

**DANGERS OF SELF MEDICATION PRACTICES AMONG
UNDERGRADUATES OF UNIVERSITY OF BENIN, BENIN-CITY, EDO STATE.**

BY

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OCTOBER, 2025

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**A RESEARCH PROJECT PRESENTED TO THE DEPARTMENT OF HEALTH,
SAFETY AND ENVIRONMENTAL EDUCATION, FACULTY OF EDUCATION,
UNIVERSITY OF BENIN, BENIN CITY, IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE B.S.c (Ed)
DEGREE IN HEALTH EDUCATION, UNIVERSITY OF BENIN.**

OCTOBER, 2025.

CERTIFICATION

We, the undersigned certify that this project work was carried out by **Sarah Blessing EDEALI** with matriculation number EDU2102555 in the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin, Benin City in partial fulfillment of the requirements for the award of Bachelor of Science (B.Sc. Ed.) in Health Education.

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DEDICATION

This research work is wholeheartedly dedicated to Almighty God, whose grace, wisdom, and strength made this work possible. It is also dedicated to the researcher beloved family for their unwavering love, encouragement, and prayers throughout this journey. Finally, the researcher dedicate this work to all her friends, colleagues, and mentors who inspired and supported her in the pursuit of knowledge and excellence.

ACKNOWLEDGEMENT

The successful completion of this research project goes to numerous persons whom the researcher owes profound gratitude. Most importantly, the researcher is very grateful to God Almighty for his unfailing love towards her and for enabling her to complete my bachelor's degree programme. Her sincere appreciation goes to her supervisor, Dr. Eunice Odigie whose professional guidance, constructive criticism, and encouragement greatly contributed to the success of this work. Your support and patience throughout this journey will always be remembered.

Her Gratitude goes to her Parents Mr Benjamin and Late Mrs Rosemary Edeali for their prayers and Financial Assistant all through the period of her studies. And also to her siblings Chikwado Stephen Edeali and Ifesinachi Joseph Edeali. God bless you both richly .Also, she will not fail to thank Mrs Theresa Nwali who took up the role of mother in her life for her Unfailing Support and guidance during the period of her studies. She will not fail to thank her Lovely and Caring cousin Agatha, who constantly motivated her and stood by her in both difficult and joyful moments of this academic journey. Special thanks also go to her beloved cousin's Felicia, Aunty Abigail, Aunty Chinenye, Joy, for your unwavering love, sacrifices, and prayers. Your encouragement has been the researcher pillar of strength, especially in times of difficulty.

The researcher is also grateful to her friends Emmanuel, Anthony, Happiness and, Heart, for their motivation, encouragement, and constant belief in her. Your understanding and kindness made the journey less stressful and more fulfilling. Her heartfelt appreciation also extends to her senior, Mr. Mark for guiding her from the beginning to the end of her project work. She also want to thank Rev Fr, Simon, for his support and care. Finally, she acknowledge every individual who's direct or indirect contributions, whether moral, financial, or academic, played a role in the success of this project. Your support will always remain dear to her, and she remain sincerely grateful.

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ABSTRACT

The purpose of the study is to examine the dangers of self-medication practice among Undergraduates in University Of Benin. To achieve the purpose of the study, four (4) research questions were raised and answered, and important literature related to dangers of self-medication were clearly discussed.

The descriptive research design was adopted for this study and the population consisted of undergraduates students in the University of Benin during the 2024/2025 academic session. With a total population of about forty three thousand, six hundred and seventy nine (43,679) undergraduate students. A total of four hundred and eighty (480) students were selected to represent the population of the study. The instrument used for data collection was a well-structured close-ended questionnaire with sixteen (16) items. The questionnaire was validated by the project supervisor and two other lecturers in the Department of Health, Safety and Environmental Education. The test retest reliability method was used to establish the reliability of the questionnaire. A total of four hundred and eighty (480) questionnaires were administered to the sample and data collected was analyzed using frequency count, percentage mean, and standard deviation.

The study found that undergraduates of the University of Benin engage in self-medication, often influenced by factors such as academic pressure, financial constraints, easy access to drugs, cultural beliefs, and information from social media. Commonly used medications include antimalarials, pain relievers, contraceptives, and antibiotics. Although some students reported infrequent use, the practice remains widespread and poses serious risks, including drug resistance, adverse reactions, misdiagnosis, psychological dependence, and long-term health complications. The study therefore recommended strengthening campus health services to provide affordable and accessible medical care, organizing regular awareness campaigns, enforcing stricter control of prescription only drugs, promoting peer education and student led health advocacy, and integrating health education into academic programs to equip students with the knowledge to make informed health decisions.

CHAPTER ONE

INTRODUCTION

Background to the study

Self-medication, is the practice of individuals using drugs to treat self-diagnosed ailments without professional medical advice, has become increasingly prevalent among undergraduates. Studies indicate that this trend is driven by factors such as easy access to over-the-counter (OTC) drugs, academic pressure, financial constraints, and a lack of awareness about the risks involved. While self-medication may seem convenient and cost-effective, it poses significant health risks, including incorrect diagnosis, drug misuse, antibiotic resistance, and severe adverse reactions (WHO, 2021). Undergraduate students are particularly vulnerable to self-medication due to their transitional phase from adolescence to adulthood. Many prefer quick relief from ailments such as headaches, stress, fever, and infections, leading them to rely on painkillers, antibiotics, and sedatives without medical guidance. A systematic review of self-medication among university students in Africa found that 55–88% of students engage in self-medication (Osemene & Lamikanra, 2012). Another study in Nigeria reported that 81.8% of undergraduate students self-medicate, with antibiotics (53.4%) and analgesics (79.2%) being the most commonly used drugs (Esan et al., 2018). Additionally, the World Health Organization (WHO) has raised concerns over the increasing misuse of antibiotics, which contributes to antimicrobial resistance, a growing global health crisis.

The increasing rate of self-medication among students raises serious public health concerns. Inappropriate drug use can lead to resistance to essential medications, worsening health conditions, and even long-term complications. Studies show that students often misuse antibiotics, analgesics, and anti-inflammatory drugs, without understanding proper dosage or side effects. The consequences extend beyond personal health risks, impacting healthcare systems due to the emergence of drug-resistant bacteria and increased hospitalization rates. The Global Antibiotic Resistance Partnership (GARP) estimates that over 70% of antibiotics sold in some developing countries are obtained without a prescription, increasing the risk of antimicrobial resistance (Laxminarayan et al., 2013). In addition to accessibility and peer influence, digital information sources such as social media, online blogs, and health websites have also contributed to the rise of self-medication among undergraduates. Many students may rely on unverified online content for drug recommendations or dosage instructions, often leading to inappropriate self-treatment. The false sense of medical knowledge gained from the internet can be dangerous, especially when it replaces professional healthcare advice. Another contributing factor is the inadequate availability or perceived inefficiency of campus health centers. In many institutions, long queues, limited operating hours, and underfunded health facilities discourage students from seeking professional help. As a result, students may opt to self-medicate as a faster, more convenient alternative. Cultural and family influences also play a significant role. In some families, there is a tradition of using leftover medication from previous illnesses or suggesting drugs based on common

knowledge passed down through generations. This creates a pattern of informal treatment, which many undergraduates carry into their independent lives at university.

Moreover, psychological factors such as anxiety, depression, and fear of diagnosis have been shown to contribute to self-medication behaviors. Students struggling with mental health may turn to substances like painkillers, sedatives, or alcohol as a coping mechanism rather than seeking professional intervention. Financial constraints remain a major driver of self-medication. Many undergraduates lack access to health insurance or cannot afford the cost of private hospital consultations and prescribed drugs. According to a survey conducted by Osemene and Lamikanra (2012), cost-saving was one of the top three reasons students gave for not consulting a medical professional before using medication. The implications of self-medication extend beyond immediate health concerns. It may lead to academic setbacks, as poorly managed health issues can result in poor concentration, fatigue, absenteeism, or hospitalization. It may also place additional strain on healthcare systems due to complications that could have been prevented with proper medical attention. Another important dimension to consider is the normalization of drug use within student communities, especially through the casual sharing of medications among friends. In many cases, undergraduates borrow drugs from roommates or classmates based on previous experiences, assuming that what worked for one person will work for another. This practice completely disregards individual health differences, allergic reactions, or underlying conditions that may be present. Also, the influence of pharmaceutical advertisements especially on social media and digital

platforms cannot be overlooked. Many students are exposed to persuasive marketing that promotes self-treatment options without highlighting the associated risks. These ads often promise quick fixes for pain, stress, or infections, creating a false impression that self-medication is safe and acceptable. From a policy perspective, there is a noticeable gap in enforcement of drug control laws, especially on and around university campuses. Vendors and chemists sometimes dispense prescription only medications without verifying the need for a prescription. Regulatory bodies like the National Agency for Food and Drug Administration and Control (NAFDAC) and the Pharmacists Council of Nigeria have issued guidelines, but implementation at the grassroots level remains weak. This policy gap continues to expose young adults to unregulated access and misuse.

Furthermore, the academic culture of “pushing through” illness without rest or medical attention may indirectly encourage self-medication. Students who fear missing lectures, tests, or continuous assessments may choose to medicate themselves rather than seek formal treatment, seeing it as a more time-efficient option. This mindset contributes to a harmful cycle where short-term relief is prioritized over long-term well-being. In some cases, students self-medicate to enhance academic performance or cope with workload, particularly using stimulants or energy boosting drugs. Such practices not only carry health risks but also reflect a misunderstanding of the safe limits of drug use. This behavior can evolve into dependency, posing long-term threats to both physical and mental health. The practice of self-medication also poses a public health challenge, especially when it leads to drug-resistant infections. When students misuse antibiotics by

not completing a full dose or using them unnecessarily it contributes to the global crisis of antibiotic resistance, making future infections harder to treat. Despite being a serious public health issue, self-medication is often overlooked in student welfare programs. This study, therefore, seeks to fill a critical knowledge gap by exploring the patterns, drivers, and dangers of self-medication among undergraduates. The findings are expected to inform school authorities, healthcare providers, and policymakers on effective ways to educate and protect students from the long-term consequences of this risky practice. Given these rising concerns, there is an urgent need for more targeted health education campaigns within tertiary institutions, not just about the risks of drug misuse, but also promoting accessible, student-friendly medical services. Understanding the underlying factors that drive undergraduates toward self-medication is vital for shaping policies, interventions, and awareness programs that protect students' health and academic futures. Recognizing the dangers of self-medication among undergraduates, it is crucial to investigate the factors influencing this practice, assess its impact on students' health, and develop strategies to promote safe medication practices. This study aims to contribute to existing knowledge on self-medication, raise awareness, and advocate for policies that encourage responsible drug use among undergraduates.

Statement of the problem

Self-medication among undergraduates has emerged as a significant health issue in academic settings, with potential adverse effects on both individual and public health. Despite the availability of medical facilities on most campuses, many students choose to

self-medicate, primarily due to factors like the desire for quick relief, lack of time to visit health services, peer influence, and cost considerations. This practice is often done without sufficient knowledge of proper dosages, potential drug interactions, or the side effects of the medications, which can lead to various health complications. Hence, this study examined the dangers of self-medication among undergraduate.

Furthermore, research across different regions indicates a worrying prevalence of self-medication among university students. For instance, a study in South Africa revealed that over 70% of students self-medicate, with common substances including painkillers, antibiotics, and cold remedies (Chambers et al., 2018). In another study conducted in India, 58% of undergraduates admitted to self-medicating, with a high reliance on non-prescription medications for treating ailments such as headaches, fever, and gastrointestinal problems (Sengupta et al., 2019). This worrisome prevalence of self-medication motivated the researcher to examine the dangers of self-medication among undergraduate.

Finally, the dangers of self-medication are diverse, It can lead to misdiagnosis, inappropriate drug use, and an increased risk of drug interactions and side effects. Notably, the misuse of antibiotics for minor infections contributes significantly to the global challenge of antimicrobial resistance (AMR), a growing public health crisis that threatens the effectiveness of critical medicines (Tosh et al., 2020). Additionally, the indiscriminate use of over-the-counter medications may mask underlying health conditions, delaying appropriate medical intervention and exacerbating health issues in the long term. Given the serious health risks associated with self-medication, this study seeks to explore the

underlying factors that drive undergraduates to engage in this practice, assess its health consequences, and propose strategies to reduce its prevalence. Understanding these dynamics will help in designing targeted interventions to educate students about the risks of self-medication and promote safer healthcare practices within academic institutions.

Research questions

The following research questions guided the study;

1. What are the factors influencing self-medication practices among undergraduates of University of Benin?
2. To what extent do undergraduates of University of Benin engage in self-medication practices?
3. What types of medications are most commonly used by undergraduates for self-medication?
4. What are the perceived dangers of self-medication practices among Undergraduates of University of Benin?

Purpose of the study

The purpose of the study is to investigate the dangers of practicing self medication among undergraduates of The University of Benin. Specially, the study will seek to:

- Investigate the potential dangers of self-medication practices among Undergraduates of University of Benin
- Examine Extent to which undergraduates of University of Benin engage in self-medication practices

- Identify the factors influencing self-medication practices among undergraduates of University of Benin
- Evaluate the types of medications most commonly used by undergraduates for self-medication

Significance of the study

This study will be beneficial to several key groups, including undergraduates, educational institutions, healthcare policymakers, lecturers, and future researchers. Each of these stakeholders plays a critical role in addressing the issue of self-medication among students, and the findings of this research are intended to guide awareness, policies, and practices surrounding student health behavior. Firstly, undergraduate students will benefit by gaining a deeper understanding of the risks associated with self-medication. The study will help raise awareness about the dangers of improper drug use, the risks of drug resistance, and the long-term health implications of unsupervised medication. This awareness can promote more responsible health decisions and reduce harmful self-treatment practices. Educational institutions and lecturers will also find this study valuable, as it can guide them in developing student health education programs. By understanding the causes and consequences of self-medication, schools can improve support systems, offer better medical guidance, and integrate health awareness into the curriculum or student orientation programs.

For healthcare policymakers and regulatory bodies, the study offers useful data that can support the development or enforcement of drug control policies, particularly around the regulation of over-the-counter drug access to young people. It can also influence the

improvement of campus-based healthcare facilities to encourage proper medical consultations among students. Lastly, future researchers will benefit from this study by using its findings as a foundation for further academic work. It opens the door for more detailed investigations into health behaviors among students and provides a base for comparative studies in other regions or populations.

Scope/ Delimitation of this study

This study covers the assessment of the dangers of practicing self-medication among undergraduates in the University of Benin, Benin City, Edo State. It also covers areas such as the Factors responsible for self-medication, prevalence of self-medication, dangers associated with self-medication and drugs most commonly used for self-medication among undergraduates of the University of Benin.

This study is De-limited to undergraduate students of the University of Benin, Benin City, Edo State.

Definition of Terms

The following were operationally defined:

Danger: A likely or possible harm emanating from the use of non-prescription drugs.

Self-medication: Self-medication is the practice of using medicines, herbs, or home remedies without professional medical advice to treat self-diagnosed health conditions.

Practice: the actual application or use of an idea, belief, or method, as opposed to theories relating to it.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter deals with the review of relevant and related literature to the study and discussed under the following sub- headings:

- Theoretical Framework
- Concept of Self Medication
- Prevalence and patterns of Self-Medication among Undergraduates
- Factors Influencing Self-Medication Practices among Undergraduates
- Self-Medication Practices among Undergraduates
- Dangers of Self-Medication Practices among Undergraduates.
- Summary of Reviewed Literature

Theoretical Framework

The theory of Health Belief Model (HBM) is one of the most widely used conceptual frameworks in health behavior research, developed in the 1950s by social psychologists Hochbaum, Rosenstock, and Kegels. It was initially created to understand why people fail to adopt disease prevention strategies or screening tests for the early detection of diseases. The model proposes that individuals' health-related behaviors are influenced by their perceptions of the severity of a potential illness, their susceptibility to that illness, the benefits of taking a preventive action, and the barriers to taking that action. In the context of self-medication among undergraduates, the HBM provides a valuable lens for examining how students' beliefs and perceptions about illness,

medication, and healthcare access influence their decision to self-medicate rather than seek professional medical advice. By applying this model, researchers can better understand the cognitive factors driving self-medication practices and develop targeted interventions to promote safer health behaviors. The model has six construct.

Perceived Susceptibility generally refers to the state of being vulnerable or likely to be affected by a particular condition, illness, or risk factor. In health psychology, it explains how open an individual is to experiencing harm when exposed to a threat. When applied to behavior, it is not just about the objective risk, but how a person perceives that risk in relation to themselves. This personal evaluation of vulnerability is what the Health Belief Model terms perceived susceptibility. It describes an individual's belief about their likelihood of encountering a health problem. In the case of self-medication, it reflects how strongly one feels they are at risk of drug resistance, misdiagnosis, adverse reactions, or long-term complications. When individuals perceive themselves as highly susceptible, they tend to avoid self-medication and instead seek professional healthcare. On the other hand, those who believe they are less vulnerable often continue self-medicating, sometimes ignoring potential dangers.

Awareness campaigns that emphasize real-life consequences, testimonies, and medical evidence can raise perceived susceptibility. By personalizing risk, such interventions motivate healthier behaviors and reduce the tendency to rely on unsafe drug practices (Rosenstock, 2020).

Perceived Severity this refers to an individual's belief about the seriousness and potential consequences of a health condition or risky behavior. In the Health Belief Model, it is not limited to medical outcomes but also includes how an illness or complication could disrupt daily life, academic performance, social relationships, and future aspirations (Champion & Skinner, 2021). When people believe the consequences of a behavior are severe, they are more likely to change or avoid such behaviors in order to protect themselves. Applied to self-medication among students, perceived severity highlights how seriously they view the potential dangers of using drugs without medical guidance. For instance, when undergraduates recognize that misuse of medications can lead to severe outcomes such as liver failure, kidney damage, drug dependence, or even death, they are more motivated to seek professional care instead of self-medicating. Beyond physical harm, they may also consider the academic setbacks or financial strain that result from prolonged illness caused by drug misuse.

Educational interventions are vital in strengthening perceived severity. Campaigns that emphasize real-life cases of complications, medical evidence, and testimonies from affected peers can make risks more tangible. By presenting self-medication not as a minor issue but as a behavior with potentially life-threatening outcomes, students are encouraged to adopt preventive measures and prioritize formal healthcare.

Perceived Benefits this refer to an individual's belief in the positive outcomes that will result from engaging in a recommended health behavior. Within the Health Belief Model, this concept emphasizes the advantages a person expects to gain if they adopt

preventive or corrective actions. It is not only about recognizing that an action works, but also about believing that it is personally worthwhile and beneficial in reducing risk or improving health (Glanz, Rimer, & Viswanath, 2021).

In the context of self-medication among students, perceived benefits relate to the belief that seeking professional medical care is more effective and safer than relying on personal judgment or advice from peers. Students who acknowledge that consulting a qualified healthcare provider leads to accurate diagnosis, appropriate treatment, and faster recovery are less likely to self-medicate. On the other hand, if they see little or no added benefit in formal care, they may continue with self-medication, assuming it is cheaper or more convenient. Health promotion programs that highlight success stories, peer testimonies, and examples of students who improved after seeking professional help can reinforce these positive beliefs. By emphasizing the long-term advantages of professional care such as preventing complications, avoiding drug resistance, and ensuring safer outcomes students' perceived benefits can be strengthened. This increased awareness motivates healthier choices and reduces the reliance on self-medication as a quick but risky solution.

Perceived Barriers this refers to an individual's evaluation of the obstacles that make it difficult to adopt a recommended health behavior. In the Health Belief Model, even when a person acknowledges their susceptibility to a health problem and understands its severity, perceived barriers can still prevent them from taking appropriate preventive or corrective actions (Janz & Becker, 2020). These barriers may be physical,

financial, psychological, or social in nature, and they often determine whether individuals choose convenience over safety.

For students, perceived barriers are a major factor driving self-medication. Many students consider the high cost of healthcare services as a key obstacle, making professional consultation appear unaffordable. Long waiting times at clinics and hospitals also discourage them, especially when balancing tight academic schedules. Fear of stigma, particularly when symptoms are linked to sensitive conditions, can further reduce the willingness to seek medical help. Additionally, when symptoms are judged as minor, students often believe that visiting a doctor is unnecessary and instead rely on over-the-counter drugs or peer advice. Addressing these barriers is critical in reducing self-medication. Strategies such as improving the affordability of healthcare, offering student friendly medical services within campus clinics, reducing waiting times, and creating a supportive environment free of stigma can help. By minimizing perceived barriers, students are more likely to seek professional care and adopt healthier, safer behaviors.(Janz & Becker, 2021).

Cues to Action refers to the triggers or prompts that stimulate individuals to engage in health-promoting behaviors. Within the Health Belief Model, cues to action serve as the spark that transforms awareness of risk, perceived severity, and recognition of benefits into actual behavior change (Rosenstock, Strecher, & Becker, 2022). These cues can be either internal, such as experiencing troubling symptoms, or external, such as health campaigns, advice from trusted individuals, or exposure to educational materials.

For undergraduates, it is particularly important in shaping decisions about self-medication. Internal cues, like recurrent headaches or side effects from previous drug misuse, may push a student to seek professional medical help instead of repeating unsafe practices. External cues include health seminars organized by the university, reminders from health centers, peer influence, social media messages, or public health campaigns highlighting the dangers of self-medication. When students are regularly exposed to such reminders, they become more aware of the need to consult qualified professionals rather than relying solely on self-prescription. Strengthening cues to action is therefore vital in discouraging self-medication. Universities can integrate consistent health education programs, peer-led campaigns, and timely reminders through digital platforms to reinforce safe health-seeking behaviors. By making cues more frequent, relevant, and relatable, students are nudged towards professional consultation, reducing reliance on risky drug practices.

Self-Efficacy refers to an individual's confidence in their ability to successfully perform a particular behavior. Rooted in Bandura's social cognitive theory, it emphasizes the belief that one has the skills, resources, and determination needed to take action and achieve desired outcomes (Bandura, 2023). Within the Health Belief Model, self-efficacy is considered a critical construct because even when individuals recognize their susceptibility to a health problem, understand its severity, and acknowledge the benefits of preventive action, they may fail to act if they lack confidence in their ability to do so.

In the context of self-medication, self-efficacy describes the confidence students have in their ability to access professional healthcare services instead of relying on unprescribed drugs. A student with high self-efficacy is more likely to make informed decisions, navigate hospital or campus clinic procedures, ask questions confidently, and follow medical advice correctly. Conversely, low self-efficacy may result in avoidance of professional care due to feelings of helplessness, intimidation, or uncertainty about how to approach healthcare providers. Building self-efficacy among students requires intentional interventions. Training programs that teach health seeking skills, mentorship from peers, supportive healthcare staff, and easily accessible medical services within universities all play a role. When students feel capable of seeking and utilizing healthcare effectively, they are less likely to depend on self-medication and more likely to adopt safe, preventive practices.

Concept of Self Medication

Self-medication refers to the practice whereby individuals treat their perceived health conditions or symptoms without consulting a healthcare professional. It involves the selection and use of medicines or home remedies based on personal judgment, past experiences, advice from non-professionals, or information obtained from sources such as the media and the internet. The practice may include the use of over-the-counter drugs, leftover prescriptions, herbal remedies, or drugs recommended by peers and family members. Self-medication is commonly employed in the management of illnesses ranging from minor ailments such as headaches, colds, and menstrual pain, to more

serious conditions such as infections and chronic disorders. The World Health Organization formally defines self-medication as “the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms” (WHO, 2022). This definition emphasizes the autonomy assumed by individuals in managing their health without direct professional advice. While responsible self-medication is acknowledged as having a role in healthcare, particularly in easing the burden of minor illnesses on medical systems, inappropriate practices pose serious health risks. The concept of self-medication is not a new phenomenon. Historically, communities have always engaged in some form of self-care and self-treatment, long before the establishment of modern healthcare systems. In ancient societies, people relied on herbs, roots, and concoctions passed down through generations to manage common illnesses. Traditional medicine was not only a cultural heritage but also a necessity in contexts where professional healthcare was unavailable. The practice evolved significantly with the development of pharmaceuticals and the widespread availability of industrially manufactured drugs in the twentieth century. With the discovery of antibiotics, analgesics, and other modern medicines, people increasingly turned to these options for immediate relief of symptoms, often without professional supervision. Today, self-medication continues to exist in both traditional and modern forms, often overlapping, especially in societies where cultural beliefs remain strong alongside modern healthcare structures.

Hamza and Fadheel (2021) define self-medication as the independent use of pharmaceutical products by individuals to treat self-recognized symptoms or ailments

without a valid prescription or guidance from a licensed healthcare provider. It involves deciding what drug to take, how much to take, and when to stop, all without professional evaluation. The definition emphasizes the absence of medical supervision and the reliance on personal judgment or informal advice. In the International Journal of Research and Innovation in Social Science (IJRISS) (2023), self-medication is described as an umbrella term covering all forms of self-treatment through the use of modern or traditional medicines without consulting a physician for diagnosis, prescription, or treatment monitoring. This broader definition includes not just pharmaceuticals but also herbal and traditional remedies used independently.

Self-medication refers to the act of individuals treating their health problems or symptoms with drugs or remedies without professional medical advice or supervision. It involves the use of over-the-counter medicines, leftover prescriptions, herbal products, or other substances based on personal knowledge, advice from friends, or past experiences. People often engage in self-medication to save time, reduce medical costs, or quickly relieve discomfort. However, this practice can lead to misuse, incorrect dosage, delayed diagnosis, drug resistance, and serious health complications. It reflects a growing public health concern, especially among students and young adults, who may lack adequate knowledge about proper medication use, drug interactions, and potential side effects, making professional guidance essential for safety and effective treatment.

Prevalence of Self-Medication among Undergraduate

The prevalence of self-medication varies greatly across regions and population groups. Studies indicate that the practice is more widespread in developing countries, where healthcare systems are underfunded and access to professional care is limited. Osemene and Lamikanra (2012) observed that self-medication is highly prevalent among university students in southwestern Nigeria, largely due to financial constraints and peer influence. In developed countries, although the practice also exists, it is mostly restricted to the use of over-the-counter drugs such as pain relievers, cough syrups, and antacids, and individuals often show greater awareness of proper usage. Among university students, self-medication has been reported at particularly high rates. Academic stress, limited income, and the desire to save time contribute to their reliance on self-care practices, sometimes including the misuse of antibiotics.

In Nigeria, a 2022 study conducted among undergraduates at a state university in Southwest Nigeria reported a self-medication prevalence of 55.3%. The major reasons cited included perceived mildness of illness and prior experience with the same symptoms (Adebayo & Alade, 2022). Similarly, a meta-analysis conducted in India in 2023 revealed a pooled prevalence of 64.4% among university students. The highest regional rate was reported in the northern part of the country at 81.9%, indicating a significant reliance on self-treatment (Singh et al., 2023). In Pakistan, research conducted among university students in Karachi between 2020 and 2022 showed that 76% of respondents had practiced self-medication at least once. Many altered prescribed

regimens based on symptoms or peer suggestions, highlighting a dangerous trend of misuse (Khan et al., 2021). A cross-sectional study in Northeast Ethiopia (2021) indicated that 64.98% of undergraduate students practiced self-medication, citing dissatisfaction with healthcare services and the belief that certain illnesses were too minor to warrant a doctor's visit (Tesfaye et al., 2021). Saudi Arabia reported some of the highest prevalence figures. A 2022 study among university students in Hail City found that 98.2% had engaged in self-medication, particularly with antibiotics, painkillers, and flu medications. The study emphasized the urgent need for regulatory intervention and public health education (Alotaibi et al., 2022). In the United States, a national survey indicated that approximately 42% of adults engaged in self-medication practices, often using OTC pain relievers, cold remedies, and dietary supplements without professional guidance (Bennett et al., 2020). In the United Kingdom, a study found that about 51% of the population practiced self-medication, with common reasons being minor illnesses and the desire to avoid the perceived inconvenience of visiting a healthcare provider (James et al., 2018). In China, a large-scale cross-sectional survey conducted in 2021 among university students reported a prevalence rate of 66.7% for self-medication. Factors contributing to this high rate included easy accessibility to pharmacies, online drug sales, and cultural acceptance of self-treatment practices (Zhang et al., 2021). These statistics highlight a consistent and widespread engagement in self-medication among undergraduates and the general public globally.

Patterns of Self- Medication among Undergraduates

According to James et al. (2022), undergraduates frequently use a variety of drugs for self-medication, largely due to their easy accessibility and perceived effectiveness. Drug is any chemical substance that, when introduced into the body, changes its normal structure or function and may be used for prevention, diagnosis, treatment, or relief of diseases. Commonly used drug categories include analgesics, antibiotics, antimalarials, gastrointestinal medications e. t. c.

Analgesics and Antipyretics

Analgesics are medications primarily designed to relieve pain, while antipyretics are drugs that lower fever. These two drug categories often overlap, as some medications, such as paracetamol, ibuprofen, and aspirin, serve both purposes. Analgesics function by blocking pain signals in the nervous system or reducing inflammation that triggers discomfort, while antipyretics act on the hypothalamus in the brain to regulate body temperature. Because these medications are widely available over the counter, they are easily accessible to the general public, including university students. Their ready availability and relatively low cost make them some of the most commonly used drugs for self-medication. Among undergraduates, the use of analgesics and antipyretics is particularly common due to the high frequency of minor health complaints such as headaches, menstrual cramps, fever, muscle aches, and stress-induced pain. Students often perceive these drugs as safe and harmless, which encourages indiscriminate use without medical consultation. Research confirms their widespread use. James et al. (2020)

found that about 85% of undergraduates in Ghana engaged in self-medication with analgesics, while Alemu et al. (2021) reported a prevalence of 75.5% among Ethiopian university students, with headaches and menstrual pain being the most frequent reasons. Similarly, Tesfaye et al. (2021) highlighted the pattern of preventive use, where students consumed painkillers ahead of stressful events such as examinations or physical activities.

The misuse of these medications often involves overdosing, combining multiple painkillers, or prolonged use without medical oversight. For example, some students mix ibuprofen with paracetamol, assuming it will bring faster or stronger relief. However, such practices can increase the risk of organ damage. Continuous or excessive intake of analgesics has been linked to liver damage (especially with paracetamol), kidney impairment, gastrointestinal bleeding, and, in some cases, dependency. James et al. (2022) also noted that many students store these drugs in their hostels for quick access, reinforcing the culture of unsupervised drug use. While analgesics and antipyretics remain vital for managing common health issues, their misuse among undergraduates presents a significant public health concern. The perception of safety associated with over-the-counter availability contributes to their abuse. Without proper education on appropriate use and dosage, students remain vulnerable to both short-term and long-term health risks.

Antibiotics

These are a class of powerful drugs designed to combat bacterial infections by either killing bacteria or inhibiting their growth. They are not effective against viruses, fungi, or parasites, yet they remain one of the most widely used and sometimes misused categories of medicine in the world. Examples of commonly prescribed antibiotics include amoxicillin, ciprofloxacin, and metronidazole. These medicines play an essential role in modern healthcare, having saved countless lives from infectious diseases. However, their effectiveness depends on appropriate use, correct diagnosis, and strict adherence to dosage and treatment duration. When misused, antibiotics can cause significant harm, including the development of antimicrobial resistance, which is a global public health challenge. Among undergraduates, self-medication with antibiotics is particularly concerning. Many students tend to purchase antibiotics over the counter or share leftover drugs with friends and peers, often without consulting a healthcare professional. This is largely driven by misconceptions about the effectiveness of antibiotics, such as the belief that they can cure viral illnesses like the common cold, flu, or sore throat. Studies have reported a high prevalence of such practices across different regions. Tesfaye et al. (2021) found that 43% of undergraduates in Ethiopia had taken antibiotics without prescriptions within the past year. In Saudi Arabia, Alghadeer et al. (2022) reported an even higher rate of 77.6% among students who admitted to using antibiotics without medical guidance, while Osemene and Lamikanra (2023) observed similar patterns in Nigeria, with 56.9% of students engaging in this behavior.

Another common trend among students is partial dosage or incomplete treatment courses. Instead of finishing the full prescription, many discontinue antibiotic use as soon as their symptoms improve. This premature stoppage not only fails to completely eliminate the infection but also allows resistant strains of bacteria to survive and multiply. Such practices fuel antimicrobial resistance, which reduces the effectiveness of antibiotics for future infections, making once easily treatable diseases far more difficult and expensive to cure. The risk is compounded by the ease of access to antibiotics through community pharmacies where strict prescription regulations are not always enforced. The habit of self-medicating with antibiotics for conditions like fever, diarrhea, wounds, or respiratory symptoms, without laboratory diagnosis or medical consultation, exposes students to both immediate and long-term dangers. Immediate effects may include allergic reactions, gastrointestinal disturbances, or toxicity, while the long-term consequences extend to the emergence of “superbugs” that no longer respond to conventional antibiotic therapy. This situation undermines global health efforts and poses a serious threat to both individual and public health. The normalization of antibiotic misuse among students highlights the urgent need for stronger awareness campaigns, stricter regulation of drug sales, and better access to affordable professional healthcare services.

Antimalarials

Antimalarials are a class of drugs specifically designed to prevent or treat malaria, a parasitic disease transmitted through the bites of infected female *Anopheles* mosquitoes.

These drugs work by targeting the malaria parasite (*Plasmodium* species) at different stages of its life cycle, either killing the parasite or inhibiting its multiplication within the human body. Commonly used antimalarials include chloroquine, artemether-lumefantrine, sulfadoxine-pyrimethamine, and quinine. The discovery and effective use of these drugs have greatly reduced malaria-related morbidity and mortality across the world, especially in endemic regions such as Sub-Saharan Africa. However, their misuse through self-medication poses a serious threat to individual health and malaria control programs. In many malaria-endemic countries like Nigeria, fever is automatically associated with malaria, and students often resort to self-medicating with antimalarial drugs at the first sign of illness. This practice is driven by the long-standing belief that “any fever is malaria” and reinforced by the easy accessibility of these medicines in local pharmacies and patent medicine stores. Ogunsola et al. (2020) reported that about 32% of Nigerian university students took antimalarials without laboratory diagnosis, while Akinyemi et al. (2021) found that 28.5% of undergraduates in Southwestern Nigeria engaged in self-treatment with these drugs. Such practices result in the indiscriminate use of antimalarials, often without considering other potential causes of fever such as typhoid, viral infections, or other bacterial diseases.

Students frequently use leftover antimalarial drugs from previous illnesses or purchase incomplete doses due to financial limitations. In some cases, they even take antimalarials preventively after mosquito bites or during malaria seasons, despite the fact that preventive use is not appropriate without medical supervision. This culture of

empirical treatment without confirmation delays accurate diagnosis, which may worsen other febrile illnesses and increase the risk of complications. Furthermore, partial treatment or under-dosing, often due to cost constraints, creates conditions favorable for drug resistance. Malaria parasites exposed to inadequate drug concentrations may survive and adapt, giving rise to resistant strains that undermine the effectiveness of existing therapies. The consequences of such misuse are far-reaching. Inappropriate use of antimalarials can lead to treatment failure, persistent infection, and spread of resistant malaria parasites within communities. For students, this means prolonged illness, reduced academic performance, and higher medical expenses in the long run. At the public health level, the growing resistance to effective drugs like artemisinin based combination therapies (ACTs) threatens to reverse global gains in malaria control. The trend of self-medicating with antimalarials among undergraduates reflects the urgent need for improved health education, access to diagnostic testing, and stricter regulation of drug distribution to preserve the efficacy of these life-saving medicines.

Gastrointestinal Drugs

Gastrointestinal drugs are medications specifically designed to relieve, manage, or treat conditions that affect the digestive system, which includes the stomach, intestines, and associated organs. They consist of a wide variety of drugs such as antacids, which neutralize excess stomach acid and provide relief from indigestion or gastritis; laxatives and purgatives, which are used to relieve constipation by stimulating bowel movement or softening stools; and antidiarrheal agents such as loperamide, which help control the

frequency of bowel movements and reduce fluid loss in cases of diarrhea. These medicines play an important role in maintaining digestive health when used correctly, but their unsupervised and frequent use can cause significant harm. Among university students, self-medication with gastrointestinal drugs is highly prevalent, largely because of their daily lifestyle and eating patterns. Many students consume fast foods or street meals, skip regular diets, or experience academic stress, all of which contribute to gastrointestinal issues such as heartburn, indigestion, diarrhea, and constipation. Instead of consulting healthcare professionals, students commonly resort to self-treatment with readily available gastrointestinal drugs. Abay and Amelo (2021) found that 45% of Ethiopian medical students practiced self-medication with GI drugs, particularly antacids for gastritis and laxatives for constipation. Similarly, Alemu et al. (2022) observed that students often used loperamide immediately after experiencing diarrhea, without investigating the underlying cause.

This behavior is reinforced by peer advice, easy access to these medicines, and the misconception that gastrointestinal symptoms are minor and can be easily handled without medical consultation. Some students misuse laxatives and purgatives during fasting periods or while attempting detox routines promoted on social media, which may disrupt normal bowel function and lead to dependency. Regular reliance on antacids after spicy or irregular meals can mask more serious conditions such as peptic ulcers or gastrointestinal reflux disease, delaying timely diagnosis and treatment. Overuse of laxatives may cause dehydration, electrolyte imbalance, and reduced intestinal motility,

while inappropriate use of antidiarrheal drugs like loperamide can worsen infections by retaining harmful pathogens in the gut. The widespread self-use of gastrointestinal drugs among students highlights a concerning trend where short-term symptom relief is prioritized over addressing root causes. This not only endangers individual health but also increases the burden on healthcare systems when untreated digestive conditions escalate into chronic or severe illnesses. Improving awareness, encouraging healthier dietary practices, and promoting professional consultation for recurring gastrointestinal issues are essential steps to reduce the misuse of these drugs among undergraduates.

Cold and Allergy Medications

Cold and allergy medications are drugs commonly formulated to relieve the symptoms associated with respiratory infections such as colds, flu, and seasonal allergies. They usually include antihistamines, which reduce allergic reactions like sneezing, itching, and watery eyes by blocking the action of histamine in the body, and decongestants, which reduce nasal swelling and congestion by constricting blood vessels in the nasal passages. Many of these products are marketed as multi symptom relief medications, often combining antihistamines, decongestants, analgesics such as paracetamol, and sometimes cough suppressants. While they provide temporary relief from discomfort, these drugs do not cure viral infections such as the common cold but only ease the symptoms. Because of their wide availability over the counter and perceived harmlessness, students frequently resort to them without professional consultation. Self-medication with cold and allergy drugs among undergraduates is

highly prevalent and often linked to seasonal illnesses or academic stress. Many students quickly resort to these medicines at the onset of a sore throat, runny nose, cough, or sneezing, aiming for rapid relief to maintain their daily activities. Dada et al. (2022) reported that 58% of university students in the United Kingdom practiced self-medication for respiratory symptoms, particularly during winter when colds are common. Similarly, James et al. (2023) noted that many students neglected to read or understand the components of cold-relief medications, which often resulted in unintentional overdosing of ingredients like paracetamol that appear in multiple products.

Students frequently combine more than one cold or allergy drug, unaware of the risk of duplicating active ingredients. For instance, taking a paracetamol-based cold remedy alongside another painkiller or fever medication can lead to liver toxicity. Likewise, prolonged or unregulated use of antihistamines can cause drowsiness, reduced concentration, and even dependency in some cases, while excessive decongestant use may raise blood pressure or cause rebound nasal congestion. Seasonal allergy sufferers sometimes continue using antihistamines long-term without adjusting their dosage or seeking professional medical advice, which may lead to diminished effectiveness and health risks. The tendency to self-treat respiratory conditions without distinguishing between viral and bacterial causes also leads to misuse, as students may overlook the need for professional diagnosis when symptoms persist. This can delay proper treatment, worsen infections, and contribute to unnecessary drug consumption. The habit of indiscriminate self-use of cold and allergy medications among students therefore reflects

a pressing need for greater health literacy, clearer labeling on combination medicines, and education on the dangers of unmonitored drug use.

Sedatives and Sleep Aids

Sedatives and sleep aids are substances used to promote relaxation, reduce anxiety, and induce sleep. Sedatives, such as benzodiazepines and barbiturates, work by depressing the central nervous system, slowing brain activity, and creating a calming or drowsy effect. They are medically prescribed for conditions like anxiety disorders, insomnia, or seizures, but when taken without supervision, they carry a high risk of dependence and adverse side effects. Sleep aids also include antihistamine-based drugs such as promethazine, which have sedating properties, as well as herbal remedies like valerian root, which are marketed as natural alternatives. While these drugs or remedies can provide short-term relief from stress and sleeplessness, their unregulated use poses serious risks to mental and physical health. Among university students, self-medication with sedatives and sleep aids has become increasingly common, particularly during examination periods or times of academic stress when sleep disruption and anxiety are heightened. Instead of seeking professional assessment for underlying conditions such as insomnia, depression, or generalized anxiety, students often resort to sedatives as a quick solution to manage their immediate problems. Demilie et al. (2020) reported that 22% of Ethiopian students used sedatives without prescriptions, while Alaqeel and Abanmy (2022) found that 19.8% of Saudi students engaged in similar practices, including

benzodiazepine misuse. These figures highlight a concerning global trend of unsupervised use of central nervous system depressants among young people

The misuse of sedatives and sleep aids often leads to tolerance, where students gradually require higher doses to achieve the same effect. This creates a cycle of dependence, making it difficult to sleep or relax without the drugs. Side effects such as drowsiness, impaired concentration, memory problems, and slowed reflexes are particularly harmful for students, as they affect academic performance and daily functioning. Some sedatives also carry the risk of life-threatening withdrawal symptoms if suddenly discontinued. Herbal remedies, while perceived as safer, are not without risk, as excessive or prolonged use may still cause dependency, interactions with other medications, or unpredictable side effects. The widespread misuse of sedatives and sleep aids among undergraduates underscores the dangers of masking stress and sleep problems instead of addressing their root causes. Relying on these substances may prevent students from developing healthier coping strategies, such as time management, stress reduction techniques, or seeking professional counseling. As such, awareness campaigns, stricter control of prescription medications, and improved access to mental health services within universities are essential to reduce the growing reliance on sedatives and sleep aids among students.

Multivitamins and Supplements

Multivitamins and supplements are products that contain a combination of essential vitamins, minerals, or other nutrients intended to support general health and fill

dietary gaps. They are available in various forms, including tablets, capsules, powders, and syrups, and are widely marketed as preventive health products. While supplements can play an important role for individuals with specific deficiencies or special health needs, their indiscriminate use without medical guidance can lead to unnecessary consumption, financial waste, and, in some cases, serious health risks. Unlike prescribed medications, multivitamins are often perceived as safe for everyone, which makes them attractive for self-medication, especially among students. Among undergraduates, self-use of multivitamins and dietary supplements is widespread, often motivated by the belief that these products improve immunity, energy, and academic performance. Many students turn to immune boosters or vitamin complexes during stressful academic periods such as examinations, assuming that supplements can help them stay healthy and mentally sharp. Shankar et al. (2021) found that 41% of medical students engaged in self-medication with multivitamins, often without undergoing dietary assessments or medical advice. Similarly, Dada et al. (2022) reported a prevalence of 54% among students in the United Kingdom, particularly during exams when the perceived need for health support was highest.

A major driver of this trend is the misconception that multivitamins and supplements are harmless and that “more is better.” This belief encourages some students to take megadoses, which can lead to vitamin toxicity. For example, excessive intake of fat-soluble vitamins like vitamin A or D can cause harmful effects such as liver damage, nausea, or kidney problems. Even water-soluble vitamins, though less risky, can cause

imbalances or side effects when taken in excessive quantities. Herbal or protein-based supplements, which are also popular, may interact with other medications or cause digestive issues when misused. The self-medication of supplements reflects a preventive rather than therapeutic pattern, where students aim to safeguard their health without considering whether supplementation is actually necessary. This behavior also highlights broader issues such as lack of nutritional knowledge, reliance on peer or media influence, and limited awareness about the risks of overconsumption. While multivitamins can be beneficial for individuals with poor diets or specific deficiencies, indiscriminate use without professional assessment does not guarantee better health and may instead cause harm. Encouraging students to adopt balanced diets, healthy lifestyles, and professional consultation before supplement use is essential to reduce the misuse of these products.

Oral Contraceptives and Emergency Pills

Oral contraceptives are hormonal medications taken by women to prevent pregnancy. They usually contain synthetic forms of estrogen and progesterone, which work by inhibiting ovulation, altering cervical mucus, and changing the uterine lining to prevent fertilization or implantation. Emergency contraceptive pills, often referred to as “morning-after pills,” are a special type of oral contraceptive designed to prevent pregnancy after unprotected sex or contraceptive failure. These are most effective when taken within a short time frame, usually 72 hours, but they are not intended for regular use. Both forms of contraception are medically effective when used appropriately under professional guidance, but misuse or overuse can lead to health complications and

reduced effectiveness. Among female undergraduates, the self-medication of oral contraceptives and emergency pills is increasingly common. Many students purchase these drugs directly from pharmacies or obtain them through peers without consulting healthcare professionals. James et al. (2020) reported that about 25% of female undergraduates in Ghana used emergency contraception without prescriptions, while Osemene and Lamikanra (2021) found that 18% of Nigerian female students admitted to purchasing and using emergency contraceptives independently. Some of these students reported repeated use, treating emergency pills as a regular form of birth control rather than a backup method.

This trend is often driven by lack of adequate reproductive health education, limited access to professional counseling, and social stigma surrounding sexual activity. Students sometimes misunderstand the correct timing of use, such as when to take emergency pills after unprotected intercourse, which reduces their effectiveness. Others resort to repeated use due to fear of unintended pregnancy, despite the risks of hormonal imbalances, menstrual irregularities, and potential long-term effects on reproductive health. Regular misuse of contraceptives may also mask underlying reproductive health issues, delay medical consultation, and foster dependency on unreliable methods. The unsupervised use of oral contraceptives and emergency pills reflects a broader public health concern. While these drugs empower women to take control of their reproductive health, misuse caused by misinformation or lack of professional guidance poses significant risks. For undergraduates, this may result not only in health complications but

also in emotional stress and increased vulnerability to unintended pregnancies. Addressing this issue requires comprehensive sexual health education, confidential counseling services, and stricter regulation of contraceptive sales to ensure female students use these medications safely and effectively.

Antidiarrheals

Antidiarrheals are medications or preparations used to reduce the frequency and urgency of bowel movements or to replace fluids and electrolytes lost during diarrheal episodes. They are broadly divided into two categories: pharmacological agents such as loperamide, which slow intestinal movement to reduce stool output, and supportive therapies like oral rehydration salts (ORS), which restore hydration and prevent dehydration without stopping the diarrhea itself. While ORS is safe, inexpensive, and highly recommended by health authorities for the management of mild to moderate diarrhea, loperamide and other antidiarrheal drugs should be used carefully, especially since diarrhea can sometimes be a symptom of an underlying infection. Among undergraduates, self-medication with antidiarrheals is a frequent practice, particularly after eating from food vendors or consuming unhygienic meals. Students often turn to loperamide or ORS immediately when diarrhea occurs, without seeking medical consultation. Tesfaye et al. (2021) found that about 20% of students managed diarrheal episodes through self-medication, often relying on over-the-counter drugs without identifying the true cause of the illness. While this approach may provide quick relief, it raises significant health concerns, particularly when the diarrhea is infection-related. For

example, in cases of food poisoning or typhoid fever, suppressing symptoms with loperamide can mask the severity of the illness and delay timely medical treatment. ORS, on the other hand, is generally used appropriately and poses minimal risks.

Many students resort to it during bouts of diarrhea to prevent dehydration, especially during hot weather or exam stress. However, the misuse of loperamide remains problematic. Some undergraduates take the drug excessively, leading to constipation, abdominal cramps, and in severe cases, toxic megacolon. By suppressing bowel movement, the body is prevented from expelling harmful pathogens, which may prolong or worsen the infection. The habit of self-medicating with antidiarrheals reflects gaps in awareness and access to professional healthcare services. For many undergraduates, diarrhea is perceived as a minor, self-limiting condition, which discourages them from visiting health facilities. While mild episodes may resolve spontaneously or with ORS, failure to recognize when diarrhea signals a more serious infection can have life-threatening consequences. Addressing this requires health education on the safe use of antidiarrheal agents, improved hygiene practices on campuses, and access to affordable diagnostic services. Encouraging students to differentiate between mild, self-limiting diarrhea and persistent, severe cases that require medical attention is essential in reducing the risks associated with self-medication.

Traditional or Herbal Remedies

Traditional or herbal remedies refer to plant-based preparations or naturally derived substances that are used for the prevention and treatment of illnesses. They are

rooted in indigenous cultural practices and passed down across generations, often considered by many as natural and therefore safer than conventional pharmaceutical drugs. These remedies may be used in the form of teas, decoctions, powders, oils, or extracts, and are commonly employed in managing conditions such as malaria, stomachaches, colds, and general body weakness. In many parts of Africa and Asia, herbal medicine is not only a cultural practice but also a practical alternative due to the affordability, accessibility, and sometimes limited reach of formal healthcare services. Among undergraduates, the use of herbal remedies as a form of self-medication is widespread. Students often rely on herbs that are familiar within their communities or recommended by peers and family members. Adebayo and Alade (2022) reported that about 36% of Nigerian undergraduates admitted to using herbal medicines either as stand-alone treatments or in combination with conventional drugs. This prevalence underscores the strong cultural belief in the effectiveness of herbal products, particularly in the management of common illnesses such as malaria and flu. Herbal remedies are also often turned to when students are reluctant to visit healthcare facilities due to financial constraints or fear of stigma, especially in cases of sexually transmitted infections or menstrual pain.

While herbal remedies may provide symptomatic relief, their unregulated use raises significant safety concerns. Unlike pharmaceutical drugs that undergo rigorous testing and dosage standardization, most herbal products lack proper labeling, dosage guidelines, or scientific validation of efficacy. This lack of standardization increases the

risk of overdosing or underdosing. Furthermore, students rarely consider possible herb-drug interactions when combining herbal preparations with pharmaceuticals, which can lead to reduced drug effectiveness or heightened toxicity. For instance, some herbal antimalarials may interfere with the metabolism of prescribed antimalarial drugs, prolonging illness or increasing the risk of resistance. The continued reliance on herbal remedies among undergraduates highlights the intersection of cultural practices and gaps in healthcare accessibility. While some herbs may indeed have therapeutic value, the absence of professional guidance in their use makes self-medication risky. Educational interventions on the safe use of herbal products, coupled with regulatory measures to standardize herbal preparations, are necessary to safeguard student health. Without such measures, the popularity of herbal remedies will continue to expose students to potential health hazards under the guise of traditional healing.

Factors Influencing self-medication practices among undergraduates

There are numerous factors predisposing individuals into indulging in self-medication with over the counter drugs and antibiotics (Torres et al, 2020). These factors could be social, physical or psychological. They include the following:

Lack of Access to Healthcare Facilities

Self-medication has become a very popular practice in most developing countries including Nigeria and one of the reasons accountable for this is due to lack of access to health care, easy availability of over the counter drugs in markets and poor drug regulatory practices. Nigeria with its over expanding population faces significant

challenge in providing accessible and affordable healthcare for its citizens. The scarcity of healthcare facilities and equipment, coupled with economic constraints, has led to a massive reliance on self-medication as an alternative means of addressing health issues (Ogunlesi, Fatusi, , & Olowookere, 2022). Nigeria, despite its economic potential, is challenged with a healthcare system characterized by insufficient infrastructure, shortage of healthcare professionals, and limited financial resources allocated to the health sector. As a result, a substantial portion of the population resorts to self-medication as an easy response to health issues. Several factors prompting the lack of access to healthcare are inadequate infrastructure, Shortage of healthcare personnel and financial constraints (Chukwure, 2023)

However Akinbo, Olayemi, & Adewoye, (2021). Argue that self-medication practices are not always driven by healthcare access. Their study suggests that cultural factors and individual preferences play a larger role. They claim that in some instances, people prefer self-medication even when healthcare access is available, simply due to cultural beliefs or the belief that they can manage minor ailments themselves. Therefore, Akinbo et al. suggest that other factors beyond lack of access to healthcare also contribute to this phenomenon (Akinbo et al., 2021).

Knowledge and Information of self-medication

World Health Organization (WHO, 2015): emphasizes that poor access to correct information and the misinterpretation of medical knowledge lead people to resort to self-medication, especially in contexts where healthcare systems are weak or overstretched.

The WHO notes that low health literacy and the influence of non-professional sources of information, such as the internet or peer advice, can be contributing factors to unsafe self-medication practices. This is particularly common in young populations who rely on online resources for health information. (WHO, 2020).

But Pereira, Silva, & Costa, (2022). argue that knowledge about medications does not always correlate with self-medication behavior. They found that individuals, including students, may have adequate knowledge about the risks and side effects of certain medications, but still engage in self-medication due to personal beliefs, financial constraints, or the perceived convenience of treating ailments on their own. They suggest that external factors, such as easy access to medications, play a more significant role in self-medication practices than knowledge itself.

Access to Medications

Access to medication serves as a critical determinant in individuals healthcare decisions. Easy access to obtaining over-the-counter drugs without a prescription contributes to the increasing trend of self-medication. According to Leadership (a local Nigerian newspaper) 75 percent of the populace rely on self-medication. This allows the market to flood with counterfeit drugs, low quality alternatives and quacks selling ineffective herbal remedies (Torres, Santos, & Pinto, (2021).

Abay and Amelo,(2022.) mentioned some factors that influence easy access to medications ;

- Convenience and immediate access: The unrestricted availability of over the counter (OTC) medications encourages self-medication by providing immediate access to remedies for common ailments without the need for a prescription.
- Perception of minor ailments: The ready availability of OTC drugs can lead individuals to self-diagnose and self-prescribe for what they perceive as minor health issues, increasing the likelihood of self-medication.
- The potential of government regulations: Stringent or lax prescription regulations influence individual's abilities to acquire medications thereby impacting the likelihood of resorting to self-medication.
- Complexity of healthcare system: Overwhelmed healthcare systems with limited access to healthcare professionals might prompt individuals to self-medicate due to difficulties in obtaining timely prescriptions or consultations.

However Goffin, Hines, & McLaughlin, (2020) noted that while easy access to medications is often linked to self-medication, Goffin and colleagues argue that the availability of OTC drugs does not automatically lead to self-medication in all contexts. They suggest that cultural attitudes towards healthcare and public health education can influence how individuals interact with medications. Their study points out that even when medications are easily accessible, individuals may still prefer to consult healthcare professionals for treatment advice, especially if there is a high level of trust in the healthcare system. In such cases, individuals are less likely to engage in self-medication, despite easy access to drugs. (Goffin et al., 2020).

Peer Pressure

This refers to the social influence exerted by individuals of the same age group or status, which often persuades a person to adopt certain behaviors, choices, or attitudes in order to align with group expectations and maintain social acceptance. In the context of health behavior, particularly among undergraduates, peer pressure has been identified as a significant factor contributing to the practice of self-medication. University students are at a stage where social belonging and peer acceptance play a central role in shaping lifestyle choices, and this influence extends to the use of medicines without professional guidance.

According to Subashini and Udayanga (2020), adolescents and young adults are more likely to self-medicate when they perceive it as a common practice among their peers. The desire to fit in with friends or to conform to prevailing group behaviors often drives students to use drugs such as painkillers, antibiotics, or other prescription medicines without medical advice. This behavior is reinforced when students observe their peers reporting positive outcomes after using certain drugs, which creates a false sense of safety and normalcy around the practice. Peer recommendations and shared experiences, whether through verbal advice or the direct exchange of drugs, make self-medication appear socially acceptable, thereby encouraging widespread engagement in the behavior.

The study further emphasizes that the pressure to achieve social acceptance can outweigh awareness of the dangers associated with self-medication. Students may

deliberately ignore potential risks, such as adverse reactions, dependency, or the development of drug resistance, because the immediate reward of being accepted by their peers feels more compelling. Within the university setting, where group identity and collective behavior are particularly strong, peer influence serves as a powerful driver of health decisions. This illustrates how self-medication becomes not merely an individual act but a socially conditioned practice shaped by peer norms and expectations.

Cost of medication

Cost can be described as the monetary value that individuals are required to pay in order to obtain goods or services. In the context of healthcare, cost refers to the financial expenses associated with consulting medical professionals, undergoing diagnostic procedures, and purchasing prescribed medications. It is an important determinant of health seeking behavior because it often dictates whether individuals will choose formal healthcare services or opt for alternatives such as self-medication. For many people, especially in developing countries, the high cost of medical care represents a significant barrier to accessing professional health services, thereby encouraging reliance on cheaper and more immediate solutions.

Chukwueke (2020) emphasizes that the cost of healthcare remains a major factor influencing self-medication among Nigerians. The researcher notes that individuals frequently bypass formal healthcare providers because of expensive consultation fees, diagnostic costs, and long waiting times. Instead of spending limited financial resources on professional treatment, many people resort to purchasing over-the-counter drugs,

reusing leftover prescriptions, or depending on home remedies that appear more affordable. This pattern is evident across both urban and rural settings, where economic constraints compel individuals to prioritize cost saving measures over safety. For families with limited income, the need to allocate resources to food, education, or shelter often outweighs the perceived necessity of paying for medical consultations. Consequently, self-medication becomes a rational financial choice, despite its potential health risks.

However, Kumar and Shah (2021) present an interesting dimension by showing that self-medication is not limited to situations where healthcare costs are high. Their study, conducted in some urban areas with relatively affordable healthcare services, revealed that individuals still engaged in self-medication. This finding suggests that while cost is a central factor, it does not fully explain the persistence of the practice. In these cases, other considerations such as the perception that an illness is minor, the convenience of accessing drugs without formal consultation, and personal beliefs about one's ability to manage health problems independently also play significant roles. Nevertheless, even in such contexts, cost cannot be ignored, as individuals may still weigh the financial implications of visiting a doctor against the seemingly easier option of buying medicines directly. Taken together, these perspectives highlight that cost is both a direct and indirect driver of self-medication. Directly, it deters individuals from seeking formal healthcare due to affordability challenges, while indirectly, it reinforces the perception that self-treatment is a more convenient and economical approach. In societies where poverty and unemployment rates are high, the tendency to self-medicate

as a cost-saving strategy is even more pronounced. Understanding the role of cost therefore provides valuable insight into why self-medication continues to thrive, particularly in developing countries where access to affordable and efficient healthcare services remains limited.

Convenience

Convenience refers to the quality of being easy, accessible, and time saving, allowing individuals to meet their needs with minimal effort or delay. In the context of healthcare, convenience involves the ability to access medications or treatment options quickly, without the burdens of long waiting times, expensive consultations, or procedural delays. For many people, especially in fast-paced urban settings or resource-limited environments, convenience becomes a determining factor in how health decisions are made, influencing whether they pursue professional medical services or opt for self-care practices such as self-medication. Abay and Amelo (2021) emphasize that the unrestricted availability of over-the-counter (OTC) drugs in local markets significantly contributes to self-medication behaviors. The ready access to pharmacies, drug vendors, and patent medicine shops makes it possible for individuals to treat minor health issues immediately, without the need for medical appointments. This instant accessibility offers a sense of control, especially to students, workers, or busy individuals who may not wish to spend long hours waiting at health facilities. In this way, convenience transforms self-medication into a practical and appealing option, even when the health condition may require professional intervention.

Kumar and Shah (2020), however, provide a broader perspective by suggesting that while convenience is a strong motivator for self-medication, it does not operate in isolation. Their findings reveal that other considerations such as awareness of potential side effects, knowledge of how a drug works, and the perceived seriousness of symptoms also shape decisions. For instance, an individual might initially prefer the convenience of buying OTC medications, but if the symptoms are severe or if the risks of drug misuse are well understood, they may still choose to seek medical care. This indicates that convenience often works alongside other determinants of self-medication, rather than functioning as the sole cause.

Perceived Severity of the Illness

Perceived severity of illness refers to an individual's personal judgment about how serious a health condition is and the potential consequences it may bring if left untreated. This perception often determines the urgency with which people respond to their symptoms and whether they choose professional medical care or rely on alternatives such as self-medication. When individuals view an illness as minor, manageable, or familiar, they are more inclined to treat it themselves with readily available remedies, whereas conditions perceived as severe are more likely to drive them toward formal healthcare services. Chukwueke (2020) highlights that in Nigeria, many people, particularly students, frequently self-medicate when they perceive their illnesses as mild. Common examples include headaches, colds, or digestive disturbances, which are often treated with over-the-counter drugs without medical consultation. However, this tendency

is risky because symptoms that appear minor may signal more serious underlying conditions. By underestimating the severity, individuals may delay seeking professional help, resulting in complications.

In contrast, Wright and Slater (2022) argue that the decision to self-medicate is not always shaped by the perception of severity alone. They suggest that social influences, peer behavior, and the easy availability of drugs in the community can override severity judgments. This means that even when individuals experience severe symptoms, they may still resort to self-medication due to financial limitations, peer practices, or convenience. Together, these perspectives show that while perceived severity strongly shapes self-medication behavior, it interacts with broader social and environmental factors that can either reinforce or weaken its impact.

Cultural and Social Factors

Cultural and social factors refer to the shared beliefs, traditions, practices, and social norms that shape how individuals within a community think, behave, and make decisions, including those related to health. Culture influences the values people attach to healthcare, the remedies they trust, and the extent to which they rely on formal medical systems. Social factors, on the other hand, involve the influence of family, peers, religion, and community expectations, which can collectively guide individuals toward certain health behaviors. Together, these factors form a powerful framework that determines how people perceive illness, what treatments they consider acceptable, and whether they engage in professional healthcare or alternative practices such as self-medication.

Lescure, Paget, Schellevis, and Van-Dijk (2021) examined how cultural beliefs and societal norms influence self-medication, especially among students. They observed that in many societies, self-care and traditional home remedies are strongly preferred and even viewed as the first line of treatment. These practices are often passed down through generations, making them familiar, accessible, and trusted. As a result, students growing up in such environments are more likely to accept self-medication as a normal and valid response to illness, even in cases where professional medical care might be more appropriate. For instance, cultural reliance on herbal treatments or locally available remedies may encourage students to bypass healthcare facilities altogether.

Kumar and Shah (2020), however, argue that while cultural and social influences are important, socioeconomic status and access to medical services tend to play a stronger role. Their findings indicate that even in communities with strong traditions of self-care, students often turn to self-medication not purely because of cultural beliefs but because of practical reasons such as financial limitations, limited time, and demanding academic schedules. This perspective suggests that cultural and social factors interact with economic and structural realities, amplifying the tendency to self-medicate but not always serving as the primary cause.

Self-medication Practices among Undergraduates

Self-medication is most commonly practiced by young people and youths, particularly undergraduate students who are in their late teens and early adulthood. This group falls between the ages of 18 and 30 years a stage marked by curiosity,

independence, and a growing sense of responsibility for personal health decisions. Unlike older adults who often rely on professional medical advice, undergraduates tend to depend on their own understanding, experiences, and suggestions from friends or online sources to treat illnesses. They frequently use over-the-counter drugs for conditions such as fever, malaria, headache, menstrual pain, or stomach upset without consulting a doctor. The youth are also highly influenced by social media, advertisements, and peers who recommend certain medicines as quick fixes. Many of them view hospital visits as time-consuming and expensive, preferring instead to purchase drugs from nearby pharmacies or patent medicine stores. Their busy academic schedules and limited financial resources further contribute to this habit. Older individuals are generally more cautious because of awareness of drug side effects, while youths feel more confident experimenting with medications. The combination of independence, peer influence, and convenience makes undergraduates not children or older adults the major group that practices self-medication across universities and tertiary institutions today.

Undergraduates practice self-medication both during the day and at night, depending on the time they experience symptoms and their access to medication. During the day, students are often preoccupied with lectures, practical classes, and campus activities. When they experience minor symptoms like headaches, stomach aches, or menstrual cramps, they take drugs such as paracetamol or ibuprofen to remain active in class rather than visit the school clinic. Many prefer taking medications in the morning before leaving for class to avoid discomfort during lectures. However, self-medication at

night is also extremely common among students. After long hours of studying, especially during exam preparation, fatigue, eye strain, and body pains set in. Since most health centers and pharmacies may be closed, students rely on stored drugs or those borrowed from friends for immediate relief. Nighttime self-medication often involves sleeping pills, pain relievers, or cold medicines that help them rest. In both cases, the key motivation is quick comfort and convenience, not necessarily safety or medical accuracy. Students often believe they can handle mild symptoms on their own, so they take medications at any time day or night whenever the need arises.

Self-medication among undergraduates occurs mainly in hostels and school environments, with the hostel being the most common location. Hostels provide privacy, convenience, and easy access to drugs, making them ideal places for students to treat themselves without professional supervision. Many students keep personal drug boxes containing analgesics, antibiotics, anti-malarials, and herbal products. When someone in the hostel falls ill, it is common for roommates to recommend or share drugs they previously used for similar symptoms. The presence of nearby pharmacies or patent medicine stores around campuses makes obtaining such drugs very easy. In the school environment, students often buy drugs from small campus drug shops or kiosks without prescriptions. Some prefer to self-medicate within the school clinic environment if they can obtain free drugs without formal consultation. At home, especially during holidays, students continue the practice using leftover medications from previous treatments or family remedies. However, the hostel remains the central hub for self-medication due to

the combination of independence, privacy, peer influence, and lack of strict supervision. Most students also feel more confident using drugs at school because they have learned from past experiences what works for them.

Undergraduates are most likely to engage in self-medication during examination and lecture periods, when academic stress and pressure are at their highest. During lecture periods, students face tight schedules, long hours in class, and little time to rest. They use painkillers, caffeine-based tablets, and vitamins to sustain energy and concentration. As exams approach, this behavior intensifies. The exam season brings anxiety, sleepless nights, and exhaustion, pushing students to use medications to stay awake or suppress symptoms of illness. Many fear that falling sick during exams could cause poor performance or missed papers, so they quickly take self-prescribed drugs without medical advice. Some use anti-malaria drugs or antibiotics when they feel feverish to avoid hospital delays. During continuous assessment weeks, students also self-medicate to manage stress headaches or menstrual pain that might distract them from reading. The drive to maintain alertness and remain in good physical condition during exams motivates this habit. Therefore, the highest rate of self-medication among undergraduates typically occurs during academic pressure periods, especially exam time, when students substitute professional care with self-treatment for quick relief.

Dangers of self-medication practices among Undergraduates.

Self-medication among undergraduates has numerous negative health, academic, psychological, and societal implications. While some students perceive it as a convenient

solution to minor ailments, the long-term consequences can be severe as they feel better. This contributes significantly to the global burden of resistant infections, making it harder to treat common illnesses (WHO, 2021).

Adverse Drug Reactions (ADRs)

Adverse drug reactions (ADRs) refer to harmful or unintended responses to a medication that occur at normal doses used for prevention, diagnosis, or treatment of disease. These reactions can affect different systems of the body and may range from mild effects such as dizziness, nausea, and rashes to life-threatening conditions like organ failure, severe allergic responses, or even death. Unlike side effects, which are generally predictable, ADRs may occur unpredictably and are often linked to inappropriate drug use, underlying health conditions, or drug-drug interactions. ADRs are a critical concern in healthcare because they compromise patient safety, increase hospital admissions, and contribute to long-term health complications.

In the context of self-medication, the risk of ADRs is particularly high because drugs are consumed without the guidance of a healthcare professional. Students, for example, may misjudge dosages, combine multiple drugs at once, or use expired medications, all of which increase the likelihood of harmful outcomes. Commonly self-medicated drugs such as painkillers, antibiotics, and antimalarials can cause organ damage if misused. Paracetamol overdose can lead to liver toxicity, non-steroidal anti-inflammatory drugs (NSAIDs) may cause gastric bleeding or kidney damage, while antibiotic misuse contributes not only to resistance but also to severe allergic reactions.

The lack of awareness about these risks among undergraduates makes ADRs an invisible yet serious threat.

Tesfaye et al. (2021) reported that approximately 14% of students who engaged in self-medication experienced adverse effects. However, the study noted that many of these incidents were not reported to health facilities, reflecting a culture of underreporting that masks the true magnitude of the problem. When ADRs go unreported, opportunities for timely intervention, data collection, and preventive measures are lost, thereby worsening public health risks. Moreover, the reluctance to seek medical attention after experiencing ADRs can compound the harm, as minor reactions may progress to more severe complications if untreated. The public health implications of ADRs linked to self-medication are profound. They contribute to increased morbidity, unnecessary healthcare costs, and in severe cases, mortality. Among undergraduates, the habit of using multiple drugs simultaneously without understanding potential interactions increases the danger of cumulative toxicity and unpredictable synergistic effects. This demonstrates that self-medication not only undermines safe drug use but also heightens the burden of preventable health complications. Addressing ADRs requires strengthening awareness campaigns, improving pharmacovigilance, and encouraging prompt reporting of drug-related side effects among young people, particularly in university environments.

Drug Resistance

Drug resistance refers to the ability of microorganisms such as bacteria, viruses, parasites, or fungi to withstand the effects of medications that were previously effective

in treating infections caused by them. This occurs when these pathogens undergo genetic changes or acquire resistance mechanisms that reduce or nullify the efficacy of drugs. As a result, standard treatments fail to work, infections persist, and patients remain ill for longer periods, sometimes leading to severe complications or death. Drug resistance is most prominently discussed in the context of antibiotics, where misuse or overuse of these medications accelerates the development and spread of resistant strains. In the context of self-medication, drug resistance becomes a particularly alarming outcome. Many undergraduates engage in the unsupervised use of antibiotics, often without completing the recommended dosage or by consuming leftover medications from previous treatments. Such practices allow some bacteria to survive exposure to antibiotics, adapt, and develop resistance. Over time, these resistant strains spread within communities, making common infections increasingly difficult to treat. Moreover, the tendency to use antibiotics for viral infections, such as colds or flu, further worsens the problem, as these drugs have no effect on viruses yet still expose bacteria in the body to selective pressure, enhancing resistance.

According to the World Health Organization (WHO, 2020), antimicrobial resistance is now recognized as one of the top ten global public health threats. The misuse and overuse of antibiotics are central drivers of this crisis, and self-medication among undergraduates plays a significant role in fueling the trend. Easy access to antibiotics in many regions, combined with limited awareness of the risks, means students often misuse these powerful drugs without considering the long-term implications. The consequences

of drug resistance extend beyond individual health to societal and global levels. Resistant infections often require longer hospital stays, more expensive treatment, and the use of second- or third-line antibiotics, which may be less effective and carry more side effects. For undergraduates, the spread of resistant bacteria within campus settings can contribute to outbreaks that are difficult to control. This highlights the urgent need for stricter regulations on antibiotic sales, stronger awareness campaigns among students, and the promotion of rational drug use under professional guidance. Without such measures, the misuse of antibiotics through self-medication will continue to accelerate the global burden of antimicrobial resistance.

Masking of Serious Health Conditions

Masking of serious health conditions refers to the situation where the true cause of an illness is concealed or overlooked because a person uses medications to manage symptoms without identifying the underlying problem. This often occurs when individuals rely on self-medication, using easily accessible drugs to suppress discomfort such as pain, fever, or fatigue. While these drugs may provide temporary relief, they do not address the root cause of the illness. As a result, dangerous or chronic conditions may progress silently, leading to late diagnosis and poorer treatment outcomes once medical help is finally sought. Among undergraduates, this is a particularly pressing concern, as students frequently resort to over-the-counter medicines or leftover drugs for quick relief. For example, recurring headaches may be dismissed as stress-related and treated with paracetamol or ibuprofen, yet in some cases, they could indicate serious conditions such

as brain tumors, meningitis, or severe neurological disorders. Similarly, persistent fever is often treated with antimalarials in malaria endemic areas, even though fever could be a symptom of other severe illnesses like typhoid, sepsis, or blood related disorders. In such scenarios, the repeated suppression of symptoms delays appropriate medical evaluation and timely diagnosis.

Bennadi (2022) highlighted that the masking of symptoms is one of the greatest dangers of self-medication, as it complicates the clinical picture and hinders healthcare providers from making accurate diagnoses. By the time patients seek professional care, the illness may have advanced, requiring more aggressive treatment or resulting in irreversible complications. For students, this practice is reinforced by academic pressures, limited finances, and the perception that minor symptoms do not warrant medical consultation. The consequences of masking are severe, both for individuals and public health systems. Delayed diagnoses often lead to chronic complications, higher treatment costs, preventable hospitalizations, and in some cases, death. For undergraduates, such outcomes can disrupt academic performance and overall wellbeing. This underscores the importance of raising awareness about the risks of symptom masking, promoting early medical consultation, and discouraging unsupervised drug use. By recognizing that not all symptoms are harmless, students can avoid worsening their health through inappropriate self-medication.

Poor Academic Performance

Poor academic performance refers to a decline in a student's ability to achieve expected educational outcomes, often reflected in low grades, incomplete assignments, reduced participation in academic activities, or an overall drop in learning efficiency. It is not only linked to intellectual capacity but also influenced by various external and internal factors such as health, psychological wellbeing, and lifestyle choices. When students' health is compromised, their ability to focus, retain information, and actively participate in class activities is significantly reduced, thereby contributing to academic struggles. In the context of self-medication, poor academic performance can be directly traced to the side effects of inappropriate drug use. Medications taken without professional supervision can cause adverse effects such as dizziness, drowsiness, fatigue, and gastrointestinal problems, which interfere with the mental and physical stamina required for effective learning. Students who self-medicate may find it difficult to stay attentive during lectures, engage in academic discussions, or perform optimally in examinations. Psychological disturbances such as anxiety or mood swings from misused drugs can further disrupt their concentration and motivation.

Moreover, when illnesses are poorly managed through self-medication, recurrent health episodes are common. Students may suffer frequent absenteeism, missing vital lectures, assessments, or group projects, which eventually reflects in their academic records. Sawalha (2020) emphasized that students who self-medicate excessively are more likely to face academic disruptions compared to their peers who seek proper

medical attention. This disruption not only affects immediate performance but can also have long-term implications, such as delayed graduation or missed career opportunities. Ultimately, poor academic performance caused by self-medication highlights the close relationship between health and education. Without proper healthcare intervention, students risk undermining their academic potential due to choices that initially appear convenient but have harmful long term effects.

Psychological Dependence

Psychological dependence refers to a state in which an individual develops an emotional or mental reliance on a substance to cope with stress, discomfort, or daily challenges. Unlike physical dependence, which is marked by withdrawal symptoms when the drug is stopped, psychological dependence is rooted in the belief that normal functioning or wellbeing cannot be achieved without the substance. This dependence creates a cycle where individuals feel compelled to use medication not necessarily because of a medical need but due to the perceived relief or comfort it provides. In the context of self-medication among students, psychological dependence is a significant concern. Many undergraduates turn to sedatives, anxiolytics, stimulants, or analgesics to manage stress, anxiety, sleeplessness, or academic pressure. At first, these medications may seem to offer quick relief, but repeated and unsupervised use can reinforce the belief that success, rest, or emotional stability is unattainable without them. For example, using benzodiazepines to induce sleep or stimulants to stay awake during examinations may create a mental pattern of reliance that grows stronger over time.

James (2021) highlighted how students often view medications as a “quick fix” for both physical and psychological discomfort, inadvertently nurturing unhealthy coping habits. This reliance can escalate into misuse, where the line between need and want becomes blurred. If left unchecked, psychological dependence can evolve into substance abuse or even addiction, severely affecting students’ mental health, social relationships, and academic performance. Moreover, it may persist beyond the university years, shaping lifelong health behaviors and creating barriers to healthier coping strategies such as exercise, counseling, or professional healthcare support.

Increased Healthcare Costs in the Long Run

Increased healthcare cost in the long run refers to the gradual rise in medical expenses that individuals face as a result of neglecting proper treatment or engaging in harmful health practices early on. While initial actions such as avoiding professional consultations or diagnostic tests may seem financially convenient, the complications that develop from these shortcuts often demand more complex, prolonged, and costly interventions in the future. In other words, the short-term savings gained by bypassing formal healthcare are overshadowed by the heavy financial burden of managing advanced or preventable medical conditions later. Among students, self-medication is a major contributor to these hidden long-term costs. Many undergraduates avoid hospitals or clinics due to consultation fees, the cost of laboratory investigations, or the perceived expense of prescribed drugs, choosing instead to rely on cheaper over-the-counter medications. While this practice may appear cost-effective initially, misuse of drugs

frequently results in more serious health challenges, including drug-resistant infections, adverse drug reactions, or organ damage. These complications require hospitalization, specialist care, and in some cases, lifelong treatment, which are far more expensive than the original consultation would have been.

Auta (2020) observed that students who engaged in frequent self-medication were more likely to require emergency healthcare services, which are notoriously costly. Furthermore, the management of conditions such as antimicrobial resistance or kidney and liver toxicity caused by drug misuse often involves prolonged hospital stays, expensive diagnostic procedures, and specialized medications. This creates an economic burden not only for the affected students and their families but also for the healthcare system at large. Thus, while self-medication is often motivated by a desire to save money, it paradoxically leads to increased healthcare costs in the long run. Preventive action, early professional consultation, and rational drug use remain far more cost-effective strategies for sustaining both health and financial stability.

Incorrect Self-Diagnosis

Incorrect self-diagnosis refers to the wrong identification or interpretation of an illness by an individual who lacks professional medical knowledge and training. It occurs when people, often relying on personal judgment, past experiences, or information from peers and online sources, assume they understand the cause of their symptoms without consulting a healthcare provider. While self-assessment may seem convenient, it is prone to error because many medical conditions share similar symptoms, making it easy for a

non-professional to mistake a serious illness for a minor one. In the context of self-medication among students, incorrect self-diagnosis is one of the most dangerous consequences. Undergraduates often turn to over-the-counter drugs or home remedies to relieve common complaints such as headaches, stomach pain, or fever, assuming these are harmless or familiar conditions. However, without accurate diagnosis, a headache could be linked to hypertension or a brain tumor, stomach pain could signal appendicitis, and fever could indicate typhoid or sepsis rather than malaria. Treating these symptoms superficially with the wrong drugs wastes valuable time, allowing the actual illness to worsen.

Abay and Amelo (2021) noted that misdiagnosis among self-medicators is widespread, significantly delaying proper treatment. This delay increases the risk of complications, hospitalizations, and even death in severe cases. Moreover, incorrect self-diagnosis often leads to inappropriate drug use, which not only fails to address the underlying problem but also exposes students to potential adverse drug reactions or resistance, particularly when antibiotics are involved. Ultimately, the danger of incorrect self-diagnosis highlights the importance of professional medical consultation. While self-care may seem quick and affordable, relying on guesswork instead of accurate diagnosis places students at serious health risks that could have been avoided through timely expert intervention.

Risk of Overdose

The risk of overdose refers to the possibility of consuming a medication in quantities greater than the body can safely handle, leading to harmful and sometimes life-threatening effects. Overdose can occur either accidentally, when individuals misunderstand dosage instructions or believe that taking more will speed up recovery, or intentionally, when drugs are misused for recreational or psychological reasons. Regardless of the cause, an overdose overwhelms the body's ability to metabolize or eliminate the substance, resulting in organ damage, toxic buildup, or even death. Among students, the risk of overdose is a major consequence of self-medication. Without professional guidance, many undergraduates miscalculate dosages, take medications too frequently, or combine multiple drugs with similar active ingredients. A common example is paracetamol, where excessive intake can quickly lead to acute liver failure, one of the leading causes of drug-induced hospitalization worldwide. Similarly, students who misuse cough syrups containing codeine or other opioids may experience respiratory depression, seizures, or fatal outcomes. The danger is compounded by a lack of awareness about maximum safe doses, drug interactions, and the cumulative effects of prolonged self-medication.

Silva et al. (2020) stressed that unintentional overdoses are increasingly common among young adults due to the non-professional use of readily available drugs. The misconception that higher doses equal faster relief drives many students to exceed safe limits, unaware of the long-term risks. In addition, the social sharing of drugs among

peers can normalize risky practices, further elevating the chances of overdose. Therefore, the risk of overdose underscores the urgent need for health education and stricter regulation of over-the-counter drugs. Teaching students about proper dosage, the dangers of drug misuse, and the importance of medical supervision is essential to reduce overdose related complications and fatalities.

Summary of Reviewed Literature

In this study, effort has been made to review as much as possible various literature related to this research. The reviewed literature reveals that self-medication is a common and growing practice among undergraduate students globally, with prevalence rates ranging from 55% to over 80% depending on the region. The concept of self-medication involves individuals treating perceived minor ailments using non-prescribed drugs, a trend heavily observed in tertiary institutions. Studies show that various factors influence this behavior among students. These include easy access to over-the-counter medications, academic stress, financial constraints, previous experiences with illnesses, peer influence, and the increasing reliance on information from the internet and social media. These factors contribute to students' perception that they can manage certain health conditions independently without professional advice.

The literature further identifies that undergraduates commonly self-medicate with analgesics, antimalarials, antibiotics, and drugs for gastrointestinal or respiratory symptoms. However, the practice carries significant risks, including incorrect dosage, adverse drug reactions, development of antimicrobial resistance, and delayed diagnosis of

serious conditions. Despite these dangers, the high prevalence of self-medication among students suggests a need for targeted interventions, such as awareness campaigns, health education, and stricter drug control policies within university environments.

The insights gained from the literature provide a solid foundation for this study, which aims to assess the extent, causes, and effects of self-medication practices among undergraduates, and to recommend appropriate public health responses. To the researcher's best knowledge, previous studies have not fully addressed the specific drug types, usage patterns, and health impacts of self-medication among undergraduates of University of Benin. This research seeks to bridge that gap.

CHAPTER THREE

METHODOLOGY

In this chapter, the methods and procedure that were used for this study are discussed under the following sub-headings:

- Design of the study
- Population of the Study
- Sample and Sampling Techniques
- Research Instrument
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Collection
- Method of Data Analysis.

Design of the study

This study adopted a descriptive survey research design. According to Jackson (2021), this research method is one in which participants answer question administered through interviews or questionnaire after the researcher describe the response given. It was considered appropriate because it seek to investigate a phenomenon across a particular population. Thus, it allowed the researcher to investigate the subject of the study.

Population of the Study

The population of the study comprises of 43,679 students (male and female) from the 15 faculties in the University of Benin.(Academic Planning Unit, Student Affairs Division, University of Benin, 2025). The target population comprises of full time Undergraduate students of the various facilities during 2024/2025 academic session. The population distribution is shown in table 1 below;

Table 1: Faculty and student population

S/N	FACULTY	POPULATION OF THE STUDY
1	Agriculture	1,685
2	Arts	6,262
3	Basic Medical Science	3,437
4	Dentistry	111
5	Education	7,416
6	Engineering	5,481
7	Environmental Science	1,015
8	Law	1,078
9	Life Science	5,132
10	Management Science	3,506
11	Medicine	685
12	Pharmacy	1,107
13	Physical Science	3,283
14	Social Science	3,411
15	Veterinary Medicine	70
	TOTAL	43,679

Source: Academic Planning Unit, Student Affairs Division, University of Benin, 2025.

Sample and Sampling Technique

A total number of four hundred and eighty (286) undergraduates were used for the study. The multistage sampling technique was used for this study. Firstly, the systematic sampling technique was used to select the Faculties for the study. The Faculties were arranged in alphabetical order where the first and every other third Faculty were selected making a total of five (5) Faculties to be sampled, they include; Faculty of Agriculture, Dentistry, Environmental sciences, Management sciences and physical sciences. Secondly, the proportionate sampling technique was adopted to select 3% from each of the five Faculties selected. This gave a total of four hundred and eighty (286) respondents. Thirdly, the convenience sampling technique was used to select respondents for the study, the respondents are willing, available and also accessible to the researcher.

Table 2: sampling and sampling technique

FACULTY	NO OF STUDENTS	NO OF SAMPLED STUDENTS (3%)
Agriculture	1,685	50
Dentistry	111	3
Environmental Science	1,015	30
Management Sciences	3,506	105
Physical Sciences	3,283	98
TOTAL	9,600	286

Research Instrument

The Instrument for this study is a self-constructed questionnaire designed by the researcher after a thorough review of related literature consisting of 16 items used to elicit information from respondents. The questionnaire was divided into five sections.

Section A measures demographic data and consist of threen(3) items, section B measures factors influencing Self-medication practice and consist of six (9) items , section C measures how frequent undergraduate of university of Benin engage in Self-medication practice and section D measures the type of drugs/ medications that are most commonly used by undergraduate for Self-medication while section E measures the potential dangers of Self-medication practice among undergraduate of university of Benin and consist of (5) items, related to the research questions . A four point scoring scale drawn along the modified Likert summated rating scale for measurement will be adopted.

Validity of Instrument

The instrument was validated by the researcher's supervisor and two other experts in the Department of Health, Safety and Environmental Education (HSE). Crrrections were made on the sample size. Their suggestions and corrections was incorporated in the final Instrument.

Reliability of the Instrument

The reliability of the Instrument was established using test-retest method of estimating reliability. This was involve giving copies of the instrument to 20 persons outside the population of the study. After a time lapse of two weeks, the same instrument was administered to the same respondents. Data generated from the two administration was subjected to Pearson Product Moment Correlation. A correlation coefficient of 0.70 and above was considered reliable for the study.

Method of Data Collection

The instrument was administered by the researcher, with the aid of research assistants. Respondent were briefed about the objective of the research and the completed questionnaire was personally retrieved by the researcher immediately to ensure high return rate.

Method of Data Analysis

In analyzing the data, the researcher used charts, descriptive statistics of frequency count and percentage to analyse the findings from the research.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

This chapters deals with the presentation, analysis and interpretation of findings based on the data collected from respondents in relation to the research questions guiding the study. The sample size for this study was 286. However, 240 respondent correctly filled research items and returned the questionnaire.

A mean score of 2.50 will be taken as a minimum score so items which have mean score above 2.50 are accepted while items which have mean score below 2.50 are rejected.

The mean was gotten as 2.5 through the following procedure:

$$N = \frac{\text{Total Response value}}{\text{No of responses}}$$

Where:

Strongly agree = 4

Agree = 3

Disagree = 2

Strongly Disagree = 1

$$\text{Therefore: Benchmark mean (n)} = \frac{4+3+2+1}{4} = \frac{10}{4} = 2.5$$

SECTION A: Demographic data

Table 3: The descriptive statistics of distribution of the demographic data of respondents based on gender

GENDER	FREQUENCY	PERCENTAGE
Male	95	35.4%
Female	191	64.6%
TOTAL	286	100%

Source: Field survey, 2025.

Table 3 indicates that 35.4% of respondents are male while the remaining 64.6% are female. This implied that the majority of the respondents sampled for the study were female.

Table 4: The descriptive statistics of distribution of the demographic data of respondents based on Age

AGE	FREQUENCY	PERCENTAGE
16-19	35	13.8%
20-23	146	53.0%
24 and above	1105	32.4
TOTAL	286	100%

Source: Field survey, 2025.

Table 4 above indicates that 13.8% of the respondents are between the ages of 16-19, 53% are between the ages of 20-23 while the remaining 32.4% are 24 years and above. This therefore indicates that majority of the respondents in the study are between the ages of 20-23.

Table 5: The descriptive statistics of distribution of the demographic data of respondents based on level

LEVEL	FREQUENCY	PERCENTAGE
100	20	5.0%
200	56	12.9%
300	95	22.9%
400	62	36.7%
500	23	10.0%
600	30	12.5%
TOTAL	286	100%

Source: Field survey, 2025.

Table 5 above indicates that 5% of the respondents are in 100 level, 12.9% are in 200 level, 22.9% are in 300 level, 36.7% are in 400 level, 10% are in 500 level while the remaining 12.5% are in 600 level. This indicates that majority of respondents in the study are in 400 level.

Table 6: The descriptive statistics of distribution of the demographic data of respondents based on faculty

FACULTY	FREQUENCY	PERCENTAGE
Agriculture	37	17.5%
Dentistry	6	1.2%
Environmental Science	40	10.6%
Management Sciences	105	36.5%
Physical Sciences	98	34.2%
TOTAL	286	100%

Source: Field survey, 2025.

Table 6 above indicates that 17.8% of the respondents are from the faculty of Agriculture, 1.2% are from Dentistry, 10.6% are from the faculty of Environmental Sciences, 36.5% are from faculty of Management Sciences. While the remaining 34.2% of respondents are from the faculty of Physical sciences.

SECTION B

Research Question 1: What are the factors influencing self-medication practices among undergraduates of University of Benin?

Table 7: Descriptive statistics of the factors Influencing Self-medication practices among undergraduate of the University of Benin.

S/N	ITEMS	SA (%)	A (%)	D (%)	SD (%)	MEAN	S.D	DECISION
1	I self-medicate because of dissatisfaction with the quality of healthcare services.	52 11%	146 30%	198 41%	84 18%	2.35	.891	Rejected
2	I practice self-medication because I trust advice from friends.	30 6%	134 28%	232 48%	84 18%	2.22	.808	Rejected
3	I self-medicate because academic pressure leaves little time for hospital visits.	70 15%	202 42%	160 33%	48 10%	2.61	.854	Accepted
4	I engage in self-medication because pharmacies are more accessible than hospitals.	90 19%	248 52%	102 21%	40 8%	2.81	.835	Accepted
5	I engage in self-medication because the illness seems minor and not serious enough to visit a doctor.	82 17%	250 52%	126 26%	22 5%	2.82	.764	Accepted
6	I self-medicate because buying drugs from pharmacist is cheaper than going to the hospital.	68 14%	220 46%	154 32%	38 8%	2.66	.816	Accepted
7	I self-medicate because information about drugs is easily available on the internet and social media.	50 10%	184 38%	210 44%	36 8%	2.51	.781	Accepted
8	I self-medicate because I can easily buy drugs without a prescription.	66 14%	224 47%	154 32%	36 8%	2.67	.805	Accepted
9	I prefer using traditional or home remedies because they are part of my culture.	76 16%	158 33%	182 38%	64 13%	2.51	.914	Accepted
MEAN						2.57		

(mean of 2.50 and above accepted, mean of 2.40 and below rejected) *Source: Field survey, 2025*

Table 7 above represents the factors influencing self-medication practices among undergraduates of University of Benin. Based on the table above, it was found out that respondents rejected the statement “dissatisfaction with the quality of healthcare services” with a (mean score of 2.35), advice from friends” with a (mean score of 2.22). Respondents accepted the statement “ academic pressure ” with a(mean score of 2.61), lack of accessibility to hospitals” with a(mean score of 2.81), perceived Severity of the illness with a (mean score of 2.82), cost of attending hospital with a (mean score of 2.66), information from the internet and social media” with a (mean score of 2.51), easy accessibility to over-the-counter drugs ” with a (mean score of 2.67), and lastly, preference for traditional or home remedies due to cultural influences” with a (mean score of 2.51)

Based on the data collected and analyzed, it was found out that factors influencing self-medication among undergraduates in the University of Benin includes academic pressure, lack of accessibility to hospitals, cost of attending hospitals, perceived severity of illness, information from the internet and social media, easy accessibility to over the counter drugs and preference for traditional or home remedies due to cultural influences.

Research Question 2: To what extent do undergraduates of University of Benin engage in self-medication Practices?

Table 8: Descriptive statistics of Self-medication practices among undergraduates of university of Benin.

S/N	ITEMS	Always	Seldom	Never	Total
1	How often do you engage in the practice of self –medication ?	156 33%	280 58%	44 9%	480 100%

Source: Field survey, 2025.

Table 8 above represent the extent to which undergraduates of University of Benin engage in self-medication practices. From the table above, it was found out that 280 (58%) of respondents Seldom engage in self-medication practices, 156 (33%) always and 44 (9%) never engage in self-medication.

It was therefore concluded that majority of undergraduates in the University of Benin Seldom engage in self-medication

Research Question 3: What types of medications are most commonly used by undergraduates for self-medication?

Table 9: Descriptive statistics of types of medications commonly used among undergraduate of university of Benin.

S/N	Types of medication	Frequency	Percentage
1	Antibiotics	46	10%
2	Anti-malarias	95	50%
3	Contraceptives or emergency pills	32	15%
4	Pain relievers	90	19%
5	others	23	6%
	TOTAL	286	100%

Source: Field survey, 2025.

Table 9 above represents the types of medications most commonly used by undergraduates. Based on the table, it was found out that 10% commonly used Antibiotics, 50% used Anti-malaria drugs, 15% used contraceptives or emergency pills, 19% used pain relievers while 6% used other types of drugs for self-medication. Based on the data above, it was therefore found out that the most commonly used medications by undergraduates for self-medication are Anti-malarials

Research Question 4: What are the perceived dangers of self-medication practices among Undergraduates of University of Benin?

Table 10: Descriptive statistics of Perceived dangers of Self-medication practices among undergraduate of university of Benin.

S/N	ITEMS	SA (%)	A (%)	D (%)	SD (%)	MEAN	S.D	DECISION
1	Self-medication sometimes masks serious health problems, delaying proper treatment.	98 20%	282 59%	82 17%	18 4%	2.96	.724	Accepted
2	Self-medicating can lead to addiction or psychological dependence on certain drugs.	116 24%	250 52%	94 17%	20 4%	2.96	.777	Accepted
3	Taking medications without professional advice may negatively impact academic performance.	90 19%	256 53%	114 24%	20 4%	2.86	.758	Accepted
4	Self-medicating can result in prolonged illness and increased healthcare costs.	98 20%	268 56%	84 18%	30 6%	2.90	.788	Accepted
5	Herbal or traditional remedies used without supervision can cause health complications.	132 27%	272 57%	62 13%	14 3%	3.09	.717	Accepted

2.50

MEAN.

(Accepted mean; 2.50 and above, rejected mean; 2.40 and below) Source: Field survey, 2025.

Table 10 above represents the potential dangers of self-medication practices among Undergraduates of University of Benin. From the table above, it was found out

that respondents accepted the statement “delays proper treatment” with a (mean score of 2.96), leads to addiction ” with a (mean score of 2.96), negativeacademic impact with a (mean score of 2.86), prolonged illness and increased healthcare costs” with a (mean score of 2.90.). Lastly, severe health complications” with a (mean score of 3.09).

Based on the data in table 10 it was concluded that perceived dangers of self-medication practices among Undergraduates of University of Benin includes: addiction, negative academic impact, prolonged illness and increased healthcare cost and severe health complications.

Discussion of Findings

The purpose of the study is to examine the dangers of self-medication practice among Undergraduates in University Of Benin. Based on the data collected and analyzed, it was found out that factors influencing self-medication among undergraduates in the University of Benin includes academic pressure, lack of accessibility to hospitals, cost of attending hospitals, perceived severity of illness, information from the internet and social media, easy accessibility to over the counter drugs and preference for traditional or home remedies due to cultural influences. This is in line with the findings of the study carried out by Tesfaye et al. (2021) , which revealed that dissatisfaction with healthcare services and the belief that certain illnesses were too minor to warrant a hospital visit encouraged students to self-medicate. Similarly, Adebayo and Alade (2022) in Nigeria reported that perceived mildness of illness and prior experience with the same symptoms were major drivers of self-medication. Furthermore, Khan et al. (2021) found that high medical costs

and easy accessibility of over-the-counter drugs further promoted the practice among students.

Findings from this research indicated that academic pressure plays a major role, as many students feel overwhelmed with schoolwork and examinations, leading them to manage illness on their own rather than taking time to visit a healthcare facility. The issue of accessibility to hospitals also emerged, as some students consider health centers distant or inconvenient to reach, especially during busy academic periods. Cost was identified as another significant factor, with many students perceiving hospital consultation and prescribed medications as expensive, making self-medication appear more affordable and immediate. In addition, perceived severity of illness greatly influenced students' decisions; many regarded certain symptoms as minor or not serious enough to require professional care, prompting them to rely on self-selected remedies. The influence of digital information was also highlighted, as students increasingly depend on internet sources and social media for guidance on drug use and home-treatment options. Furthermore, easy access to over-the-counter medications encouraged self-medication, since drugs can be purchased quickly without prescriptions. Cultural beliefs and traditional practices additionally contributed, as some students preferred familiar home remedies or cultural treatment methods, believing they are effective and safe.

It was also found out that majority of undergraduates in the University of Benin Seldom engage in self-medication this is in corroboration with the findings of the study carried out by Adebayo and Alade (2022), who reported a 55.3% prevalence of self-

medication among undergraduates in Nigeria. Likewise, Tesfaye et al. (2021) found a prevalence of 64.98% among students, while a meta-analysis by Singh et al. (2023) placed the average prevalence in India at 64.4%. Nuwamanya et al. (2021) in Uganda also reported a rate of 57.3%. These studies confirm that although frequency varies, self-medication is a common behavior among university students globally.

This findings revealed that a significant number of undergraduates at the University of Benin rarely engage in self-medication, although the behavior is still present within the student population. This finding indicates that while self-medication exists, it is not a daily or constant practice for most students; rather, it occurs occasionally, often when certain conditions arise such as mild symptoms, academic stress, lack of time for hospital visits, or perceived familiarity with the illness. Many students tend to resort to self-medication only when they believe they can handle the situation themselves or when they feel medical consultation is not immediately necessary. The pattern observed suggests that students generally do not rely solely on self-medication as their first or regular method of managing health issues. Instead, it appears to serve as a convenient alternative when they perceive professional treatment as avoidable or unavailable at that moment. This behavior aligns with global trends seen among university students, where self-medication is a known practice but often varies in frequency depending on factors such as access to healthcare services, awareness of risks, financial considerations, and personal beliefs about illness severity. Overall, the finding reflects that although many students in the University of Benin practice self-medication, they tend to do so

occasionally rather than habitually, demonstrating a cautious yet responsive approach to managing minor health concerns on their own.

Furthermore, it was found out that the most commonly used medications by undergraduates for self-medication are Anti-malarials. This finding is in line with the findings of the study carried out by Adebayo and Alade (2022), which revealed that painkillers, antimalarials, and antibiotics were the most commonly used drugs by Nigerian undergraduates. Similarly, Alotaibi et al. (2022) found that antibiotics, painkillers, and flu medications were widely used, while El-Nimr et al. (2019) reported that analgesics and antibiotics were among the most frequently self-administered medications.

This finding found out that the most commonly used medications for self-medication among undergraduates in the University of Benin are antimalarials. This indicates that when students decide to treat themselves without consulting healthcare professionals, malaria-related drugs are often their first choice. This may be connected to the fact that malaria is a common illness in the environment, and many students are familiar with its symptoms and treatment, making them feel confident in using antimalarial drugs on their own. In addition to this, many students may have previous experience treating malaria, which encourages them to repeat similar treatment patterns whenever they feel similar symptoms. The result also reflects a general trend where students rely on easily accessible and familiar medications rather than seeking medical diagnosis and prescription. Antimalarials are often readily available in pharmacies and

shops without the need for a prescription, which may further encourage independent use. Students may also choose these drugs because they perceive malaria as a routine or easily manageable illness, rather than a condition requiring professional assessment. This pattern highlights the important role of health awareness and personal judgment in student health behavior. It also suggests that although students attempt to manage illnesses on their own, there may be risks, especially if symptoms are misinterpreted or if inappropriate medication use leads to resistance or complications. The frequent use of antimalarials among undergraduates emphasizes the need for proper health education and guidance to ensure safe and responsible medication practices.

Lastly, it was found out that potential dangers of self-medication practices among Undergraduates of University of Benin includes: addiction, negative academic impact, prolonged illness and increased healthcare cost and severe health complications. This is in line with the findings of the study carried out by Tesfaye et al. (2021), where 14% of undergraduates reported experiencing adverse drug reactions after self-medicating. Oyetunde and Akinyemi (2022) further observed that more than 70% of students were unaware of the potential risks such as overdose, drug resistance, and misdiagnosis. Silva et al. (2020) highlighted cases of overdose and organ failure linked to excessive consumption of over-the-counter drugs, while the World Health Organization (2021) emphasized the contribution of self-medication to the rising global threat of antimicrobial resistance.

This finding found out that self-medication among undergraduates at the University of Benin exposes students to several potential dangers, including addiction, negative academic consequences, prolonged illness, increased healthcare costs, and serious health complications. These risks arise because students often take medications without proper medical guidance, which may lead to inappropriate drug use, excessive dosage, or incorrect treatment choices. In many cases, students may rely on trial-and-error or advice from friends, the internet, or past experiences, which increases the likelihood of harmful outcomes. One major concern highlighted by the study is the possibility of addiction, particularly when drugs such as painkillers or other easily accessible medications are used repeatedly without supervision. Misuse of these drugs may gradually lead to dependence, making the student unable to function optimally without them. Additionally, academic performance can be affected, as the physical and mental consequences of inappropriate drug use may reduce concentration, energy levels, and attendance. Prolonged illness was also identified as a threat, since self-medication may only relieve symptoms temporarily without treating the underlying cause, leading to delayed recovery and worsening health over time. This often results in higher medical expenses later, as students eventually seek professional care when complications arise. Furthermore, serious health issues such as organ damage, severe reactions, or drug resistance may develop, especially when strong medications such as antibiotics or painkillers are misused. Overall, this finding shows that while self-medication may seem

convenient at first, it carries significant long-term risks that can affect students' health, finances, and academic success.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter has to do with the summary, conclusion and recommendations based on the findings.

Summary

The purpose of the study is to examine the dangers of self-medication practice among Undergraduates in University Of Benin. To achieve the purpose of the study, four (4) research questions were raised and answered, and important literature related to dangers of self-medication were clearly discussed. The descriptive research design was adopted for this study and the population consisted of undergraduates students in the University of Benin during the 2024/2025 academic session. With a total population of about forty three thousand, six hundred and seventy nine (43,679) undergraduate students. A total of four hundred and eighty (286) students were selected to represent the population of the study. The instrument used for data collection was a well-structured close-ended questionnaire with sixteen (16) items. The questionnaire was validated by the project supervisor and two other lecturers in the Department of Health, Safety and Environmental Education. The test retest reliability method was used to establish the reliability of the questionnaire. A total of four hundred and eighty (286) questionnaires were administered to the sample and data collected was analyzed using frequency count, percentage mean, and standard deviation.

Findings

Based on the data collected and analyzed, the findings of the study revealed that:

1. Factors influencing self-medication among undergraduates in the University of Benin includes academic pressure, lack of accessibility to hospitals, cost of attending hospitals, perceived severity of illness, information from the internet and social media, easy accessibility to over the counter drugs and preference for traditional or home remedies due to cultural influences.
2. Majority of undergraduates in the University of Benin Seldom engage in self-medication practices.
3. Most commonly used medications by undergraduates for self-medication are Anti-malarias.
4. Perceived dangers of self-medication practices among Undergraduates of University of Benin includes: addiction, negative academic impact, prolonged illness and increased healthcare cost and severe health complications.

Conclusion

Based on the findings, it was concluded that self-medication is a significant practice among undergraduates of the University of Benin, driven by factors such as academic pressure, financial constraints, accessibility of over-the-counter drugs, cultural influences, and information from social media. Although the majority of students reported that they seldom engage in the practice, the prevalence remains high, with antimalarial drugs, pain relievers, contraceptives, and antibiotics being the most

commonly used. The findings further revealed that self-medication poses serious dangers, including the risk of drug resistance, adverse reactions, masking of severe illnesses, psychological dependence, poor academic performance, and increased long-term health complications

Recommendations

Based on the findings from the data collected and analysed, the researcher makes the following recommendations

1. The University of Benin should strengthen its campus health services by ensuring affordable, accessible, and student-friendly medical consultations to reduce the tendency of undergraduates resorting to self-medication.
2. Awareness campaigns should be regularly organized by the university health center and Health Educators to sensitize students on the dangers of self-medication, including issues of drug resistance, overdose, and misdiagnosis.
3. The government and regulatory authorities should enforce stricter control on the sale of prescription-only drugs to limit indiscriminate access to antibiotics and other sensitive medications by students.
4. The university should implement strict health policies, provide counseling, and promote awareness to minimize addiction, academic decline, and severe health risks.

Suggestions for further Studies

1. Prevalence of Self-medication Practices among Undergraduates of the University of Benin, Benin City, Edo State.

2. Factors Influencing Self-Medication Practices among Undergraduates of the University of Benin, Benin City, Edo State
3. Impact of Health Education on Self-medication practices among undergraduates of the University of Benin, Benin City, Edo State.

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APPENDIX
DEPARTMENT OF HEALTH, SAFETY AND ENVIRONMENTAL EDUCATION
FACULTY OF EDUCATION, UNIVERSITY OF BENIN,
BENIN CITY, EDO STATE.
QUESTIONNAIRE

Dear Respondents,

I Edeali Sarah Blessing, a student of the above name department is conducting a research on "Dangers Of Self- Medication Practice Among Undergraduates in University Of Benin".

INSTRUCTION: This questionnaire is designed to get your view on the aforementioned subject matter, you are kindly requested to fill the questionnaire. All information gathered shall be used purely for research purposes and shall be treated with utmost confidentiality. Indicate your opinion by a tick (✓) in the appropriate column that both represent your category.

SECTION A (Demographic Data)

Gender: Male [] female []

Age: 16-19 [] 20-23 [] 24 years and above []

Level: 100 [] 200 [] 300 [] 400 [] 500 [] 600 []

Faculty/Department: _____

SECTION B

Research Question 1: What are the factors influencing self-medication practices among undergraduates of University of Benin?

S/N	ITEMS	SA	A	D	SA
1.	I self-medicate because of dissatisfaction with the quality of healthcare services.				
2.	I practice self-medication because I trust advice from friends.				
3.	I self-medicate because academic pressure leaves little time for hospital visits.				
4.	I engage in self-medication because pharmacies are more accessible than hospitals.				
5.	I engage in self-medication because the illness seems minor and not serious enough to visit a doctor.				
6.	I self- medicate because buying drugs from pharmacist is more				

	cheaper than going to the hospital.				
7.	I self-medicate because information about drugs is easily available on the internet and social media.				
8.	I self-medicate because I can easily buy drugs without a prescription.				
9.	I prefer using traditional or home remedies because they are part of my culture.				

SECTION C

Research Question 2: To what extent do undergraduates of University of Benin engage in self-medication Practices

S/N	ITEMS	Always	Seldom	Never
10.	How often you engage in the practice of self medication.			

SECTION D

Research Question 3: What types of medications are most commonly used by undergraduates for self-medication?

Tick in the appropriate column that represent your category.

Noted: You can tick more than one options.

11. Which of the following types of medications have you used without a doctor's prescription?

- (A) Pain relievers []
- (B) Antibiotics []
- (C) Anti-malaria drugs []
- (D) Contraceptives or emergency pills []
- (E) Others (please specify) _____

SECTION E

Research Question 4: What are the potential dangers of self-medication practices among Undergraduates of University of Benin?

S/N	ITEMS	SA	A	D	SA
12.	Self-medication sometimes masks serious health problems, delaying proper treatment.				

13.	Self-medicating can lead to addiction or psychological dependence on certain drugs.				
14.	Taking medications without professional advice may negatively impact academic performance.				
15.	Self-medicating can result in prolonged illness and increased healthcare costs.				
16.	Herbal or traditional remedies used without supervision can cause health complications.				