

The Practice of Self-Medication Still Abounds; A Case Study among Students of the Bayelsa State College of Health Technology



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Abstract

Self-medication is a common practice observed across diverse global contexts, encompassing both developed and developing nations. This study specifically delves into the nuanced landscape of self-medication practices and the influential factors among students enrolled at the Bayelsa State College of Health Technology. Using a descriptive survey methodology, the research engaged the entire student population of the Bayelsa State College of Health Technology, Otuogidi Ogbia Town. A sample size of 105 respondents was meticulously selected through stratified and random sampling techniques. Data collection relied on a meticulously designed self-structured questionnaire. Data analysis was executed utilizing the Statistical Package for Social Sciences (SPSS) version 23, with the findings presented through tables illustrating frequency and percentage distributions. Noteworthy observations surfaced during the analysis: a subset of respondents, constituting 14.28% and 10.47%, respectively, sought medical assistance from hospitals and pharmacists in cases of illness or the requirement for medication.

Conversely, a substantial proportion, 25.71%, and 39.04%, sought advice from friends and chemists. The predominant utilization of specific antibiotics, such as Tetracycline (15.23%), Amoxicillin (31.42%), Ampiclox (28.66%), Metronidazole (8.57%), and Ciprofloxacin (16.19%), as well as pain relievers like Paracetamol (23.80%), underscores high prevalent self-medication practices. The motives driving self-medication among respondents were multifaceted: 31.42% believed in the efficacy of the medication, its success among others influenced 25.71%, 23.80% cited time constraints as a deterrent for clinic visits, and 16.90% faced challenges due to drug unavailability at the college clinic. There was no statistically significant difference in drug prescription pattern into self-medication among the student population ($P = 0.095$). Whereas there was a statistically significant difference in factors that influence self-medication among the student population ($P < 0.005$). Also, there was a statistically significant difference in the most commonly used drugs among the student population ($P < 0.005$). The culmination of this investigation reveals a prevailing inclination towards self-medication among respondents, predominantly attributed to inadequacies in the college clinic's capacity to address students' health concerns. Commonly sought medications encompassed antimalarials, analgesics, antibiotics, and NSAIDs.

Keywords: Amoxil Paracetamol; Ibuprofen; Bayelsa State; College of Health Technology

Introduction

According to William Osler, "the desire to take medicine is perhaps the greatest feature that distinguishes man from animals" [1]. Self-medication involves the use of medicine by people who want to treat self-recognized symptoms by themselves. Self-medication thus forms an essential part of self-care, which also includes non-drug self-treatment, social support in illness, and first aid in everyday life [1]. Self-medication also involves getting

medicines without a prescription, resubmitting old prescriptions to buy medicines, talking about medicines to friends or relatives, or using leftover medicines stored at home [2].

The widespread practice of self-medication constitutes a significant healthcare behavior observed across diverse global contexts, transcending geographical and socio-economic boundaries [3]. Defined as the autonomous initiation and

administration of medicinal treatments without professional consultation, self-medication perpetuates multifaceted implications, especially among student cohorts within educational institutions [4]. Within the Nigerian context, the prevalence and implications of self-medication practices, particularly among student populations, have attracted scholarly attention, highlighting a multifaceted interplay of factors influencing this behavior [5,6].

A growing body of research, notably articulated by [7,8], underscores the intricate interplay of factors contributing to the propensity for self-medication, encompassing limited healthcare accessibility, perceptions regarding drug efficacy, societal influences, and convenience factors. Bayelsa State College of Health Technology serves as an illuminating setting for the examination of prevalent self-medication behaviors among students within a Nigerian educational institution. Scholars such as [9,10] have explored self-medication trends within Nigeria, shedding light on factors such as limited healthcare accessibility, drug availability, cultural beliefs, and economic constraints that contribute to this healthcare practice.

This study is poised to rigorously investigate the prevalent self-medication behaviors among students enrolled at the Bayelsa State College of Health Technology. Echoing the findings of [11], this inquiry seeks to discern the influential determinants steering students towards self-administration of medications, elucidating motivations and factors shaping these practices. Central to this investigation is the scrutiny of the inadequacies within the college clinic’s healthcare provisions, as identified in the works of [12], potentially fueling students’ inclinations toward self-medication practices. Such explorations align with contemporary scholarly inquiries highlighting the ramifications of self-medication within educational settings [3].

This study aims to provide empirical insights into prevailing self-medication trends among students through robust methodology and rigorous data analysis. By leveraging insights from the realms of healthcare behavior [7] and health education [8]. This research endeavors to furnish a foundation for informed interventions and policy enhancements within educational healthcare frameworks.

Method

Study Area/Population

Bayelsa State College of Health Technology Otuogidi Ogbia Town in Ogbia Local Government Area in Bayelsa State is an institute comprised of seven different departments with three schools that offer prospective with National Certificate, Diploma, and Higher National Diploma respectively. This institution trains middle-level health manpower to provide the health care manpower needs of Bayelsa State and Nigeria at large. The population of the Study comprised all students of the institution which was 1250 at the material time.

Design

This study employed the use of a descriptive cross-sectional research design among 210 students.

Power calculation

The sample size for this study was determined by using the Taro Yamen’s formula:

$$n = \frac{N}{1 + N(e)^2}$$

Where,

n = Sample size

N = The total population of study area

e = Level of significance, usually (0.05)

n =?

$$N = 1250, e = 0.05$$

$$n = \frac{330}{1 + 330(0.05)^2}$$

$$n = \frac{330}{1 + 330(0.0025)}$$

$$n = \frac{330}{1.825}$$

$$n = 181$$

Instrumentation and measures

The instrument for data collection was a self-administered structured questionnaire. The instrument was divided into 3 sections: A, B, and C.

Section A elicits the demographic data of the respondents while section B elicits data on the self-medication practices of the respondents and section C elicits possible data on the factors influencing the self-medication practices of the respondents. Ten percent ((10%) of the instrument number was used in a neighboring institution for the test of reliability, and a Cronbach’s alpha score of 0.79 was obtained, thus permitting its use for this study.

Data Collection/Analysis

The questionnaires were distributed to participating students within the study area. Instructions on how to fill appropriately

were given. After completion of the questionnaires, they were retrieved from the respondents. Data was analyzed using the Statistical Package for Social Sciences (SPSS) version 23. Data was presented on tables and charts and expressed as frequency and percentage.

Ethical Consideration

Ethical clearance and approval were obtained from the Ethics and Research Committee of Bayelsa State College of Health

Technology. Ethical standard was adhered to and maintained throughout the work, and all information obtained during the research was used for only the purpose of the research.

Sampling Techniques

A stratified and randomly selected technique was used from the seven different departments of the Bayelsa State College of Health Technology as well as identifies the factors influencing it (self-medication) among the students.

Results

Demographic Data

Table 1: Demographic data of respondents.

Variable	Frequency (n=210)	Percentage (%)
Age (years)		
3 15-20	52	24.76
4 21-25	41	20
5 26-30	68	32.38
6 31-35	34	16.19
7 35 above	14	6.66
Gender		
a. Male	72	34.28
b. Female	128	60.95
c. No response	6	2.85
Marital status		
· Single	146	69.52
· Married	60	28.57
· Divorce	2	0.95
· Widow	2	0.95
Religion		
· Christian	204	97.14
· Muslim	2	0.95
· No response	4	1.9
Department		
a. MSW	22	10.47
b. EHT	40	19.04
c. DHS	10	4.76
d. CHS	54	25.71
e. MLT	28	13.33
f. PTS	38	18.09
g. HIMT	18	8.57
Levels		
· Year 2	62	29.52
· Year 3	106	50.47
· Year 4	42	20

In total, 210 participants actively contributed to this research endeavor. Analyzing their demographic profiles revealed notable trends: a predominant proportion of respondents, constituting 64 individuals (32.38%), fell within the age bracket of 26 to 30 years. Moreover, the majority of respondents were female, comprising 128 individuals (60.95%), while a substantial segment identified as single, accounting for 146 respondents (69.52%). In terms of religious affiliation, the study predominantly comprised individuals practicing Christianity, encompassing 204 participants (97.14%). The distribution of participants across various departments and academic levels within the study area was uniform. The comprehensive demographic breakdown of the participants is delineated in Table 1 for reference and clarity within this academic inquiry.

Practice of Self-Medication

Upon evaluating the respondents' engagement in self-medication practices, the findings unveil discernible trends: a subset of 30 individuals (14.28%) sought medical assistance at

hospitals or from pharmacists in instances of illness or medication requirements, whereas a larger cohort of 54 individuals (25.71%) relied on advice from friends or visited a chemist. Additionally, a nominal proportion of 22 respondents (10.47%) administered drugs at home. Notably, a modest portion of the respondents, 52 individuals (24.76%), affirmed that their drug usage adhered to prescriptions provided by medical professionals.

A prevailing health concern among the respondents was headaches, reported by a majority of 54 individuals (25.71%), while a significant proportion, 80 individuals (38.09%), resorted to Ibuprofen for alleviation. Intriguingly, among the respondents who did not receive prescriptions from healthcare professionals, a considerable subset of 46 individuals (21.90%) independently prescribed medications, while a smaller minority obtained prescriptions from friends (4 individuals, 1.90%) or others (2 individuals, 0.95%). This delineates a noteworthy observation: a substantial 158 respondents (75.24%) engaged in self-medication practices, as outlined in Table 2 for a comprehensive illustration and reference within this study's context.

Table 2: Drug Prescription Practices of Respondents.

Variable	Frequency (n=105)	Percentage (%)
Goes to in the event of illness or need for drugs		
· Hospital		
· Pharmacy	30	14.28
· Friends	22	10.47
· Chemist	54	25.71
· Drugs in the house	82	39.04
· No response	20	9.52
	2	0.95
Reasons why I did not go to hospital		
a. No found	98	62.02
b. To reduce stress	62	31.64
c. No response	10	6.32
Symptoms felt when sick		
a. Headache	54	25.71
b. Body pain	42	20
c. Cough	26	12.38
d. Cold	38	18.09
e. Running nose	14	6.66
f. Stomach pain	24	11.42
g. Others	6	2.35
Frequently taken drug		
· Paracetamol	74	35.32
· Ibuprofen	80	38.09
· Loratidine	14	6.66
· Piriton	18	8.57

· Vitamin C	12	5.71
· Others	12	5.71
Drugs prescribed by doctors/pharmacists		
· Yes	52	24.76
· No	158	79.24

Commonly used drugs by the respondents

The medications frequently utilized by the respondents, according to the study are categorized into three primary classes: antibiotics, encompassing Amoxicillin (31.42%), Ampiclox (28.66%), Tetracycline (15.23%), Ciprofloxacin (16.19%); and Metronidazole (8.57%); pain relievers, inclusive of Ibuprofen (26.66%), Paracetamol (23.80%), Panadol (17.14%), Aspirin

(14.28%), Celebrex (13.33%) and antimalaria were ACTP-Alaxin (40.95%), Sulfadoxine + pyramethamine (21.90%), Quinine (13.33%), and Winthrop Tramadol (2.85%), among others. There was a statistically significant difference in the most commonly used drugs among the student population ($P < 0.005$). A comprehensive breakdown of this data is presented in Table 3, providing a detailed depiction and reference within the scope of this study.

Table 3: Commonly Used Drugs.

Variable	Frequency	Percentage (%)
Antibiotics		
· Tetracycline	32	15.23
· Amoxicillin	66	31.42
· Ampiclox	60	28.57
· Metronidazole	18	8.57
· Ciprofloxacin	38	16.19
Pain relievers		
a. Paracetamol	50	23.8
b. Ibuprofen	56	26.66
c. Tramadol	6	2.85
d. Asprin	50	14.28
e. Celebrex	28	13.33
f. Panadol	36	17.14
g. Others	4	1.9
Anti-Malaria		
1. ACTP-Alaxin	86	40.95
2. Sulfadoxine+pyramethamine Quinine	46	21.9
3. Winthrop	28	13.33
4. Others	40	19.04
	10	4.76

Factors influencing self-prescription

Upon investigating the factors influencing respondents to seek drug prescriptions from sources other than doctors or pharmacists, a multifaceted array of motives surfaced: 66 individuals (31.42%) opted for alternative prescriptions due to personal beliefs in the drug’s efficacy, while 54 respondents (25.71%) cited the medication’s success among others as a driving factor. Moreover,

50 individuals (23.80%) highlighted time constraints hindering clinic attendance, whereas 34 participants (16.90%) reported the unavailability of drugs at the college clinic as a determinant. A smaller subset of 6 respondents (2.85%) justified their choice based on previous prescriptions for similar symptoms.

Further exploration into the respondents’ disinterest in visiting the College clinic for clinical consultations unveiled

additional rationales: 78 individuals (37.14%) expressed concerns regarding the clinic’s inadequacy in terms of equipment and drug availability. Additionally, 40 respondents (26.7%) cited the unfriendly demeanor of clinic staff as a deterrent, while 56 individuals (26.66%) lacked a clinic identification card and

30 participants (14.28%) identified the clinic’s distance as a hindrance. A comprehensive presentation of these findings is detailed in Table 4, encapsulating the motivations guiding respondents’ preferences for alternate prescription sources and their dispositions towards clinic consultations within this study.

Table 4: Factors influencing self-medication.

Reasons	Frequency	Percentage
Reasons for preference of self-medication		
· Felt it was good for me	66	31.42
· Was a previously prescribed drug	6	2.65
· It worked for other people	54	25.71
· Unavailability of drugs at the College clinic	34	16.19
· No spare time for clinic attendance	50	23.8
Other factors influencing self-medication		
a. Unfriendly attitude of clinic staff	46	21.9
b. Clinic too far	30	14.28
c. No clinic I.D. Card	56	26.66
d. No drugs in stock in the clinic pharmacy	78	37.14

Discussion of Key Findings

The findings of this study shed light on the pervasive nature of self-medication practices among students at Bayelsa State College of Health Technology. The prevalence rate of self-medication, at 75.24%, underscores a significant reliance on self-administered medications within this academic community. These observations align with global trends indicating a propensity for self-medication among various demographic cohorts [3,13].

Notably, the predominant use of certain medications, such as antibiotics (e.g., Amoxicillin, Ampiclox) and pain relievers (e.g., Ibuprofen, Paracetamol), mirrors the commonality of these drugs in self-medication practices among student populations, a trend echoed in studies conducted within diverse settings. Also, antimalaria medications were not different [6,10]. This might be connected to the participants widely reported symptom of headache and general body pain due to physical or hard labour for the reason of taking medications and being self-medicated. There was a statistically significant difference in factors that influence self-medication among the student population ($P < 0.005$). This might be due to the high prevalence of the malaria parasite in the costa region below the sea level in Bayelsa State, Nigeria.

The motivations behind resorting to self-medication warrant attention. The inclination to seek drugs from sources other than doctors or pharmacists was largely influenced by personal beliefs in drug efficacy and anecdotal evidence of its effectiveness among peers. Other reasons for self-medication were no funding to cover up hospital bills. Similar findings have been reported in studies

across various regions, emphasizing the role of perceived drug effectiveness and social influence in guiding self-medication behaviors [14,15].

Moreover, the reluctance to utilize the College clinic for clinical consultations revealed systemic challenges. Concerns regarding the clinic’s inadequacy in terms of equipment and drug availability, coupled with reports of unfriendly staff demeanor, distance, and administrative constraints, highlight multifaceted barriers to accessing formal healthcare channels. These impediments resonate with broader issues identified in healthcare infrastructure and service delivery within educational settings [9,12]. There was a statistically significant difference in factors that influence self-medication among the student population ($P < 0.005$). This was mostly directed to believe that the medicine would take care of their illness coupled with behavior and behavior of the clinic staff.

The implications of these findings are multifaceted. Efforts to address self-medication practices among students necessitate a comprehensive approach. Initiatives aimed at enhancing healthcare facilities, improving staff attitudes, and streamlining administrative processes within college clinics are imperative. Integrating educational programs focused on responsible medication use and fostering health-seeking behaviors could also mitigate the prevalence of self-medication [4,7].

Conclusion

In conclusion, this study has illuminated the prevalent nature of self-medication practices among students at Bayelsa State College

of Health Technology. The high prevalence rate underscores the significant reliance on self-administered medications within this academic community, aligning with global trends [3,13]. The study unveiled multifaceted factors influencing self-medication behaviors, highlighting the role of perceived drug efficacy, social influence, and systemic challenges within the college clinic. The findings emphasize the necessity for comprehensive interventions addressing healthcare facility deficiencies, educational initiatives promoting responsible medication use, and improvements in clinic services to mitigate self-medication tendencies among students.

Addressing these recommendations could potentially foster a healthcare environment conducive to responsible medication practices and improve the overall health outcomes and well-being of the student population.

Conflict of Interest

None

Acknowledgment

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