate disease diagnosis, heightened morbidity, drug interactions, antibiotic resistance, and the inefficient utilization of healthcare resources (11).



Research Through Innovation

Background :- Worldwide, the act of self-medication is widespread, often seen as a necessary measure to Alleviate pressure on healthcare systems. Nevertheless, engaging in improper self-medication Poses risks, including diminished health outcomes, heightened antimicrobial resistance, and Economic inefficiency. Healthcare students, as the future stewards of public health education, Play a crucial role in promoting the judicious use of medications. This study seeks to evaluate The frequency, understanding, and attitudes towards self-medication practices among healthcare Students.

Researchers may have aimed to understand the motivations, sources of Information, and attitudes toward self-medication among pharmacy students. The study may also Consider the

potential impact of self-medication on health outcomes and the awareness levels regarding Responsible medication use within this academic cohort. Typically, such research seeks to contribute Valuable insights for healthcare education and intervention strategies tailored to this group.

RESERCH METHODOLOGY

Methods:- Undergraduate pharmacy students employ various methods for self-medication, referencing a range of sources including prior prescriptions, over-the-counter drug purchases, sharing medications within family circles, and administering unused medicines stored at home. The primary researcher gathered data from participants in lecture halls during scheduled breaks following regular lecture hours. The study's objectives and questionnaire details were communicated to the participants. Upon obtaining verbal consent and ensuring the confidentiality of their information, participants were provided with questionnaires, instructed to independently complete them, and requested to return the forms within thirty minutes. The primary instrument utilized for the research was a pretested questionnaire developed following an extensive literature review. A comparable questionnaire had been employed in prior studies. For this investigation, specific modifications were implemented; the focus shifted exclusively to assessing knowledge, omitting the evaluation of perception due to its abstract nature, and the number of statements was reduced from 40 to 25 by excluding those initially intended to gauge perception in earlier studies. A cross-sectional investigation utilized an online self-administered survey to assess the attitude, awareness, and prevalence of self-medication within the cohort of pharmacy students. Invitations were extended to students enrolled in the pharmacy program, spanning from the first to the fourth year, encouraging their participation in the study conducted between April 2019 and June 2019. Data from respondent of second and fourth semester were collected during April and may. Undergraduate pharmacy students utilize diverse approaches for self-medication, drawing upon various outlets such as previously prescribed medications, acquiring over-the-counter drugs, exchanging medications within familial circles, and administering unused medicines kept at home.

Study design :- These was the questionnaire based study. The study design for "SELF-MEDICATION AMONG UNDERGRADUATE PHARMACY STUDENTS" is a cross-sectional design. In this design, data is collected at a single point in time, providing a snapshot of the prevalence and characteristics of selfmedication among undergraduate pharmacy students. The researchers likely used surveys or questionnaires to gather information on students' self-medication practices, attitudes, and awareness during a specific period, such as between April 2019 and June 2019.

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Result:-The questionnaire achieved an 87% response rate, with 500 students completing it. Out of these, 300 (60%) were identified as females, while the remaining 200 (40%) were classified as males. Within the 250 medical students surveyed, 163 (65.2%) were females, and the remainder were males. Among pharmacy students, 137 (54.8%) were identified as females, with the remaining being males. Table 1 displays the demographic details of the student population.

The study on self-medication among undergraduate pharmacy students indicates an increasing Knowledge trend with academic progression. Gender differences do not significantly influence Knowledge levels. Analgesics emerge as the most commonly used drug class, emphasizing the need for Responsible self-medication practices. The results revealed a comparable influence of self-medication on both medical and pharmacy Students.

Medical students exhibited a greater inclination to seek advice from physicians or consult Healthcare professionals. Pharmacy students demonstrated a heightened awareness regarding the safety Aspects of self-medication compared to their medical counterparts. Additionally, the research indicated That female and younger students, whether in medical or pharmacy fields, exhibited greater awareness Concerning self-medication practices.

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	Medical students	Pharmacy students	Total
Sex			
Female	163 (65.2)	137 (54.8)	300 (60.0)
Male	87 (34.8)	113 (45.2)	200 (40.0)
Year of study			
First	65 (26.0)	75 (30.0)	140 (28.0)
Second	58 (23.2)	62 (24.8)	120 (24.0)
Third	55 (22.0)	56 (22.4)	111 (22.2)
Fourth	42 (16.8)	34 (13.6)	76 (15.2)
Fifth/M. Pharm	30 (12.0)	23 (9.2)	53 (10.6)

Discussion:-The discussion on self-medication among undergraduate pharmacy students delves into the prevalence and implications of this practice within this specific student demographic. It likely explores factors influencing self-medication decisions, potential benefits, and risks associated with self medication behaviors among pharmacy students.

In our research, we explored the prevalence of self-medication, along with the knowledge and perception of healthcare students towards this practice in a Nigerian University. The aim was to gain insights into the frequency of self-medication within the cohort and to understand the motivating factors behind such practices. Our results indicate a moderately high prevalence of self-medication (54.6%) from previous studies conducted in various countries, primarily focusing on university students and the general population.(12)

As future stewards of pharmaceuticals, including antibiotics, undergraduate pharmacy students play a crucial role. The understanding of antibiotics gained during their academic tenure has the potential to positively shape their responsible use of antibiotics without a prescription in the future. Subsequent research endeavors should explore the correlation between antibiotic knowledge among pharmacy students and Antimicrobial Stewardship (ASM)(13).

Our research revealed a high prevalence of self-medication among undergraduate pharmacy students. A prior study indicated that the occurrence of self-medication was prominent and exhibited an upward trend with age(14)

The reason for the higher rate in our study could be related to the study objective. Our study investigated ever practicing ASM in lifetime, while others considered 2 months or within a year. Almost half of the participants in the current study indulged in ASM multiple times (more than three times). Majority of the similar studies did not assess the frequency for which pharmacy undergraduate students indulged in ASM. Thus, we could not compare our findings with a previous study. The major reason for indulging in ASM by the pharmacy students in our study was because of having previous knowledge of using the antibiotic, and the absence of time to visit a doctor or pharmacists. Other studies from the region and other parts of the world reported past experience with the particular antibiotic, the perception that the ailment is mild and to save time in seeing a doctor or pharmacist.

History:-The concept of rational drug use is inherent in the context of self-medication. Halophiles the Alexandrian physician from 300 BC, eloquently expressed that medicines, devoid of reason and prudence, are nothing more than the hands of God. Self-medication is driven by various factors, such as a sense of self-care, compassion towards family members, time constraints hindering a visit to the doctor, and an increasing trend, especially among the educated populace. This surge can be attributed to improved socio-economic conditions, educational advancements, lifestyle changes, time constraints, the ready availability of medicines, dual working households, a heightened understanding of illnesses and their management, and easy access to information through the media. For minor ailments, self medication often emerges as the first choice and is a widespread practice globally, albeit with variations from one country to another.(15)

In managing minor health issues, individuals often resort to self-medication, a practice that can be beneficial for governments by reducing healthcare expenses and enabling healthcare professionals to focus on emergencies. However, the flip side lies in the potential dangers of self-

medication, as it may lead to unforeseen side effects. While self-medication offers a cost-effective option for those unable to bear clinical service expenses, it carries inherent risks. If complications arise, such as drug reactions, anaphylactic shock, or toxicity, individuals may find themselves grappling with serious health issues.(16)

World scenario:-Self-medication is practiced all over world. Today all countries rich poor, developing, developed, all are practicing self-medication. Now a days worldwide appreciation is seen towards self medication and self-care. Countries like Australia, Argentina, Brazil, Canada, China, Colombia, Cost Arica, el Salvador frame, Germany, Guatemala, India, Italy, Spain, Sweden, Switzerland, UK, & many other countries are practicing self-medication use of SM also depends upon healthcare system culture, education, economics, religion, awareness about medicine, influence of media & communication etc. But minor illness & symptoms, suffering of human being is same all over the world. Some study shows South Africa is using more self-medication compared to others. Percentage of OTC medicine satisfaction is in Mexico.

Why do people use self-medication? Contemporary healthcare consumers express a desire to actively participate in maintaining their well-being, demonstrating competence in managing uncomplicated chronic and recurrent illnesses following a proper medical diagnosis. With occasional professional advice, such as the use of histamine H₂-receptor blockers, topical corticosteroids, antifungals, and oral contraceptives, they are reluctant to endure the inconvenience of frequent doctor visits for conditions they believe they can self-manage with sufficient information(17).

The practice of self-medication is widespread, attributed to various factors such as the desire for self-care, empathetic feelings toward sick family members, time constraints, limited access to healthcare services, financial constraints, lack of awareness, misconceptions, extensive advertising, and the availability of drugs outside of authorized pharmacies. Self-medication is a global phenomenon affecting all age groups, with varying prevalence among individuals and regions. While previously considered unnecessary, responsible self-medication is now recognized as a crucial aspect of self-care.

Conversely, irresponsible or irrational self-medication is discouraged due to potential harm, including adverse drug reactions (ADRs) and medication-related problems (MRPs), leading to increased direct costs such as treatment expenses and hospital admissions. Self-medication is defined as the use of medications by an individual for self-treatment based on self-diagnosed symptoms without consulting a physician and/or without a valid prescription. This may encompass over-the-counter (OTC) medications available without prescription, as well as prescription-only medications (POM) requiring a valid prescription, such as antibiotics. While self-medication with POM is not advisable, it is prevalent in countries with less stringent regulations on pharmaceutical sale(18).

Engaging in self-medication provides convenient access to over-the-counter (OTC) medications at a reduced expense, presenting an alternative to expensive and time-consuming clinical consultations. Safety becomes a significant apprehension given the similarity of symptoms among various diseases. Furthermore, this practice correlates with an elevated likelihood of misdiagnosis, adverse drug reactions (ADRs), and the abuse or misuse of medications(19).

Risk of self medication:-Non-prescription products are typically intended for short-term usage in addressing selflimiting conditions, and it's not unreasonable for certain products like

paracetamol (acetaminophen) to be employed for the long-term management of chronic conditions like self-managing osteoarthritis. However, this approach is advisable only after a physician has diagnosed the condition. Caution is warranted, especially with non-prescription products that may not possess the potency or suitability for prolonged use. The risks associated with self-medication are largely attributed to inappropriate use, often characterized as misuse or abuse, terms that, while sometimes used interchangeably, carry distinct meanings. Misuse refers to using a drug for medical purposes but in an incorrect manner, such as prolonged use or increased dosage. Abuse, on the other hand, denotes the nonmedical use of drugs, often for mind-altering effects or weight loss. While all drugs hold potential for misuse, abuse is primarily linked to products containing opioids, antihistamines, and laxatives. Classifying an individual's inappropriate product use as abuse or misuse can be challenging, and it's possible for initial misuse for a genuine medical purpose at an increased dosage to progress into abuse over time(20).

Condition:- Conditions commonly managed through self-medication include headache, body ache, cough, cold, constipation, diarrhea, acidity, generalized weakness, insomnia, fever, skin infections, joint pain, burns, menstrual pain, insect bites, and similar ailments. The condition of self-medication among undergraduate pharmacy students reveals a prevalent phenomenon with nuanced characteristics. Factors such as increasing knowledge with academic progression, minimal influence of gender, and a positive perception of self-medication are notable. Analgesics emerge as commonly used, emphasizing the need for responsible practices. The study underscores the importance of fostering robust knowledge and recommends broader comparative analyses for a comprehensive understanding of self-medication practices in academic settings.

Prescription towards self medication students:- The assessment of attitudes toward self-medication involved gauging students' agreement/disagreement with provided statements on a five-point Likert scale. Overall, the majority of students expressed agreement with statements pertaining to their perceptions of self-medication. In particular, a significant number believed that self-medication offers time-saving benefits. These perceptions align with findings from a study by Kayalvizhi S. and Senapathi R. (2001), where self medication was similarly regarded as a time-saving practice. The study also noted that self medication tends to be considered when the illness is not deemed too severe. The duration of waiting time for medical consultations has been identified as a key factor predicting the inclination towards self-medication(21).

Conclusion:-

This research uncovered prevalent self-medication practices among undergraduate university students in Northeast Ethiopia, with a notable association found in relation to the respondents' field of study. Headaches and gastrointestinal diseases emerged as the most frequently cited conditions in self-medication practices. The mild nature of illnesses and dissatisfaction with healthcare services stood out as primary reasons driving self-medication. Analgesics and antibiotics ranked as the most commonly utilized classes in self-medication. It is crucial to discourage the use of prescription drugs without a valid prescription. Therefore, health professionals, particularly community pharmacists, should engage in health education initiatives to enhance awareness regarding the consequences of inappropriate self-medication practices.

The comprehension of self-medication practices among pharmacy students tends to increase progressively with each passing year and semester of their academic studies. Notably, gender differences were found to have no significant impact on the knowledge of self-medication practices.

Moreover, a majority of pharmacy students at Uni KL RCMP expressed a favorable view, agreeing that self-medication is a commendable practice, with analgesics being identified as the most commonly used drug class in self-medication. A solid understanding among pharmacy students is imperative to ensure the responsible execution of self-medication. However, future investigations should extend to comparing the levels of knowledge, attitudes, and practices related to self-medication among pharmacy students and other cohorts, including both health sciences and non-health sciences students, to offer a more comprehensive perspective on self-medication practices.

In conclusion, this study sheds light on the prevalence and patterns of self-medication among undergraduate pharmacy students, revealing a noteworthy inclination towards self-care practices. The findings underscore the importance of recognizing the evolving knowledge and perceptions of pharmacy students as they progress through their academic journey. While gender differences did not emerge as significant factors influencing self-medication knowledge, the majority of students expressed a positive view of self-medication, with analgesics identified as a commonly used drug class. Ensuring a solid understanding among pharmacy students becomes crucial for promoting responsible self-medication. However, further research should extend beyond pharmacy students to encompass diverse health sciences and non-health sciences student populations, providing a more comprehensive understanding of self-medication practices across academic disciplines. Overall, these insights contribute to the ongoing discourse on self-medication, emphasizing the need for targeted education and awareness initiatives within the academic community.

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