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DIPLOMA PROGRAMMES

KNOWLEDGE, PRACTICE AND FACTORS INFLUENCING SELF-MEDICATION AMONG STUDENTS. A STUDY AT HFNMTC, BEREKUM

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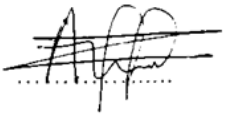
DECLARATION

We hereby declare that this submission is our own work towards the Diploma in General Nursing and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of diploma of the University, except where due acknowledgement has been made in the text.

AGYEI FOBI GRACE		8/05/23
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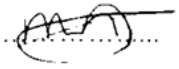
TAKYI MILLICENT		8/05/23
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ABSTRACT

The study focused on assessing self-medication among students of Holy Family NMTC, Berekum. A cross sectional study design was used to collect in-depth information for the study. The sample population was obtained using a proportionate stratified sampling technique. A total of 253 students were sampled for the study. The data for the study was collected by administering the questionnaire to the participants.

The study found that the majority (80%) indicated that drugs used for self-medications are sold directly without prescription whiles only (12%) said they are sold with prescription. Nearly half (48%) of the respondents said label on drugs for self-medication should sometimes be checked followed by 28% who indicated the label should always be checked and 24% said it should never be checked. Majority (88%) of the respondents indicated the place of obtaining drugs used for self-medication to be the commercial pharmacy. Unanimously, all (100%) the respondents indicated headache as the likeliest clinical symptom for them to use unprescribed drug, this was followed by fever (96%), dysmenorrhea (86%), sore throat (58%) and itching (42%).

The study recommended there is the need for collaboration between the Food and Drugs Authority, the Pharmacy Council, the public health and community health nurses and the media to sensitise the public on the adverse effects of the extensive use self-medication.

The study concluded respondents had adequate knowledge on self-medication. The practice of self-medication was found to be high and the most preferred drug group was antipyretic and analgesics. The leading reasons for self-medication drug use were time saving, easy accessibility and low cost and all the respondents admitted headache to be the clinical symptom that will make it more likely to make them self-medicate.

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ABBREVIATION

OTC	Over-the-counter drugs
WHO	World Health Organization
LCS	Licensed Chemical Sellers

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Lastly, we say a very big thank you to all the authors from whose books we extracted valuable information for this study.

CHAPTER ONE

INTRODUCTION

1.0 Background of the study

Globally, increasing inappropriate self-medication is seen as a public health concern (Sharma, Gurung, Kafle, & Singh, 2019). Self-medication has an important role to play in healthcare. With improvement in people's general knowledge, education and socio-economic status, self-medication has been successfully integrated into many health care systems throughout the world. Self-medication products are those that do not require a medical prescription and that are produced, distributed and sold to consumers. Self-medication with drugs responsibly can be used to prevent and treat ailments that do not need medical consultation (Hanumantharayappa & Siddaiah, 2019). This reduces pressure on medical services, when these are limited, especially for those populations living in rural or remote areas where access to medical services may be difficult. Patients are able to control their own conditions to a greater extent (Hanumantharayappa & Siddaiah, 2019).

The factors contributed to prescription drugs being liable to self medication and new drugs with specific pharmacological action have been successfully reclassified from prescription to nonprescription status in many countries. In many cases, restrictions imposed on reimbursement of prescription drugs have provided the impetus for authorities to evaluate and deregulate self-medication products to OTC status (Cooper R. J., 2019).

The World Health Organization (WHO) has defined self-care as the ability of individuals, families and communities to promote health, prevent disease, maintain health and to cope with illness and disability with or without the support of a healthcare provider, emphasizing the ability to maintain health with or without support from a health care provider (WHO, 2021).

Data from surveys and poison control center records demonstrate an increased nonmedical use prescription of cough and cold preparations, particularly those containing Dextromethorphan. The nonmedical use of prescription medications may result in serious clinical effects with potential life-threatening complications, dependence and withdrawal syndromes. Dextromethorphan causes alterations in mental status that may contribute to judgment impairment leading to injury or fatality (Banerjee & Bhadury, 2021). There is also the potential for misuse and abuse of such products is increased due to self-medication (Hanumantharayappa & Siddaiah, 2019).

A study conducted in Ethiopia showed that the prevalence of self-medication practice ranges from 12.8% to 77.1% (Ayalew, 2019). Studies revealed that self-medication represents a common problem among university students (Sawalha, 2018). According to a report in Egypt, media exposure and the increase of pharmaceuticals advertisement pose a larger threat to this population as it was found that majority of college students used at least one of the advertised products, without discussing it with their physicians (Burak & Damico, 2019). Other reasons for self-medication among university students were their previous experiences, advice of family or friends, their health problems being considered as too trivial, time saving, nonavailability of transport, convenience, ability to self-manage the symptoms, urgency of the problem, doctor that was not available, and having sufficient information (Ghosh, Vikas, Gupta, & Chaudhary, 2020).

In South Africa there is an easy access to medicines and expenditure is high. Certain products are available to the public in general stores, while others may only be available at pharmacies. It is also common for medicines to be prescribed by a doctor for treatment of minor illnesses. Individuals with medical insurance usually have cover for these products, but typically only to a limited extent (Padayachee, Rothberg, Truter, & Butkow, 2019).

An additional issue with self medication is that the combination and concentration/strength of ingredients may be identical or differ only marginally between products, yet prices vary markedly without sound basis (Padayachee et al., 2019). However, it is not only the varying cost of the products themselves, but also the potential costs of their adverse effects that are important. For example, a study by Friedman showed that cheaper, "old generation" sedating antihistamines were easily accessible for allergic conditions, but the long term cost impact of the adverse effects of these drugs had not been considered.

Nigeria is among the developing countries of the world, where drugs are freely displayed for sale in unauthorized places such as markets, shops, roadside stalls, motor parks, and other public places by individuals not duly licensed. There is a high incidence of self-medication and prescription medicines ranging from 15.0 to 81.5% in different localities. It is a serious problem in Nigeria, and a study from the southern part of the country showed that as many as 60–90% of the population in some communities practice self-medication in one way or the other (Ayanwale & Okafor, 2020).

A study in Ghana reported that there is extensive dispensing of antibiotics by pharcmacies, resulting in high levels of inappropriate use and an increase in antibiotic resistance (Afari-Aseidu, et al., 2018). In Ghana, according to the Health Professions Regulatory Body Act, 2013 (Act 857), only medical doctors, physician assistants, midwives and nurses trained in prescribing are eligible to prescribe registered antibiotics (Act 857, 2013). About 80% of medicine outlets in rural communities in Ghana are Licenced Chemical Sellers (LCS, over-the-counter medicine sellers), who are mostly the first point of contact for healthcare (Afari-Aseidu, et al., 2018).

There are growing concerns all over the globe regarding self-medication and since little has been done in such study among in Ghana and more importantly on college students this study

would aim to address the knowledge, practice and factors influencing self-medication among students of HFNMTC, Berekum.

1.1 Problem Statement

According to Ranjith et al. as cited by Manohar et al., unregulated or unrestricted availability of drugs is one of the main reasons leading to self medication (Ranjith, et al., 2021). Moreover, their inappropriate use in developing countries is high due to inadequate knowledge (Eyob, Weletew, Retta, Terekegn, & Mulisa, 2019), lack of exposure to medical information, inadequate infrastructure, and weak laws and regulations (Boliu, et al., 2018). Despite the fact that inappropriate self medication causes drug related problems, the incidence of self medication is increasing (Sharma et al., 2019; Eyob et al., 2019). Unregulated or unrestricted availability of drugs in the market increases the risk of drug resistance adverse drug reaction and drug interactions (Ranjith, et al., 2021).

The Food and Drug Administration (FDA) has regulated most drugs-that is, drugs available without a prescription (Food and Drugs Authority, 2020). A study conducted among construction workers in the Ga East Municipality of the Greater Accra region of Ghana reported that television and radio advertisements influenced use of analgesics among majority of construction workers (72.9%) (Badzi & Ackumey, 2019).

The understanding of self-medication practice and the reasons for it will enable different interventional strategies. It is important for individuals to become educated about the dangers of self-medicating. Hence, it has become crucial to conduct this study to assess factors contributing self-medication among nursing/midwifery students of HFNMTC, Berekum.

1.2 General objective

To assess self-medication among students of HFNMTC, Berekum.

1.3 Specific objective

1. To examine the knowledge of students on self-medication
2. To investigate the practice of self-medication among students
3. To determine the factors that influence self-medication among students

1.4 Operational definition

Knowledge: what is known by a person regarding an issue

Practice: the use of an idea.

Self-medication: Use of drug without seeking for medical care or without prescription.

Factors: influence that contributes to a result

Students: a person who is studying at Holy Family Nursing and Midwifery Training College, Berekum

Drugs: any substance that is capable of altering the physiologic process in the body.

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

The mechanisms by which individuals can obtain medicines include not only their traditional prescribing by doctors, but also the ability to purchase medicines directly. This review looks at pertinent issues in relation to self medication.

2.1 Historical Background

At one time, most drugs were available without a prescription. Before the Food and Drug Administration (FDA) existed, just about anything could be put in a bottle and sold as a sure-fire cure. The Food, Drug, and Cosmetic (FD&C) Act, enacted in 1938, gave the FDA some authority to issue regulations, but the act did not provide clear guidelines as to which drugs could be sold by prescription only and which could be sold over the counter. An amendment to the FD&C Act in 1951 attempted to clarify the difference between OTC and prescription drugs and to deal with issues of drug safety. Prescription drugs were defined as compounds that could be habit forming, toxic, or unsafe for use except under a doctor's supervision. Anything else could be sold over the counter (Lynch, 2019).

2.2 Knowledge on Self-Medication

Drugs enable people to relieve many annoying symptoms and to cure some diseases simply and without the cost of seeing a doctor. However, safe use of these drugs requires knowledge, common sense, and responsibility (Lynch, 2019). People who purchase drugs should read and follow the instructions carefully. Because different formulations-such as immediate-release and controlled-release (slow-release) formulations-may have the same brand name, the label should be checked each time a product is purchased, and the dosage should be noted. Assuming that the dosage is the same is not safe (Lynch, 2019).

An Ethiopian study found that about 257 (67.6%) of the respondents had good knowledge about the safety and effectiveness of the medications. About 347 (91.3%) agreed that caution should be taken mostly when using over-the-counter drugs during pregnancy. Three-fourth of the respondents 285 (75%) reported that medications should not be used after their expiry date (Bekele, et al., 2020).

Shankar et al., (2019) in their study found that knowledge about adverse effects and contraindications is very limited. It was evident from the data that the students were well known with the drugs and the major source of information being the pharmacist on the pharmacy followed by doctors and then by the parents and relatives. The major concern was that there were a large percentage (42%) of them were not having the knowledge about side effects of drugs and their storage and other requirements which can be detrimental.

Hanumantharayappa and Siddaiah (2019) in thier study also indicated low knowledge about dose, duration, side effects, and drug interactions of commonly used drugs in accordance with reports of the previous studies.

In a study, most of the respondents (73.9%) reported that they always check expiry dates before taking drugs. This result emphasizes that the respondents were very cautious about using expired drugs, The majority of respondents (64.9%) reported that they visited health facilities for further diagnosis and treatment if the self-medication failed to work (Tesfamariam, et al., 2019).

A cross-sectional survey was conducted in the Unite Arab Emirates, When the participants were asked if they knew the term “over-the-counter medications,” more than three-quarters (106; 75.7%) of the participants reported “yes” while 34 (24.3%) reported that they had no idea about the meaning of the term. They were then asked based on the previous question about their level of knowledge towards over-the-counter medications (low to medium to

advanced); 36 (25.7%) of the participants believe that their knowledge about drug use and safety was low. 81 (57.9%) and 23 (16.4%) of the participants reported their knowledge as medium and advanced levels, respectively. However, the majority (132; 94.3%) of the participants agreed with the survey statement that self medication is not safe during pregnancy (Abdulkarem & Mustafa, 2018).

In recent years, many studies have shown that the sources of information on medicines are increasing, since there are not only the "traditional" ones-that is the health professionals (physicians and pharmacists) but also advertising on mass media and information on the internet. With reference to mass media communication concerning medicines, particular attention has been devoted to advertising. Advertising in mass media is an influential source of information, which may affect the consumer decision-making process concerning the purchase and use of medicines (Panero & Persico, 2020).

Panero and Persico (2020) reported that 52.5% of students had adequate knowledge about the medicines they take, but about 19% disclose a very insufficient, or insufficient knowledge. The most relevant sources of information are the General Practitioner (84.5% of the evaluations are positive), parents (84.7%) and pharmacist (62.7%). The internet (38% of the evaluations are positive), mass media (23.7%) and friends (11.9%) are the less trusted sources. A study by reported that the main sources of information on self medication for the studied seniors were their doctor and pharmacist (Cybulski et al., 2018). Seven percent (10% men, 6% women) of the respondents agreed completely or to a large extent with the statement that self medication is completely harmless regardless of how they use the drugs, while 71% (68% men, 74% women) agreed to a small extent or not at all.

In East Bangalore, The knowledge about adverse effects of drugs was found only in 13% of the patients. The percentage of patients who were not aware of contraindications or

undesirable effects of the drugs was 77%. Nearly 85% of patients considered the information gained from the pharmacists to be sufficient (Nagaraj, Chakraborty, & Srinvas, 2019). A study in Napal reported that more than half of the respondents (54%) had good knowledge on the drugs they use for self medication. Only half (50.8%) of the residents claimed to always read the leaf-lets before using any drugs (Sharma et al., 2019).

A cross-sectional study was conducted in Ijede community, Ikorodu Local Government Area of Lagos state, Southwest Nigeria. A multistage sampling method was used to select 337 adult respondents. Data were collected using a structured, interviewer-administered questionnaire. The findings revealed that majority (315, 93.5%) of the respondents had good knowledge about self-medication; 334 (94.1%) had a positive attitude against the use of self-medication; and 311 (92.3%) practiced self-medication. There was no association between the respondents' overall knowledge and their practice of self-medication. The study concluded that majority of the respondents had good knowledge about self-medication and a positive attitude against the practice. Despite the high level of education and the awareness of side effects, majority of them still practiced self-medication (Ayanwale & Okafor, 2020).

A cross-sectional study was conducted among construction workers in the Ga East Municipality (GEM) of the Greater Accra region of Ghana. Workers randomly sampled from 7 construction sites. A structured questionnaire was used to elicit responses on knowledge of analgesics, types of analgesics used and factors influencing the use of analgesics. The findings revealed about 40 percent of respondents were familiar with at least two types of analgesics while 23.3 percent knew 3 types or more. Many respondents (68.0%) used (a locally manufactured analgesic – the active ingredients are paracetamol, aspirin and caffeine) compared to paracetamol (37.9%), caffeine (31.6%), and Ibuprofen (9.7%). Only 24.1 percent of respondents paid attention to the expiry date of the drug and 31.6 percent had no knowledge of possible side effects of continuous use of the analgesics they took. Many

respondents (68.3%) commonly took between 4-6 tablets or capsules of analgesics a day and 1.5 percent took between 1-2 tablets daily (Badzi & Ackumey, 2019).

2.3 Practice of Self-Medication

The promotion of consumer involvement in their healthcare is the core principle of health promotion and wellbeing of the society. The best way which is in use in the present scenario is the increased self medication practice rather than prescription drugs (Shankar, Joshi, & Kumar, 2019). There are various research reports all over the world claiming that the graduates and post graduates in professional colleges are more vulnerable and prone to practice self-medication due to their perception of low toxicity of drugs, knowledge of drugs, and easy access to internet, wider media advertisements and involvement, unregulated practice of pharmacy profession and level of education (Shankar et al., 2019).

A study revealed that self medications was high in the students. Gender, age and educational institution were found significantly affecting the use of medicines. Use of medicines was generally higher among female students (Shankar et al., 2019).

Hanumantharayappa and Siddaiah (2019), conducted a study in which a total of 800 persons were interviewed regarding their use of drugs, among them 400 were urban residents and 400 were rural residents of Mandya district. Of the 400 urban persons and rural persons, 310 respondents (77.50%) and 273 respondents (68.25%) reported self medication practice in the recall period of the last 6 months respectively.

A descriptive cross-sectional study was conducted among 609 customers in 20 pharmacy outlets in Asmara. Of the 609 customers, 93.7% had practiced self-medication; of which 81.8% were at risky practice. On average, each participant was using drugs at least once a month. The most frequently preferred drug group was analgesics (34.3%) followed by antipyretics (15.7%) and cough and cold preparations (14.2%). About 14% of the respondents

admitted that they had taken more than the recommended dose and 6.9% had experienced drug related problems following self medication (Tesfamariam, et al., 2019).

A cross-sectional descriptive study conducted among staff of Federal Medical Center Ido-Ekiti, Nigeria found that among the 305 respondents interviewed, the age range was 18-52yrs with greater proportion being males (51.8%). Majority of respondents were aware of self-medication (94.8%), but only 47.2% had good knowledge of it. Reasons for practicing self-medication were financial problem (10.8%), mild sickness (10.8%), lack of time (13.4%), knowledge of diagnosis (5.6%), convenience (2.3%) and non-availability of doctors (3.0%) (Babatunde, et al., 2019).

A descriptive cross-sectional study among tertiary students in Ghana was conducted on self-medication practices. It was found that several reasons were cited for practicing self-medication. The most important reasons for practicing self-medication were that it was less expensive compared to medical care in the hospital (40.5%), and secondly, medical care in hospitals were associated with long delays (40.5%). Inaccessibility of hospitals was the least reason for self-medication (0.9%) (Donkor, Tetteh-Quarcoo, Nartey, & Agyemang, 2018).

Tesfamariam, et al., (2019) added that majority of respondents reported that they sought information or instruction from pharmacists (34.8%) or medical doctors (27.1%) while self-medicating for the first time. It should be noted that the drugs were not prescribed or suggested by healthcare professionals; rather only information on their use was provided on request. Others (21%) reported that they got advice from friends and relatives, whilst the remainder (3.4%) used the internet or mobile applications as a source of information.

A study was conducted in South Africa, participation rate was 64%. Altogether 87% reported self medication practice in the last 6 months. Approximately 10% of participants stated that they self medicated at the first sign of illness, and 79% stated that they used self medicated

with more drugs compared with previously, due to increased availability (Hedenrud et al., 2019).

A cross-sectional study was conducted in Ijede community, Ikorodu Local Government Area of Lagos state, Southwest Nigeria. A multistage sampling method was used to select 337 adult respondents. Data were collected using a structured, interviewer-administered questionnaire. The findings revealed that 334 (94.1%) had a positive attitude against the use of self-medication; and 311 (92.3%) practiced self-medication (Ayanwale & Okafor, 2020).

2.4 Factors that Influence Self-Medication

Moving trend from prescription to non-prescription medications saves the time and also reduces cost as it is cheaper for patients to purchase drugs rather than file a prescription. However, there are certain other reasons due to which the patients can choose self-medication including previous experience of the acute disease, knowledge of drugs and their uses, unavailability of health care professionals for treatment of patients (Shankar et al., 2019). Drugs used for self medication are easily accessible and are used for the treatment of minor illness. Although medicines are supposed to be relatively safe, readily available and consumed by patients without physicians' consent, it is very important that the patients have the access to clear and broad information to make an informed choice of proper selection of medicine and their fruitful use (Ahmad, Patel, Mohanta, & Balkrihnan, 2019).

Hanumantharayappa and Siddaiah (2019) reported that the top two reasons for self medication in urban areas was its easy availability (56.13%) and the drugs could be procured circumventing the process of doctors' consultation (41.61%). In rural areas, the reasons were that it was cheap (72.53%), as they need not pay consultation fees and the availability of doctors for consultation was limited.

The common reasons quoted for self-medicating were ease of accessibility 290 (34%), saving time 208 (24.4%), perception of being safe and tolerable 125 (14.7%), saving money 48 (5.6%), treating minor ailments 37 (4.3%) and getting quick relief 31 (3.6%) (Tesfamariam, et al., 2019). A study conducted in Jordan, also reported that headache (81.9%) was the most common reason for which students go for self-medication (Alshogran, Alzoubi, Khabour, & Farah, 2018).

In Poland, the most frequent reasons the elderly gave for self medication included colds, muscle and joint pain, as well as headaches. Similar reasons for drug purchase were indicated by Serbs-almost 40% of respondents bought a drug to improve immunity and almost one-third for muscle and joint pain and headaches. These data point out that older people believe that self medication improve health and eliminate unpleasant symptoms (Cybulski et sl., 2018). Hedenrud et al., (2019) reported that self medication practice has increased due to greater availabiltiy of drugs.

A cross sectional study was conducted in India to the assess the safety and use of medications. A total of 800 students participated in this survey. Ease in access to medicine, availability of pharmacist consultation and advertisement in print and electronic media were the main factors disclosed by the respondents that may result in an increase in self medication practice (Sharma et al., 2019).

In Ethiopia, a cross-sectional study was conducted. A total of 380 students (229 medical students and 151 pharmacy students) participated in the study. The majority of the respondents (79.7%) reported that they have the practice of self-medication. Fever (80.2%), headache (24.4%), and abdominal cramp 20 (23.3%) were the most common conditions for which the students go for self-medication while paracetamol (59.3%) followed by non-

steroidal anti-inflammatory drugs (NSAIDs) (51.2%) were the most commonly used classes of drugs (Bekele, et al., 2020).

A cross-sectional household survey was conducted in Ga West district, Accra Ghana. A total of 497 adults (18 years and above) were chosen using a three-stage cluster random sampling technique. Out of the 497 respondents, 415 indicated that they had used pharmacies within the last 12 months prior to the study, while 82 indicated that they had not used the facilities within the same time frame. majority of the pharmacy users (33.7%) visited community pharmacies once a month. Approximately 84% of the pharmacy users frequently visited community pharmacies to get treatment for minor ailments. 55% for the purchase of prescription medicines, 48% for the purchase of drugs for self medication, 10.8% for advice and treatment for another person and 9.4% for advice on general health conditions (Okai, Abekah-Nkrumah, & Asuming, 2019).

A cross-sectional study was conducted among construction workers in the Ga East Municipality (GEM) of the Greater Accra region of Ghana. Workers randomly sampled from 7 construction sites. A structured questionnaire was used to elicit responses on knowledge of analgesics, types of analgesics used and factors influencing the use of analgesics. The findings revealed that about 86 percent of respondents purchased their painkillers from chemical shops and 7 percent of respondents took analgesics on prescription. Study findings revealed that 96.6 percent of construction workers used analgesics mostly to relieve pain and aches (66.4 %) and to induce sleep (26.6 %) (Badzi & Ackumey, 2019).

CHAPTER THREE

MATERIALS AND METHODS

3.0 Introduction

Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques.

3.1 Study area

The study was conducted in the Holy Family Nursing and Midwifery Training College, Berekum located in the Bono Region of Ghana more specifically at the western part of Berekum, along Biadan Road. The school shares boundary with the Holy Family Hospital, Berekum and Freeman Methodist School. The college was established in the year 1957 by Sr. Catherine (Patrick) Shean of the Medical Mission Sisters. The major inhabitants of the College are the Staffs and Nursing and Midwifery trainees. The college comprises of both males and females' trainees. The College has a student population of six hundred and eighty eight (688). The college runs three Diploma programs: Registered General Nursing (RGN) Diploma, Registered Midwifery (RM) Diploma and a two-year Post Basic Midwifery (NAP/NAC).

3.2 The study population

The target population of the study comprised of all trainees of the College.

3.3 Study design

This is the blueprint for conducting a study that maximizes control over factors that could interfere with the study's desired outcomes. Cross sectional design was adopted for the study. Cross sectional study design is a type of observational design (do not involve the overt

manipulation or management of variables) which deals with the study of the characteristics of research participants now. Cross sectional study design is not costly to perform, does not require a lot of time, captures a specific point in time and the data can be used for various types of research.

3.4 Sampling technique and Size

The sample population was obtained using a convenience sampling technique. Convenience sampling technique is a type of non-probability sampling that involves the sample been drawn from the part of the population that is close to hand. This method was chosen because it is extremely speedy, easy, reading available and cost effective sampling method.

The Yomane formula was used to calculate the sample size for the study. It is written as

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

n is the sample size, N is the population size and e is the level of precision (0.05)

$$n = \frac{688}{1+ 688(0.05)^2}$$

$$n= \frac{688}{1+688\ (0.0025)}$$

$$n= \frac{688}{2.72}$$

n = 252.9

Therefore, the sample size for the study was 253 students. However, fifty (50) participants were chosen due to financial constraints.

3.5 Data collection methods and instruments

A well-structured questionnaire was used. The questionnaire was the instrument used for the collection of data. The questionnaire contained closed ended questions that required

respondents to choose from already listed possible answers. The questionnaire was transcribed onto google forms (web-based) for the students. The link was distributed to the Whats App platform of the chosen students. Google forms was chosen to be able to cover a larger sample size and to reduce the difficulty with data analysis.

3.6 Data analysis techniques

Microsoft excel was used to analyze the data in this study. Descriptive statistics was used to summarize major demographic variables.

3.7 Ethical consideration

Permission was sought from the college to conduct the study. Informed Consent was gained from the respondents to prevent any human right violation. Respondents who fully consented were given clarity on the study objectives upon their request. Respondents were forced into participating in the study. They were assured of confidentiality and anonymity. They were also informed that they possessed the sole right to withdraw from the study at any time of their choosing.

3.8 Limitation of the study

The study was limited by inadequate resources most especially the financial aspects since no sponsorship has been obtained for the study.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.0 Introduction

This chapter deals with analysis of data collected from the field of study and the results obtained from the analysis. The data collected was analysed using Microsoft excel. Descriptive statistical measures, such as tables with averages and percentages, along with graphs are used to show the occurrence of different observations as investigated in the study.

4.1 Student's Demographic Variables

Table 1 shows that majority (66%) of the respondents were females while the remaining (34%) were males.

Table 1: Gender of Respondents

Variable	Categories	Frequency (n)	Percentage (%)
Gender	Male	17	34
	Female	33	66

Table 2 shows that majority (76%) of the respondents were aged between 18-23 years, a few (22%) of the respondents were between the ages of 24-29 years with just (2%) of them falling within 30-35 years.

Table 2: Age of Respondents

Variable	Categories	Frequency (n)	Percentage (%)
Age	18-23	38	76
	24-29	11	22
	30-35	1	2

Table 3 depicts the marital status of the respondents, most (98%) of the respondents were single. Only (2%) was married and none had divorced.

Table 3: Marital Status of Respondents

Variable	Categories	Frequency (n)	Percentage (%)
Marital status	Married	1	2
	Single	49	98
	Divorced	0	0

Table 4 shows that majority (86%) of the respondents were Akans. Both the Ga and Nzema had equal respondents (6%) with Fante recording the least (2%) of all the ethnic groups on campus.

Table 4: Ethnicity of Respondents

Variable	Categories	Frequency (n)	Percentage (%)
Ethnicity	Akan	43	86
	Ga	3	6
	Fante	1	2
	Nzema	3	6

Table 5 depicts that majority (92%) of the respondents were Christians whiles 8% were Muslims.

Table 5: Religion of Respondents

Variable	Categories	Frequency (n)	Percentage (%)
Religion	Christian	46	92
	Islam	4	8
	Traditionalist	0	0

From table 6, most (64%) of the respondents were nursing students whiles the remaining (36%) were midwives.

Table 6: Program of Respondents

Variable	**Categories**	**Frequency (n)**	**Percentage (%)**
Program	RGN	32	64
	RM	18	36

4.2 Knowledge on Self-Medication

Table 7: Respondents Knowledge Regarding OTC Drugs

Variable	Categories	Frequency (n)	Percentage (%)
Drugs used for self-medication are	Sold directly without prescription	40	80
	Sold with prescription	10	20
Label on drugs used for self-medication should be checked	Always	14	28
	Sometimes	24	48
	Never	12	24
Do self-medication has life risk?	Yes	43	86
	No	3	14
If yes to Q9, which of the following do you consider as the most life risk of self-medication?	Inappropriate treatment	27	62.8
	Death	7	16.3
	Organ damage	16	37.2
	Others (specify)	0	0
If side effects are seen, one should	Immediately stop the use of drug	44	88
	Take low dose/use until side effects subside	6	12
Check expiry date	Always	16	32
	Sometimes	20	40
	Never	14	28
Source of information	Mass media	32	64
	Relatives/friends	18	36
	Internet	0	0

Table 7 is an illustration of respondents, knowledge regarding self-medication. Majority (80%) indicated that drugs used for self-medications are sold directly without prescription

whiles only (12%) said they are sold with prescription. Nearly half (48%) of the respondents said label on drugs for self-medication should sometimes be checked followed by 28% who indicated the label should always be checked and 24% said it should never be checked. Almost all (88%) of the respondents said if side effects are seen one should immediately stop the use of the drug whereas 12% indicated low dose or continual use of drug until side effects subside. Less than half (40%) indicated expiry date should sometimes be checked followed by those who indicated always (32%) and 28% who indicated never to check expiry date on drug used for self-medication. Majority (80%) indicated that self-medication has life risks. Most (64%) of the respondents cited the mass media as their source of information on drugs used for self-medication followed by relatives/friends (36%). Out of the 50 respondents most (62.8%) of the respondents indicated as inappropriate treatment the most life risk of self-medication.

4.3 Practice of Self-Medication

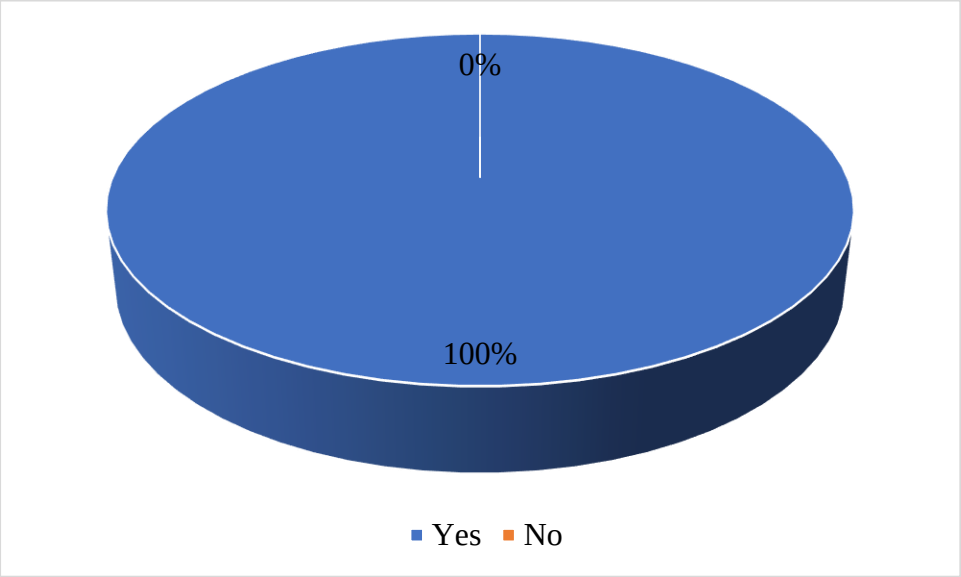

Figure 1: Respondents Use of Unprescribed Drug

All (100%) the respondents said they had ever taken unprescribed drug.

Table 8: Respondents Practice of OTC Drug

Variable	Categories	Frequency (n)	Percentage (%)
Place of receiving drug	Hospital pharmacy	0	0
	Commercial pharmacy	44	88
	Friends/relatives	6	12
Consume OTC	When symptoms are minor	12	24
	When I feel sick	24	48
	When I can't visit the doctor	14	28
Most preferred drug group	Analgesic	16	32
	Antipyretic	32	64
	Cough and cold preparations	2	4

Majority (88%) of the respondents indicated the place of obtaining drugs used for self-medication to be the commercial pharmacy. Nearly half (48%) of the respondents indicated to consume non-prescribed drug when they felt sick followed by when they cannot visit the doctor (28%) and when symptoms are minor (24%). Most (64%) of the respondents indicated that antipyretic is the most preferred drug group used for self-medication followed by analgesic (32%) and cough and cold preparations (4%).

4.4 Factors that Mostly Influence you to Take Unprescribed drug

Table 9: Respondents Factors for the Use of Unprescribed drug

Variable	Categories	Frequency (n)	Percentage (%)
Which factor mostly influence you to take unprescribed drug?	Time saving	44	88
	Low cost	32	64
	Easy accessibility	42	84
	Quick relief	12	24
Which of these clinical symptoms do you base on to self-medicate?	Fever	48	96
	Headache	50	100
	Dysmenorrhea	43	86
	Sore throat	29	58
	Itching	21	42

Table 9 above, is an illustration of the factors that mostly influence the use of unprescribed drugs, majority of the respondents indicated that time saving (88%), easy accessibility (84%) and low cost (64%) as their reason self-medication practice. Unanimously, all (100%) the respondents indicated headache as the likeliest clinical symptom for them to use unprescribed drug, this was followed by fever (96%), dysmenorrhea (86%), sore throat (58%) and itching (42%).

CHAPTER FIVE

DISCUSSION, CONCLUSIONS, RECOMMENDATIONS

5.0 Introduction

In this chapter, the data analyzed in chapter four were interpreted based on scientific evidence. The findings are briefly discussed with references to support the study.

5.1 Discussions

5.1.1 Knowledge on Self-Medication

In the current study majority (80%) indicated that self-medications are sold directly without prescription. This finding is in line with the study by Hanumantharayappa and Siddaiah (2019), they reported that self-medication products are those that do not require a medical prescription and that are produced, distributed and sold to consumers.

The current study found that nearly half (48%) of the respondents said label on drugs for self-medication should sometimes be checked. This finding is consistent with the study conducted by Lynch (2019) who reported that people who purchase OTC drugs should read and follow the instructions carefully. Because different formulations-such as immediate-release and controlled-release (slow-release) formulations-may have the same brand name, the label should be checked each time a product is purchased, and the dosage should be noted. Assuming the dosage is the same is not safe.

Less than half (40%) indicated expiry date should sometimes be checked followed by those who indicated always (32%). Correspondingly, Bekele et al. (2020) found that three-fourth of the respondents 285 (75%) reported that OTC medications should not be used after their expiry date and their expiry dates should be checked before use.

Most (64%) of the respondents cited the mass media as their source of information on drugs used for self-medication followed by relatives/friends (36%). Contrastingly, Shankar et al., (2019) in their study found the major source of information being the pharmacist on the pharmacy followed by doctors and then by the parents and relatives.

5.1.2 Practice of Self-Medication

In the current study all (100%) the respondents said they had ever taken unprescribed drug. In the same way, Hanumantharayappa and Siddaiah (2019) found that out of the 400 urban persons and rural persons, 310 respondents (77.50%) and 273 respondents (68.25%) reported the use of OTC in the recall period of the last 6 months respectively. Additionally, Tesfamariam et al. (2019) reported in their study that 93.7% had practiced self-medication with OTC drugs; of which 81.8% were at risky practice.

Tesfamariam et al. (2019) reported in their study that most frequently preferred OTC drug group was analgesics (34.3%) followed by antipyretics (15.7%) and cough and cold preparations (14.2%). Contrary, the current study found that most (64%) of the respondents indicated that antipyretic as the most preferred drug group used for self-medication followed by analgesic (32%) and cough and cold preparations (4%).

5.1.3 Factors that Mostly Influence the Use of Unprescribed drug

In the current study majority of the respondents indicated that time saving (88%), easy accessibility (84%) and low cost (64%) as their reason for self-medication practice. Similarly, Shankar et al., (2019) reported that moving trend from prescription to non-prescription medications saves the time and also reduces cost as it is cheaper for patients to purchase OTC rather than file a prescription. Hedenrud et al. (2019) added that 79% stated that they used more OTC drugs compared with previously, due to increased availability. Ahmad et al. (2014) reported that OTC drugs are easily accessible and are used for the treatment of minor

illness. Hanumantharayappa and Siddaiah (2019) reported that in rural areas, the reasons were that it was cheap (72.53%), as they need not pay consultation fees and the availability of doctors for consultation was limited.

In the current study all (100%) the respondents indicated headache as the likeliest condition for them to use OTC drug, this was followed by fever (96%) and dysmenorrhoea (86%). Similarly, Alshogran et al. (2018) reported that headache (81.9%) was the most common reason for which students go for self-medication with OTC drugs. Bekele et al. (2020) found that fever (80.2%), headache (24.4%), and abdominal cramp 20 (23.3%) were the most common conditions for which the students go for self-medication. This could be due to the fact that students consider these signs and symptoms as non-threatening and can be sorted out with OTC drugs.

5.2 Conclusion

The study concluded that respondents had adequate knowledge on self-medication. The practice of self-medication was found to be high and the most preferred drug group was antipyretic and analgesics. The leading reasons for self-medication drug use were time saving, easy accessibility and low cost and all the respondents admitted headache to be the clinical symptom that will make it more likely to make them self-medicate.

5.3 Recommendation

Based on the analysis of data obtained from the field, the following recommendations were drawn.

1. The government should impose strong restrictions on the use of unprescribed drugs.
2. There is the need for collaboration between the Food and Drugs Authority, the Pharmacy Council, the public health and community health nurses and the media to sensitise the public on the adverse effects of the extensive use self-medication.

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APPENDICES

QUESTIONNAIRE

Dear Respondent,

We are students of HFNMTC, Berekum conducting research on the topic "Knowledge, practice and factors influencing self-medication among students. A study at HFNMTC, Berekum". Kindly answer the under listed questions by ticking (√**)** the appropriate box or write in the spaces provided. Any information provided is confidential. Your opinion is neither considered right nor wrong. You can choose to withdraw your participation at any time. It will take you approximately 30 minutes to answer the questionnaire

Thank you.

PLEASE TICK [√] THE APPROPRIATE BOX WHERE APPLICABLE.

SECTION A: Demographic Data

1. Gender

    a. Male []

    b. Female []

2. Age

    a. 18 – 23 years []

    b. 24 – 29 years []

    c. 30 – 35 years []

3. Marital status

    a. Married []

    b. Single []

    c. Divorced []

4. Ethnicity

a. Akan []

b. Ga []

c. Other (specify): ……

5. Religious background

a. Christian []

b. Islam []

c. Other (specify)……

6. Program

a. Nursing []

b. Midwifery []

SECTION B: Knowledge on Self-Medication

Tick the most appropriate

7. Do self-medication has life risk?

a. Yes []

b. No []

8. If yes to Q9, which of the following do you consider as the most life risk of self-medication?

a. Inappropriate treatment []

b. Death []

c. Organ damage []

d. Others [specify] ……..

9. Source of information on self-medication practice

a. Mass media []

b. Relatives/friends []

c. Internet []

SECTION C: Practice of Self-Medication

10. Have you ever taken non-prescribed drug?

    a. Yes []

    b. No []

11. Place of obtaining drugs used for self-medication

    a. Hospital pharmacy []

    b. Commercial pharmacy []

    c. Friends or relatives []

12. If Q10 is yes, when do you take non-prescribed drug?

    a. When symptoms are minor []

    b. Whenever I feel sick []

    c. When I can't visit doctor []

13. Most preferred drug group used for self-medication

    a. Analgesic []

    b. Antipyretic []

    c. Cough and cold preparations []

SECTION D: Factors that Mostly Influence you to Take Unprescribed drug

14. Which factor mostly influence you to take unprescribed drug?

    a. Time saving []

    b. Low cost []

    c. Easy accessibility []

    d. Easy availability []

    e. Quick relief []

    f. Other [specify] ……

15. Which of these clinical symptoms do you base on to self-medicate? *Select all that apply*

    a. Fever []

    b. Headache []

    c. dysmenorrhea []

    d. Other [specify] ……

NATIONAL CATHOLIC HEALTH SERVICE (DIOCESE OF SUNYANI)
HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE
BEREKUM

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Tel. 0352222124
Fax. 0352222474

Our Ref. HFNMTC/GC/011/100722
Your Ref. .....

Date October 7, 2022

Eric Obeng
Holy Family NMTC
Post Office Box 21
Berekum

Dear Mr Obeng

PERMISSION TO CONDUCT RESEARCH

With reference to your Memorandum dated September 22, 2022, I write to notify you that the students listed below have been granted permission to conduct their research in the College on the topic **"Knowledge, Practices and Factors Influencing Self-Medication among students. A study at Holy Family Nursing and Midwifery Training College, Berekum".**

1. **Agyei Fobi Grace**
2. **Takyi Millicent**

Thank you.

Yours faithfully

PRINCIPAL
HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE
BEREKUM

.....
Monica Nkrumah (FGCNM)
Principal