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DIPLOMA PROGRAMMES

UTILIZATION OF UNPRESCRIBED OVER-THE-COUNTER MEDICATION AMONG TRAINEE NURSES AND MIDWIVES AT HOLY FAMILY NMTC, 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.

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ABSTRACT

The focus of the study was to determine the factors that influence the use of unprescribed over-the-counter medications among trainee nurses and midwives at Holy Family NMTC, Berekum.

A descriptive study design will be used for the study. The design will be adopted because participants or subjects will be observed in their natural setting. The data collection in descriptive research allows for gathering in-depth information. Descriptive research may be a precursor to future research because it can be helpful identifying variable that can be tested was adopted for the study. A Simple random sampling was used to select the respondent. For all students to have an equal chance of being selected the class list will be taken from the academic office and the names of the students assigned to numbers from 1 to 10 in a repeated order. A random number generator from Google sheet will be used to randomly select the study participants. A total of 50 students will be selected. Data was gathered through the use of questionnaire.

The study found that . Majority (n33, 66%) of the respondents were females while the remaining (n17, 34%) were males. Majority (n38, 76%) of the respondents were aged between 18-23 years, a few (n11, 22%) of the respondents were between the ages of 24-29 years with just (n1, 2%) of them falling within 30-35 years. Most (n49, 98%) of the respondents were single. Only (n1, 2%) was married and none had divorced. Majority (n46, 92%) of the respondents were Christians. Most (n32, 64%) of the respondents were nursing students whiles the remaining (n18, 36%) were midwives.

Based on the findings of the study, the following recommendations have been made.

1. Health education on self-medication should be introduced into the undergraduate curriculum so as to enlighten the students on the risks and benefits of self-medication.

2. Health education on self-medication should be introduced into the undergraduate curriculum so as to enlighten the students on the risks and benefits of self-medication.

The government should impose strong restrictions on OTC drugs the prevalence of unprescribed over-the-counter medications use among trainee nurses and midwives. Students should be allowed to form discussion groups where peer teaching can be encouraged especially at the end of every topic. Group discussions should be encouraged to enable students who fear teachers to participate fully and ask questions to improve their performance

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

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

Prevalence of self-medication among students is very high as all students indicated they have self-medicated in the past. The most common class of self-medicated drug was antimalarial followed by antacids and NSAIDs.

Students having sufficient medical information and unrestricted availability of OTC drugs were the most commonly reported factors that influences self-medication.

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CHAPTER ONE

INTRODUCTION

This chapter presents the background of the study, problem statement, general objective, specific objectives and operational definition of terms.

1.0 Background of the study

Self-care is practice or action taken by people for themselves in order to have and maintain health, avoid and protect from diseases. Self-medication is considered as one component of self-care (World Health Organization, 2017). According to World Health Organizations (WHO's) definition, "self-medication involves the use of medicinal products by the consumer to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of medication prescribed by a physician for chronic or recurrent diseases or symptoms" (WHO, 2017).

A continuous worldwide increase in self-medication has been triggered by economic, political and cultural factors and the practice is becoming a major public health problem (de Loyola et al., 2020). However, there is a difference in the prevalence of self-medication practices among developing and developed countries in relation to the variations in cultural and socioeconomic factors, dissimilarities in health care systems such as compensation rules, access to health care, and medicine dispensing policies (Osemene & Lamikanra, 2021). Self-prescription includes diagnosing and treating one's own illness and prescribing for one's self. This is also referred to as self-medication. Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, treatment or monitoring of treatment (Monstastruc, et al., 2018). There is a lot of public and professional concern about the irrational use of drugs. The easy availability of a wide range of drugs and in the case of developing countries, the inadequate health services result in increased

proportions of drugs used for self-medication compared to prescribed drugs (Shankar, Partha, & Shenoy, 2020).

Although, over the counter drugs (OTC) are meant for self-medication and are of proven efficacy and safety, their improper use due to lack of knowledge of their side effects and interactions could have serious implications, especially in extremes of ages (children and old age) and special physiological conditions like pregnancy and lactation (Murray & Cahallan, 2019).

Globally, self–medication has become a public health problem due to its prevalence and harmful effects. It is been practiced in both developing and developed (Hanafy, et al., 2018). The extent of self-medication and the reasons for practicing it may vary from country to country. The prevalence of self-medication in Nepal was 59%, in Bambi 54%, in Mexico 34% and in Ethiopia 26.2% (Befekadu, Dhekama, & Mohammed, 2018).

In developing countries, both modern drugs and traditional medicines are commonly used for self-medication. It was also noted that, medication that can only be obtained upon physician prescription, could easily be obtained without prescriptions for self-medication in developing countries like Ghana and Ethiopia. Besides, self-medication has been made known as common health behaviour in other developing countries like Nigeria and Zambia (Yusuff & Omarusehe, 2019). The proportion of people who self-medicate is motivated by a lot of reasons that may vary from place to place. In all however, self–medication in the advanced countries may be due to the increasing de-regulation of previously restricted drugs. The reasons had been that different types of drugs are now available over the counter for the management of all kind of different health challenges (Lettre, 2018). Again, this claims concerning the various factors influencing the practice of self-medication was mentioned in a similar study (Novignon, et al., 2021). Moreover, self-medication in the developing countries may be due to different types of factors including high cost involve in seeking professional

care in hospitals, poverty, long waiting hours in the hospitals to seek health care, lack of regulations and availability of drugs outside health facility and regulated environment (Babatunde et al., 2018).

In Ghana, there are many reasons why patients opt out of seeking modern medical care such as long waiting time, unaffordability and the distance of healthcare facility (Bonti, 2017). The long waiting lines are caused by minimal staff in healthcare facilities; some citizens wait for multiple hours before being attended to and many citizens do not have enough time to spare waiting for a doctor to attend to them. The affordability of modern healthcare have prevented Ghanaians from attending hospital and rather opt to buy modern drugs and herbs that are available and capable of curing their ailments. Also, an abundant amount of citizens do not have transportation to the closest facility because of the limited amount of public transportation coming in and out of their town. There is easy accessibility of non-prescribed drugs and herbs as many people in Ghana use medications for treatment of their ailment without prescription from a physician from the open market. With this accessibility, citizens of Ghana do not want to go to the hospital to spend long hours to see a doctor, find transportation to different towns, and this help to deal with the expenses of visiting a healthcare facility (Bonti, 2017).

People practice self-medication in order to ensure they continue to be in good health as good health is a necessity. Although self-medication has been adopted and is being practiced globally, people are not limiting themselves to over the counter drugs only, or if they are, they are not using them appropriately (Vidyavati, 2016). The practice of self-medication has gotten to a serious situation, as people use available drugs they believe, have medicinal content without knowledge on their harmful effect in connection with those specific medicines; thus, poor knowledge on the negative effect of self-medication is adding significantly to the practice of self-medication. As a result, people have developed serious

harmful effects from the drugs and has also led to delay in asking for medical care at the hospital, thereby worsening their conditions (Afolabi, 2020). Secoli, (2017) stressed on the need to use Over the Counter (OTC) drugs responsibly, as irrational use of drugs predispose one to harmful implications. This is a problem in most developing countries where level of education is low, as well as poor exposure to medical information, lead to abuse of medicines (Novignon et al., 2021). Self-medication is not only limited to a particular group of people but rather all manner of people including race, age, occupational status, gender, culture, and other such groups (Afolabi, 2018). Nonetheless, the practice of self-medication is very common among people living in areas with high incidence of infectious disease (Akanbi, et al., 2018). Self–medication practice with specific medication like antibiotics, has been reported to be highly prevalent in both developed and developing countries, with the exclusion of a few developed countries (Donkor, et al., 2019). The harmful consequences of self-medication are of different kinds and may include treatment failure, prolonged hospitalization, drug toxicity, increase in treatment cost and high mobility. Self–medication is more dangerous in the developing countries due to lack of basic knowledge about the pharmacological properties of these drugs and how these drugs affects those who self–medicate (Abasiubong, et al., 2021).

The increasing availability of medicinal products with diversity in its quantities and variety could motivate people to practice self-medication. Therefore, this study was conducted to determine the factors that influence the use of unprescribed over-the-counter medications among trainee nurses and midwives at Holy Family NMTC, Berekum

1.1 Problem statement

The problem of self-medication among health professionals particularly pharmacists and physicians is an issue of great concern. A study by Chambers (2020) particularly pointed to the fact that when doctors experience ill health, they disregard the advice they give their

patients. It is therefore observed that the medical community generally has developed a culture in which working through illness and self-treating is the norm. Apart from the adverse consequences that self-medication may have on these health personnel's that may include lack of objectivity in diagnosis and treatment, this state of affairs obviously have negative impact on the quality of practice and of the quality of health delivery services (Cicala, 2020). Balbisi and Ambizas (2018) have particularly noted that self prescription among health workers can lead to addiction and impaired functioning but further still it is unprofessional and may be associated with unlawful behaviours which may ultimately undermine the profession and pose a threat to the overall health and well-being of those involved. In extreme cases, self-prescription and medication may lead to substance abuse that has the potential of leading to adverse drug reactions. Further still, this can also lead to medical malpractice and negligence (Cicala, 2020).

Various studies points to the use of unprescribed OTC among the other health workers. No known local study that has investigated factors that influence the use of unprescribed over-the-counter medications among trainee nurses and midwives at Holy Family NMTC, Berekum. This therefore makes the quest for this study more imperative.

1.2 General objective

The main aim of the study is to determine the factors that influence the use of unprescribed over-the-counter medications among trainee nurses and midwives at Holy Family NMTC, Berekum

1.3 Specific objective

The study intends to;

1. assess the prevalence of unprescribed over-the-counter medications use among trainee nurses and midwives

2. find out the most common unprescribed over-the-counter medications used by trainee nurses and midwives
3. determine factors enhancing the intake of unprescribed over-the-counter medications among trainee nurses and midwives

1.4 Operational definition of terms

Self-prescription/Self Medication- The two terms, used interchangeably in this study, refer to obtaining and consuming drugs without the advice of a physician either for diagnosis, treatment or prevention of disease by the patient and in this context, the patient pharmacists and physicians**.**

Over the counter (OTC) drugs: Drugs that are permissible for purchase and use without prescription

Prescription: a note written by a medical practitioner that allows someone to be issued a medicine

Non-prescription: drugs that can be purchased without a medical practitioner's prescription

Drugs- Any substance that is taken or consumed the purpose for which is to provide a cure or to manage a disease condition.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature on factors that influence the use of unprescribed over-the-counter medications. The review is arranged thematically under the following headings: overview of self-medication, Prevalence of unprescribed over-the-counter medications, the most frequently used drugs and factors influencing the intake of unprescribed over-the-counter medications

2.1 Overview

The World Self-Medication Industry (WSMI) defines self-medication as the treatment of common health problems with medicines especially designed and labelled for use without medical supervision and approved as safe and effective for such use (WSMI, 2020). Similarly, Montastruc et al (2018) have defined self medication as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment. Simply put therefore, self-medication is the use of drugs, sometimes illicit, to treat a perceived or real malady, often of a psychological nature.

Montastruc et al (2018) have observed that over-the-counter drugs are a form of self medication. The buyer diagnoses his/her own illness and buys a specific drug to treat it. A person may also self-medicate by taking more or less than the recommended dose of a drug. Some mental illness sufferers attempt to correct their illnesses by use of certain drugs. Depression, for example, is notorious for being a trigger of alcohol, tobacco, cannabis, or other mind-altering drug use. While this may provide immediate relief of some symptoms such as anxiety, it may evoke and/or exacerbate some symptoms of several kinds of mental illnesses

that are already latently present, and may lead to addiction/dependence, among other side effects of long-term use of the drug.

Worldwide, self-medication is a common phenomenon and has been said to be on the increase (Arikpo et al., 2021). Rahman et al., (2018) disclose that almost 80% of the population in the world depend on the use of unconventional medicines as the first source of health care. There is always the risk of seeing self-medication as a phenomenon in the developing countries. Nevertheless, even in the most advanced countries like the United States, it has been projected that almost one third of the population practice self-medication using herbal medicines. This is also similar in countries like Malaysia (Rahman, et al., 2018).

2.2 Prevalence of unprescribed over-the-counter medications

A cross-sectional descriptive observational study was carried out, targeting the entire Spanish population by using an online questionnaire. The results showed that 78.9% of the subjects had previously taken or were currently taking OTC drugs. This consumption decreased as the age of the subjects increased, with a prevalence of 36.4% of subjects aged ≥ 71 taking OTC drugs. Analgesics were the most consumed OTC drugs (49.1%) especially in women, youngsters with non-formal educational qualifications, and individuals of a low–medium socioeconomic level residing in urban areas. The study concluded that measures should be implemented to optimize the safe use of OTC drugs in order to avoid the occurrence of secondary events associated with the lack of knowledge related to their the usage (Shanchez et al., 2021).

A descriptive cross-sectional study was conducted among 609 customers in 20 pharmacy outlets in Asmara, Eritrea between August and September, 2017. Two-stage cluster sampling was employed and data were collected using a structured questionnaire through face to face exit interviews. Descriptive statistics and multivariate logistic regression were performed using SPSS (version 22). Of the 609 customers, 93.7% had practiced self-medication with OTC

drugs; of which 81.8% were at risky practice. On average, each participant was using OTC drugs at least once a month. Educational level, religion, occupation and knowledge regarding OTC drugs were significantly associated with risky practice. The most frequently preferred OTC 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 the consumption of OTC drugs. Always, 35% of the respondents read package insert(s) and 73.9% check expiry dates while purchasing OTC drugs. This study revealed that inappropriate self-medication practice with OTC drugs was prevalent requiring early intervention to minimize the risks (Tesfamariam, et al., 2019).

A descriptive cross-sectional study was carried out in Mansoura University, Egypt. A multistage, stratified, cluster sampling technique was adopted. A total of 900 questionnaires were distributed and 800 questionnaires were returned back making a response rate of 89% due to absence of some students during the study period (3.8%), incomplete questionnaires (5%), and lack of interest in the study (2.2%). A semi structured questionnaire was used to collect data. Data were entered and statistically analyzed using the Statistical Package for Social Sciences (SPSS) version 16. The prevalence of self-medication was 62.9%. The most frequently reported cause of self-medication was “no need to visit the doctor for a minor disease” followed by “knowledge from previous experience” (73.9% and 71.4%, resp.) and the least was “unavailability of health service,” while fear of adverse/side effects was the most frequent cause to not self-medicate. Pharmacy clerk (69.9%) and neighbors and family (62.2%) were the most frequently reported sources for self-medication compared to friends and classroom colleagues (0.6%) and old prescription (33.6%), their own decision represented 30.2%, and the Internet constituted 29.4%. The study concluded that being prevalence of self-

medication among university students is high which constitutes a health problem that needs intervention (Helal & Abou-ElWafa, 2019).

A cross sectional study was conducted on 600 health science students in Gondar town, Ethiopia. The data regarding self-medication practice and its associated factors were collected using a face-to-face interview on a structured questionnaire. SPSS−24 was used for data analysis. Out of 554 respondents, 78.2% practiced self-medication. Headache/fever 37.88% (n=164) was reported as the most common complaint to practice self-medication. The study concluded that self-medication is common in health science students in Gondar town. Health professionals should educate students on the risks and benefits of self-medication to encourage responsible self-medication. National guidelines on medicine access should be developed and strong measures should be implemented to halt the selling of medications without a proper prescription (Kifle, et al., 2021).

2.3 Most common unprescribed over-the-counter medications

Fasoro et al., (2018) reported that about 11% and 71.1% have used antibiotics and analgesics, respectively, in the past one month. Cough was the most common condition (3.6%) needing antibiotic use in the study population; others were sore throat (1.9%) and gastroenteritis (1.9%). Paracetamol (75.1%) and ibuprofen (12.6%) were the mostly used analgesics for self-medication while tetracycline (34.2%), amoxicillin (28.9%), and metronidazole (18.4%) were the mostly used antibiotics by the respondents for self-medication. The findings of their study showed that the prevalence of self-medication was 81.8% among the undergraduate students of this university. This prevalence is considerably high.

In Indonesia, Pakistan and Bangladesh a study found that the most frequently purchased antibiotic overall was amoxicillin (77%, 52%, 10.3%), followed by ampicillin, fradiomisin–

gramisidin, tetracycline, ciprofloxacin, co-trimoxazole, cefadroxil, cefixime and azithromycin (Aslam, et al., 2020).

A study found out that nonsteroidal anti-inflammatory drugs (NSAIDs) (83.5%) were most commonly used, whereas less frequently antibiotics (26.7%), antacids (4.2%), and corticosteroids (3.4%) have been used (Garofalo et al., 2018). A study in Germany found that the most widely self-medicated drugs were antibiotics (59%), followed by NSAID's (31%), and cough and cold medicines (9%) (Limaye, et al, 2019).

A study done in Khartoum, Sudan reported 43.4% prevalence of self-medication with anti-malarials. A Higher prevalence was seen in males, younger age group of <40 years, middle income earners and less educated respondents (Awad, et al, 2019).

A cross-sectional study was conducted among construction workers in the Ga East Municipality (GEM) of the Greater Accra region of Ghana. 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, 2017).

2.4 Factors enhancing the intake of unprescribed over-the-counter medications

'Over-the-counter' medicines are much more widely available than ever before, whether or not Governments sanction them. Just type "buy simvastatin" into Google and goggle at the gaggle of online pharmacies willing to sell you the tablets (Manohar & Manohar, 2015).

Unregulated or unrestricted availability of OTC drugs in the market increases the risk of drug resistance adverse drug reaction and drug interactions (Ranjith, et al., 2017).

The commonly reported factors associated with self-medication were as follows: past effective use, level of education, gender, age group and middle (income) class and job type. Studies done in Africa reported a low degree of education, severity of disease (mild to severe), female gender, age group (≥45 years) and middle class as the most common determents for self-medication. Similarly, in Middle Eastern countries, level of education, age (18–39 years) and middle income were common factors associated with self-medication (Aslam, et al., 2020).

Sociocultural and socioeconomic characteristics, the previous experience with a symptom or disease, the attitude toward a disease, the way in which healthcare is funded or reimbursed, the increased potential to manage illnesses through self-care, and the availability of medicinal products have been quoted as explanatory factors of the self-medication (Hughes, McElnay, & Fleming, 2017). Self-medication is common in both developed and developing countries but higher in developing countries, due to wider increase of drug availability without prescription (Fasoro, et al., 2018).

Many studies have revealed that young adults are more vulnerable to the practice of self-medication due to their low perception of risk associated with the use of drugs, knowledge of drugs, easy access to Internet, wider media coverage on related health issues, ready access to drugs, level of education, and social status (Fasoro, et al., 2018).

According to Ranjith et al. as cited by Manohar et al., unregulated or unrestricted availability of OTC drugs is one of the main reasons leading to increase in self medication (Ranjith, et al., 2017). Moreover, their inappropriate use in developing countries is high due to inadequate knowledge (Eyob, Weletew, Retta, Terekegn, & Mulisa, 2015), lack of exposure to medical information, inadequate infrastructure, and weak laws and regulations (Boliu, et al., 2019).

Despite the fact that OTC drugs are used inappropriately and causing drug related problems, their number in the market and incidence of their usage are increasing (Sharma et al., 2017; Eyob et al., 2015).

A survey in Nigeria reported that the most common factors that led to self-medication among students were attributed to unfriendly attitude of health care workers at the school clinic (27.7%), busy schedule of students that resulted into lack of time to visit the clinic (26.8%), distance of the school clinic to the hostel (15.3%), and perceived inefficacy of prescribed drug (15.3%) (Fasoro, et al., 2018).

Garofalo et al., (2018) reported that participants engaged in self-medication most frequently because they felt that the illness was too mild and they did not require the services of a doctor (84.1%); other reasons were that they used an old prescribed medication (32.9%) and that they were prompted by a pharmacist (29%).

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. 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., 2020). OTC drugs are easily accessible and are used for the treatment of minor illness. Although OTC 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. It is very important to recognize that even OTC medicines can cause unwanted side effects if not properly used and there are certain OTC drugs which have been used by the patients for drug abuse (Ahmad, Patel, Mohanta, & Balkrihnan, 2014).

Hanumantharayappa and Siddaiah (2016) reported that the top two reasons for the usage of OTC drugs 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 with OTC drugs 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 with OTC drugs (Alshogran, Alzoubi, Khabour, & Farah, 2018).

A cross sectional study was conducted in India to the assess the safety and use of OTC medications. A total of 800 students participated in this survey. Ease in access to OTC 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 the use of OTC products (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 Accra Ghana. A total of 497 adults 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. The main reasons for self-medication among participants were convenience (86%), cost saving (26%), and lack of trust in prescribing doctor (6%) (Okai, Abekah-Nkrumah, & Asuming, 2019).

CHAPTER THREE

MATERIALS AND METHODS

This chapter provides, the study area and study population, study design, sampling techniques, data collection method and instrument, data analysis techniques, ethical consideration and limitations of the study.

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. 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 trainees. The college comprises of both males and females' trainees. 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 college has a student population of six hundred and eighty-eight. First years are two hundred and sixty-two, Second years are two hundred and forty two and Third years are one hundred and eighty three. The entire trainees of Holy Family Nursing and Midwifery Training College, Berekum would be the target population.

3.3 Study design

A descriptive study design, one which tends to describe the characteristics of a phenomenon being studied was used for the study. The design will be adopted because participants or subjects are observed in their natural and unchanged environment. The data collection of in

descriptive research allows for gathering in-depth information. Descriptive research may be a precursor to future research because it can be helpful identifying variable that can be tested.

3.4 Sampling technique and Size

A convenience sampling technique will be used to select participants for the study because was extremely speedy, easy, reading available and cost-effective sampling method as far as this study was concerned. A sample size of 50 students will be chosen.

3.5 Data collection methods and instruments

Data collection will be done through the use of structured and semi structured questionnaires consisting of both closed ended and open-ended questions which will be transcribed onto google forms (web based) for participants to answer. This will be chosen because of its ability to cover a large number of people, relatively cheaper, avoided embarrassment on the part of the respondents, possible anonymity of respondents and no user bias. Participant would spent approximately 15 minutes to answer the questionnaire.

3.6 Data analysis techniques

Microsoft excel software version 2016 will be used to analyze the data and present it in the form of tables and figures.

3.7 Ethical consideration

An introductory letter will be obtained from the college. The respondents will be well informed about the purpose of the study. The right of each respondent will be respected and their personnel integrity safe-guarded. The respondents will be allowed to participate and withdraw from the study if they felt like. The study will also be carried out with no physical or psychological harm on the respondents. None of the respondent's names will be documented and answers will not be discussed with other people in order to ensure confidentiality.

3.8 Limitation of the study

The study was limited by inadequate resources most especially the financial aspects. Hence, small sample was used which makes generalization of findings difficult. The team also had limited time frame to complete 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.

4.1 Student's Demographic Variables

Table 4. 1: Student's Demographic Variables

Variable	Categories	Frequency (n)	Percentage (%)
Gender	Male	17	34
	Female	33	66
Age	18-23	38	76
	24-29	11	22
	30-35	1	2
Marital status	Married	1	2
	Single	49	98
	Divorced	0	0
Religion	Christian	46	92
	Islam	4	8
Program	RGN	32	64
	RM	18	36

Table 4.1 above depicts the demographic variables of the students. Majority (n33, 66%) of the respondents were females while the remaining (n17, 34%) were males. Majority (n38, 76%) of the respondents were aged between 18-23 years, a few (n11, 22%) of the respondents were

between the ages of 24-29 years with just (n1, 2%) of them falling within 30-35 years. Most (n49, 98%) of the respondents were single. Only (n1, 2%) was married and none had divorced. Majority (n46, 92%) of the respondents were Christians. Most (n32, 64%) of the respondents were nursing students whiles the remaining (n18, 36%) were midwives.

4.2 Prevalence of Unprescribed Over-The-Counter Medications

Table 4.2: Respondents on prevalence of unprescribed over-the-counter medications

Variable	Categories	Frequency (n)	Percentage (%)
Recall the use of OTC in the last 6 months	Yes	50	100
	No	0	0
Place of receiving OTC drug is	Hospital pharmacy	0	0
	Out pharmacy	38	76
	Friends/relatives	12	24
Consume OTC	When symptoms are minor	22	44
	Whenever I feel sick	9	18
	When I can't visit doctor	19	38
Ever taken OTC drug more than the recommended dose	Yes	9	18
	No	41	82

Table 4.2 shows that all (n50, 100%) the respondents indicated they recall the use of OTC in the last 6 months. Majority (n38, 76%) of the respondents cited the out pharmacy as the place of receiving OTC drug. Nearly half (n22, 44%) indicated they consume OTC when symptoms are minor followed by when they cannot visit a doctor (n19, 38%) and when they fell sick (n9, 18%). Most (n41, 82%) of the respondents said they have never taken OTC drug more than the recommended dose with only (n9, 18%) admitting they have.

4.3 Commonly Used Unprescribed Over-The-Counter Medications

Table 4. 2: Respondents on commonly used unprescribed over-the-counter medications

Variable	Categories	Frequency (n)	Percentage (%)
Commonly Self medicated drugs	NSAIDs	47	94
	Antibiotics	44	88
	Antacid	48	96
	Anti-malaria's	50	100
	Others	32	64

As shown in table 4.2 majority (n50, 100) of respondents indicated anti malaria as the commonly self-medicated drug, followed by Antacid (n48, 96%), NSAIDs (n47, 94%), Antibiotics (n44, 88%) and other classes (n32, 64%) such as corticosteroids.

4.4 Factors that Influence Self-Medication Among Students

Table 4. 3: Factors that Influence Self-Medication Among Students

Statement	Agree	Disagree	Don't know

Unrestricted availability of OTC drugs	N	44	6	0
	%	88	12	0
Lack of exposure to medical information	N	31	12	7
	%	62	24	14
Weak laws and regulations governing OTC drugs	N	38	8	4
	%	76	16	8
Previous experience with a symptom	N	39	7	4
	%	78	14	8
Feeling that an illness is too mild to require a doctor	N	30	13	7
	%	60	26	14
Having sufficient medical information	N	45	5	0
	%	90	10	0

The following statements were agreed by the respondents of the study as factors that influence self-medication; unrestricted availability of OTC drugs (n44, 88%), lack of exposure to medical information (n31, 62%), weak laws and regulations governing OTC drugs (n38, 76%), previous experience with a symptom (n39, 78%), feeling that an illness is too mild to require a doctor (n30, 60%) and having sufficient medical information (n45, 90%).

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

The main focus of this study was to determine the factors that influence the use of unprescribed over-the-counter medications among trainee nurses and midwives at Holy Family NMTC, Berekum. The discussions are based on the specifics of this study.

5.1.1 Prevalence of Unprescribed Over-The-Counter Medications

The present study found that all (n50, 100%) the respondents indicated they recall the use of OTC in the last 6 months. This finding is in line with a study conducted by Fasoro et al., (2018), they reported that the prevalence of self-medication was high and similar case is seen in this current study.

The present study found that nearly half (n22, 44%) indicated they consume OTC when symptoms are minor followed by when they cannot visit a doctor (n19, 38%) and when they fell sick (n9, 18%). Similarly, Helal et al., (2019) reported that most frequently reported cause of self-medication was “no need to visit the doctor for a minor disease” followed by “knowledge from previous experience” (73.9% and 71.4%, resp.) and the least was “unavailability of health service,” while fear of adverse/side effects was the most frequent cause to not self-medicate.

The current study found that majority (n38, 76%) of the respondents cited the out pharmacy as the place of receiving OTC drug. Similar report has been given in the study conducted by Alhomoud et al. (2017) which reported that self-medication was obtained from a variety of sources, such as stored leftover drugs and pharmacies/drug stores.

In the current study most (n9, 18%) of the respondents said they have ever taken OTC drug more than the recommended dose. Correspondingly, Tesfamariam, et al. (2019), found that about 14% of the respondents admitted that they had taken more than the recommended dose.

5.1.2 Commonly Used Unprescribed Over-The-Counter Medications

In the current study majority (n50, 100) of respondents indicated anti malaria as the commonly self-medicated drug, followed by Antacid (n48, 96%), and other classes (n32, 64%) such as corticosteroids. Similarly, A study done in Khartoum reported 43.4% prevalence of self-medication with anti-malarials. A Higher prevalence was seen in males. (Awad, et al., 2016). Additionally, Aslam, et al., (2020) reported that the common indications for self-medication were found to be primarily self-administered for stomach pain and heartburns.

Most (n44, 88%) respondents indicated the usage of antibiotics for self-medication. This finding contradicts the findings of Garofalo et al. (2018), where antibiotics were less frequently used for self-medication.

Majority (n47, 94%) of respondents indicated NSAIDs as the most self-medicated drug. This finding is in line with a study conducted by Majithia et al. (2019) which reported that nonsteroidal anti-inflammatory drugs (NSAIDs) are among drugs with the highest prevalence of use (with or without prescription). Similarly, Garofalo et al. (2018) reported nonsteroidal anti-inflammatory drugs (NSAIDs) (83.5%) were most commonly used drug for self-medication.

5.1.3 Factors that Influence Self-Medication among Students

The following statements were agreed by the respondents of the study as factors that influence self-medication; unrestricted availability of OTC drugs (n44, 88%), lack of exposure to medical information (n31, 62%), weak laws and regulations governing OTC drugs (n38, 76%), previous experience with a symptom (n39, 78%), feeling that an illness is too mild to require a doctor (n30, 60%) and having sufficient medical information (n45, 90%). Similarly, as reported by Ranjith et al. (2017) unregulated or unrestricted availability of OTC drugs in the market increases the risk of drug resistance adverse drug reaction and drug interactions. Boliu et al. (2019) also reported similar findings to that of the current study, lack of exposure to medical information, inadequate infrastructure, and weak laws and regulations were all reported in their study as factors that influence self-medication.

5.2 Conclusions

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

1. Prevalence of self-medication among students is very high as all students indicated they have self-medicated in the past.
2. The most common class of self-medicated drug was antimalaria followed by antacids and NSAIDs.
3. Students having sufficient medical information and unrestricted availability of OTC drugs were the most commonly reported factors that influences self-medication.

5.3 Recommendations

Based on the findings of the study, the following recommendations have been made.

1. Health education on self-medication should be introduced into the undergraduate curriculum so as to enlighten the students on the risks and benefits of self-medication.
2. The government should impose strong restrictions on OTC drugs.

QUESTIONNAIRE

Dear Respondent,

We are students of HFNMTC, Berekum conducting research on the topic "Utilization of unprescribed Over-The-Counter Medication among trainee nurses and midwives at Holy Family NMTC, 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 years and above []
3. Marital status
    a. Married []
    b. Single []

c. Divorced []

4. Religious background

   a. Christian []

   b. Islam []

   c. Other (specify)……

5. Program

   a. Nursing []

   b. Midwifery []

SECTION B: PREVALENCE OF UNPRESCRIBED OVER-THE-COUNTER MEDICATIONS

6. Recall the use of OTC in the last 6 months

   a. Yes []

   b. No []

7. Place of receiving OTC drug is

   a. Hospital pharmacy []

   b. Out pharmacy []

   c. Friends or relatives []

8. Consume OTC

   a. When symptoms are minor []

   b. Whenever I feel sick []

   c. When I can't visit doctor []

9. Ever taken OTC drug more than the recommended dose

   a. Yes []

   b. No []

SECTION C: COMMONLY USED UNPRESCRIBED OVER-THE-COUNTER MEDICATIONS

10. Which of these classes of drug do you commonly self-medicate with? (select as many as appropriate)

    a. NSAIDs [ ]

    b. Antibiotics [ ]

    c. Antacids [ ]

    d. Anti-malaria's [ ]

    e. Other (specify) …….

SECTION D: FACTORS THAT ENHANCE THE INTAKE OF UNPRESCRIBED OVER-THE-COUNTER MEDICATIONS

11. Unrestricted availability of OTC drugs

    a. Agree [ ] b. Disagree [ ] c. Don't know [ ]

12. Lack of exposure to medical information

    a. Agree [ ] b. Disagree [ ] c. Don't know [ ]

13. Weak laws and regulations governing OTC drugs

    a. Agree [ ] b. Disagree [ ] c. Don't know [ ]

14. Previous experience with a symptom

    a. Agree [ ] b. Disagree [ ] c. Don't know [ ]

15. Feeling that an illness is too mild to require a doctor

    a. Agree [ ] b. Disagree [ ] c. Don't know [ ]

16. Having sufficient medical information

    a. Agree [ ] b. Disagree [ ] c. Don't know [ ]

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Our Ref. HFNMTC/GC/011/020823

Your Ref. .....

February 10, 2023

Date .....

Edward Amponsah
Holy Family NMTC
Post Office Box 21
Berekum

Dear Mr. Amponsah

PERMISSION TO CONDUCT RESEARCH

With reference to your Memorandum dated January 30, 2023, I write to notify you that the students listed below have been granted permission to conduct their research in the College on the topic **'Utilization of Unprescribed over-the-counter Medication among Trainee Nurses and Midwives at Holy Family Nursing and Midwifery Training College, Berekum.'**

1. **Konadu Adelaide**
2. **Isaac Gyimah Kwakye**

Thank you.

Yours sincerely

ACADEMIC CO-ORDINATOR - NURSING
HOLY FAMILY NURSING & MIDWIFERY
TRAINING COLLEGE, BEREKUM

Rev. Sr. Margaret Afrifa
Academic Coordinator for Nursing
For: Principal