KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF HEALTH SCIENCES

FACULTY OF ALLIED HEALTH SCIENCE

DEPARTMENT OF NURSING

DIPLOMA PROGRAMMES

ASSESSING THE PREVALENCE OF SELF-MEDICATION WITH ANALGESICS AMONG STUDENTS IN HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM.

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2023

DECLARATION

We declare that every information included in this research paper are findings from the research study conducted by the researchers. Any added information has been duly referenced.

This work is submitted as a project report to Holy Family Nursing and Midwifery Training College, Berekum for the award of a diploma in midwifery certificate.

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DEDICATION

We dedicate this research work to our dear cherished families, all tutors and the respondents from Holy Family Nursing and Midwifery Training College, Berekum. Our special one to Ms. Ubaida Abdul-Karim for her countless support and encouragement through the period of writing this research work.

ACKNOWLEDGEMENT

Our tremendous gratitude goes to the Almighty God for sailing us through our three-year course successfully and for endowing us the knowledge to carry out this research study.

We wish to express our heartfelt gratitude to Monica Nkrumah, the principal of Holy Family Nursing and Midwifery Training College, Berekum, our supervisor, Ms. Ubaida Abdul-Karim for their support and motivation during our period of writing this research study.

Again, we would like to express our sincere gratitude to our parents for their financial and spiritual support. Finally, our greatest gratitude will be granted to all authors of the books used and everybody who directly and indirectly contributed in making the writing of this research study a success.

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ABSTRACT

Self-medication practice is the use of medicine without any professional supervision. It has its ultimate benefits but, in a way, increases the risk of developing resistance to the ailments. This continuous practice is not any different as it assumes a special significance among nurses in various hospitals. This study therefore sought to assess the prevalence of self-medication practices with analgesics among student nurses in Holy family nursing and midwifery training college. The study made used a quantitative cross-sectional survey consisting of only student nurses in Holy family nursing and midwifery training college. Using stratified sampling technique, fifty (50) respondents participated in the study. A validated, self-administered questionnaire was used to collect data and analyzed using the Statistical Package for Social Sciences (SPSS) version 20. The results indicated that selfmedication was at a peak (76%), the need for a quick relief (25.3%) accounted for the major reason why they self-medicate, Paracetamol (45.9%) was the highest self-medicated analgesic, self-medicating based on their own experience (23.6%) and acquiring analgesics from available pharmacies (51.0%) were the common sources and avenues to obtain analgesics. Predominantly, headache (32.5%) was the major ailment which compelled the respondents to self-medicate with analgesics. It was concluded that though student nurses are aware of the fact that self-medication is a bad practice, the need for a quick relief, availability and accessibility of pharmacies keeps it on the rise with paracetamol being the most commonly abused drug for ailments such as headaches.

CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Self-medication is defined as the use of medications by a patient on his own initiative or on the advice of a pharmacist or a lay person instead of consulting a medical practitioner (WHO, 2014).

In other words, it is a personal decision to obtain and consume drugs without a proper diagnoses and prescription from a physician after a thorough health history taking and medical examination. Self-medication is sometimes indirectly considered as an integral component of self-care (Hughes, 2015) but this however, is entirely different from self-care in such a way that self-medication could involve a whole class of drugs which could be used for both therapeutic and harmful purposes (Badiger, et al, 2012).

The practice of self-medication is becoming a global phenomenon (Awosusi & Konwea, 2014), and an issue under debate in health care (Almasdy, 2011) and craving for medicine and self-medication has been part of mankind from one generation to another (Afolabi, 2012). According to Hussain & Khanum, (2015), some are of the view that recent development of the pharmaceutical industry has contributed to a pervasive of over-the-counter (OTC) medications which by chance has become a promoter of self-medication. Their study was also of the view that self-medication practices were common in women, those who lived alone, those with a poor socioeconomic status, those who had chronic ailments or psychiatric conditions, and in students.

Nevertheless, differences which may exist will be as a result of the disparities in the cultural, economic, health care system and policies in each nation. The common belief with self-medication is that it usually involves common drugs which are readily available and easily accessible. Sandeep et al. (2013).

Self-medication as a behaviour could be classified as responsible or non- responsible and as a result, the behaviour cannot be considered entirely harmful (Kalaiselvi, Ganesh & Archana, 2014). Studies again reveal the increase in trends of self-medications practices predominantly among the youth. This inclination is attributed to the availability and affordability of the drugs, socioeconomic factors, the individual's life style, the knowledge to manage certain illnesses, the nature of the law and its enforcements, higher levels of education, influences from health professionals, the society, and exposure to advertisement of medicinal products (Galato et al., 2011).

Moreover, for the most cases of illness, self-medication has become the first line of treatment for many people worldwide. Internationally, self-medication has been reported as being on the rise. In 1999, the American Pharmaceutical Association estimated that out of the 3.5 billion health problems treated annually in the US, 57% were treated with a nonprescription drug. In developing countries, this rate could be much higher due to the wider spectrum of drugs available without a prescription (Coenen S, et al, 2013)

In many developing countries, up to 60-80% of health problems are self-medicated. Ansam F. Sawalha (2012), conducted a descriptive study of self-medication practices among Palestinian medical and nonmedical university students and it was reported that self-medication practices were at a peak of 98% of the 1600 surveyed students (n = 1581) with a range of 18-24 years. It is no doubt that this is basically the average age range of any student studying in the university. The

majority (58%) reported a common reason for self-medication practices to be simplicity of the illness encountered.

A study which was conducted in Brazil in 2012 by Da Silva et al., also revealed that self-medication is common in the general population, and at least 35% of the volume of drugs purchased are for self-medication. A total of 789 healthcare and non-healthcare students were used for this study with 86.4% of the total sample reporting issues of self-medication. In the year 2013, a study conducted to explore the prevalence of self-medication amongst university students of Delhi in India also revealed out of the 625 participants who were involved, 82% of them engaged in self-medication practices.

A study carried out in Central Iranian by Sarahroodi, et al., (2012) reported that for analgesics self-medication, the most commonly used source of information for self-medication was the advices received from friends and family members, previously prescribed medications, prior medical knowledge, and recommendations from a pharmacist at the time of purchasing the drug. In 2015 a study carried out in Nigeria by Sapkota, et al on selfmedication with antibiotics for the treatment of menstrual cramps suggested that 75% of participants who experienced menstrual symptoms used analgesics to treat. Pain therefore remains one major reason why people self-medicate with analgesics. People who experience pain seek relief through medical counseling, complementary therapies, and/or self-medication (Souza, et al, 2012).

Analgesics been a group of self-medicated drugs are therefore drugs that relieve or decrease pain without loss of consciousness. They are commonly described as narcotic (opioid) and non- narcotic (non-opioid) agents and they may act by inhibiting transmission of pain impulses by reducing cortical response to pain stimuli or by altering nerve activity in areas of the brain (the frontal lobe

and the limbic system) that moderate the perception of pain (Mallinson T, 2017). Aspirin, acetaminophen and ibuprofen are the most popular medications available for selfmedication of mild to moderate pain (McKenry & Salerno, 2014).

1.2 PROBLEM STATEMENT

Self-medication has resulted in wastage of resources, increases resistance of pathogens and generally causes serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence among its users (Badiger, et al, 2012). Other studies on the subject indicate that there are risks such as misdiagnosis, drug resistance, drug addiction, use of expired drugs, prolonged duration of use, drug interactions, and other toxicological and pharmacological risks associated with improper use of non- prescription medicines (Awosusi & Konwea, 2015).

Souza, et al (2011) conducted a study to investigate the prevalence of self-medication among nurses seeking to relieve pain and characterizes the pain and relief obtained through the used medication. It was revealed that the prevalence of self-medication was rated up 38.8%. Parulekar et al., (2016) carried out a research study to evaluate the prevalence of self-medication among professional nursing students in Tirur city, Kerala. It was shocking to hear that the prevalence of self-medication among professional nursing students was 65%.

In Ghana, a wide range of analgesics are available on the market and acquiring drugs over the counter is a very common practice. This has sped up the incidence and prevalence of self-medication within the Ghanaian society. It has been observed that most often than not, student nurses of Holy family Hospital input their knowledge obtained from their clinical experiences in attending to their medical illnesses or rely on the advices they receive from pharmacy attendance.

It is sad to know that many of those pharmacy attendants are not well inclined in the work they are doing but were put there to function for a stipulated period of time.

We are privileged to be in a school which has a hospital with medical doctors and physician assistants to handle all health-related problems but still students would not patronize this facility but rather resort to self-medication. This common practice is mostly observed with the abuse of various forms of analgesics. It was observed that student nurses' resort to the use of various analgesics with the least pain at the joins or in the muscles after exercises, abdominal pain during menstruation, headaches, just to mention but a few. This problem is worsened when it comes to traditional herbal medicines whose dosages are not even known.

In a nutshell, self-medication could lighten the demand on doctors and make people more health conscious if used appropriately. However, if abused, it could delay accurate diagnosis and appropriate treatment, and could cause toxicity, side-effects, drug interaction and unnecessary expenditure (Arzi et al, 2015). It is therefore questionable to know whether its benefits outweigh the potential hazards making the factors influencing self-medication to remain issues of intense debate in health facilities.

Though the existence of self-medication is as old as mankind itself, little has been exploited in Ghana especially in the areas of nursing as a profession though a lot has been done in the areas of medicine and pharmacy. A lot has also been done concerning self-medication practices with analgesics in London, Palestine, Brazil, South India, Pakistan, Ethiopia, and Nigeria but, the question is, how different are these results from those coming from various nursing training colleges in Ghana especially Holy family nursing and midwifery training college. However, to the best of our knowledge, not much studies have been conducted to address the problem in Ghana.

Moreover, no previous studies have been done in Holy family nursing and midwifery training college concerning the issue of self-medication with analgesics among student nurses. The numerous allegations that professional nurses are the most abusers of analgesics make the quest for this study more imperative since the target group are student nurses. Their practices will influence their nursing practice and cause harm to the patients put in their care.

1.3 PURPOSE STATEMENT

This study explored assessing self-medication practices with analgesics among student nurses of Holy family nursing and midwifery training college.

1.4 SIGNIFICANCE

First and foremost, our findings would add up to the already existing knowledge within our noble profession and will create newer questions for future researchers to build upon. Also, the evaluated results from this research would assist in assessing and evaluating the effectiveness of the public campaigns on self-medication especially for nurses.

To add to that, it would bring to bear significant points which would inform the Ministry of Health Planning Committee on how to design interventions to minimize the abuse of drugs among this level of people and also compensated for the knowledge lose.

Last but not least, it would educate students within the noble nursing profession and beyond, the adverse side effect of self-medication and the need to visit the hospital even with the slightest uncomfortable feeling.

1.5 RESEARCH OBJECTIVES

GENERAL

1. To evaluate the prevalence of self- medication with analgesics among student nurses in Holy family nursing and midwifery training college

2. To evaluate factors/reasons associated with analgesics self-medication among student nurses in Holy family nursing and midwifery training college

SPECIFIC

1. To identify the various commonly used self-medication drugs (analgesics) among student nurses in Holy family nursing and midwifery training college

2. To identify the various sources of commonly used self-medication drugs (analgesics) among student nurses in Holy family nursing and midwifery training college

3. To identify the kind of ailments which demand self-medication drugs (analgesics) among student nurses in Holy family nursing and midwifery training college.

1.6 RESEARCH QUESTIONS

1. What is the prevalence of self-medication with analgesics among student nurses in Holy family nursing and midwifery training college?

2. What factors/reasons account for student nurses to self-medicate with analgesics?

3. What are the commonly used analgesic drugs?

4. What are the sources of the common self-medicated analgesics?

5. What are the common ailments analgesics are used in managing?

1.7 OPERATIONAL DEFINITIONS

Self-medication: using medicine to treat one's ailment without medical supervision or prescription.

Practice: Doing something repeatedly.

Analgesics: medications that reduce or eliminate pain

Student Nurses: Students who are being trained to give care to people who are sick or injured

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

Literature review is the identification and analysis of relevant publications that contain information pertaining to the research problem. Hence, it is a critical, analytical, and factual overview of what has been done on a research topic to produce a rationale or justification for the conduct of the study as well as helping in selecting appropriate methodology for the study.

2.2 PREVALENCE OF SELF-MEDICATION

To begin with, Alkhatatbeh, et al., (2016) carried out a study on the high prevalence of self-medication practices among medical and pharmacy residents at Jordan University of Science and Technology. 1317 residents were sampled to represent and stratified according to their academic levels (seniors and juniors). The results analysis revealed that 78.5% of them engaged in self-medication practices and was most common among pharmacy residents. Compared to medical residents. There was however no great margin between juniors and seniors (79.1% vs. 77.8) respectively. It was concluded that self-medication was common among residents irrespective of their level of medical knowledge however, obtaining medical knowledge increased the resident's awareness of the risk of self-medication which may result in practicing responsible self-medication. Nevertheless, medical teaching institutions needed to educate their students about the proper use of medicines as a therapeutic tool.

Secondly, another preliminary study was conducted by Thompson D & Behets, (2017) concerning Selfmedication among nurses in Shalby Multi-Specialty Hospital in India. It was a cross sectional

study designed to use a convenience sampling method to obtain participants who were willing to participate and who had used at least two doses of any medicine during the last six months. A questionnaire was developed to collect data on selfmedication, type of medicines used, and source of information. It was found that out of total 150 nurses, selfmedication among female nurses was 57% and males nurses was 33% with an overall average of 48%. It was concluded that the prevalence of self-medication among nurses was found to be around 52% which was laudable and hence recommended that strict measures were needed to monitor advertisements of medicines both in printed and electronic media. The possibility of having access to over-the-counter drugs should therefore be minimized by taking appropriate monitoring measures which includes implementing an effective legislation.

In 2013, Zafar, et al., also conducted a study on the prevalence, knowledge and attitudes self-medication amongst health care providers in Karachi. A cross-sectional study was conducted using convenience sampling from 2 teaching hospitals and 2 non-teaching hospitals of Karachi, Pakistan. The data collected revealed that out of 572 participants with a mean age of 24years, the prevalence of self-medication was 76%. It was concluded that there was no significant difference between the self-medication practices among health care providers in teaching hospitals and non-teaching hospitals. Strict policies are therefore needed to be implemented on the advertising and selling of medications to prevent this problem from escalating.

Sarahroodi, et al., (2012) carried out research to study the pattern of self-medication with analgesics among Iranian University students in central Iran. Through simple randomized sampling, 564 university students participated in the cross-sectional study. Out of the students, 44.9% were studying in medical courses (Medicine,

Para Medicine, Hygiene, Nursing, Midwifery, etc.) and 55.1% were in different fields of non-medical courses (Basic Sciences, Engineering, Financing, Literature, Law, etc.). The prevalence of self-medication with analgesic within three (3) months of their study period was 76.6%, with 73.4% male and 79.2% female students engaging in various self-medication practices with analgesics. The frequency of analgesic use was once in 19.2%, twice in

22.2%, three times in 16.3%, and more than three times in 35.5% of the students who partook in the study. Also, 11.4% of them self-medicated with analgesics once a day, 8.6% once a week, 24.8% once a month and 55.2% more than once a month

2.3 REASONS FOR SELF-MEDICATION

Sajith, et al in 2018 conducted research on self-medication practices among health care professional students in a tertiary care hospital, Pune-India. The aim was to assess self-medication practice among medical, pharmacy, and nursing students in a tertiary care hospital, Pune. A cross sectional survey was carried out over a period of three months to involve 318 students. The results revealed that the main reasons for self- medication was that 67% reported that their knowledge about drugs and diseases helped them while 65% reported that their health problem was not serious. It was concluded that Self-medication practice is common among health care professionals due to their professional exposure to drugs and knowledge of treatment of their disease.

Ibrahim, et al., conducted research on self-medication with analgesics among clinical year nursing students (3rd - 4th year) with a mean of 22.9years in King Abdulaziz University, Jeddah, Saudi Arabia in the year 2015. Based on a descriptive and analytic statistics of a cross-sectional study data of 504 participants, 75.2% of participants reported using self-medications during last 6 months,

Upon further analysis, it was discovered that 35.4% claimed the problem was not serious, 27.2% claimed their previous experience which was relieved with the same drug, 15.1% of them claimed they did not have time to visit the hospital or clinic, 12.1% of them said they needed an emergency remedy, 4.3% self-medicated because of the high cost of hospital consultations, 3.9% of them had advices from friends, 2.0% of them were with the reason of unavailability of transportation.

Da Silva et al., in 2012 conducted a research study on self-medication among registered nurses from the city of Rio Grande in Brazil. The purpose of this study was to identify the prevalence and factors associated with selfmedication among registered nurses. A data of 400 registered nurses who answered the questionnaires were analyzed and the results revealed that 57.2% of them had already experienced the symptoms and so knew what medication to take, 44.3% reported that there was no need to see a doctor because it was a simple disease, 34.7% reported that they wanted a quick relief, 30.5% of them reported that the doctor will prescribe the same medication, 26.7% of them complained about the economy of time as a factor, 18.4% complained of money as a factor and 1.8% of them also reported that self-medicating was an opportunity for learning.

A cross sectional study conducted by Mumtaz., et al. (2011) on self-medication among university students from 2 Universities of Karachi, one medical and one non-medical. These universities were selected through nonprobability convenience sampling of 207 participants with 103 studying at non-medical and 104 were medical university students with a mean age of 22 years. The commonest reasons for self-medication were in such a way that 46.9% reported that the problem was not serious, and 30.9% reported of a previous experience. It was concluded that the frequency of self-medication practices was alarmingly high and the same in both medical and nonmedical students despite the majority knowing that it was wrong.

Zafar, et al. (2011) conducted a study on the prevalence, knowledge and attitudes self-medication amongst university students of Karachi. A cross-sectional, study was conducted using convenience sampling method in choosing 572 participants with a mean age of 21years from 2 medical and 2 non-medical universities of the city of Karachi, Pakistan. Based on statistical analyses, different factors compelled them to self-medicate. 50.1% of the participants had previous experiences with similar symptoms, 48.3% of the participants had a self-perception of the trivial nature of the problem, 30.8% of the participants reported of the urgency of the problem, 23.9% of the participants also reported that the advices from friends were enough to tackle the problem, 15.6% of participants reported of the convenience of that medication, 12.2% of the participants reported of the lack of time to visit the hospital, while 6.0% of them reported of the high cost of consultation at the hospitals/clinics.

2.4 COMMON SELF-MEDICATED ANALGESICS

Patel, et al conducted a Survey in 2017 on the use of over-the-counter drug among medical officers, nursing and technician staff of a tertiary care teaching hospital. The analyzed results showed that 81% of the participants selfmedicated with Paracetamol, 42.5% of the participants self-medicated with Diclofenac, while 37.8% of the participants self-medicated with ibuprofen.

Tanwar & Mathur in 2015 conducted a survey concerning the pattern, efficacy and tolerability of analgesic selfmedication among nurses in Algeria. 130 nurses between the ages of 27-40years were sampled to take part in the research. Statistical analyses revealed that analgesics which were commonly used for self-medication included paracetamol (64%), diclofenac (7.6%), aceclofenac (5.3%), paracetamol plus ibuprofen combination (4.6%), mefenamic acid plus dicyclomine combination (7.7%), ibuprofen (5.3%), and others (5%).

Rutenberg conducted a research study in 2012 among Russian health care providers in Sochi on the pattern of self-medication with analgesics. It was a random cross-sectional study conducted to involve 350 health care providers chosen by simple random sampling. On completion, the data was reviewed, organized, tabulated and analyzed. Per descriptive analysis, it was represented that Acetaminophen was the most common self-medicated analgesic by health care providers with a peak value of 59.6%, codeine was next to follow with a moderate value of 28.7%, and Ibuprofen was least with a minimal value of 4.8%. Other analgesic drugs which were occasionally used were Mefenamic acid, Naproxen, and Tramadol which together accounted for the least value of 6.9%.

2.5 SOURCES OF COMMONLY USED SELF-MEDICATED ANALGESICS

In 2015, KomalRaj et al., carried out a study on self-medication practices for oral health problems among dental patients in Bengaluru. A cross sectional study was conducted to assess the prevalence of self-medication practices for oral health problems among dental patients visiting the outpatient department of Rajarajeswari Dental College and Hospital, Bengaluru city. The study was aimed at identifying the sources of the medications used or the sources of information about the medications used. Out of 175 participants with a mean age of 36.8years who were sampled, it was projected per the analyses that the self-medicated drugs were obtained from advices received from various significant people as follows; 23.4% from relatives, 13.1% from friends, 10.9% from personal knowledge, 40.6% from pharmacist, 5.1% from the mass media, 4% traditional healers, 2.9% from others.

Davies Adetugbo conducted a research study in 2012 among nurses of Yoruba community in Nigeria on the practice of self-medication with analgesics. A random cross-sectional study was conducted with a total of 450 nurses chosen by simple random sampling to participate in the study.

Per descriptive analysis, it was represented that the most common source of these drugs relied on by respondents were friends and family or advice from other people which had a peak value of 54.7%. Aside that other sources of information geared towards selfmedication with analgesics were previous prescriptions of medications by doctors represented 30.1%, over-the counter- medications represented 64.9%, residual drugs found at home represented 17.9%, advice from friends and family also represented 12.8%, while other sources had the least with a projection of 4.4%.

Sawalha, conducted a descriptive study of self-medication practices among Palestinian medical and non-medical university students in 2012. A self-administered questionnaire eliciting self - medication practices was distributed to university students with a cross-sectional design. A total of 1581 respondents participated in the research study and the analyzed results revealed the various means through which the participants obtained the self-medicated drugs or information regarding them. The majority of the respondents representing 47% obtained the medication based on self-decision, 41% of the respondents also obtained them from family and friends while 12% practiced self-medication based on the teachings received from the media and various herbalist advices.

2.6 KINDS OF AILMENTS

Nagarajaiah et al., conducted a research study in 2016 focusing on the prevalence and pattern of self-medication practices among the population of three districts in South Karnataka. This study highlighted some common ailments which compelled people to self-medicate with analgesics. The data of 5,489 respondents who participated in the study was analyzed based on categorized aged groups (18-40years, 41-60years, and above 60years). Among the persons aged between 18 and 40 years, the most common symptoms for self-medication were headache which projected a peak value of 62.51%, and joint pains which represented 54.83%. Among 41– 60 years, it was gastric

symptoms which has the peak value of 74.63%, and joint pains with a value of 67.40%. In the elderly persons aged older than 60 years, the most common symptoms for self-medication were joint pains which projected a peak value of 74.46%, and gastric symptoms which projected 77.31%.

Shivamurthy, et al in 2015 conducted research to evaluate analgesic self-medication practices among undergraduate nursing students of Adichunchanagiri Institute of Medical Sciences, BG Nagar, Karnataka. A cross sectional study was conducted amount 218 students and the analyzed results revealed that 68.2% sought selfmedication for headache, 9.7% sought body pain (9.7%), low backache (5.1%), fever (4.5%) and joint pain (3.8%).

Da Silva et al. in 2012 conducted a research study on self-medication among university students from the city of Rio Grande in Brazil. The purpose of the study was to identify the prevalence and factors associated with selfmedication among first and last-year students enrolled in healthcare and non-healthcare programs. A total of 789 healthcare and non-healthcare students were included in the study and analysis revealed that the overall reasons for self-medication were 89.7% headache, 82.9% cold, 58.1% sore throat, 56.2% fever, 47.6% menstrual cramps, 41.0% muscle pain, 36.4% cough, 29.4% heartburn, 27.1% stomachache, and 14% intestinal colic pains. Selfmedication was statistically higher among healthcare students in most cases.

CHAPTER THREE

3.0 METHODOLOGY

3.1 INTRODUCTION

The focus of this chapter is essentially on the procedures and methods that is to be used in collecting the data. It describes specifically the study design, the study setting and the research instrument. Again, it describes the study population, sample size, sampling technique, inclusion criteria, exclusion criteria, data collection procedure, data analysis method, reliability and validity, ethical consideration and limitation of the study.

3.2 RESEARCH DESIGN

There are two main approaches to research, namely the qualitative and the quantitative approach. This study made use of the quantitative cross-sectional survey. Fouché and Delport (2015) defined a quantitative study as "an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers and analyzed with statistical procedures in order to determine whether the predictive generalizations of the theory hold true".

It is described as quantitative because it measured self-medication practices with analgesics among nurses in Holy family nursing and midwifery training college through the use of a questionnaires. It made use of a stratified sampling method to obtain the participants as the participants were grouped into various levels and given equal opportunity to partake in the study. It is described as a cross sectional survey because the study involved the analysis of data collected from the sample

population through the administration of research questionnaires at a specific point in time within the study.

3.3 RESEARCH SETTING

The Holy Family Nursing and Midwifery Training College (HFNMTC) comprises the Nursing training college and the Midwifery training college. Both institutions developed as individual offshoots of the Holy Family Hospital at Berekum to train the requisite nursing personnel for the hospital and sister health facilities in other parts of the country. Since its establishment, the HFNMTC has trained many health personnel who are working different parts of the country and beyond.

The Medical Mission Sisters founded the Nursing College on 21th January, 1957 which was later followed by the establishment of the Midwifery training College in 1964 to train midwives for the hospitals. The two colleges went through different stages of development until they were weaned off from the hospital to become autonomous in 1991. The college started the three-year Registered General Nursing (RGN), a six-semester Diploma Programme in 1999 and three-year registered Midwifery (RM) Diploma Programme in 2003 which was as part with the Registered General Nursing (RGN) Diploma Programme with the same entry requirements.

As at December 14, 2012 when the College's Board of Governors was inaugurated, the College had produced a total of one thousand, eight hundred and seventy-six (1,876) Nurses and Midwives. Currently, the College has three hundred and thirty-five (335) Nurses and three hundred and sixty-eight (368) Midwives which sum up to a total of seven hundred and three (703) students.

3.4 STUDY POPULATION

Strydom (2005) defined a population as “the totality of persons, events, organization units, case records or other sampling units with which the research problem is concerned”. The population for this study comprised of the total number of student nurses in Holy family nursing and midwifery training college.

3.5 SAMPLE SIZE

This is the fraction of student nurses who formed the subset of the total study population. Fifty (50) student nurses were used as participants

3.6 SAMPLING TECHNIQUE

A stratified random sampling method was used for obtaining the participants in order to avoid biases in selecting participants. In this method, all participants were grouped according to their year of study (year 1, year 2 and year 3) and given an equal opportunity to be selected to partake.

The nature and purpose of the research study was introduced to all the participants in the school.

3.7 INCLUSION CRITERIA

It included only student nurses who were currently studying in Holy family nursing and midwifery training college.

3.8 EXCLUSION CRITERIA

This study did not include old student nurses and staff who were working in Holy family nursing and midwifery training college.

3.9 DATA COLLECTION TOOL

Data collection tools refer to the tools/devices used to gather data. There are several tools which can be used in data collection in this modern era of technology. For example, case study, checklists, interviews, surveys, questionnaires (Sharma et al, 2016). In this study, well-structured self-administered questionnaires were prepared, numbered, and distributed to the respondents as the tool for data collection. The questionnaires were selfexplanatory in nature. Nevertheless, brief explanations were been given to the various participants to assist them provide accurate data for analysis. The questionnaires were structured into six major sections as follows;

Section 1: sought for information on the demographic data of respondents.

Section 2: sought to evaluate the prevalence of self-medication with analgesics

Section 3: sought to evaluate the factors/reasons associated with analgesics self- medication.

Section 4: sought to identify the various common self-medicated analgesics

Section 5: sought to identify the various sources of commonly used self-medicated analgesic drugs.

Section 6: sought to identify the kinds of ailments which demanded self-medication with analgesics.

3.10 DATA COLLECTION PROCEDURE

For this study, a cross-sectional approach was used to collect the needed data. Prior to that the questionnaires were presented to the supervisor for review. When it was approved, a letter was written to the Principal of Holy family nursing and midwifery training college seek for permission to allow us involve the student nurses in the research process. When the permission was granted, the researchers visited each class to seek for permission from their leader. A quick introduction of the researchers' identity, explanation of the purpose of the study, and instructions pertaining to filling the questionnaire were decoded to the student nurses with ample time and allowed for questions and clarifications to be made.

The well-structured questionnaire was left behind with the class leader for students who will be willing to partake in the research process to pick them up at random. Each respondent was given enough time lasting for 1 day to complete the questionnaire for submission to the class leader to be picked up. Participants were also made aware that they had the right to withdraw from the whole research study without any penalty at any point in time.

3.11 DATA ANALYSIS METHOD

The various responses provided in the questionnaires were critically analyzed using Statistical Package for Social Science (SPSS) version 20. The analyzed data was presented in very simple descriptive statistic, making use of tables, graphs, and charts to depict the raw tally data, frequencies and percentages. This was used to fully describe the demographic characteristics of the respondents, evaluate the prevalence of self-medication with analgesics, evaluate the factors associated with self-medication with analgesics, identify the various common self-medicated analgesics, identify the

various sources of commonly used self-medicated analgesic drugs, and identify the kinds of ailments which demands self-medication with analgesics among students.

3.12 RELIABILITY AND VALIDITY

Reliability refers to how consistently a method measures something thus if the same result can be consistently achieved by using the same methods under the same circumstances whiles Validity is how accurately a method measures what it is intended to measure (Fiona Middleton, 2019). In order to ensure reliability and validity of this study, vigilant steps were situated to ensure that the questions within the questionnaires were carefully designed to reflect the precise objectives of the study with every question aimed at measuring the true attributes with accuracy

3.13 ETHICAL CONSIDERATION

To researchers, ethics is described as what is considered right or wrong within the domain of research studies.

The Oxford Advanced Learner's Dictionary (2000:395) defined ethics as the "moral principles that control or influence a person's behaviour". In view of this, the whole research study was reviewed with the supervisor to guarantee that ethical guidelines such as informed consent, anonymity and confidentiality were strictly adhered to. An introduction to the questionnaires was elaborated and the nature and purpose of the study was also discussed into details to give the respondents enough information and reasons why they should participate in the study. Verbal consent was obtained from each participant before the questionnaire was administered. There was no form of intimidation whatsoever and respondents were informed that participation in the study was voluntary and so they could decide to withdraw from the study at any point in time without any penalty. Finally, privacy

and confidentiality were the hallmark in this study to ensure that participant's identities remained anonymous.

3.14 LIMITATIONS OF THE STUDY

First and foremost, one important limitation to this study was that it did not involve old students and staff of Holy family nursing and midwifery training college since they were also at a high risk of self-medication making it not possible for generalization on a larger scale population. In addition to that it was narrowly focused on selfmedication with analgesics to the neglect of other forms of self-medication practices.

CHAPTER FOUR

4.0 DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

This chapter displays the findings obtained from the research process, which sought to explore the prevalence of self-medication practices with analgesics among student nurses in Holy family nursing and midwifery training college, Berekum. Data analysis is the process of calculating various summaries and derived values from the given collection of data (Berthold & Hand, 2013).

A stratified random sampling method was used to obtain 50 participants for the study. Participants were grouped according to their years of study (year group 1, year group 2 and year group 3) and given an equal opportunity to be selected to partake. Results were analyzed using Statistical Package for Social Sciences (SPSS) version 20.

4.2 ANALYSIS OF DEMOGRAPHIC DATA

Demographic data is simply the statistical data about the characteristics of the population in this research. It included the gender, age ranges and marital status of the respondents. **Table 4.2a**

Gender of participants

Option	**Frequency**	**Percentage (%)**
Male	15	30
Female	35	70
Total	**50**	**100**

Source; Field study 2023

From table 4.2a, depicts the male to female ratio. The number of male respondents were 15 which represented a total of 30% while 35 respondents were females, representing a total of 70%. This projects that averagely, more females than males were studying at Holy family nursing and midwifery training college at the time of the study **Table 4.2b**

Age ranges of participates in years

Option	**Frequency**	**Percentage (%)**
18-20	15	30
21-23	25	50
24-32	10	20
Total	**50**	**100**

Source; field study 2023

From table 4.2b, 15 respondents (30%) fell within 18-20 years age bracket, 25 respondents (50%) fell within the 21-23 years age bracket, 10 respondents (20%) fell within 24-32 years age bracket. Based on this, the researchers could conclude that majority of student nurses fell within the 21-23 years age bracket. **Table 4.2c**

Year of study of participants

Option	**Frequency**	**Percentage (%)**
Year group 1	10	20
Year group 2	22	44
Year group 3	18	36
Total	**50**	**100**

Source; field study 2023

This table depicts the level of rank of the respondents. From table 4.2c presented above, the number of respondents who participated in the research study were as follows; year 1(n=10≈20%), year 2(n=22≈44%) and year 3(n=18≈36%).

Table 4.2d

Marital status of participants

Option	**Frequency**	**Percentage (%)**
Single	49	98
Married	1	2
Total	**50**	**100**

Source; field study 2023

From table 4.2d above, 98% of the respondents were single, while 2% of them were married.

4.3 ANALYSIS OF PREVALECE OF ANALGESIC SELF-MEDICATION

This aspect analyses how often the respondents self-medicate with analgesics, and their perception about selfmedication.

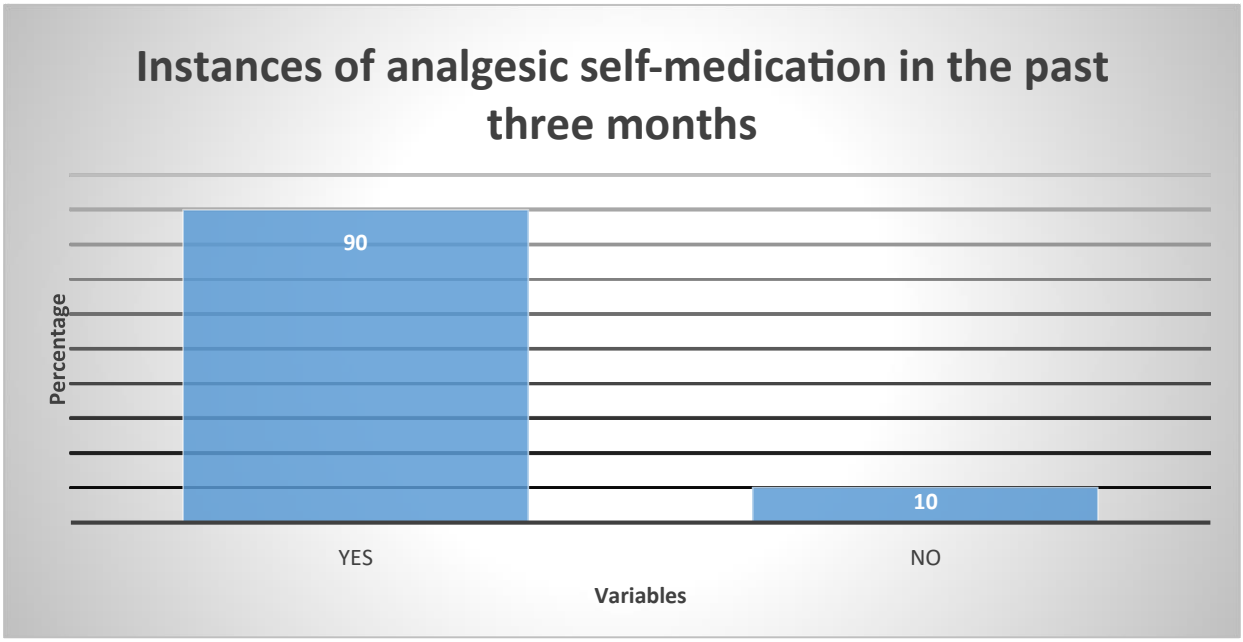
Table 4.3a

Have you in any instance self-medicated with analgesics in the past three months?

Option	Frequency	Percentage (%)
Yes	45	90
No	5	10
Total	**50**	**100**

Source; field study 2023

Figure 4.3a



Source; field study 2023

This gives an indication of the respondents engaging in self-medication in the past three months. From table 4.3a above, 45 participants representing 90% engaged in self-medication with analgesics in the past three months. On the other hand, 5 participants representing 10% of the respondents did no self-medicate with analgesics in the past three months.

Figure 4.3a above gives a diagrammatic representation of the numerical values. From the graph, the number of respondents who self-medicated in the last three month is nine times as much as those who did not self-medicate in the last three months.

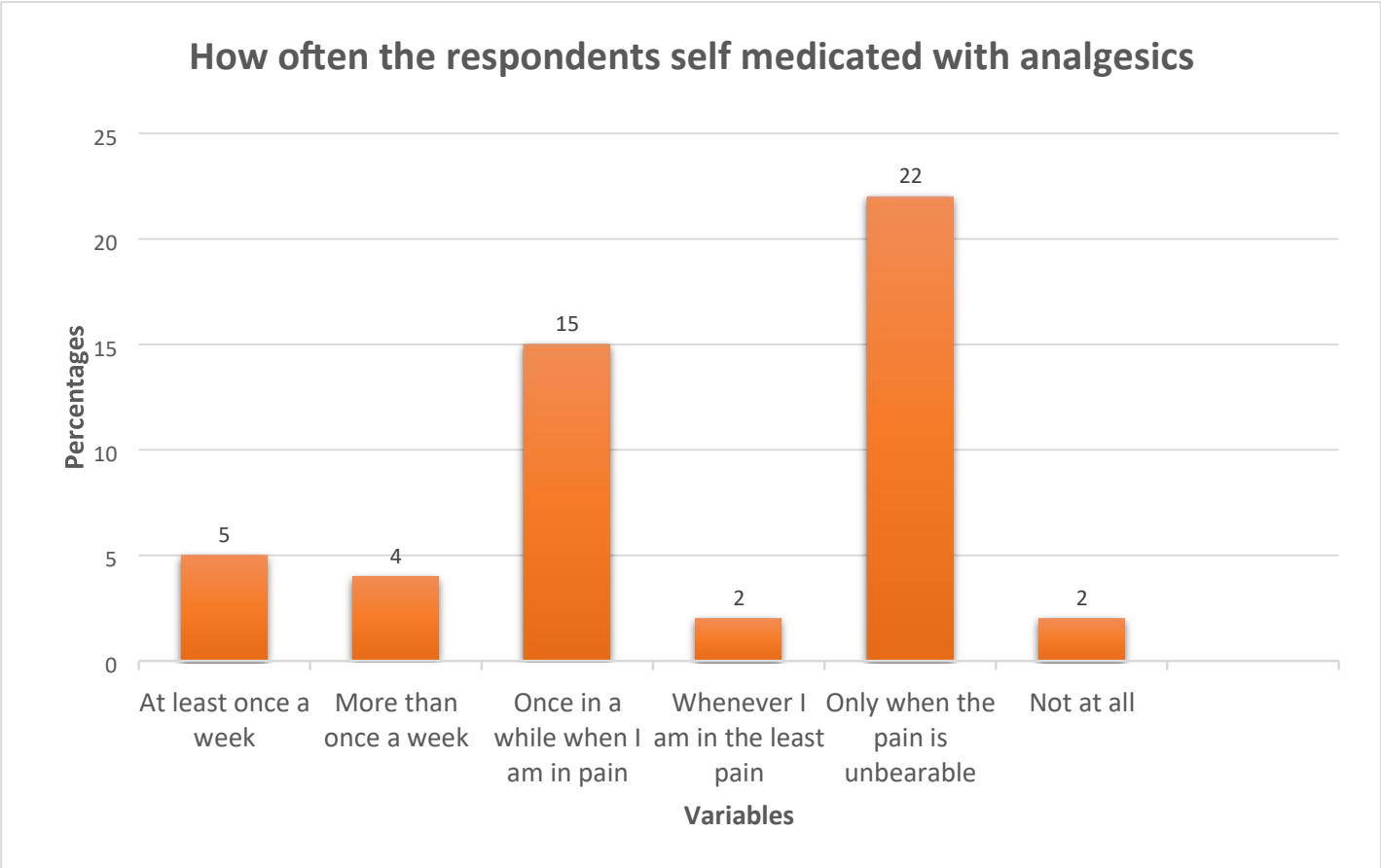
Table 4.3b

How often the respondents self-medicate with analgesics

Option	**Frequency**	**Percentage (%)**
At least once a week	5	10
More than once a week	4	8
Once in a while when I am in pain	15	30
Whenever I am in the least pain	2	4
Only when the pain is unbearable	22	44
Not at all	2	4
Total	**50**	**100**

Source; field study 2023

Figure 4.3b

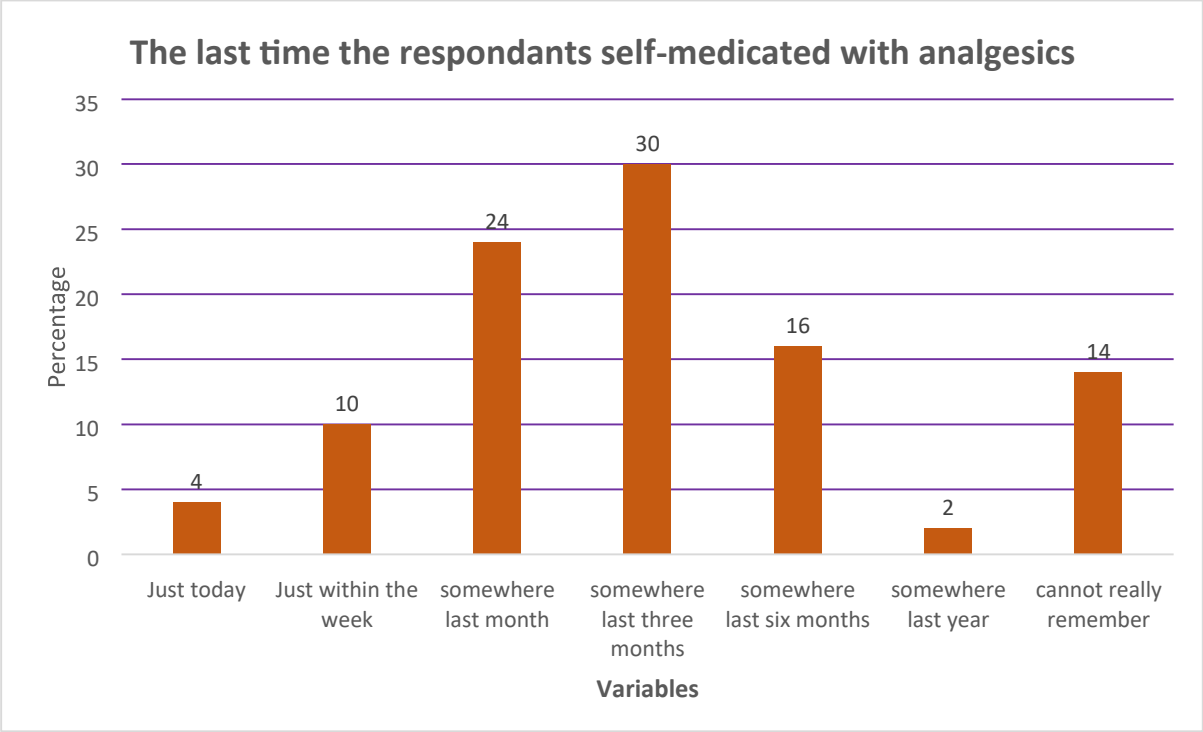


Source; field study 2023

Table 4.3b presents the rate at which he respondents self-medicated. 5 respondents (10%) self-medicated with analgesics at least once in a week in the past three months, 4 respondents (8%) self-medicated with analgesics more than a week in the past three months, 15 respondents (30%) self-medicated with analgesics once in a while when they were in pain in the past three months, 2 respondents (4%) self-medicated with analgesics whenever they were in the least pain in the past three months, 22 respondents (44%) self-medicated with analgesics only when the pain was unbearable in the past three months, 2 respondents (4%) did not self-medicate with analgesics at all in the past three months.

Figure 4.3b depicts that 44% of the respondents self-medicated because the pain was unbearable. If 10% of respondents will always self-medicate at least once in a week as indicated in figure 4.3b, then the prevalence of self-medication with analgesics will always have a high peak value heading towards drug resistance.

Figure 4.3c

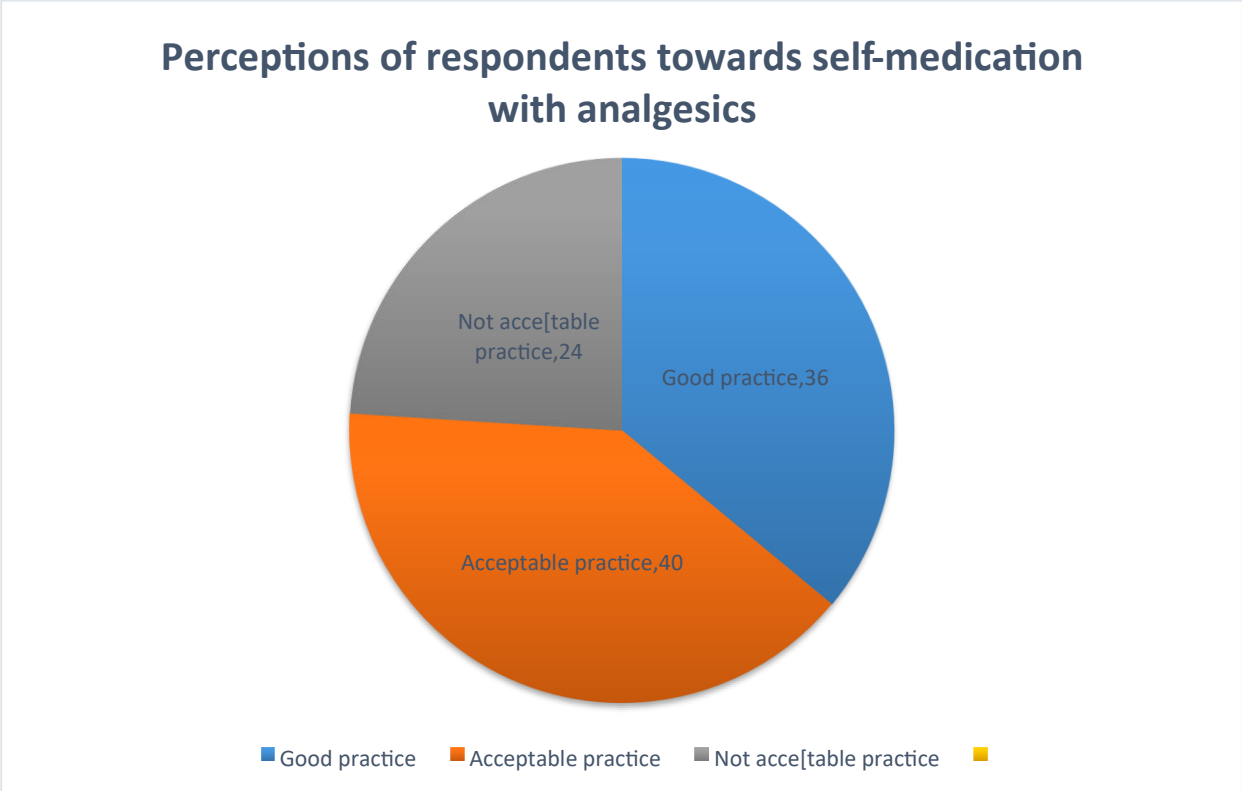


Source; field study 2023

Figure 4.3c gives a diagrammatic representation of the last time the respondents self-medicated with analgesics. 4% of respondents self-medicated with analgesics the same day they were engaged in the research study, 10% had self-medicated with analgesics the same week they were engaged in the research study, 24% self-medicated with analgesics the previous month, 30% self-medicated with analgesics three months ago, 16% of respondents self-medicated with analgesics six months

ago, 2% of respondents self-medicated with analgesics about a year ago, and 14% of respondents could not remember the last time they self-medicated with analgesics.

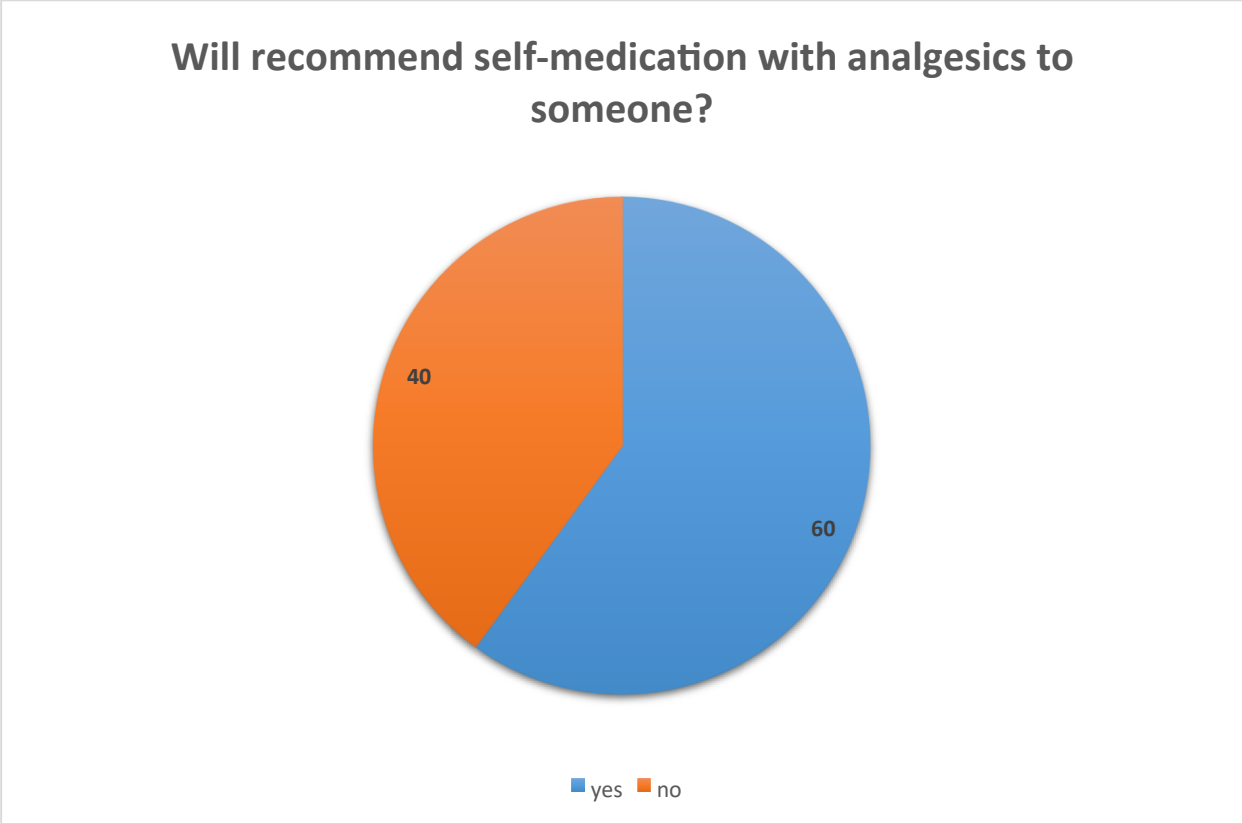
Figure 4.3d



Source; field study 2023

Figure 4.3d gives a representation of the perceptions the respondents had towards self-medication with analgesics. 18 respondents (36%) believed self-medication is a good practice, 20 respondents (40%) believed self-medication is an acceptable practice and 12 respondents (24%) were not so sure as to whether it was a good practice or a bad practice.

Figure 4.3e

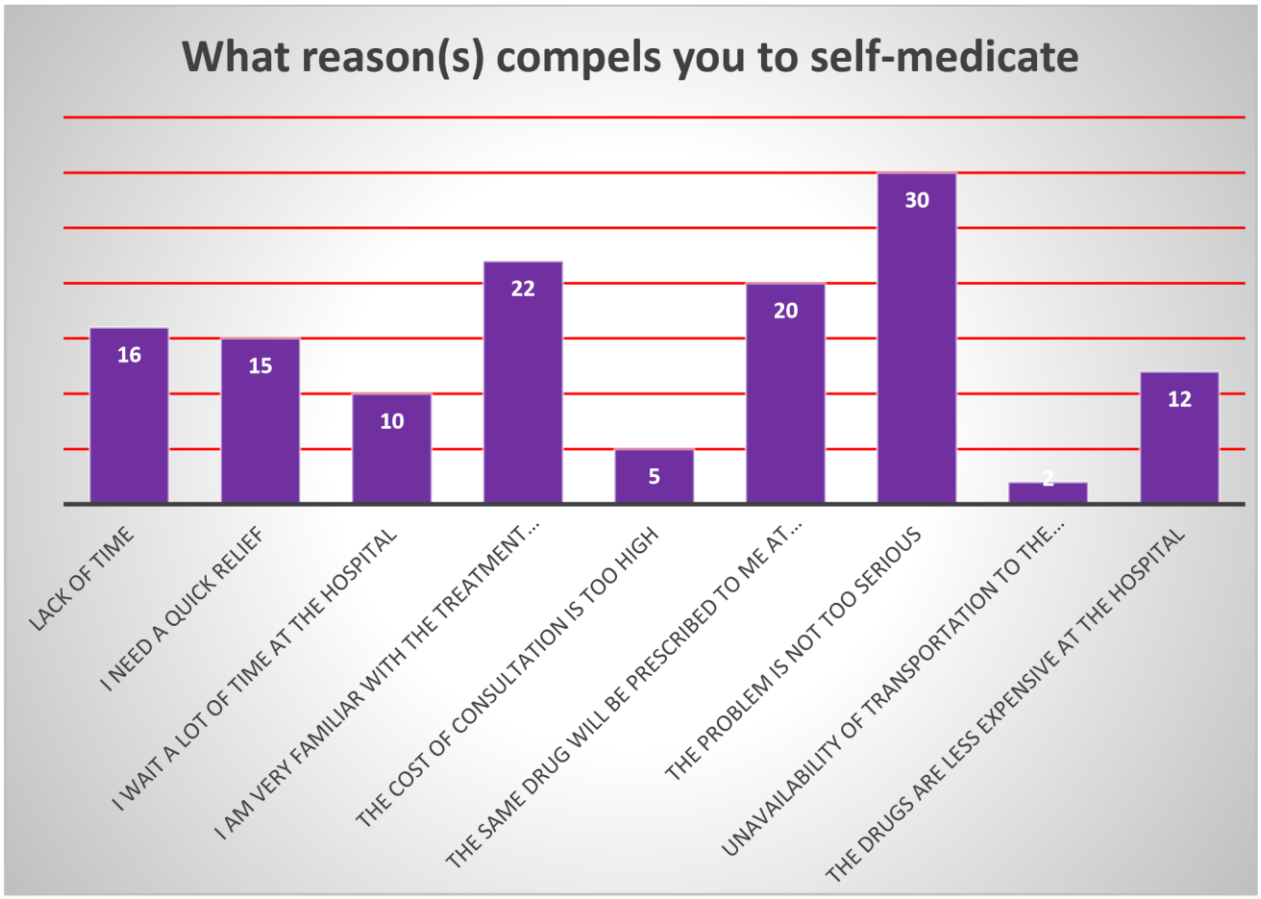


Source; field study 2023

Figure 4.3e give a representation of the participants' responses to the question as to if they would recommend self-medication for any reason to a friend/relative/roommate. 60% of the responses indicated that they would recommend self-medication with analgesics to others whilst 40% of the responses indicated that they would not recommend self-medication with analgesics to others.

4.4 ANALYSIS OF FACTORS/REASONS ASSOCIATED WITH ANALGESICS SELF-MEDICATION

Figure 4.4a



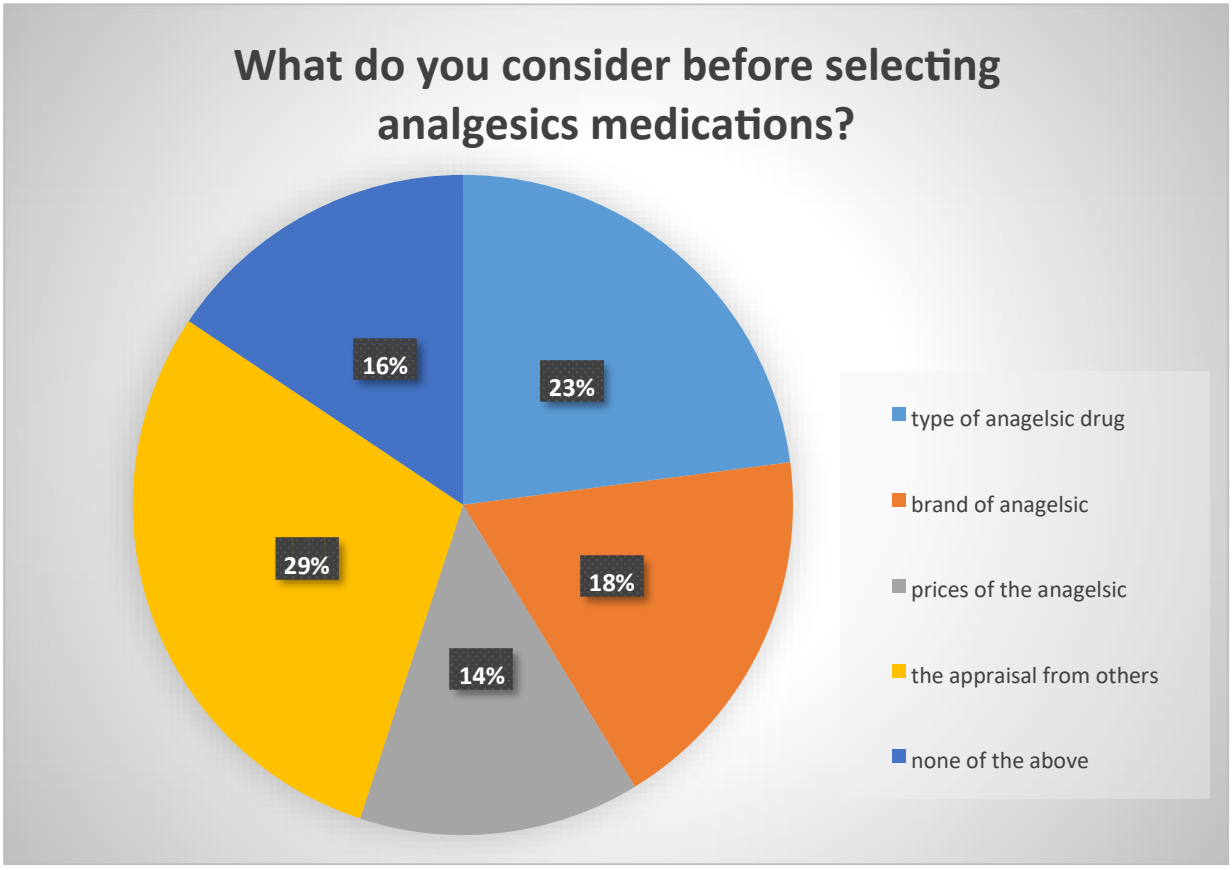
Sources: Field study, 2023.

Figure 4.4a represents the reasons that compelled the respondents to self-medicate with analgesic. 16 respondents responded that they were compelled to self-medicate because of lack of time, 15 respondents needed quick relief, 10 respondents responded that they wasted a lot of time at the hospital/clinic, 22 respondents said that they were very familiar with the treatment options, 5 respondents said they had a previous experience of the illness, 5 respondents said that the cost of consultation at the hospital/clinics were high, 20 respondents said the same drug were prescribed

for them at the hospital/clinic, 30 respondents said the problem was not so serious, 2 respondents said the unavailability of transportation to the hospital compelled them, and 12 respondents said that the drugs were less expensive at the drug store.

From figure 4.4a, the commonest reason for which so many nurses self-medicated with analgesics was that the problem was not too serious (n=30). On the other hand, unavailability of transportation to the clinic/hospital was the least reported reason for self-medication with analgesics (n=2) of all the responses. This is because most of the nurses were staying near the hospital premises.

Figure 4.4b



Sources: Field study, 202 3.

The figure 4.4b above gives the representation of the considerations the respondents gave when trying to select analgesics for use. Among all the reasons, 25 respondents representing 23% of the responses considered the type of analgesics drugs before they purchased them, 20 respondents representing 18% of the responses considered the brand of analgesics drugs before they purchased, 15 respondents representing 14% of the responses considered the price of analgesics drugs before they purchased them, 32 respondents representing 29% of the responses considered the appraisal of the analgesics drugs from others before purchasing them, and 17 respondents representing 16% of the responses didn't consider anything before selecting the type of analgesics drugs

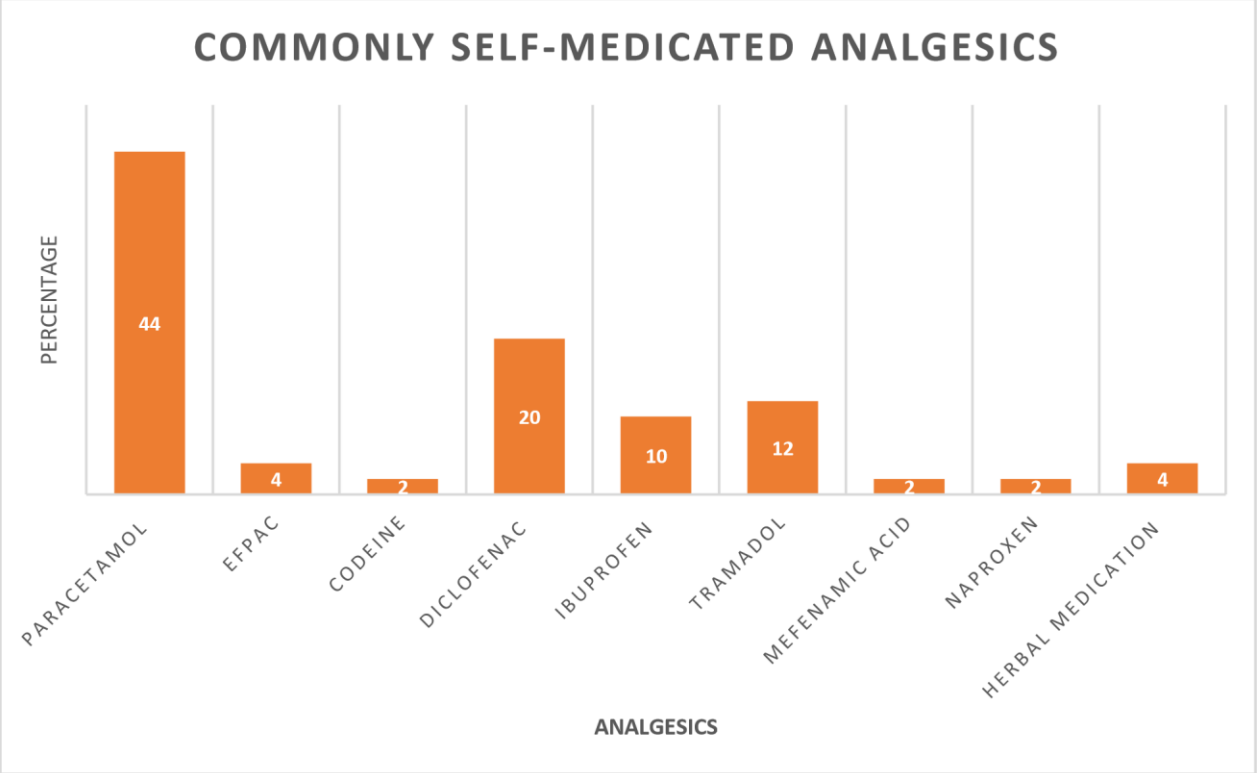
4.5 ANALYSIS OF THE VARIOUS COMMON SELF-MEDICATED ANALGESICS

Table 4.5a

Type of analgesic medication	**Frequency**	**Percentage**
Paracetamol	22	44
Efpac	2	4
Codeine	1	2
Diclofenac	10	20
Ibuprofen	5	10
Tramadol	6	12
Mefenamic acid	1	2
Naproxen	1	2
Herbal medication	2	4
Total	**50**	**100**

Source; field study 2023

Figure 4.5a

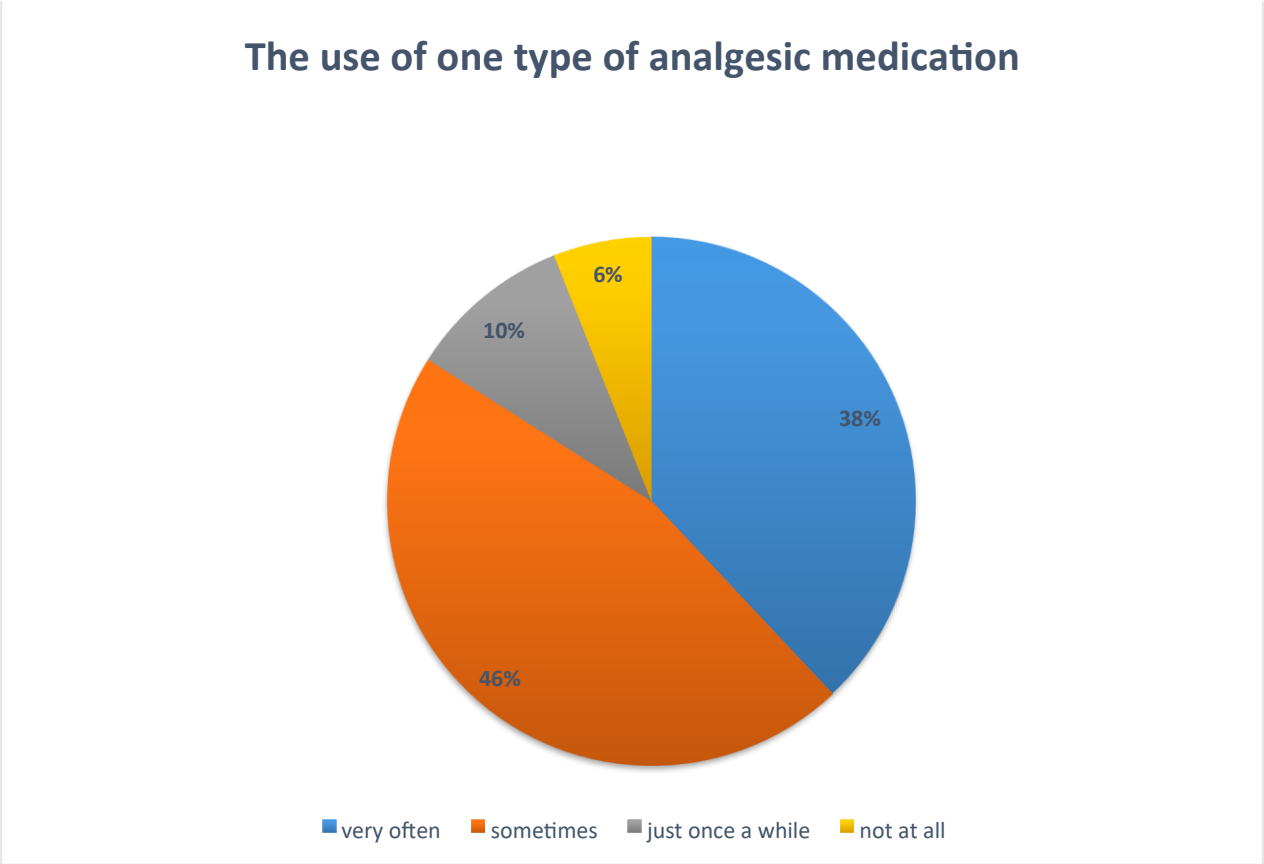


Sources: Field study, 2023.

Table 4.5a above gives a tabulated analysis of the various commonly self-medicated analgesics. From the table, 22 (44%) respondents self-medicated with paracetamol, 2 (4%) respondents self-medicated with Efpac, 1 (2%) respondent self-medicated with Codeine, 10 (20%) respondents self-medicated with Diclofenac, 5 (10%) respondents self-medicated with Ibuprofen, 6 (12%) respondents self-medicated with Tramadol, 1 (2%) respondent self-medicated with Mefenamic acid, 1 (2%) respondent self-medicated with Naproxen, 2 (4%) respondents self-medicated with Herbal medicine.

Figure 4.5a above depicts that paracetamol is the most commonly self-medicated analgesic drug among the nurses.

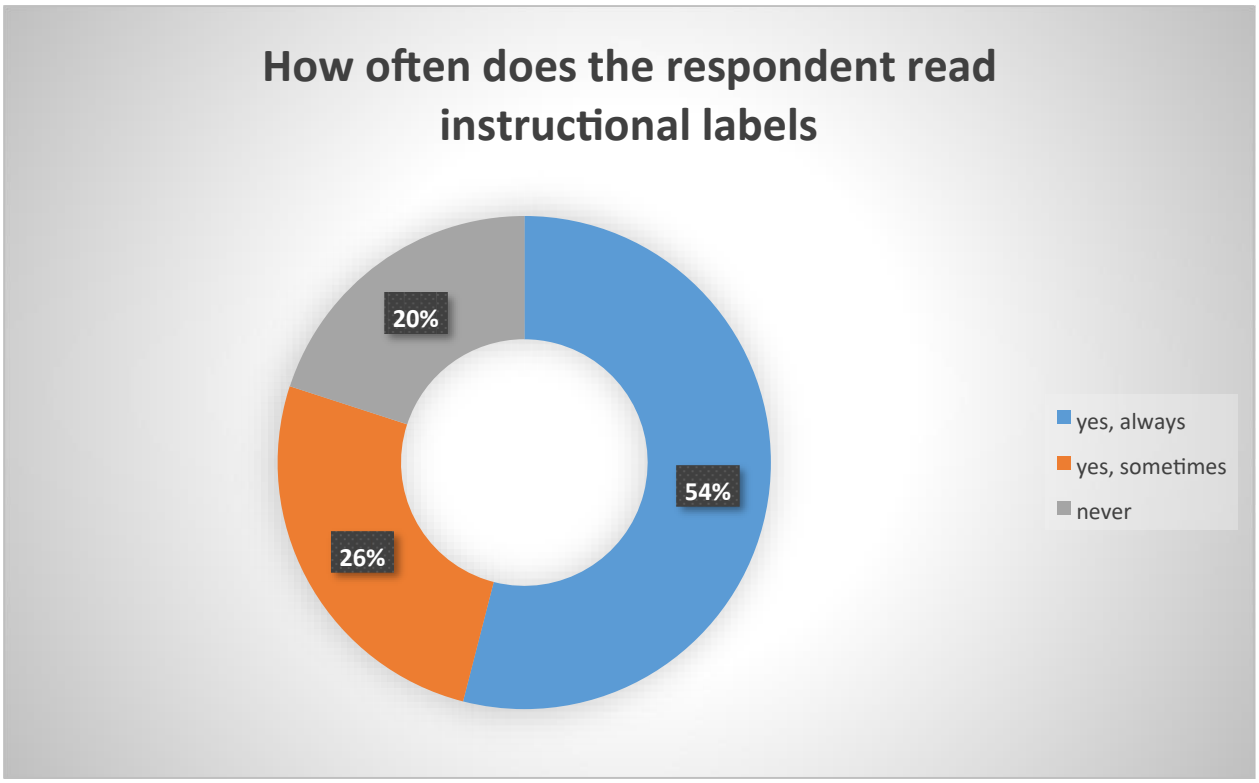
Figure 4.5b



Sources: Field study, 2023.

Figure 4.5b represent the participants' responses to the use of only one type of medication all the time. From the analysis, 19 respondents representing 38% resorted to the use of one type of analgesic medication all the time, 23 respondents representing 46% resorted to the use of one type of analgesic medication sometimes, 5 respondents representing 10% resorted to the use of one type of analgesic medication just once in a while, 3 respondents representing 6% did not resort to the use of one type of analgesic medication at all.

Figure 4.5c

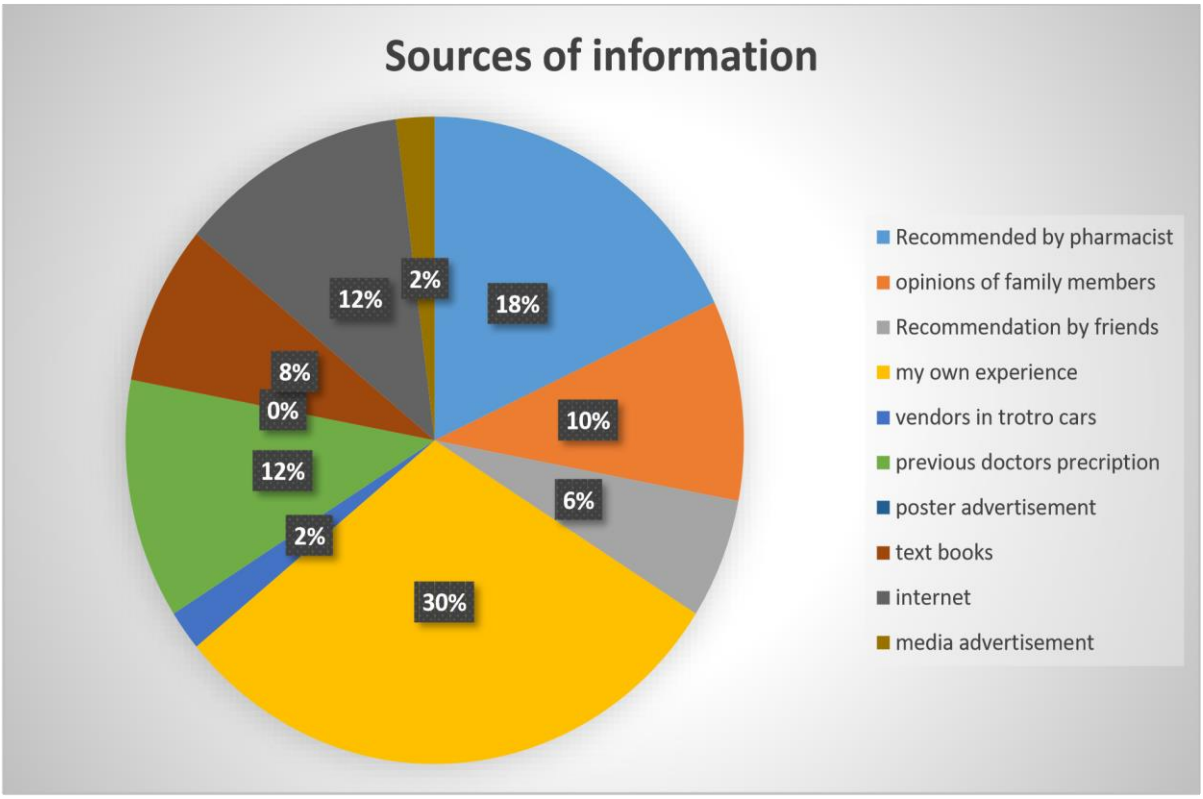


Sources: Field study, 2023.

The degree to which the respondents read instructions labels that came with the analgesic medication is represented in figure 4.5c above, N =27 respondent (54%) always read the instructional labels, N =13 respondent (26%) read the instructional labels sometimes, and N =10 respondents (20%) never read the instructional label prior to taking the medication

4.6 ANALYSIS OF THE VARIOUS SOURCES OF COMMON SELF-MEDICATED ANALGESICS

Figure 4.6a



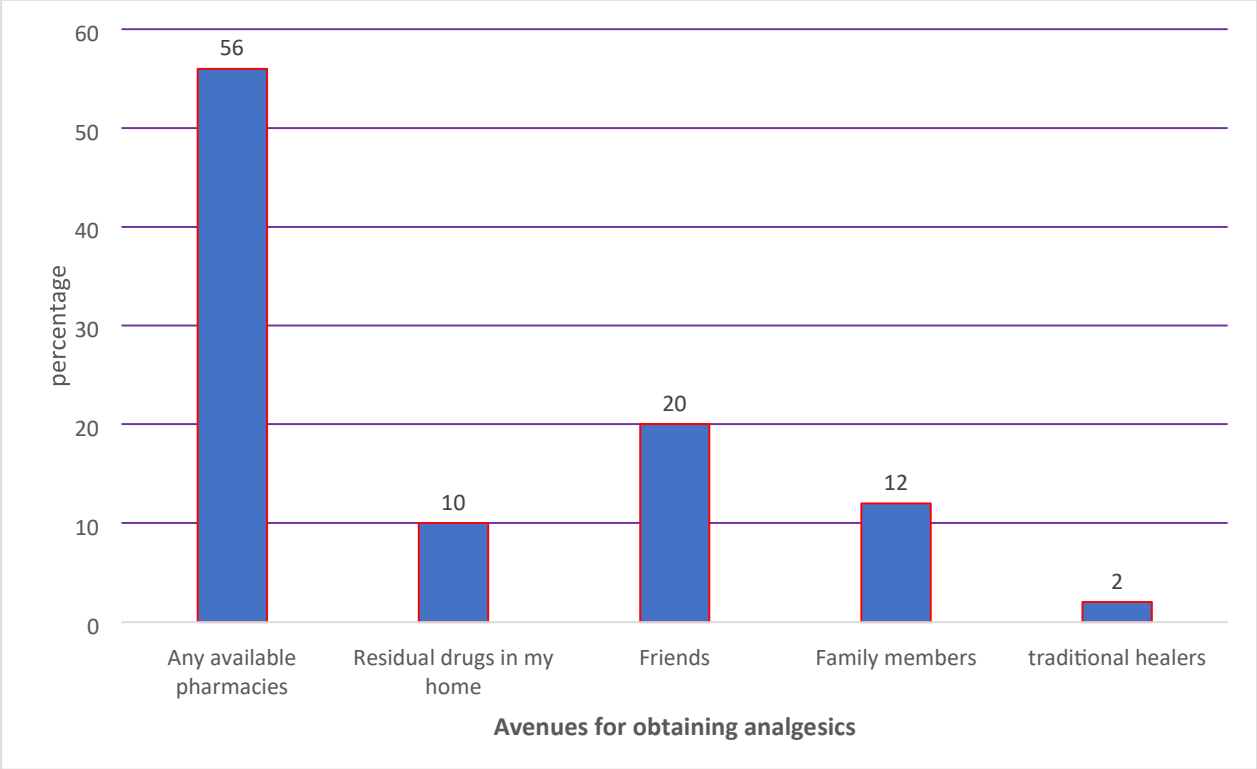
Sources: Field study, 2023.

Figure 4.6a above displays the various avenues the participants obtained information with response to analgesics use. From the chart, 9 respondents (18%) obtained their information based on the recommendation by pharmacists, 5 respondents (10%) obtained their information based on the opinions of family members, 3 respondents (6%) obtained their information based on the recommendation by friends/ roommates, 15 respondents (30%) obtained their information based on their own experiences, 1 respondent (2%) obtained information from drug peddlers in the various "trotro", 6 respondents (12%) obtained their information based on previous doctors' prescriptions, 4 respondents (8%) obtained their information from textbooks, 6 respondents (12%) obtained their

information from the internet, 1 respondent (2%) obtained their information from media advertisement (Television, and Radio) and none of the respondents obtained information from poster advertisement.

From the figure, it is observed that majority of the respondents (N=15, 30%) self-medicate based on their knowledge without any further clinical (laboratory or radiological) investigations.

Figure 4.6b AVENUES FOR OBTAINING ANALGESICS



Source; field study 2023

Figure 4.6b presents a graph of the various avenues from which the respondents obtained the analgesic medications from.

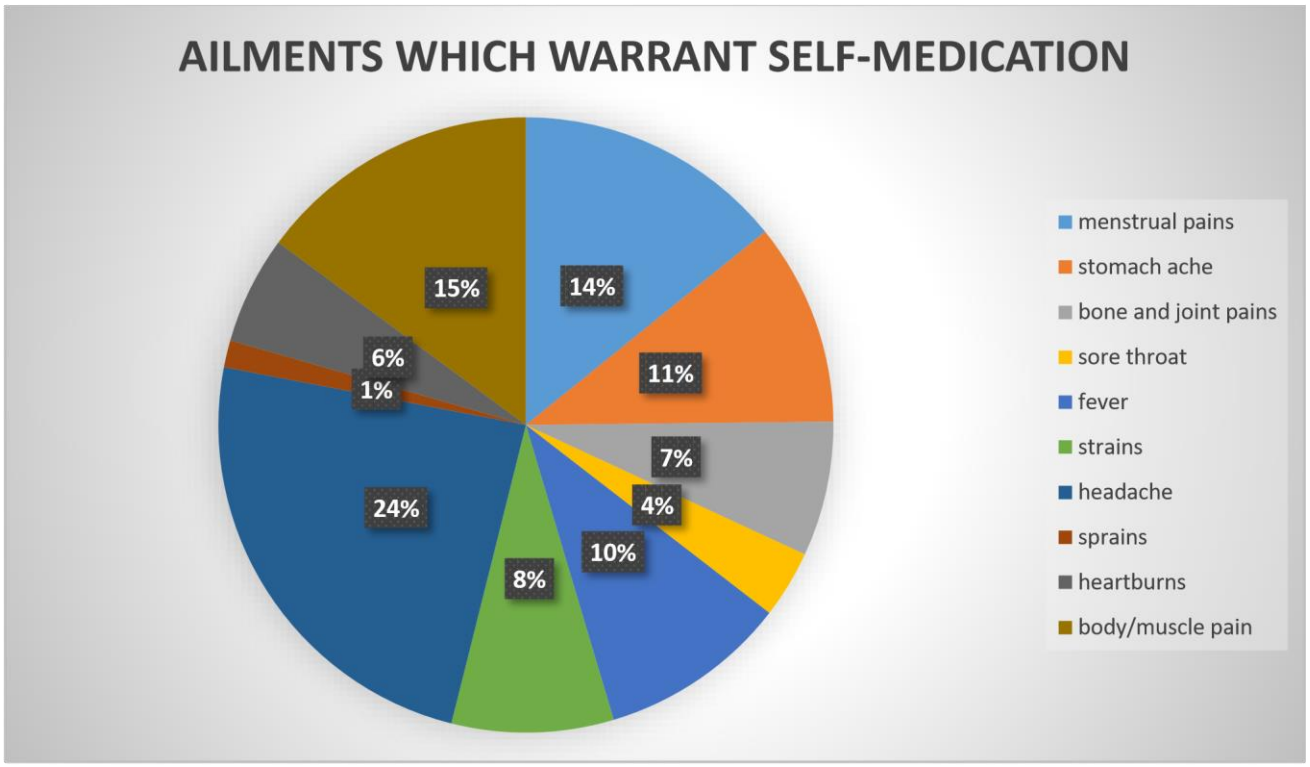
From the figure 4.6b above, 28 respondents (56%) obtained their medications from any available pharmacy, 5 respondents (10%) obtained their medications from residual drugs at home, 10 respondents (20%) obtained their medications from friends, 6 respondents (12%) obtained their

medications from family members, 1 respondent (2%) obtained the medications from traditional healers.

The availability and accessibility of pharmacies help promote self-medication with analgesics as depicted from figure 4.6b.

4.7 ANALYSIS OF THE KIND OF AILMENTS WHICH DEMANDS SELF-MEDICATUION WITH ANALGESICS

Figure 4.7a



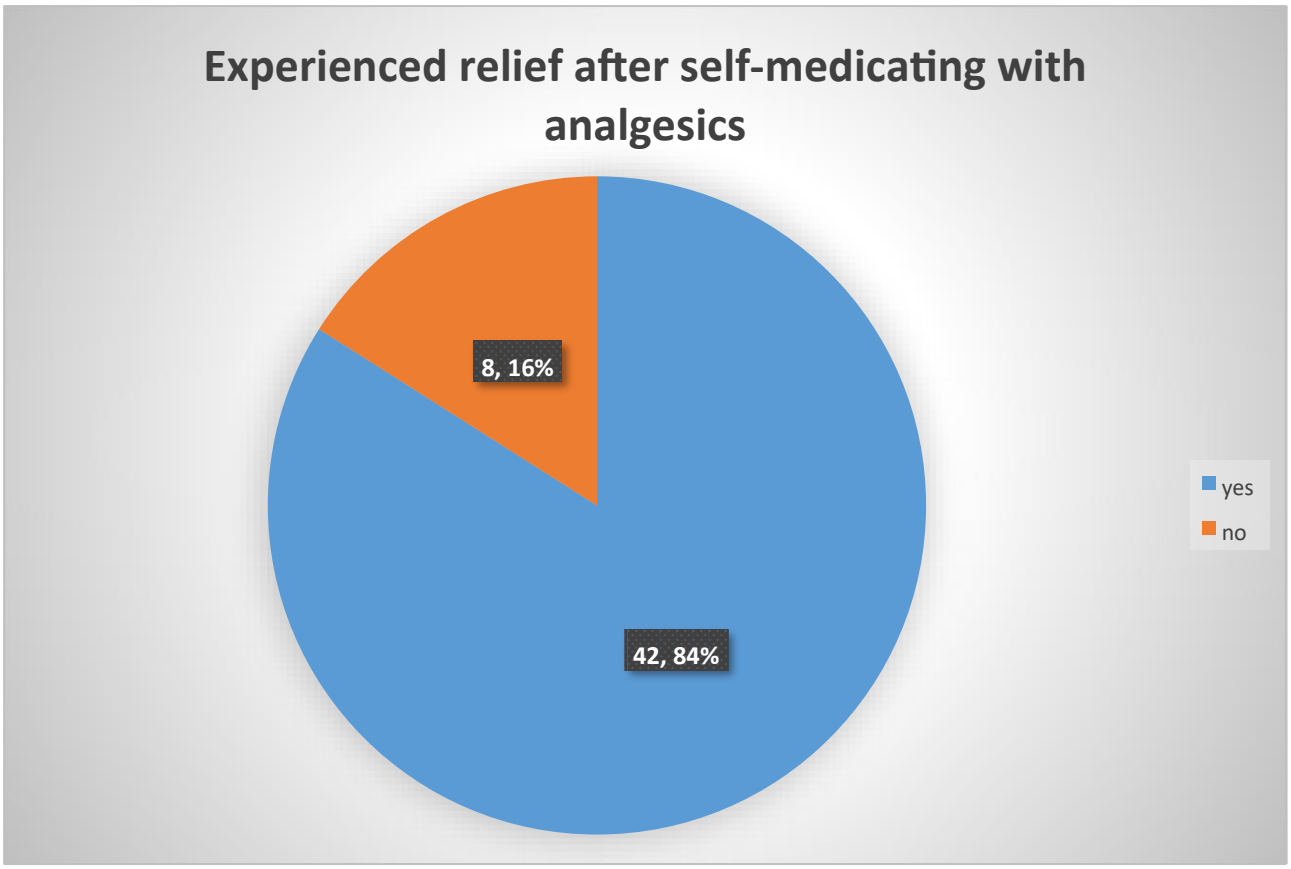
Sources: Field study, 2023.

Figure 4.7a gives a representation of the following complain(s) which compelled the respondents to resort to the use of analgesics.

From the graph, 20 respondents (14%) self-medicated because of dysmenorrhea (menstrual pains), 15 respondents (11%) self-medicated because of stomach aches, 10 respondents (7%) self-medicated because of bones and joints pains, 5 respondents (4%) self-medicated because of sore throat, 14 respondents (10%) self-medicated because of fever, 12 respondents (8%) self-medicated because of strains (injury to the muscle or tendon), 34 respondents (24%) self-medicated because of headaches, 2 respondents (1%) self-medicated because of sprain (tear to the ligament), 8 respondents (6%) self-medicated because of heartburns, and 21 respondents (15%) self-medicated because of body/muscle pains.

From the chart, Headaches is the major medical ailments which compelled most of the respondents to selfmedicate with analgesics (N=34, 24%).

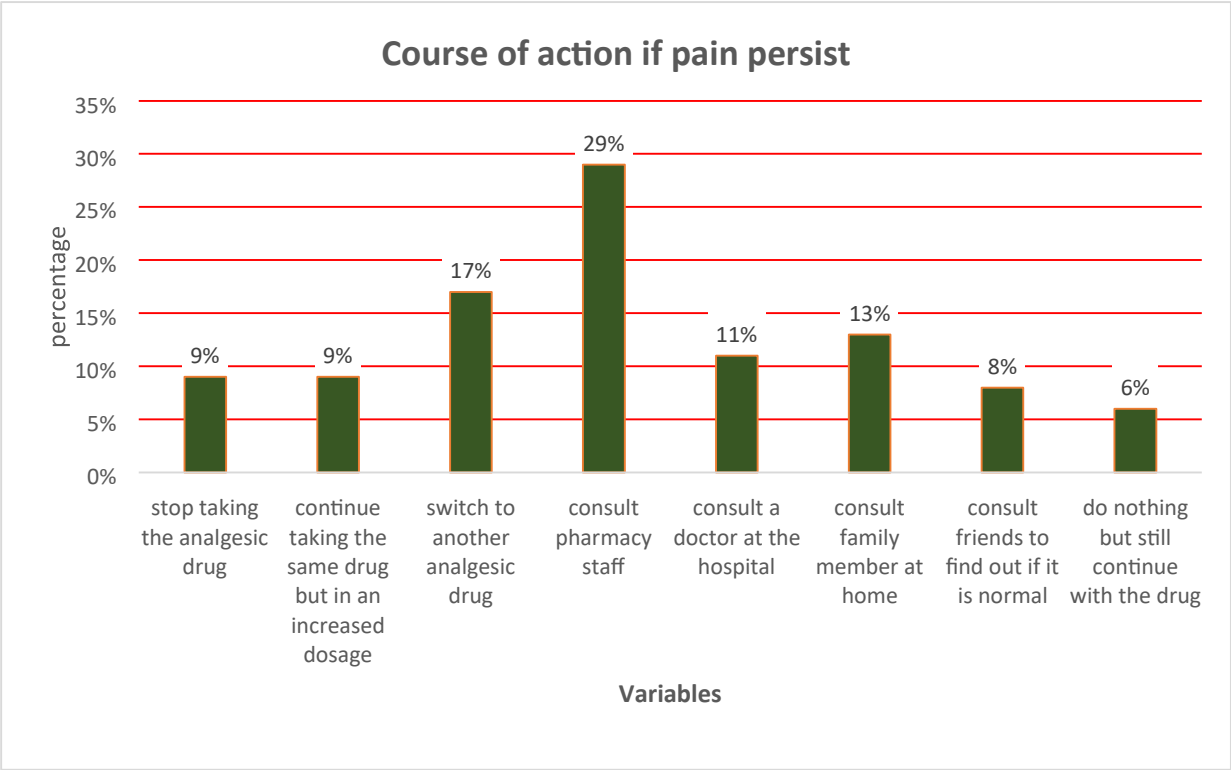
Figure 4.7b



Sources: Field study, 2023.

Figure 4.7b depicts the participants responses as to if they experienced relief after self-medicating with analgesics. 84% of the respondents attested to the fact that they experienced relief after self-medicating with analgesics whilst 16% of the respondents said they did not experience any relief even after self-medication with the analgesics.

Figure 4.7c



Sources: Field study, 2023.

Figure 4.7b above is a representation of the respondents' next course of action in cases where symptoms still persisted after self-medicating with analgesics.

From the graph, 10 respondents (9%) stopped taking the analgesic drug, 10 respondents (9%) continued taking the same drug but in an increased dosage, 22 respondents (17%) switched to another analgesic drug, 32 respondents (29%) consulted a pharmacy staff/attendant, 12 respondents (11%) consulted a doctor at the clinic/ hospital, 14 respondents (13%) consulted a family member at home, 9 respondents (8%) consulted friends/ roommates, and 7 respondent (6%) actually continued to take the analgesic medication in the same dosage.

CHAPTER FIVE

5.0 DISCUSSION OF RESULTS

5.1 INTRODUCTION

The purpose of the discussion is to interpret and describe the significance of the findings in light of what was already known about the research problem being investigated, and to explain any new understanding or insights about the problem after examining the findings into consideration. (Annesley, 2014).

Self-medication is defined as the use of medications by a patient on his own initiative or on the advice of a pharmacist or a lay person instead of consulting a medical practitioner (WHO, 2014). It is sometime indirectly considered as an integral component of self-care but this however, is entirely different from self-care in such a way that self-medication could involve a whole class of drugs which could be used for both therapeutic and harm purposes (Badiger, et al, 2012). Self-medication has resulted in wastage of resources, increases resistance of pathogens and generally causes serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence among its users (Badiger, et al, 2012).

Other studies on the subject indicate that there are risks such as misdiagnosis, drug resistance, drug addiction, use of expired drugs, prolonged duration of use, drug interactions, and other toxicological and pharmacological risks associated with improper use of non- prescription medicines (Awosusi & Konwea, 2015). The purpose of this study was to assess the prevalence of self-medication

practices with analgesics among student nurses in Holy family nursing and midwifery training college. Specific objectives were formulated to help achieve the goal of the study such as;

- To evaluate the prevalence of self-medication with analgesics among nurses in Holy family nursing and midwifery training college.
- To evaluate factors/reasons associated with analgesics self-medication among student nurses in Holy family nursing and midwifery training college.
- To identify the various commonly used self-medication drugs among student nurses in Holy family nursing and midwifery training college.
- To identify the various sources of commonly used self-medication drugs student nurses in Holy family nursing and midwifery training college.
- To identify the kinds of ailments which demands self-medication with analgesics student nurses in Holy family nursing and midwifery training college.

5.11 PREVALENCE OF SELF-MEDICATION WITH ANALGESICS AMONG STUDENT NURSES IN HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE.

The study was conducted to evaluate the prevalence of self-medication with analgesics among nursing students. Out of the 50 questionnaires that were analyzed, 45 participants representing 95% engaged in self-medication with analgesics in the past three months. On the other hand, 5 participants representing 10% of the respondents did no self-medicate with analgesics in the past three months. This result is in accordance with the results presented by Sarahroodi, et al., (2012) who carried out research to study the pattern of self-medication with analgesics among Iranian University students in central Iran. In their research, the prevalence of analgesic selfmedication

within the three (3) months of their study period was 76.6%. This is indicative of the fact that selfmedication with analgesics is on the rise. A study conducted by Ibrahim, et al., (2015) on self-medication with analgesics among clinical nursing students ($1^{st} – 4^{th}$ year) with a mean of 22.9years in King Abdulaziz University, Jeddah, Saudi Arabia also depicted similar results. 75.2% of participants reported using self-medications during the 6 months which preceded the study with analgesics been the most frequently self-medicated drug (55.4%). It also indicates self-medication cuts across cultures.

Within the three-month period, 30% self-medicated once in a while when they were in pain while 44% selfmedicated only when the pain was unbearable. This depicts that pain is a compelling factor to self-medication. From the results, the participants will resort to the use of analgesics to manage pain once in a while but will not hesitate to self-medicate with analgesics when the pain becomes unbearable for them.

From the analysis, the last time the respondents self-medicated with the analgesics had its peak value (24%) located somewhere in the previous month.

The perceptions of the respondents to self-medicate with analgesics could create a positive or negative influence to their practice of it. 36% of the respondent believed self-medication was a good practice and so should be encouraged, 24% believed self-medication was not a good practice and so should be abolished, while 40% of the respondent believed self-medication is an acceptable practice. This depicts that the respondents believe strongly that the act of self-medication is not a good practice but engage in it due to other contributing factors. There is also a likelihood that those

who were not sure as to whether the practice should be judged as good or bad will be greatly influenced by others to either avoid or engage in the act.

Recommendation for any reason to a friend/relative/roommate is a way through which the information about selfmedication and avenues to purchase self-medicated drugs is disseminated. 60% of the responses indicated that they would recommend self-medication with analgesics to others whilst 40% of the responses indicated that they would not recommend it to others. Though the percentage of respondents who would recommend self-medication to others was low, it is significant enough to cause a rise in the prevalence of self-medication with analgesics.

The researchers concluded that self-medication with analgesics was prevalent among nurses in Holy family nursing and midwifery training college. Though some respondents believed it was a bad practice, the need to manage pain especially when it became unbearable still remained the compelling factor to its prevalence.

5.1.2 FACTORS/REASONS ASSOCIATED WITH ANALGESICS AMONG STUDENT NURSES IN HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE.

From the study, several reasons compelled the respondents to self-medicate with the various analgesic drugs. The most predominant among the several reasons was the fact that 30% of the respondents self-medicated because the problem was not serious. Other alarming concerns were that they were familiar with the treatment options (15%), needed a quick relief (10%), I waste a lot of time at the hospital (12.4%), I had a previous experience (22%), the same drug will be prescribed to me at the hospital/clinic so no need (20%), lack of time (16%), the drugs are less expensive at the drug store (12%), the cost of consultation is too high (5%), and unavailability of transportation to the hospital (2%). In other studies, conducted by Sajith, et al., (2018), Ibrahim, et al., (2015), Da

Silva et al., (2012), Mumtaz, et al., (2011), and Zafar, et al., (2011), revealed similar reasons why nursing students selfmedicated with analgesics. Unavailability of transportation to the hospital accounted for the least reasons why the respondents self-medicated with analgesics (2%). This was because the location of the Hospital is closer to the nurses.

In this study, the problem not being so serious was the predominant reason for self-medication. This is in contrast to the study conducted by Sajith, et al., (2018) on self-medication practices among health care professional students in a tertiary care hospital, Pune-India. The results revealed that the main reasons why 67% of respondents self-medicated was the need for quick relief. Further studies conducted by Ibrahim, et al, (2015) on selfmedication with analgesics among clinical year nursing students (1^{st} - 4^{th} year) with a mean of 22.9years in King Abdulaziz University, Jeddah, Saudi Arabia also discovered that 35.4% claimed that the problem was not serious. In addition, Da Silva, et al., (2012) study also revealed that 57.2% of them had already experienced the symptoms and so knew what medication to take as the predominant reason. Mumtaz, et al., (2011) study also revealed that the commonest reasons for self-medication was that 46.9% reported that the problem was not serious and Mandal S., (2015) study which revealed that 62.3% of the participants had previous experiences with the disease as the predominant reason for self-medication.

Concerning the things, the respondents considered or looked out for before selecting analgesics for use, it was revealed that 23% of the respondents considered the type of analgesic drugs in terms of its composition and efficacy. 29% considered the appraisal from others. This figure was significantly high because of recommendations from others who had already used the drug; 18% considered the brand of the analgesics.

Some analgesics have been branded through the media advertisements, internet, text books, and posters to an extent that they become the first line of choice analgesics for self-medication. 14% considered the price of the analgesic drugs. Many of the respondents did not consider the price of the analgesics whether high or low because their main concern was with the type, appraisal from others, and the brand of the analgesic medication. Selecting analgesics based on the "anything goes for me" attitude was given the least consideration (16%). This depicts that many of the respondents will consider something about the analgesics they selected for use based on their level of education or knowledge about the medication. The researchers concluded that the predominant reason which compelled the respondents to self-medicate with analgesics was that the problem was not serious and need for a quick relief. In seeking for this quick relief, respondents considered the type of analgesic drugs in terms of its composition and efficacy.

5.1.3 VARIOUS COMMONLY SELF-MEDICATED ANALGESICS AMONG STUDENTBNURSES IN HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE.

This study revealed the various self-medicated analgesics by the respondents. Paracetamol which is a non-opiate analgesic drug was most commonly self-medicated (44%). Other self-medicated analgesics which also had appreciably high figures were Diclofenac (20%), Ibuprofen (10%), and Tramadol (12%). These self-medicated analgesics had those indicated values because of its type, appraisal from friends, and branding. On the other hand, Efpac (4%), Herbal medicine (4%), Codeine (2%), Naproxen (2%), and Mefenamic acid (2%) had lower appraisal from others and branding hence, recorded lower figures.

These results are in accordance with the study conducted by Patel, et al (2017) which revealed that 81% of the participants self-medicated with Paracetamol, 42.5% self-medicated with Diclofenac, while 37.8% self-medicated with ibuprofen. The results of this study are also in consonance with the results from the study conducted by Tanwar & Mathur (2015); the commonly used self-medicated analgesics included paracetamol (64%), diclofenac (7.6%), aceclofenac (5.3%), paracetamol plus ibuprofen combination (4.6%), mefenamic acid plus dicyclomine combination (7.7%), ibuprofen (5.3%), and others (5%). The results from a study conducted by Sarahrodi, et al., (2012) are also in line with the results of this study. Their results depicted that Acetaminophen was the most common self-medicated analgesic by students with a peak value of 59.6%, codeine was next to follow with a moderate value of 28.7%, and Ibuprofen was least with a minimal value of 4.8%. Other analgesic drugs which were occasionally used were Mefenamic acid, Naproxen, and Tramadol which together accounted for the least value of 6.9%.

Participants sometimes self-medicated on one type of analgesic almost all the time. This practice could gradually lead to drug resistance to the management of pain. Concerning the degree to which the respondents read instructional labels that came with the analgesic medication the researchers could say that the respondents did so well with that. 54% of the respondents always read the instructional labels as against 20% who never read the instructional labels. This depicts that respondent tried as much as possible to observe the rights of medication to some extent; the right drug, right time and date, right dosage, right route of administration, just to mention but a few. On the contrary, familiarity with the treatment options (20%)", depicts that the respondents obtained some knowledge on the treatment options which accounted for the second highest reasons why respondents selfmedicated with analgesics in this study.

The researchers concluded that the most commonly self-medicated analgesic drug among the respondents of this study was paracetamol and the greater the number of respondents having an understanding of the treatment options from reading the medication instructional labels, the greater the likelihood of recording higher prevalence of self-medication with analgesics.

5.1.4 VARIOUS SOURCES OF SELF-MEDICATION WITH ANALGESICS AMONG STUDENT NURSES IN HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE.

For a person to self-medicate with analgesic, then there must have been an avenue for the person to obtain the knowledge on the medication and the medication itself. This study revealed the various avenues where the respondents obtained their information about the various analgesics, they self-medicated with. It was noted that the most common sources of information were based on their own experiences accounting for 30%, the recommendation by pharmacists accounting for 18%, previous doctors' prescriptions accounting for 12%, the internet accounting for 12%, the opinions of family members accounting for 10%, and recommendation by friends/ roommates accounting for 6.0%. Obtaining information from drug peddlers in the various "trotro" recorded the least because the respondents believe such source lacked some amount of credibility in terms of drug composition ratio and accurate dosages.

The results from this study were in line with the results obtained from the study conducted by Sawalha, (2011) which revealed that majority of the respondents representing 47% obtained the medication based on self-decision, 41% of the respondents also obtained them from family and friends while 12% practiced self-medication based on the teachings received from the media and various herbalist advices. This study results however, was contrary to the results obtained by

KomalRaj, et al., (2015) and Sarahroodi, (2012) which depicted that the most common avenue to obtain information about self-medicated drugs was from relatives and friends.

This study results revealed that majority of respondents representing 56% obtained their medications from any available pharmacy, 20% obtained their medications from friends, 10% obtained their medications from residual drugs at home and 12% obtained their medications from family members. Just a small fraction representing 2% of the respondents obtained the medications from traditional healers. The value is small because these sources do not have adequate branding and appraisal from others.

The researchers therefore concluded that majority of the respondents self-medicated with analgesics because of their knowledge on the treatment options as a result of their study program, the availability and accessibility to pharmacies.

5.1.5 KINDS OF AILMENT WHICH DEMANDS SELF-MEDICATION WITH ANALGESICS AMONG STUDENT NURSES IN HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE.

This study examined the various complains that compelled the respondent to self-medicate with analgesics. From the results, headaches were the most common complaint with a peak value of 24%. The complaint could be link to the stress involved as a nurse preparing to take up roles in the profession. Blending the academic work with clinical practical periods are all contributing factors to the stress and hence, headache. The female to male ratio which was 3:1 at the time in which the study was conducted accounted for 14% of the responses making dysmenorrhea the third highest reason why the respondent's self- medicated with analgesics. Other ailments such as stomach pains, bones and joints pains, sore throat, fever, strains (injury to the muscle or tendon), sprain (tear to the ligament), heartburns, and body/muscle pains put together accounted for 56% of the complains.

The results obtained by the studies conducted by Nagarajaiah., et al., (2016), Shivamurthy, et al., (2015), and Da Silva et al., (2012) revealed headache as the main complaint with peak values of 62.51%, 68.2%, and 89.7% respectively.

These studies also confirmed the results obtained from this study.

Coincidentally, 84% of the respondents attested to the fact that they experienced relief after self-medicating with analgesics whilst 16% of the respondents said they did not experience any relief even after self-medication with the analgesics. Experiencing relief after self-medication with the analgesic drug creates a positive reinforcement and motivates them to repeat the practice in the same way.

In instances where the respondent experiences persistent signs / symptoms 29% consulted a pharmacy staff/attendant while 17% switched to another analgesic drug. Other interventions such as not taking the analgesic drug again, continued taking the same drug but in an increased dosage, consulting a doctor at the clinic/ hospital, consulting a family member at home, or consulting a friends/ roommate together accounted for 54% of the responses. The results depict that consulting a pharmacy staff/ attendant was the highest first line of choice for most respondents instead of visiting the hospital/clinic for proper medical diagnoses and treatment. This boils down to the need for a quick relief been the highest reason for self-medication with analgesics. Unfortunately, most pharmacies and chemical sellers are been managed by attendants who have no in-depth knowledge about the medications they prescribe but are put in charge to run the pharmacy for profit making.

The researchers concluded that the main ailment which compelled nurses to self-medicate was headache for all respondent and dysmenorrhea for females. The practice of self-medication has

been positively enforced by the fact that, majority of the respondents experience relief after self-medicating with the analgesic drug. Nevertheless, if symptoms persist, respondents consult any available pharmacy attendant for advice.

5.2 SUMMARY

Self-medication is a personal decision to obtain and consume drugs without a proper diagnoses and prescription from a physician after a thorough health history taking and medical examination

Craving for medicine and self-medication has been part of mankind from one generation to another. This practice is a big problem in Ghana and is gradually becoming a global phenomenon and an issue under debate in health care. The common ideology with self-medication is that it usually involves common drugs which are readily available and the availability of such strong and dangerous drugs have increased since the close of the 19th century.

This study explored self-medication practices with analgesics among student nurses in Holy family nursing and midwifery training college. It sought to evaluate the prevalence of self-medication with analgesics, evaluate factors/reasons associated with analgesics self-medication, identify the various commonly used self-medication drugs, identify the various sources of commonly used self-medication drugs, and to identify the kinds of ailments which demanded self-medication with analgesics among student nurses in Holy family nursing and midwifery training college. A stratified sampling technique was used to obtain 50 respondents from the student nurses in Holy family nursing and midwifery training college. A well-structured questionnaire was used to collect data from the respondents using a cross-sectional approach. The results were analyzed using Statistical Package for Social Science (SPSS) version 20. In view of ethical considerations, the whole research

study was reviewed with the supervisor to guarantee that ethical guidelines such as informed consent from both institution and nurses, anonymity and confidentiality were strictly adhered to.

The results revealed that majority of respondents self-medicated with analgesics. Majority of the respondent believed self-medication was a bad practice but the need for a quick relief still remained a contributing factor compelling them to self-medicate. Paracetamol was the most commonly abused analgesics. The experience of the respondents and the availability/accessibility of an available pharmacy contributed to promoting the selfmedication with analgesics. Respondents to a greater extent, self-medicated with analgesics to manage headaches and dysmenorrhea for females. Majority of respondents experienced relief afterward but should symptoms persist, they would consult a pharmacy attendant for advice.

Limitations to this study was that it did not include old students and staff in Holy family nursing and midwifery training college and it was also narrowly focused on self-medication with analgesics to the neglect of other forms of medication.

5.3 CONCLUSION

In conclusion, self-medication with analgesics is on the rise among student nurses in Holy family nursing and midwifery training college. Though nurses believe it is a bad practice the need for a quick relief to manage pain especially when it becomes unbearable still remains the compelling factor to its rise. The type of analgesic medication in terms of its composition and efficacy is given the greatest priority by the nurses.

Predominantly, headache is the most common complaint and the most commonly self-medicated analgesic drug among nurses is paracetamol and the greater the number of respondents having an understanding of the treatment options from reading the medication instructional labels, availability

and affordability of the analgesic drugs, the greater the likelihood of recording higher prevalence of self-medication with analgesics. Self-medication generally bring relief to but should symptoms persist, the student nurses consult any available pharmacy attendant for advice.

5.4 RECOMMENDATIONS

Based on the results obtained from this study the following recommendations will help reduce the prevalence of self-medication.

1. Massive public campaign should be organized in institutions, through seminars, workshops, and media (both print and electronic) to create awareness on the negative effects of the practice of self-medication with analgesics.

2. A law should be passed by government to apprehend drug peddlers who sell drugs without the approval from the Food and Drugs Authority.

3. Pharmaceutical shops should be running only by licensed pharmacists. Periodic checks should be organized by the Food and Drugs Authority to check the credibility of the pharmacist and the quality of the goods and services he/she provides to customers.

4. All medications should only be obtained from either the hospitals or recognized and licensed pharmaceutical shops.

5. Pharmacies should be strict and base the selling of medications to customers who have treatment prescriptions endorsed and stamped by a physician from a recognized health institution.

6. Health facilities should be structure to have the right skill mixed personnel and adequate equipment in order to reduce the patient waiting time at the facility so as not to discourage clients from visiting the hospital.

5.5 IMPLICATIONS OF THE STUDY

Nursing researches are carried out so as to improve nursing practice, nursing education, nursing research and nursing administration. This study established the prevalence of self-medication with analgesics among student nurses in Holy family nursing and midwifery training college. It also outlined the various reasons why people self-medicate, the various avenues they obtain the medication and drugs from, and the kind of ailment which compel respondents to self-medicate with analgesics.

NURSING PRACTICE

The results will help improve the nursing practice by informing nurses to provide better health services to their clients in terms of educating them on the dangers of self-medication with analgesics and the need to visit the hospital for proper medical treatments. In addition, it will be used to evaluate the effectiveness of the public campaigns and educations on self-medication in general. To add to that it will inform Health Policy Planning Committee on how to design interventions to minimize the abuse of analgesic medications in the country.

NURSING EDUCATION

This study will influence curriculum development in educational institutions. It will serve as a statistical data to educating the students and public about the consequences of self-medication with analgesics.

NURSING RESEARCH

This study will contribute to the already existing body of knowledge within the nursing profession. The results from this research indicate that more research study on self-medication practices should be conducted especially in other disciplines outside the health professions since they are also at risk of self-medicating. It has also identified that more studies should be conducted in areas of self-medication with herbal mixtures and antibiotics. These knowledge gaps identified in this study will go a long way to motivate nurses to engage more in other research studies.

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APPENDIX I

QUESTIONNAIRE

HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE

COLLEGE OF HEALTH SCIENCES

BEREKUM

CONSENT FORM

Dear participant, we are final year midwifery students from Holy Family Nursing and Midwifery Training College. We are carrying out a study to assess the prevalence of self-medication practices with analgesics among nursing students at Holy family nursing and midwifery training college. The purpose of this research is to evaluate the effectiveness of the public campaigns on self-medication with analgesics and to inform and assist the Ministry of Health Planning Committee on how to design interventions to minimize the abuse of various analgesic medications.

There are no incentive benefits for participants in this study and participation is on voluntary bases. This questionnaire has been structured into six (6) simple sections and completing this questionnaire will take a maximum of 15minutes however, you have the right to choose to opt out at any point in time without a penalty. This study is strictly for academic purposes and so all information provided will be confidential so feel free to complete the questionnaire as truthfully as possible.

To take part in this study, please sign below:

Yes, I have read and understood the purpose of this study and have agreed voluntarily to part take in the research process. I have received adequate information regarding the nature of the study and clearly understand what is required of me. I am also aware of my right to withdraw at any point during the study without a penalty.

I hereby consent to participate in this research study.

Participant's Signature:……..…….. Date:…….…..……..

For more information concerning the research, contact the researchers for assistants:

Quayson Erica (0554924699), Afena Brago Abigail (0559727460) and Baah Serwaa Mary

QUESTIONNAIRE

SECTION A

Demographic Data

Please select by ticking the most appropriate answer in the box provided

1. Gender

Male [ ]

Female [ ]

2. Age

18-20 [ ]

21-25 [ ]

26-30 [ ]

3. Year group

1 [ ]

2 [ ]

3 [ ]

4. Nationality

Ghanaian [ ]

International Student [ ]

5. Marital status

Single [ ]

Married [ ]

Divorced [ ]

SECTION B

Prevalence of analgesic self-medication

6. Have you in any instance self-medicated with analgesic drug(s) in the past three months?

Yes [ ]

No [ ]

7. How often do you self-medicate with analgesic?

At least once in a week [ ]

More than once a week [ ]

Once in a while when I am in pain [ ]

Whenever I am in the least pain [ ]

Only when the pain is unbearable [ ]

Not at all [ ]

Others (specify)……..……

8. When was the last time you self-medicated with an analgesic drug?

Just today [ ]

Just within the week [ ]

Somewhere last month [ ]

Somewhere last three month [ ]

Somewhere last six months [ ]

Somewhere last year [ ]

Cannot really remember [ ]

9. What do you think about self-medication with analgesics for self-health care?

Good practice [ ]
Acceptable practice [ ]
Not acceptable practice [ ]

10 Will you recommend self-medication for any reason to a friend/relative/patient?

Yes [ ]

No [ ]

SECTION C

Factors/reasons associated with analgesics self-medication.

11. What reason(s) compels you to self-medicate? ***(Tick more than one if applicable)***

Lack of time [ ]
I need a quick relief [ ]
I waste a lot of time at the hospital/clinic [ ]
I am very familiar with the treatment options [ ]
The cost of consultation is too high [ ]
The same drug will be prescribed to me at the hospital/clinic so no need [ ]
The problem is not so serious [ ]
Unavailability of transportation to the hospital [ ]
The drugs are less expensive at the drug store [ ]

Others (specify)…….

12. What do you consider when selecting analgesics for use? ***(Tick more than one if applicable)***

Type of analgesic drug [ ]
Brand of analgesics [ ]
Price of the analgesic drug [ ]
The appraisal from others [ ]
None of the above [ ]

Others (specify)…….

SECTION D

Various common self-medicated analgesics

13. Which analgesics do you resort to when in pain?

Paracetamol [ ]
Efpac [ ]
Codeine [ ]
Diclofenac [ ]
Ibuprofen [ ]
Tramadol [ ]
Mefenamic acid [ ]
Naproxen [ ]
Herbal medications [ ]

Others (specify)……..……

14. Do you resort to the use of only one medication all the time?

Very often	[ ]
Sometimes	[ ]
Just once a while	[ ]
Not at all	[ ]

15. Did you ever check the instructions that came with the package?

Yes, always	[ ]
Yes, sometimes	[ ]
Never	[ ]

SECTION E

Various sources of commonly used self-medicated analgesic

16. Where do you obtain information about analgesics? ***(Tick more than one if applicable)***

Recommendations by pharmacists	[ ]
Opinion of family members	[ ]
Recommendations by friends	[ ]
My own experience	[ ]
Vendors in 'trotro' cars	[ ]
Previous doctor's prescription	[ ]
Poster advertisements	[ ]
Textbooks	[ ]
Internet	[ ]
Media advertisement (TV, radio)	[ ]

Others (specify)……..……

17. Where do you usually obtain analgesics from for self-medication? ***(Tick more than one if applicable)***

Any available pharmacies	[ ]
Residual drugs in the home	[ ]
Friends	[ ]
Family members	[ ]
Traditional healers	[ ]

Others (specify)…….…….

SECTION F

Kinds of ailments which demands self-medication with analgesics

18. For which of the following complaint(s) compel you to resort to the use of analgesics? **(Tick more than one if applicable)**

Dysmenorrhea (menstrual pains	[ ]
Stomach ache	[ ]
Bone and joint pains	[ ]
Sore throat	[ ]
Fever	[ ]
Strain (injury of muscle or tendon)	[ ]
Headaches	[ ]
Sprain (tear of ligament)	[ ]
Heartburns	[ ]
Body/muscle pain	[ ]

Others (specify)……..……..

19. Do you experience relieve after taking self-medicated analgesics?

Yes [ ]
No [ ]

20. What do you do after pain persist? ***(Tick more than one if applicable)***

Stop taking the analgesic drug [ ]
Continue taking the same drug but in an increased dosage [ ]
Switch to another analgesics drug [ ]
Consult pharmacy staff [ ]
Consult a doctor at a clinic/hospital [ ]
Consult family members at home [ ]
Consult friends to find out if it is normal [ ]
Do nothing but still continue with drug [ ]

Others (specify) ……

Submission/Recommendation(s) (Kindly put down anything you will like to share with the researchers in the space below if any)

……
……
……
……
……
……
……
……

Thank You For Your Willingness To Participate.

APPENDIX III

FINANCIAL ACCOUNTS

This involves the exact expenditure incurred in this research study;

Item number	**Item**	**Unit**	**Rate (GH₵)**	**Total (GH₵)**
1	Phone calls		10	10
2	Printing of research proposal	1	10	30
3	Printing of questionnaires	50	3	150
4	Printing of research project work	1	(1 x 1.5) x 60	90
Total				**GH₵280.00**

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

IN GOD IS OUR HELP AND HEALTH

BANKERS:
Ghana Commercial Bank, Berekum
Agric Development Bank, Berekum
Fidelity Bank, Berekum

P. O. Box 21,
Berekum, B/A
Ghana, W/Africa
Tel. 0352222124
Fax: 0352222474

Our Ref. HFNMTC/GC/011/100423

Your Ref. .....

October 4, 2023

Date .....

Ms. Ubaida Abdul-Karim
Holy Family Nursing and Midwifery Training College
P.O. Box 21
Berekum

Dear Ms. Ubaida Abdul-Karim

PERMISSION TO CONDUCT RESEARCH

With reference to your Memorandum dated June 10, 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 "Assessing the prevalence of self-medication with analgesics in Holy Family Nursing and Midwifery Training College, Berekum"

1. Quayson Erica
2. Afena Brago Abigail
3. Baah Serwaa

Thank you.

Yours sincerely

ACADEMIC CO-ORDINATOR NURSING
HOLY FAMILY NURSING AND MIDWIFERY
TRAINING COLLEGE
BEREKUM

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Rev. Sr. Margaret Afrifa
Academic Coordinator, Nursing

For: Principal