DETERMINANTS OF SELF-MEDICATION IN NIGERIA

by

[1]Winifred Kashi Tsado, [2]Dauda Juliana Hussaina, [3]Bello Haruna Dzwafu & [2]Mohammed Shuaibu

[1]Department of Social Sciences, Federal Polytechnic, Bida,
[2]Department of Sociology, Ibrahim Badamasi Babangida University Lapai Niger State.
[3]Nigeria Police Academy Wudil, Kano State.
Mobile: +2348065924570, Email address: m.shuaibu65@gmail.com

Abstract

Self-medication, the practice of treating oneself with medicines without medical supervision, is prevalent in Nigeria due to various socio-economic and cultural factors. This study investigates the determinants of self-medication in Nigerian. Its aim is to identify key influences such as accessibility, awareness, socio-economic status, and health system factors. The paper is guided by Health Belief Model (HBM) as its theoretical framework, which posits that health behaviors are influenced by personal beliefs about health conditions and perceived benefits or barriers to actions. The paper adopted the secondary method of data collection; the materials for this research paper were sourced mostly from written works from libraries and archives they include: text books, journals, newspapers, and magazines. The paper used content analysis and this research paper is mainly based on secondary data. Base on the results, its indicate that ease of access to pharmacies, low healthcare costs, prior experience, and perceived minor ailments significantly influence self-medication practices. The findings underscore the need for regulatory policies, health education, and improved healthcare access to mitigate the potential risks associated with self-medication.

Keywords: Self-medication, Nigeria, determinants, healthcare access, pharmacy, health policy

1. INTRODUCTION

Self-medication is defined as the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent diseases or symptoms (World Health Organization, 2019.). It includes getting medications without prescription or taking medications based on advice from friends and relatives. Self-medication (SM) is common in both developed and developing countries but higher in developing countries, due to wider increase of drug availability without prescription (Klemenc-Ketis, Hladnik & Kersnik, 2017).

Furthermore, the practice of self-medication globally, has been reported as being on the rise. People around the world tend to treat the disease, almost 50% either wait for the problem to run its course or use a home remedy. About 25% visit doctor or use prescription medicine previously obtained for the same condition. The remaining 25% turn to the over the counter (OTC) medicines. (Wsmibro 2019). Self-medication offers ease of access to Over the Counter (OTC) medications at a lower cost, which serves as an alternative to the costly and time-consuming clinical consultations. However, safety of these medications is a major concern as many diseases have similar symptoms. Also, the risk of self-medication is increased if the individual does not have knowledge and understanding of the disease. This practice is also associated with an increased risk of misdiagnosis, Adverse Drug Reactions (ADRs), drug abuse and misuse (Gellman &Turner, 2018).

Self-medication is a common practice worldwide, especially in developing countries like Nigeria, where barriers to healthcare access, cost, and cultural beliefs influence individuals' health-seeking behaviors. In Nigeria, it is estimated that over 70% of the population engage in self-medication at some point (Akinyemi et al., 2022). While self-medication can provide quick relief and reduce healthcare burdens, it also poses risks such as drug resistance, incorrect diagnosis, and adverse drug reactions. The increasing prevalence of self-medication in Nigeria is driven by factors such as inadequate healthcare infrastructure, high cost of consultations, long waiting times, and cultural perceptions of illness. Despite its widespread nature, there is limited empirical data on the determinants that influence this behavior in different Nigerian contexts.

Statement of the Problem

Self-medication poses significant health risks, including misdiagnosis, drug interactions, and antimicrobial resistance. In Nigeria, the rampant practice of self-medication raises concerns about public health and safety. Despite its prevalence, little is known about the key determinants influencing individuals' decisions to self-medicate, especially across urban and rural settings. Understanding these determinants is crucial for designing effective interventions and policies to regulate medication use and promote safe practices. Despite the potential benefits of self-medication, its unchecked practice poses significant health risks, including drug resistance, adverse effects, and delayed treatment of serious conditions. Nigeria's healthcare system faces challenges such as inadequate facilities, high costs, and long waiting periods, which often drive

individuals towards self-medication. The lack of comprehensive data on the specific factors influencing this behavior hampers policy formulation.

Recent studies show that approximately 75% of Nigerians engage in self-medication (NCDC, 2023). The National Agency for Food and Drug Administration and Control (NAFDAC) reports a rise in the sale of antibiotics over the counter, often without prescriptions. The World Health Organization (WHO, 2023) emphasizes the risks associated with unregulated self-medication, including antimicrobial resistance, which is on the rise in Nigeria, with resistance rates of 50-60% for common pathogens (WHO, 2023). According to the Nigeria Demographic and Health Survey (NDHS) 2018, about 45% of women and 55% of men reported self-medicating for common illnesses.

2. METHODS

This study employs a secondary data analysis approach, reviewing existing literature, official reports, and statistical databases such as: Nigeria Demographic and Health Surveys (NDHS), WHO reports, Peer-reviewed journal articles, Government publications on healthcare and drug regulation. Data synthesis involves qualitative thematic analysis to identify common determinants and patterns.

3. DISCUSSION

CONCEPTUALISATION

Self-Medication: Self-medication can be defined as the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms (World Health Organization (WHO), 2019). Self-medication involves acquiring medicines without a prescription, resubmitting old prescriptions to purchase medicines, sharing medicines with relatives or members of one's social circle or using leftover medicines stored at home (Loyola, Lima-Costa & Uchoˆa, 2016). According to WHO guidelines responsible self-medication can help prevent and treat diseases that do not require medical consultation and reduce the increasing pressure on medical services for relief of minor ailments especially when resources are limited. Otherwise self-medication if not based on authentic medical information can lead to irrational use of drugs, wastage of resources, and increased resistance of pathogens and can lead to serious health hazards such as adverse drug reaction and prolonged morbidity (Banerjee & Bhadury, 2018). In developing countries, most illnesses are treated by self-medication and many reasons abound for this practice. People resort to the practice instead of contacting professional healthcare workers because of long waiting periods in hospitals, ailments not being severe, cost, to save money and time, lack of accessibility, shortage of doctors, or a feeling that their ailment is beyond the knowledge of western trained doctors (Shivani et al, 2016).

However, economic, political, and cultural factors have stimulated a constant increase in self-medication worldwide, turning this practice into a major public health problem. The practice of self-medication is widespread in many countries. In developing countries like India, easy availability of wide range of drugs coupled with inadequate health services result in increased proportion of drugs used as self-medication. Self-medication is common among practicing

physicians also (Kumar, et al 2018). Thus, financial condition of the patients has been cited as one of the reasons why people indulge in self-medication. This is common in those countries where the individuals pay out of pocket for medical treatment. As a result, patients may prefer self-medication over costly consultation. Another possible reason can be the non-regulated practices concerning sale of prescription drugs which is common in developing countries including Nigeria. This may result in the availability of Prescription Only Medications (POM) without a valid prescription and, hence, patient may skip consultation and directly purchase prescription medications (Aljadhey et al, 2016). Familial practice may also render individuals more prone to indulge in self-medication as it lowers their stigma towards self-medication. Availability of drugs in markets and poor drug regulatory practices contribute to self-medication. Many Nigerians, most times, trivialize ailments such as headache, fever, cough, throat infection, common cold and stomach ache while, some do perceive some ailments to be too mild to necessitate medical consultation. Other factors like demographic factors have been found to influence self-medication. For instance, gender, age, sex and social role were discovered to have influence on self-medication (Osemene & Lamikara, 2014). Thus, in Nigeria today, there is high occurrence of drug addiction such as codeine, tramadol, fortuin and many others. There are also cases of resistance to drugs such as anti-malarial and antibiotics and all these occurring due to the availability of over the counter drugs to the populace and little education and awareness of the side effect of the use of these drugs.

Self-medication thus forms an integral part of self-care, which can be defined as the primary public health resource in the health care system. It includes self-medication, non-drug self-treatment, social support in illness, and first aid in everyday life (WHO, 2017). Not much is known about health-related problems and health care utilization, including self-medication among young adults. The youth are highly influenced by the media and the internet which promote self-medication behaviour (Klemenc-Ketis, et al, 2017). The increased advertising of pharmaceuticals poses a larger threat of self-medication to the younger population in general. This raises concerns of incorrect self-diagnosis, drug interaction, and use of drugs other than for the original indication. The increase in the quantities and varieties of pharmaceuticals worldwide eases the accessibility of medicine by consumers, thereby giving options for its misuse. A study from Nigeria has observed self-medication as a common practice among group of health workers that included dental, midwifery and nursing students (Ehigiator,et al, 2018).

Disadvantages of Self-Medication

When a medicine is taken, it gets absorbed rapidly putting the body in danger. At the same time drugs gets sold rapidly through a powerful marketing and no or less control over medicine. They are used and miss used and over used for different type of illness. E.g. taking pain killers for a long time aside consultation or prescription by the doctor, ignoring the side effect of the analgesic E.g. Paracetamol is antipyretic and analgesic which is used in large doses can cause liver problems (toxicity) (Vidyavati et al. 2016).

Major problem or disadvantages of self-medication is emergence of human pathogen resistance microorganisms worldwide particularly in developing countries, where antibiotics are often used and available without prescription. Its irrational use increases the risk of adverse reactions. And person may develop resistance to particular antibiotics, hypersensitivity of drug withdrawal

symptoms and temporary masking of disease can delay correct diagnosis. Some medicines are banned in the market & user doesn't know and they go on consuming (Vidyavati, et Al 2016).

Prevalence of Self-Medication

The extent of self-medication varies from country to country. This may, at least in part, be due to study methodologies utilized and also the different socioeconomic and socio-demographic factors (James, et al 2017). Despite being highlighted by retrospective studies and considered to be the major source of non-prescribed drug use and abuse by these students, the prevalence of unauthorized drug use and dependency among students has been considered inestimable (Kenna and Wood, 2019). (Kumar et al (2019) reported a self-medication prevalence of 78% in Coastal South India; Abay and Amelo (2016) found the prevalence to be 38.5% among Medical, Pharmacy and Health students of Gondar University, Ethiopia; Philip, Aditya, Reji, Ashok (2016) reported 87.5% among Pharmacy students in India.

In Nigeria, a few studies of self-medication have been carried out with different prevalence rates of self-medication. In a survey of undergraduates of Imo State University, Owerri, only 38.9% of the respondents consulted qualified doctor when ill, the rest (61.1%) practiced self-medication by using drugs recommended by friends, family members or a paramedical worker (Eke, 2018). Similarly, Osemene & Lamikanra (2018) reported a self-medication prevalence rate of 53.8 % where self-medication increased as the students' class level in the university increased.

The study of Esan, Fasoro, and Odesanya, (2018), with a prevalence rate of 63% emphasized how under dosage and over dosage of drugs predispose individuals to drug tolerance and harm to the patient respectively, due to insufficient medical facilities, the free accessibility of over-the-counter (OTC) drugs in the local market and the impoverished national drug regulatory policy, it is now becoming a very common occurrence in Nigeria. Other reasons for self-medication are the shortage of time to visit a physician, inability to get a quick appointment, mild illness, long distance of hospitals and clinics from home, and finally unaffordable doctor's fees. Moreover, extraction of much information from online sources, magazines or periodicals makes people courageous about treating their own illness. However, people are endangering their lives by practicing self-medication as it can lead to habituation, lethal allergic reactions, under dosage of medication which may not alleviate the symptom, and also over dosage that can cause collateral injury to different organs. It also emphasized that the substances which are most extensively self-medicated are OTC drugs and dietary supplements. Besides analgesics, antimalarials, antibiotics, and cold syrups are intermittently used for self-administration. Sometimes some psychoactive drugs like recreational drugs, alcohol, and comfort foods are self-medicated to alleviate the symptoms of mental distress, stress, and anxiety.

Dangers in Self-Medicating

Bernice (2017) highlighted some of the inherent dangers in self-medicating are numerous and can be fatal, if not now, then in the long run. These include:

i. **Habituation**: This refers generally to a psychological dependence on the continued use of a drug to maintain a sense of well-being, which can result in drug addiction. Many folks have become addicted to prescription drugs such as cough syrups, anti-allergy drugs, antacids, pain relievers or tonics and as such, find themselves unable to do without these medications.

ii. **Allergic reactions** that may be severe or even fatal can occur. Antibiotics like Penicillin or Sulpha drugs can cause very severe reactions.

iii. **Irrational drug combinations** are available in the market. Nobody tells the full truth about the products they sell and this goes for medicines as well. Some of them may be dangerous especially if taken with alcohol or other substances. Even food supplements and tonics can sometimes be harmful.

iv. **Under-dosage** may not cure the symptom. Over-dosage can produce collateral damage to heart, kidneys or other organs. Indiscriminate use of antibiotics through wrong dosage or inadequate duration may lead to resistance or sudden allergic reactions. As a result, when there is need for an antibiotic, it may be ineffective.

v. **Vitamins**- Vitamin C in particular seems to me to be one of the most abused drugs. As a matter of fact, people consider it to be more of a sweet than a drug, its side effects increases with the quantity taken over a period of time which can range from stomach cramps, redness of the skin, heartburn, nausea and vomiting etc. However, even an overdose of vitamins may have an adverse result, especially fat-soluble vitamins like A, D, E, and K.

vi. **Addiction to psychotropic drugs** such as LSD, Ketamine, cocaine, marijuana is on the increase. A symptom like headache or nausea may be common to many medical diseases. By masking the symptom temporarily, it will be difficult for a doctor to arrive at a correct diagnosis. All these are only a few of the many risks inherent in self-medication. As trivial as it seems, even common paracetamol can cause potential complications if taken without a doctor's diagnosis and prescription. (Bernice, 2017).

Empirical Review

Numerous studies have explored self-medication in Nigeria and other developing countries. Akinyemi et al. (2022) identified factors such as low income, poor healthcare accessibility, and cultural beliefs as primary determinants. Similarly, Oladele et al. (2021) found that prior experience with illnesses and perceived mildness of symptoms often lead individuals to self-medicate.

Other factors include:

i. **Accessibility of pharmacies:** Over-the-counter availability facilitates self-m

ii. edication (Eze et al., 2020).

iii. **Economic factors:** High medical costs deter individuals from seeking formal healthcare (Ogunleye et al., 2021).

iv. **Knowledge and awareness:** Limited knowledge about drug risks influences self-medication behaviors (Ibrahim & Musa, 2022).

v. **Cultural beliefs:** Traditional medicine and perceptions about illness influence self-treatment choices (Adebayo et al., 2020).

vi. WHO (2021) emphasizes that easy access to medicines and inadequate regulation increase self-medication prevalence.

Understanding these factors within the Nigerian context remains vital for policy formulation.

Theoretical Framework

This research paper adopts the Health Belief Model (HBM) as its theoretical framework, which posits that health behaviors are influenced by personal beliefs about health conditions and perceived benefits or barriers to actions.

Key constructs:
- *Perceived susceptibility and severity*: Belief about the risk of health issues.
- *Perceived benefits*: Belief in the effectiveness of self-medication.
- *Perceived barriers*: Costs, accessibility, and risks associated with professional healthcare.
- *Cues to action*: Cultural norms, previous experiences, and advice from peers.

The HBM helps explain how individual perceptions influence the decision to self-medicate.

4. FINDINGS

The high prevalence aligns with previous studies, confirming that accessibility and cost are major determinants. The perception of minor illness reduces the likelihood of seeking formal healthcare, contributing to self-medication. These findings suggest the need for improved healthcare infrastructure and public health education.

Preliminary findings suggest that:

i.   Economic Constraints: High costs of healthcare and medications drive self-medication.
ii. Healthcare Accessibility: Inadequate health facilities and personnel limit professional consultation.
iii. Regulatory Gaps: Poor enforcement of drug laws facilitates easy access to medicines without prescriptions.
iv. Cultural Influences: Traditional medicine practices and peer advice significantly influence behavior.
v.   Knowledge and Awareness: Lack of awareness about drug side effects and resistance fosters unsafe practices. The interplay of these factors creates a complex environment promoting self-medication in Nigeria.

5. CONCLUSION & RECOMMENDATIONS

Self-medication is a widespread practice in Nigeria influenced predominantly by accessibility, cost, and perceptions of illness. While it offers convenience, it poses significant health risks. Addressing these determinants through policy reforms, regulation of drug sales, and public education is essential to mitigate adverse health outcomes. Self-medication in Nigeria is

influenced by a confluence of socio-economic, systemic, cultural, and informational factors. While it offers convenience and immediate relief, the associated health risks necessitate targeted interventions.

The following recommendations are made based on the findings of the research paper study
    i. Strengthen regulation and enforcement of drug sale laws.
    ii. Improve healthcare accessibility and affordability.
    iii. Conduct public awareness campaigns on the risks of self-medication.
    iv. Incorporate health education into community programs.
    v. Promote responsible dispensing practices among pharmacists and drug vendors.

REFERENCES

Abay, S.M., & Amelo, W. (2019). Assessment of Self-Medication Practices among Medical, Pharmacy, and Health Science Students in Gondar University, Ethiopia. *Journal of Young Pharm.* 2018 Jul-Sep; 2(3): 306–310.

Adebayo, O. A., et al. (2020). Cultural beliefs and self-medication among Nigerian adults. *African Journal of Medicine and Medical Sciences*, 48(3), 122-130.

Afolabi, A.O. (2018). Factors influencing the pattern of self-medication in an adult Nigerian population. *Annals of African Medicine.* 7(3):120-127.

Akinyemi, O. O., et al. (2022). Determinants of self-medication among adults in Nigeria: A cross-sectional study. *Journal of Public Health and Epidemiology*, 14(2), 67-75.

Aljadhey H., Assiri G., Mahmoud M., & Al-Aqeel S. (2016). Murray M. Self-medication in Central Saudi Arabia; Community pharmacy consumers' perspectives. *Saudi Medical Journal*; 36 (3) 328–334.

Banerjee, I., & Bhadury, T. (2018). Self-medication practice among undergraduate medical students in a tertiary care medical college, West Bengal. *J Postgrad Med*; 58:127–31.

Bernice, A. (2017). *The Dangers of Self Medication*. Retrieved from: http://connectnigeria.com/articles/2018/11/the-dangers-of-self-medication/

Ehigiator.O., Azodo, C.C., Ehizele. A.O., Ezeja. E.B., & Ehigiator, L. (2018). Self-medication practices among dental, midwifery and nursing students. *Eur J Gen Dentistry* 2:54–57.

Esan, D. T., Fasoro, A. A., Odesanya, O. E., Esan, T. O., Ojo, E. F., & Faeji, C. O., (2018). Assessment of Self-Medication Practices and Its Associated Factors among Undergraduates of a Private University in Nigeria. Hindawi; *Journal of Environmental and Public Health.*

Eze, S. C., et al. (2020). Accessibility and self-medication practices in Nigeria. *International Journal of Pharmaceutical Sciences and Research*, 11(4), 1894-1901.

Gellman M.D., &Turner, J,R. (2018), *Self-medication*. In Encyclopaedia of Behavioural Medicine; Springer: New York, NY, USA.

Ibrahim, A., & Musa, A. (2022). Knowledge and awareness of medication risks among Nigerian youth. *Nigerian Journal of Health Sciences*, 22(1), 45-54.

James, H., Handu, S.S., Al Khaja, K.A, Otoom S., & Sequeira, R.P. (2017). Evaluation of the knowledge, attitude and practice of self-medication among first-year medical students. *Med PrincPract* 15:270–75.

Kenna. G.A., Wood. M.D. (2013). *Prescription Subscription Use by Pharmacists*

Klemenc-Ketis,Z,, Hladnik, Z., & Kersnik, J. (2017). *A cross sectional study of sex differences in self- medication practices among university students in* Slovenia. Coll Antropo l35 (2):329–34.

Kumar, N., Tanuj, K., Bhaskaran, U., Rekha, T., & Prasanna, M. (2016).*Perceptions and Practices of Self-Medication among Medical Students* in Coastal South India. Retrieved from: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0072247.

Kumar N., Kanchan. T, Unnikrishnan B., Rekha, T., & Mithra P. (2016). *Perceptions and Practices of Self-Medication among Medical Students in* Coastal South India. PLoS ONE 8(8): e72247. doi:10.1371/journal.pone.0072247

Loyola Filho A.I., Lima-Costa, M.F., Uchoˆa E.B. (2016). *Project: a qualitative approach to self- medication.* Cad Saude Publica. 20(6):1661–69

National Disease Control Center (NCDC). (2023). Annual health report.

Nigeria Demographic and Health Survey (NDHS). (2018). Nigeria Bureau of Statistics.

Ogunleye, O. O., et al. (2021). Economic barriers and health-seeking behavior in Nigeria. *Health Economics Review*, 11(1), 29.

Olawale, O., & Akinyemi, O. (2021). Cultural beliefs and self-medication practices in Nigeria. *International Journal of Community Medicine and Public Health*, 8(5), 2310-2317.

Osemene K.P., & Lamikara, A. (2018). A study of the prevalence of self-medication practice among University Students in Southwestern Nigeria. *Trop J Pharmaceutical Res.* 2016; 11(4):683-689

Philip, P.T., Aditya, S.S., Reji, T. R., & Ashok, K. (2015). Assessment of self -medication practices among undergraduate medical and paramedical students: a case of rural medical schools of tamil nadu, india. *World journal of pharmacy and pharmaceutical sciences* SJIF Impact Factor 5.210 Vol. 4(10): 1587-1604.

Shivani S., Mahesh V., Muninarayana, C., & Anil, N.S. (2019). Study of self-medication patterns among medical and nursing students in deemed medical university. *International Journal of Basic and Applied Medical Sciences* ISSN: 2277-2103 (Online) An Open Access, Online International Journal Available at http://www.cibtech.org/jms.htm 2015 Vol. 5 (1) January-April, pp. 280-284.

Shivani, S., Mahesh, V., Muninarayana, C., & Anil, N.S. (2016). Study of self-medication patterns among medical and nursing students in deemed medical university. *International Journal of Basic and Applied Medical Sciences* ISSN: 2277-2103

Vidyavat, S.D., Sneha, A., Kamarudin, J., & Katti, S.M. (2016). Self-Medication - Reasons, Risks and Benefits. *International J. of Healthcare and Biomedical Research,* Volume: 04, Issue: 04, July 2016, 21-24. ISSN: 2319-7072

World Health Organization (2021). *Antimicrobial Resistance:* Global Report on Surveillance.

World Health Organization (2023). *Antimicrobial resistance surveillance in Nigeria*. Geneva: World Health Organization.

World Health Organization (2019). *Role of the pharmacist in self-care and self-medication. Report of the 4th WHO consultative group on the role of the pharmacist*, World Health Organization, Hague, Netherlands. Available at http://www.who.int/ medicines/library/dap/whodap-98-13/who-dap-98-13.pdf.

Citation

Tsado, K.W., Duada, H.J., Dzwafu, B.H. & Mohammed, S. (2025). Determinant of Self-Medication in Nigeria. *Nigerian Journal of Social Health* 2 (2) 60 – 68.