

Original Article

Determinants of Self-Medication Practices among Nursing and Midwifery Students: A Cross-Sectional Study from Ghana



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ABSTRACT

Background: Self-medication is a growing public health concern, particularly among healthcare students. Despite its risks, including adverse drug reactions and antibiotic resistance, little is known about the behavioral and socioeconomic factors influencing self-medication among nursing and midwifery students in sub-Saharan Africa. This study assessed the prevalence and determinants of self-medication among students at the Nursing and Midwifery Training College in Koforidua, Ghana.

Methods: A cross-sectional quantitative design was adopted, involving 275 students selected through stratified random sampling. Data were collected using a structured and pretested questionnaire covering demographic characteristics, knowledge, and self-medication practices. Descriptive statistics were performed using SPSS version 26 to summarize frequencies and percentages related to knowledge, behavior, and influencing factors.

Results: Self-medication was highly prevalent (94.3%) among respondents, with painkillers (52.2%), cold and flu medications (22.6%), and antibiotics (20.0%) being the most commonly used drugs. The main factors influencing self-medication were time constraints (91.7%), financial barriers (81.3%), family history (53.9%), and advice from friends or relatives (87.8%). Although 91.8% of respondents recognized the risks associated with self-medication, many continued the practice due to perceived convenience and cost-saving benefits.

Conclusion: Self-medication is widespread among nursing and midwifery students in Ghana, primarily driven by financial and time constraints as well as social influences. Educational interventions and institutional policies promoting rational drug use are urgently needed. Collaboration between nursing schools and the Ghana Health Service could enhance awareness and ensure responsible self-care behaviors among future healthcare professionals.

Keywords: Self-medication, Nursing Students, Determinants, Ghana

Implications for Practice:

- Integrate medication safety education into nursing and midwifery curricula to enhance awareness and promote safe self-medication practices
- Implement institutional policies to limit easy access to medications and encourage responsible self-care among students, particularly in low- and middle-income countries or resource-limited settings
- Engage peers and families in health promotion to address social influences and reinforce safe medication behaviors.

Introduction

Globally, there is worry about the rising prevalence of inappropriate self-medication for public health reasons ([Akande-Sholabi et al., 2021](#); [Kassa et al., 2022](#); [Rathod et al., 2023](#)). The use of self-medication in healthcare is crucial. In many health care systems around the world, self-medication has been successfully included due to advancements in people's general awareness, education, and socioeconomic standing. Products developed, marketed, and sold to consumers that do not require a prescription from a doctor are known as self-medication products. Drugs used responsibly for self-medication can be utilised to cure and prevent conditions for which a doctor's consultation is not necessary ([Baracaldo-Santamaría et al., 2022](#); [Ramabhatta et al., 2017](#)). This lessens the strain on medical services when they are scarce, particularly for the populations residing in rural or isolated places where it may be challenging to receive healthcare. Individuals can manage their own health conditions to a greater extent ([Fekadu et al., 2020](#); [Hartati et al., 2025](#); [Kaur et al., 2025](#); [Shafie et al., 2018](#)).

Various global research found that between 7.3% and 99.4% of people who self-medicate do so without first consulting trustworthy medical sources. Regarding this matter, numerous developing nations lack sufficient access to credible information regarding the correct use and management of self-medication. In addition, the widespread availability of medications without a valid prescription is a big contributor to people abusing their health care system for their own purposes. This leads to a host of problems, including antibiotic resistance, treatment failure, economic loss, an increase in the burden of disease and death, misdiagnosis, inappropriate treatment delays, drug dependence, and negative side effects

([Abustam & Ullah, 2025](#); [Albusalih et al., 2017](#); [Delianto & Kumar, 2025](#)).

Some of the elements that are associated with the habit of self-medicating include literacy level, socioeconomic status, exposure to drug advertising, awareness of disease, and health policies ([Al-Omrani et al., 2023](#); [Mannasaheb et al., 2022](#)). Information availability, drug availability, advertising, prior experiences, self-confidence, and unused or leftover medications at home all have a big impact on practice, especially for health science students ([Asmelashe Gelayee et al., 2017](#); [Gelayee, 2017](#); [Pratiwi et al., 2025](#)). Other factors that are mentioned as determinants include the availability of drugs, legislative loopholes, societal context, family history, and educational attainment ([Seam et al., 2018](#)). The most important determinants for SM have reportedly been identified as advanced professional and academic levels. Because they have easy access to medications, prescribers and dispensers are the first people to come into contact with SM ([Seam et al., 2018](#)). Research findings indicate that health students do not visit medical institutions or providers to obtain health-related information. The impact of developments in social media information access, which are ultimately leading to an increase in the prevalence of SM, may be the cause of this ([Alduraibi & Altowayan, 2022](#); [Fidyawati et al., 2025](#)).

Many medications are prescribed over-the-counter (OTC) in most developing nations, including Ethiopia, and the majority of medical conditions (roughly 12.1-62.9 percent) are managed by self-medication at optional and less expensive charges. But there is a big distinction between buying and using over-the-counter medications for self-medication and buying and using prescription medications without a prescription. This indicates that OTC medication laws are broken in developing nations, especially in our context when a

large number of prescription medications are bought and utilized at OTC pharmacies. This kind of self-medication has the potential to be harmful, and it is widespread in underdeveloped nations like Ethiopia. Antimicrobial resistance emerges more easily as a result ([Helal & Abou-ElWafa, 2017b, 2017a](#)).

Healthcare students, including those in nursing and midwifery training, are future healthcare providers responsible for delivering safe and quality patient care (Sawalha, 2018). Misuse of medications through self-medication can lead to adverse drug reactions, drug interactions, and masking of underlying health conditions, compromising patient safety ([Rhodes et al., 2022](#); [Tan et al., 2022](#)). Understanding the extent of self-medication and its determinants among nursing and midwifery students in Koforidua can help in developing targeted educational interventions to promote responsible medication use and ensure better patient outcomes.

Self-medication has become a growing concern globally, particularly among students in healthcare-related fields like Nursing and Midwifery ([Behzadifar et al., 2020](#))([Xu et al., 2019](#)). In the Nursing and Midwifery Training College, Koforidua, there is an emerging pattern of self-medication among students which poses potential risks to their health, academic performance, and future professional practice. The problem of self-medication among students of the Nursing and Midwifery Training College, Koforidua, was initially identified through informal discussions and observations by faculty members and healthcare professionals working closely with the students. Many students were observed to be frequently taking over-the-counter medications without proper consultation or prescription, often to manage minor ailments like headaches, colds, or menstrual

cramps. Additionally, there were reports of students sharing medications among themselves based on perceived similarities in symptoms, without considering individual health conditions or contraindications. This practice raises serious concerns about the potential for adverse drug interactions and complications ([Faqihi & Sayed, 2021](#); [Fetensa et al., 2021](#)). Furthermore, the academic performance of some students was observed to decline, which was attributed to health issues that may have been exacerbated or caused by self-medication. Given these observations and concerns, it is crucial to conduct a study to assess the knowledge, practices, and factors influencing self-medication among students of the Nursing and Midwifery Training College, Koforidua.

Methods

Study Design

This study employed a cross-sectional survey design to investigate factors influencing self-medication among nursing and midwifery students. Data were collected between February and March 2024 at the Nursing and Midwifery Training College, Koforidua, Ghana. The college offers three-year diploma programs in Registered Midwifery and General Nursing, and two-year diploma programs for Post-NAC/NAP midwifery students. The institution has a population of 939 students and is equipped with lecture halls, laboratories, hostels, and other facilities supporting academic and clinical activities.

Participants

The target population included all students currently enrolled at the college. A total of 275 students were selected as the sample using Cochran's formula, assuming a 50% prevalence of self-medication. Stratified random sampling was applied to ensure representation across all academic

levels (100, 200, and 300 levels), reflecting the diversity of the student body. Inclusion criteria were current enrollment and voluntary participation, while students who were unavailable during data collection were excluded.

Instruments

Data were collected using a structured questionnaire developed based on the study objectives and a review of relevant literature. The questionnaire consisted of sections covering demographic information such as age, gender, and academic level, knowledge about self-medication, self-medication practices, and factors influencing self-medication behavior. To ensure clarity, reliability, and validity, the questionnaire was pilot-tested with 20 students, and modifications were made based on their feedback. This approach ensured that the instrument was appropriate and understandable for the target population, enabling accurate and consistent data collection.

Data Collection

Participants were asked to complete the questionnaire in a supervised setting, with an average completion time of 25 minutes. Researchers checked all responses for completeness and consistency. Each questionnaire was coded sequentially to facilitate data entry and analysis.

Data Analysis

Data were entered and analyzed using **SPSS version 26**. **Descriptive statistics**, including frequencies and percentages, were used to summarize participants' demographic characteristics, knowledge levels, and self-medication practices. Data validation procedures ensured accuracy and reliability of the dataset before analysis.

Ethical Considerations

Ethical clearance was waived by the Ethics Review Committee of NMTCK. Permission was obtained from the principal and department heads before data collection. All participants provided informed consent, and confidentiality and privacy were maintained throughout the study. Participants were informed of their right to withdraw at any time without any consequences, ensuring voluntary participation.

Results

Data analysis in research denotes the methodical examination, purification, transformation, and modeling of data aimed at uncovering valuable insights, deriving conclusions, and facilitating decision-making ([Prajapati et al., 2019](#)). This procedure entails utilizing diverse statistical and computational methodologies to analyze and extract insights from extensive datasets.

Table 1. Background data of participants

Background data of participants	Variable	Frequency	Percentage
Age	16-20	30	10.9%
	21-30	216	78.5%
	31-40	29	10.5%
Marital status	Single	213	77.4%
	Married	57	20.8%
	Widow	2	0.7%
	Divorced	3	1.1%
Sex	Male	77	28.0%
	Female	198	72.0%
Year	First Year	109	39.6%
	Second Year	99	36.0%
	Third Year	67	24.4%
Department	Registered General Nurse	178	64.7%
	Registered Midwifery	72	26.2%
	Post Nac / Nap	25	9.1%
Religious background?	Christian	236	85.8%
	Muslim	35	12.7%
	Traditionalist	4	1.5%

Table 1 illustrates that the age distribution of participants shows that out of the total respondents, those aged between 21 and 30 years constitute the largest group, with 216 individuals making up 78.5% of the sample. Both 16-20 and 31-40 age groups are slightly different represented as each comprised of 30 and 29 participants, accounting for 10.9% and 10.5% respectively.

Marital status data reveals that a majority of the participants are single, with 213 individuals representing 77% of the sample. Married participants make up 20.8%, with 57 individuals. Those who are widowed or divorced represent a small fraction of the population, with 2 widowed (0.7%) and 3 divorced (1.1%).

Gender distribution among the participants is more skewed towards females, who make up 72.0% (198 students) of the sample, compared to males, who constitute 28.0% (77 students).

Regarding the year of the participant, first-year students are the largest group comprising 39.6% (109 students), second-year students comprise 36.0% (99 students), and third-year students account for 24.4% (67 students).

In terms of departmental affiliation, a significant majority of the participants are offering Registered General Nursing program with 178 individuals accounting for 64.7% of the sample, 26.2% (72 students) are from Registered Midwifery and the remaining 9.1% (25 students) are from the Post Nac / Nap Midwifery department.

Religious affiliation shows that Christians dominate the sample, with 236 participants making up 85.8%. Muslims follow with 12.7% (35 students), while Traditionalists beliefs represent a smaller proportion, at 1.5% (4 students).

Table 2. Knowledge of Students on self-medication

Knowledge of Students on self-medication	Variable	Frequency	Percent
Have you ever heard of self-medication?	Yes	244	88.7%
	No	31	11.3%
If yes, when did you first hear of self-medication? If no, skip to question 17.	Less than a year ago	83	34.0%
	1-3 years ago	52	21.3%
	More than 3 years ago	109	44.7%
What is your primary source of information on self-medication?	Internet research	69	28.3%
	Family or friends	104	42.6%
	Healthcare professionals	71	29.1%
Are you aware of the potential risks associated with self-medication?	Yes	224	91.8%
	No	20	8.2%
How do you decide on the dosage when self-medicating?	Follow instructions on the packaging	141	57.7%
	Guess based on previous experience	73	30.0%
	Consult online sources	30	12.3%
Do you believe self-medication is a safe practice?	Yes	105	43.0%
	No	139	57.0%

Table 2 illustrates that the knowledge of students on self-medication shows a high level of awareness. Out of the total respondents, 244 individuals (88.7%) have heard of self-medication, indicating that the concept is widely recognized among the student's population. Conversely, 31 students (11.3%) have not heard of self-medication.

Among those who are aware of self-medication, the timing of when they first heard about it varies. A significant portion, 109 students (44.7%), have known about self-medication for more than three years. Those who learned about it less than a year ago make up 34.0% (83 students), while 52 students (21.3%) became aware of it between one to three years ago.

When it comes to the primary sources of information on self-medication, family or friends are the most common, with 104 students (42.6%) citing them as their main source of information. Healthcare professionals are also a significant source,

mentioned by 71 students (29.1%). Internet research is another key source, with 69 students (28.3%) relying on it for information.

Awareness of the potential risks associated with self-medication is also high among the respondents. A total of 224 students (91.8%) are aware of the risks, while 20 students (8.2%) are not.

In terms of deciding on the dosage when self-medicating, the majority of students, 141 individuals (57.7%), follow the instructions on the packaging. However, 73 students (30.0%) guess the dosage based on previous experience, and 30 students (12.3%) consult online sources for dosage information.

The perception of the safety of self-medication is divided among the students. A slight majority, 139 students (57.0%), believe that self-medication is not a safe practice, while 105 students (43.0%) consider it to be safe.

Table 3. Practices of self-medication by students

Practices of self-medication by students	Variable	Frequency	Percentage
Have you ever self-medicated?	Yes	230	94.3%
	No	14	5.7%
If yes, how often do you self-medicate?	Rarely	102	44.3%
	Occasionally	101	43.9%
	Frequently	25	10.9%
	Always	2	0.9%
Which of the following medications have you self-medicated with in the past 1-3 years?	Painkillers	120	52.2%
	Cold and flu medication	52	22.6%
	Antibiotics	46	20.0%
	Allergy medication	12	5.2%
Do you consult a healthcare professional before medicating?	Yes	156	67.8%
	No	74	32.2%

Firstly, when asked if they had ever self-medicated without consulting a healthcare professional, a substantial majority of the students, accounting for 230 individuals (94.3%), affirmed that they had engaged in self-medication. Conversely, 14 students (5.7%) reported that they had never self-medicated without professional consultation (**Table 3**).

In terms of how often students self-medicate, the responses varied. A majority of students, (44.3%), reported that they rarely self-medicate. A second larger portion, 101 students (43.9%), indicated that they occasionally self-medicate, while 25 students (10.9%) confessed to frequent self-medication. Additionally, 2 students (0.9%) stated that they always self-medicate.

When exploring the types of medications that students have self-medicated with in the past 1-3 years, painkillers emerged as the most commonly used, with 120 students (52.2%) reporting their use. Cold and flu medications were the next most prevalent, used by 52 students (22.6%). Antibiotics and allergy medications were also frequently self-administered, with 46 students (20.0%) and 12 students (5.2%) reporting their use, respectively.

Finally, the survey addressed whether students consult healthcare professionals before medicating themselves. A significant majority, 156 students (67.8%), admitted to not consulting a healthcare professional before self-medication, while only 74 students (32.2%) reported that they do seek professional advice.

Table 4. Factors influencing self-medication among students

Factors influencing self-medication among students	Variable	Frequency	Percent
Do you feel comfortable discussing your health concerns with a doctor or pharmacist?	Yes	208	75.4%
	No	67	24.6%
Have you ever self-medicated because you could not afford to see a doctor?	Yes	187	81.3%
	No	43	18.7%
Do you think self-medication saves time compared to visiting a healthcare provider?	Yes	211	91.7%
	No	19	8.3%
Have you ever self-medicated based on advice from friends or family?	Yes	202	87.8%
	No	28	12.2%
Have you ever self-medicated because you did not want to bother a healthcare professional?	Yes	110	47.8%
	No	120	52.2%
Do you have a family history of self-medication?	Yes	124	53.9%
	No	106	46.1%
	Yes	195	70.8%

Factors influencing self-medication among students	Variable	Frequency	Percent
Have you experienced acute pain or discomfort before or after treatment?	No	80	29.2%
	Yes	119	43.1%
Do you have access to healthcare services on campus?	No	156	56.9%
	Yes	119	43.1%

First, **Table 4** illustrates that examines students' comfort levels in discussing health concerns with a doctor or pharmacist. A significant majority, 75.4% (208 students), reported feeling comfortable discussing their health issues with professionals, whereas 24.6% (22 students) did not feel comfortable.

Financial constraints are another crucial factor. When asked if they had ever self-medicated due to an inability to afford a doctor's visit, 81.3% (187 students) admitted to doing so. In contrast, 18.7% (43 students) had not self-medicated for this reason.

The perceived time-saving aspect of self-medication is also significant among students. A substantial 91.7% (211 students) believed that self-medication saves time compared to visiting a healthcare provider, while 8.3% (19 students) did not share this view.

Social influence is another factor, with 87.8% (202 students) admitting to self-medicating based on advice from friends or family while 12.2% (28 students) who have not engaged in self-medication due to social advice.

Additionally, the desire to avoid bothering healthcare professionals is a reason for self-medication for 47.8% (110 students), while a larger proportion, 52.2% (120 students), did not find this a motivating factor.

Furthermore, 53.9% (124 students) out of 230 respondents are saying that they have a family history of self-medication and the remaining 46.1% (106 students) also saying that they do not have.

Also, out of the 275 respondents, 70.8% (195 students) have experienced chronic

pain or discomfort before or after treatment and the rest 29.2% (80 students) admitted that they have not experienced chronic pain or discomfort before or after treatment.

Lastly, the access to healthcare services on campus is recognized by 43.1% (119 students), with 56.9% (156 students) disagreeing.

Discussion

Background data of the respondents

The age distribution of participants in the survey reveals that the largest group consists of those aged between 21 and 30 years, with 216 individuals. This age distribution aligns with existing literature which suggests that young adults are particularly inclined towards self-medication due to factors such as accessibility, convenience, and the desire for autonomy in health-related decisions (Hughes et al., 2015; Reddy et al., 2014). The 16-20 and 31-40 age groups are almost equally represented, with 30 and 29 participants respectively. This distribution indicates a diverse age range among the respondents, though skewed towards younger adults.

Marital status data shows that majority of the participants are single, with 213 individuals. This is consistent with a study by Zafar et al. (2014) that indicated that single individuals, particularly students, often resort to self-medication due to lifestyle and convenience factors. Married respondents accounted for 57 individuals, with a minor representation from widowed or divorced individuals. The predominance of single participants could also be reflective of the age distribution, as younger adults are more likely to be unmarried.

Gender distribution among the participants is skewed towards females, who make up 198 students of the sample, compared to males, who constitute 77 students. This indicates a significant female majority, which could be reflective of the gender distribution in the fields of study or institutions surveyed. This is in line with findings from previous research including [Albusalih et al.](#), (2017) that indicate that women are more likely to engage in self-medication compared to men, possibly due to higher health awareness and health-seeking behavior. The relatively balanced representation, despite the skew, suggests that both genders are well-represented, though with a notable female dominance ([Baldwin et al.](#), 2020; [Gomes et al.](#), 2020). Regarding the year of the participants, first-year students form the largest group, comprising 109 students of the sample. Second-year students make up 99 students, and third-year students account for 67 students. This indicates that self-medication behaviors and attitudes are prevalent throughout the different stages of academic progression.

In terms of departmental affiliation, a majority of the participants are from the Registered General Nurse program, with 178 individuals. This indicates a higher enrollment in the nursing program compared to other departments. The Registered Midwifery program includes 72 students, while the Post Nac/Nap Midwifery department has 25 students. This distribution highlights the prominence of the nursing program among the respondents, suggesting a focus on general nursing education.

Religious affiliation shows a predominant Christian representation 236 participants, followed by Muslims 35 participants, and smaller proportions of Traditionalists. This distribution mirrors the religious demographics often found in similar studies such as ([Ayalew](#), 2017),

where the majority religious group may influence health behaviors and perceptions, including self-medication.

Knowledge of Students on self-medication

Self-medication among students is a prevalent practice, as indicated by a study where 88.7% of participants were aware of it. This finding aligns with broader research highlighting the widespread awareness of self-medication among various demographic groups ([Figueiras et al.](#), 2000; [Shaghghi et al.](#), 2014). The study further reveals that awareness levels vary over time, with 44.7% having known about self-medication for more than three years, indicating sustained familiarity with the practice.

Sources of information on self-medication are predominantly informal, with family or friends being the primary influencers for 42.6% of students. This reliance on social networks echoes findings from other studies that highlight the role of interpersonal communication in health-related behaviors ([Head et al.](#), 2021; [Mesman et al.](#), 2022). Meanwhile, healthcare professionals and internet research contribute significantly as sources of information, highlighting the dual influence of professional advice and digital resources.

Awareness of risks associated with self-medication is high among students, with 91.8% acknowledging these risks. This awareness reflects a critical understanding of potential health hazards linked to unsupervised medication use, consistent with [Greenwood et al.](#), (2021) findings on risk perception in self-care practices.

In terms of behavior, a majority (57.7%) of students adhere to packaging instructions when self-medicating, demonstrating a cautious approach to dosage and administration. This adherence is crucial in mitigating risks associated with incorrect medication use (Wilson, 2018).

Conversely, reliance on past experience (30.0%) and online sources (12.3%) for dosage information suggests varied levels of trust in different information sources, potentially influencing medication safety outcomes.

Perceptions of safety regarding self-medication are mixed, with 57.0% considering it unsafe and 43.0% viewing it as safe. These divergent perceptions underscore the complexity of attitudes toward self-care practices and the need for targeted educational interventions to promote safe medication practices.

Practices of self-medication by students

The prevalence of self-medication among students, as highlighted by recent studies, underscores a significant trend towards self-reliance in managing health issues. The data reveals that a substantial majority of students have engaged in self-medication without consulting healthcare professionals. This behavior indicates a reliance on personal judgment over professional advice, which is a growing concern in student populations. This finding is similar to a study by [Abdulrahman et al.](#) (2024) and [Alshammari et al.](#) (2021) who observed that self-medication is prevalent among university students, driven by the perceived convenience and cost-saving benefits.

The frequency of self-medication among students varies, with a significant number indicating rarely or occasional self-medication. These variations suggest that while self-medication is common, the degree to which students engage in it differs widely. A study by [Tomas Petrović et al.](#) (2022) and [Šimunović et al.](#) (2024) found similar patterns, noting that stress and academic pressure often lead students to self-medicate, particularly during exam periods.

Regarding the types of medications used, painkillers and cold and flu

medications are the most common. This aligns with findings from a study by [Tomas Petrović et al.](#) (2022) dan [Klemenc-Ketis et al.](#) (2010), which reported that analgesics and medications for respiratory symptoms are frequently self-administered by students. The use of antibiotics and allergy medications is also notable, raising concerns about the potential for antibiotic resistance and inappropriate medication use. The World Health Organization (2015) has highlighted the dangers of self-medicating with antibiotics, emphasizing the risk of developing resistant bacterial strains.

The survey further reveals that a significant majority of students do not consult healthcare professionals before self-medicating. This lack of consultation can lead to improper dosing, drug interactions, and other health risks. A study by [Helal & Abou-ElWafa](#) (2017a) supports this, noting that self-medication without professional guidance often results in adverse effects and complicates underlying health issues.

Factors influencing self-medication among students

The comfort level of students in discussing health concerns with healthcare professionals is a significant factor influencing self-medication practices. The data reveals that a majority of students feel comfortable discussing their health issues with doctors or pharmacists, while some do not. This indicates that although most students are open to professional guidance, a notable minority may prefer alternative approaches, potentially leading to self-medication. Similar study conducted by [Pagán et al.](#) (2006) supports this finding, suggesting that comfort in communicating with healthcare providers is crucial for effective health management and can reduce the likelihood of self-medication.

Financial constraints also play a crucial role in self-medication. According to the

data, many students have self-medicated due to an inability to afford a doctor's visit, while others have not. This highlights that financial barriers significantly impact healthcare choices for over a third of the students, pushing them towards self-medication. Studies have consistently shown that financial difficulties are a primary driver for self-medication, as individuals seek to avoid the costs associated with professional healthcare services ([Ambarika & Rahmi, 2025](#); [Bennadi, 2013](#); [Garofalo et al., 2015](#); [Mantouw & Puspitasari, 2024](#)) The perceived time-saving aspect of self-medication is another significant factor. The data indicates that many students believe that self-medication saves time compared to visiting a healthcare provider, whereas some do not share this view. This perception underscores the importance of convenience and efficiency in healthcare decisions. Research by Ruiz (2019) found that the perceived time-saving benefits of self-medication can be a strong motivator, particularly among students with busy schedules. In addition, [Garofalo et al., \(2015\)](#) found that time constraints was among the key factors that influence self-medication among students of the University of Ghana, Legon.

Social influence is also a considerable factor, with many students self-medicating based on advice from friends or family, nearly evenly split with those who have not. This near-equal division suggests that peer and family influences play a significant role in the decision-making process for some students. The social networks and the advice of trusted individuals can significantly impact health behaviors, including self-medication.

Furthermore, most students reported having a family history of self-medication, while others did not. The data indicates that numerous respondents possess a familial history of self-medication, suggesting an

increased propensity for self-medication practices among relatives or a cultural context that influences such behavior. The findings of the current study revealed that family members were the primary sources from which respondents obtained information regarding their choice of medication for self-treatment. Also, out of the total respondents, most students have experienced chronic pain or discomfort before or after treatment, while others admitted that they have not experienced chronic pain or discomfort before or after treatment. This data indicates that most respondents have experienced chronic pain or discomfort, which may be a motivating factor or may suggest a higher likelihood of seeking relief through self-medication. According to the result of past research, previous experience of particular diseases such as chronic pain or discomfort is among the influential factors of self-medication. Access to healthcare services on campus is available to a smaller portion of the students population, having access to these services. This access can provide a valuable resource for students, potentially reducing the need for self-medication. However, most students do not have access to the healthcare services on campus, highlighting a gap that could contribute to higher rates of self-medication due to lack of readily available professional medical support ([Pagán et al., 2006](#)).

Implications and limitations

This study underscores the high prevalence of self-medication among nursing and midwifery students, driven by financial constraints, time pressures, family influence, and prior experiences with discomfort. Educational interventions promoting safe self-medication and consultation with healthcare professionals are recommended, particularly in low- and middle-income settings where access to healthcare may be limited. Limitations

include the single-institution setting, which may affect generalizability, and reliance on self-reported data, which may introduce recall or social desirability bias.

Relevance to for Practice

Promoting communication between students and healthcare professionals, integrating medication safety education into nursing and midwifery curricula, and improving access to campus health services or mobile health initiatives can help reduce unsafe self-medication practices, especially in resource-limited settings.

Conclusion

Self-medication is widespread among nursing and midwifery students, particularly for pain and cold/flu remedies, and is influenced by financial, social, and experiential factors. Addressing these drivers through education, improved healthcare access, and professional guidance is essential to promote safe medication practices and reduce potential risks.

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CrediT Authorship Contributions Statement

Juliet Agyiriba: Conceptualization, Methodology, Supervision, Writing - Original Draft

Oscar Agyemang Opoku: Software, Validation, Formal Analysis, Writing - Review & Editing

Henry Okudzeto: Investigation, Resources, Data Curation, Project Administration

Conflicts of Interest

There is no conflict of interest.

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