

**SELF-MEDICATION AMONG DOCTORS AND PHARMACISTS
AT THE KORLE BU TEACHING HOSPITAL**

BY

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DECLARATION

I hereby declare that this submission is my own work towards the MSc in Clinical Pharmacy and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

..... KNUST
Student Name & ID Signature Date:

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.....
Supervisor Signature Date:

Certified by

.....
Head of Dept. Name Signature Date:

DEDICATION

To My Parents, MR .and MRS. JUSTICE ACQUAH ARKO God Richly Bless You
for Everything

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ABSTRACT

The purpose of this study was to investigate self prescription practices among pharmacists and physicians of the Korle-bu Teaching Hospital. In a cross sectional survey that used questionnaire as the instrument for data collection, a random sample of 205 pharmacists and physicians was adopted for the study, which achieved a response rate of 79% representing 162 retrieved questionnaires (128 physicians and 34 pharmacists). The results showed a high rate of self medication or self prescription among pharmacists and physicians. Whilst professional exposure to drugs and knowledge of their treatment of disease remains the fundamental contributor to self medication among pharmacists and physicians, the peculiar demands of their work environment including, excessive work schedules, issues of confidentiality as well as inadequate health care provision for these professionals and their families are factors that further worsen the situation. The study found that, the higher the practice experience of these professionals, the higher the tendency to self medicate. The three most common abused categories of drugs include analgesics, antimalarials and antibiotics. The problem of self medication among pharmacists and physicians has implications including legal, health and negative effects on the patient and on the quality of health delivery as a whole. It is recommended that pharmacists and physicians must accept to enter the patient role and to present themselves as patients, that students of either professions must be given orientation on the consequences of self medication before they go in to practice. It is further recommended that pharmacists and physicians must understand, accept, uphold and defend the tenets of their own professions by avoiding self medication and that hospital authorities endeavour to provide a well

motivated, congenial and improved health care services for health personnel. They must also ensure adequate privacy of pharmacists and physicians, continuous education on self prescription and its consequences and to enshrine the issues of self medication practices and their consequences in the code of ethics of both professions in Ghana.

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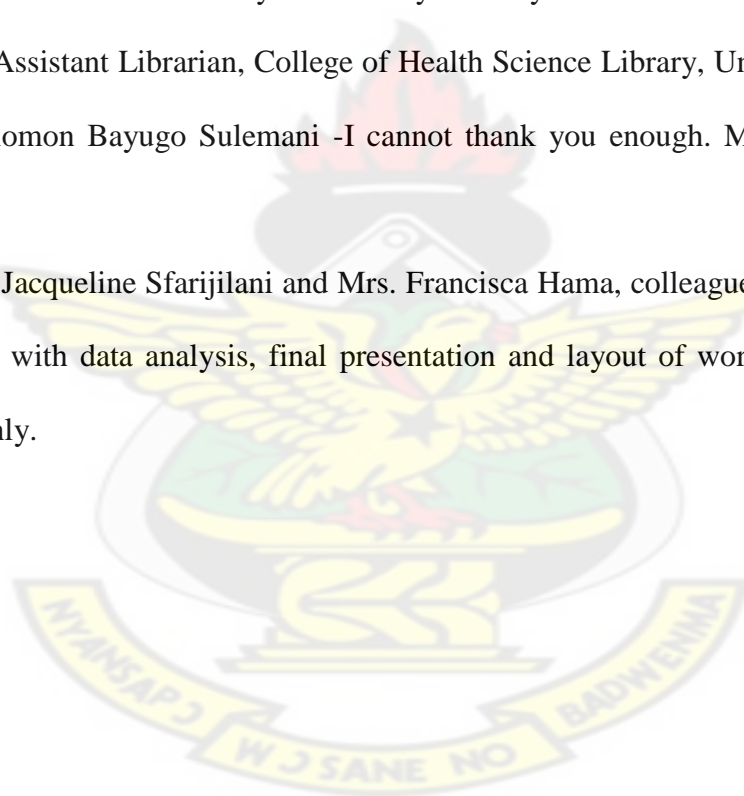
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CHAPTER 1

1 INTRODUCTION

1.1 BACKGROUND

Self-prescription includes diagnosing and treating one's own illness and prescribing for one's self. This is also referred to as self-medication. Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, treatment or monitoring of treatment (Montastruc *et al*, 1997). There is a lot of public and professional concern about the irrational use of drugs. The easy availability of a wide range of drugs and in the case of developing countries, the inadequate health services result in increased proportions of drugs used for self medication compared to prescribed drugs (Shankar *et al*, 2002).

Although, over the counter drugs (OTC) are meant for self medication and are of proven efficacy and safety, their improper use due to lack of knowledge of their side effects and interactions could have serious implications, especially in extremes of ages (children and old age) and special physiological conditions like pregnancy and lactation (Murray and Callahan, 2003; Choonara *et al*, 1996). Throughout the ages, people have sought solutions and answers to medical problems through self-medication that is, through treating themselves. Today, as well, many are often quick to treat their ailments without professional help. In an American study it is stipulated that in about 60 percent of the time this self-treatment involves over-the-counter medications (Dabney, 2001).

The literature suggests that no sector of the medical community is immune to the problem of drug abuse of which the worst offenders include physicians and pharmacists (Dabney, 2001). Empirical inquiries have thus uncovered substantial

levels of illegal drug use among practicing pharmacists (Gallegos 1988; McAuliffe *et al*, 1987). Undoubtedly, pharmacists are among the health care practitioners with the greatest access to medications. Like doctors, they possess an impressive knowledge of prescription drugs and their use in the treatment of various ailments.

Both general drug knowledge and access to prescription medications are potential factors for self-prescribing (Balbisi and Ambizas, 2005). It is explained that on average, pharmacists spend six years in college studying the intricacies of prescription medicines and their effects on the human body. Upon graduation, they embark on a career where their expertise and familiarity with the proper use and dangers of prescription drugs continuously grows. Despite this wealth of experience, some pharmacists become prescription drug abusers. Ironically, these pharmacists who are indeed supposed to uphold the ethics of the drug profession end up being the abusers of the tools of their trade (Dabney, 1999).

Other reasons that are often quoted to be responsible for self-medication or self prescription among physicians include the complaint of extensive demands on their time and relatively unpredictable schedules; special issues of privacy and confidentiality also do arise such that their own medical knowledge may alter their needs or perceived needs for care delivered by others (Rosen *et al* 2000). Similarly, various studies have also shown that doctors treat themselves rather than seek professional help when they are sick (Sexton, 2003; Kenna and Wood, 2004; Christie *et al*, 1998). In the UK, Chamber (1993) found that nine out of 10 doctors who took antibiotics had prescribed these for themselves, and half of those who were taking antidepressant drugs had self-medicated. A recent study in Australia similarly found that, 90% and 25% of doctors believed that it was acceptable to self-treat for acute and chronic illnesses, respectively (Davidson and Schattner, 2003).

Although it is appropriate to perform self-care for self-limiting illnesses, there is a potential for losing objectivity and mismanaging themselves in more serious and chronic diseases. This may contribute to the increasing work stress, and sometimes even suicide among doctors (Rosen et al, 2000).

Physicians have often found it difficult to enter the patient role (role reversal) for various individual and organizational reasons such as time pressure, the stigmatizing nature of sickness, worries about bothering or letting down colleagues, fear of showing weakness or lack of medical knowledge, concerns about confidentiality and the fear of restriction of medical licensing. Because doctors work long hours it is understandable that they would find it difficult to seek medical care for themselves.

Self medication or prescription among pharmacists and physicians has far reaching consequences. This is the case because; this scenario offers the possibility of informed patient but unfortunately in one and the same person. In this case, it is possible for clinical judgment to be clouded by the very reason the physician or pharmacist seeks prescribed drugs. That is, doctors and pharmacists have the advantage of knowledge that is so important to medical decision-making but knowledge clouded by illness could lead to inappropriate and dangerous self treatment. Though not all self prescribing might be dangerous, it may all the same, result in delays in proper diagnosis and treatment of illness; or involve taking inappropriate drugs or dosages that could raise safety concerns. Both doctors and pharmacists must therefore be encouraged to seek appropriate healthcare, when feasible and to at least discuss health issues with their colleagues to obtain some objective judgment.

1.2 PROBLEM STATEMENT

The problem of self medication among health professionals particularly pharmacists and physicians is an issue of great concern. Various studies have particularly pointed to the fact that when doctors experience ill health, they disregard the advice they give their patients. It is therefore observed that the medical community generally has developed a culture in which working through illness and self treating is the norm. Various studies have equally confirmed significant statistics on the enormity of the problem situation where in the U.S, the prevalence is 39% to 99% among doctors, in the U.K., 9 out of every 10 doctors, whereas in Australia 90% and 25% respectively believed that it is acceptable to self treat for acute and chronic illness (Dabney, 1999; Chambers, 1993).

Apart from the adverse consequences that self medication may have on these pharmacists and physicians that may include lack of objectivity in diagnosis and treatment, this state of affairs obviously have negative impact on the quality of practice and of the quality of health delivery services (Cicala, 2003). Balbisi and Ambizas (2005) have particularly noted that self prescription among pharmacists can lead to addiction and impaired functioning but further still it is unprofessional and may be associated with unlawful behaviours which may ultimately undermine the profession and pose a threat to the overall health and well-being of those involved. In extreme cases, self prescription and medication may lead to substance abuse that has the potential of leading to adverse drug reactions. Further still, this can also lead to medical malpractice and negligence (Cicala, 2003). There is also empirical evidence that physicians' personal health habits influence the counselling they provide to their patients as much as their perceived skill level and comfort with counselling (Well et al 1984; Rosen et al, 2000). That is, physicians who are on a regular exercise program

and for which reason they will not smoke, nor drink alcohol excessively are more likely to discuss preventive behaviours with their patients. This suggests that training programs might stress personal behaviours and habits as much as technical training in counselling. More generally, the care residents receive may later determine in part the care they deliver as established (Rosen et al, 2000).

Even though lack of studies on the topic in Ghana make it difficult to provide empirical evidence to emphasize the magnitude of the problem locally, observably, the fact that it is a common occurrence in the study setting that health workers including pharmacists and physicians usually report to a hospital or clinic with an advanced form of illness, provide ample support to the problem dimension. Many resort to self managing of their illnesses until they can no longer control them and sometimes this has resulted in death. Regardless of the circumstances therefore, self prescription remains a breach of medication regulations of most countries.

This all important problem notwithstanding, in Ghana neither the Guiding Principles for the Ghana Medical Association nor the Professional Conduct and Ethics of the Medical and Dental Council clearly discourages any doctor from self prescribing. The constitution and functions of the Medical and Dental Council is also silent on the issue of self prescribing by doctors. Further still, despite the seriousness of the problem of self prescription and its far reaching consequences among pharmacists and physicians; there is inadequate literature on the subject matter. In fact, there is no known local study that has investigated self prescription among pharmacist and physicians. This therefore makes the quest for this study the more imperative.

1.3 PURPOSE OF THE STUDY

The purpose of this study therefore is to investigate self prescription practices among pharmacists and physicians of the Korle-Bu Teaching Hospital.

1.4 OBJECTIVES OF THE STUDY

The specific objectives of the study include;

1. To determine the demographic characteristics of pharmacists and physicians who self prescribe.
2. To investigate the level or extent of self prescription among pharmacists and physicians
3. To find out the differences in the level of self prescription among pharmacists and physicians.
4. To find out if the type and pattern of drugs which pharmacists and physicians frequently self medicate
5. To investigate the factors that are responsible for self prescription among pharmacists and physicians
6. To make recommendations based on the findings in order to address the problem of self prescription among pharmacists and physicians.

1.5 SIGNIFICANCE OF THE STUDY

The fundamental significance of the study is seen in the fact that, there is hardly any research work available locally on self prescription among pharmacists and physicians. As such, the findings of the study will serve as a contribution to fill the research and knowledge gap.

The study will also be of immense significance to the Ministry of Health, the Ghana Health Service, the Ghana Medical and Dental Council and the Ghana Pharmacy Council in their efforts to keep abreast with the problem of self prescription among health professionals and in particular among pharmacists and physicians more so as it relates to the situation in the study setting; the Korle-Bu Teaching Hospital to be specific. The results will inform policy makers and the Ghana Health Service to put the necessary measures in place to address the problem of self prescription among pharmacists and physicians.

1.6 DEFINITION OF TERMS

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

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

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

CHAPTER 2

2 LITERATURE REVIEW

2.1 SELF MEDICATION –THE CONCEPT

The World Self-Medication Industry (WSMI) defines self-medication as the treatment of common health problems with medicines especially designed and labelled for use without medical supervision and approved as safe and effective for such use (WSMI, 2005). Similarly, Montastruc et al (1997) have defined self-medication as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment. Simply put therefore, self-medication is the use of drugs, sometimes illicit, to treat a perceived or real malady, often of a psychological nature.

Montastruc et al (1997) have observed that over-the-counter drugs are a form of self medication. The buyer diagnoses his/her own illness and buys a specific drug to treat it. A person may also self-medicate by taking more or less than the recommended dose of a drug. Some mental illness sufferers attempt to correct their illnesses by use of certain drugs. Depression, for example, is notorious for being a trigger of alcohol, tobacco, cannabis, or other mind-altering drug use. While this may provide immediate relief of some symptoms such as anxiety, it may evoke and/or exacerbate some symptoms of several kinds of mental illnesses that are already latently present, and may lead to addiction/dependence, among other side effects of long-term use of the drug. In their exposition of the theory of self medication Duncan (1974) and Khantzian (1974) noted that drug dependence or addiction results from self-medication for the distress caused by a pre-existing condition which has come to be known as the self-medication hypothesis. For example, sufferers of post-traumatic

stress disorder are prone to self-medication, as well as many individuals without this diagnosis who have suffered from mental trauma.

Duncan (1974) explains the upsurge of the phenomenon in Western societies where there is widespread usage of vitamins, herbs, and other over-the-counter "supplements"--usually without the advice, supervision, or even knowledge of any licensed health professional as another possible example of self-medication. Duncan observed that this trend of affairs may arise from the desire of people to feel more in control of their own health--rather than relying on the traditional medical establishment, whose motives are sometimes seen as suspect. Additionally, the extraordinary increases in the cost of health care in recent decades--doctors, hospitals, prescriptions, among others, have also given cause for some individuals to desperately try to find more affordable alternatives to treat or prevent their own afflictions.

Shankar *et al* (2002) reported that the concern for increased self medication is not only with the advanced economies but very much the same; if not worse, in the case of developing countries. Using India as a case Shankar notes that, the easy availability of a wide range of drugs coupled with inadequate health services result in increased proportions of drugs used as self medication compared to prescribed drugs.

Sharma, *et al* (2005) has explained that it is not all conditions of self medication that are not desirable. Self-medication, they observed or the use of non-prescription drugs could be beneficial to patients, healthcare professionals, the pharmaceutical industry and governments, provided these drugs are used rationally. Apart from community education, safety and efficacy of OTC drugs must be assured, so that these products could be safe even in the event of improper use. For registration as an

OTC drug, specific efficacy trials are conducted in real self-medication situation. In this respect FDA has strongly advocated that labelling of the OTC drugs should be easy to understand by the consumer and should contain the list of active ingredients, warnings, directions and inactive ingredients. Easy availability of wide range of drugs without prescription from a registered practitioner in the opinion of Sharma *et al*, (2005) is a major factor responsible for irrational use of drugs as self medication, thus resulting in impending health problems (anti-microbial resistance, increased morbidity and mortality) and economic loss. The need for promoting appropriate use of drugs in health care system is not only because of the financial reasons with which policy makers and managers are usually most concerned, but also for health and medical care of patients and the community. There is need for authorities to make the existing laws regarding OTC drugs strong to ensure their rational sale and use. Moreover, specific pharmacovigilance is needed and the patient, pharmacist and physician must be encouraged to report any adverse events. Periodic studies on the knowledge, attitude and practice of individuals engaged in self medication may give insight into the changing pattern of drug use in societies (Sharma et al, 2005).

2.2 PREVALENCE

In the observation of Kenna and Wood (2004), current literature regarding the prevalence of substance use and misuse in health professionals is limited both by its scope of generalization and methodological rigor. Despite being highlighted by retrospective studies and considered to be the major source of non-prescribed drug use and abuse by health professionals, medication diversion by physicians, nurses, dentists, and pharmacists has not been quantified. Consequently, the prevalence of unauthorized substance use and chemical dependency among health professionals

has been considered inestimable.

Kriegler et al (1994), Bissell et al (1989) as well as Dabney and Hollinger (1999) reported that prevalence studies to date have had several methodological limitations. These studies have observed that, most of these previous studies have surveyed a limited number of health professional groups, used self-selected groups, and/or failed to examine comparable general population rates of drug use and abuse. Over generalizations from outdated or methodologically suspect studies have therefore contributed to the uncertainty about the prevalence of substance use among health professional groups.

Dabney (2001) provide ample support to these methodological deficiencies when he noted that numerous investigators have used small samples of known drug users and in-depth interviewing or case study strategies to delve more deeply into the nature and dynamics of drug abuse among pharmacists. It is therefore common to find in contemporary addiction literature that these studies have tended to adhere largely to a medical model ideology when trying to articulate the cognitive and behavioural processes to the disadvantage of various biological (e.g., family addiction history), psychological (e.g., early childhood development), and sociological (e.g., adult environment) factors that influence individuals' drug use behaviours and attitudes. Dabney (2001) has advocated for a paradigm shift towards a far more holistic approach to the assessment of the predisposing factors for self prescription among pharmacists and other health professionals.

In a study that was conducted to assess substance use among pharmacists and physicians and to compare these rates with the available general population data and determine whether pharmacists report disproportionate unauthorized or illicit substance use or not, Kenna and Wood (2004) recorded the following results:

- That More than one half (58.7%) of pharmacists reported using a non prescribed drug at least once in their lifetime. Though total illicit drug use rates by pharmacists were not noticeably different from those of other health professional groups, a greater proportion of pharmacists reported lifetime use of minor opiates, anxiolytics, and stimulants. Past-year prevalence of drug use was highest among pharmacists (12.8%). Except for anxiolytics, past-year prevalence of use of most other medications by pharmacists was slightly greater than prevalence of use rates reported by physicians and more prevalent than use rates reported in the general population. As with the other health personnel groups, pharmacists reported low levels of substance-associated dysfunctions and potential abuse.
- From these findings, Kenna and Wood (2004) concluded that lifetime non prescribed drug use by pharmacists does not appear to be disproportionate when compared with other groups of health professionals. Specific drug use rates varied across health professionals groups, possibly suggesting medication access facilitates drug-associated experiences by health. Consequently, unauthorized or illicit substance use by health professionals, including pharmacists, suggests the need for more intensive educational programs on practitioner impairment.

Dabney (2001)) alludes to the fact that the extant literature suggests that no sector of the medical community is immune to the problem of drug abuse as several inquiries have uncovered substantial levels of illegal drug use among practising pharmacists and pharmacy students. This observation has similarly been affirmed by McAuliffe et al. (1987) when they noted that a significant proportion (46%) of the practicing physicians and a majority (62%) of the pharmacy students participating in this study

reported at least one lifetime episode of illegal (prescription or street) drug use. Further, the practicing pharmacists' and pharmacy students' report of illegal drug use in the past year (19% and 41 %, respectively), past month (12% and 18%, respectively), and past week (7% and 17%, respectively), suggest that the individuals' drug use often progresses beyond the experimental stage.

Christie et al (1998) in their study on the rate of self-prescription among physicians is of the view that the practice of self prescription among physicians is very common. In a study of 247 established physicians in the United Kingdom to determine prescription drug use among UK physicians it was noted that 84% of all medications taken during a 5-year period were self-prescribed. This study further records that in a similar study of 306 physicians in Rhodes Island, 61 % reported self-prescribing during a 3-year period.

Cicala (2003) observes that most physicians are not surprised when told that more than 10% of Americans have a substance abuse problem at some time during their lives. Anyone who has rotated through an emergency department is aware of the magnitude of the problem. However, many are unaware that physicians themselves could go beyond the ordinary self medication and in extreme cases develop substance abuse problems at least as frequently and perhaps more frequently, than the population in general. Brewster (1986) and McAullife, (1987) stated that although the exact rate of substance abuse among physicians is uncertain, even the most conservative estimates are that 8% to 12% of physicians will develop a substance abuse problem at some point during their career. A similar assertion is made by Talbot *et al* (1998), to the effect that at any given time, as many as 7% of practicing physicians-roughly 1 out of every 14-are active substance abusers, as no group of physicians is immune. The numbers are similar for every specialty, every

region of the country, every age range, in urban or rural areas, and in academic medicine versus private practice. Dabney (2001) determined the temporal and descriptive aspects of pharmacists' decision-making processes regarding illegal use of mind altering or potentially addictive prescription drugs measured the effects of associated social factors. It was notable from this study that nearly 40% of respondents indicated that they had used a form of potentially addictive prescription drugs without first obtaining a physician's authorizing prescription. A significant portion of the sample showed signs of repeated use -- 20% of the respondents reported 5 or more lifetime potentially addictive prescription drug use episodes, and 6% reported more than 10 such episodes. Almost 6% of the respondents identified themselves as being drug abusers at some point during their pharmacy careers. Moreover, 88% of these pharmacists began such illegal potentially addictive prescription drug use after entering college, 51 % used more than one type or class of potentially addictive prescription drug and 69% directly violated their professional code of ethics and state and/or federal laws by either stealing these drugs from their place of employment (61 %) or forging prescriptions (8%) to obtain them.

Interpersonal factors, such as positive reinforcement of self-medication practices from peers and increased levels of one's own approval for self-medication, appear to increase the likelihood that a pharmacist will engage in such illegal potentially addictive prescription drug use.

In a random sample survey of 500 practicing physicians and 504 medical students in a New England state that recorded response rate of 70 and 79 percent respectively, McAcclife et al (1987) noted a significant rate of 59% percent of the physicians and 78 percent of the students reported that they had used psychoactive drugs at some

time in their lives. The study affirmed further that in both groups, recreational use most often involved marijuana and cocaine, and self-treatment most often involved tranquilizers and opiates. In the previous year, 25 percent of the physicians had treated themselves with a psychoactive drug, and 10 percent had used one recreationally. Although most of the use was experimental or infrequent, 10 percent of the physicians reported current regular drug use (once a month or more often) and 3 percent had histories of drug dependence. More physicians and medical students had used psychoactive drugs at some time than had comparable samples of pharmacists and pharmacy students. The results suggest a need for renewed professional education about the risks of drug misuse.

In a study conducted to investigate whether there were any differences between how doctors behave when ill and how they would recommend other doctors to behave, whether doctors think self-investigation and self-medication are acceptable and whether doctors working in general practice and hospitals agree about how other doctors should manage their own ill health, Chambers (1993) observed the following:

That general practitioners were significantly more likely to recommend other doctors if sick to consult their own GP, but significantly more likely to expect to treat themselves. Hospital specialists were significantly more likely to advise sick doctors to consult specialists directly rather than their GPs. There was little consensus about whether self-investigation and self-medication was acceptable.

2.3 PREDISPOSING FACTORS

Medical knowledge and access to prescription medications increase the potential for self treatment and although many warn of the loss of objectivity that can accompany self prescription, it is a problem that is common among practicing physicians.

In an anonymous mailed survey that used a sample of 389 residents in four U.S. categorical internal medicine training programs to investigate the health care services that are provided for residents Rosen et al (2000) observed that 116 (37%) reported having no primary care physician, and 36 (12%) reported that they are their own primary care physician. These figures varied substantially across the four programs. Most residents reported receiving basic screening and preventive services; however, their attitudes toward their health and health care differed across postgraduate level, gender, and program. Many residents reported that their long and unpredictable hours interfered with their ability to schedule clinician visits, that their health had declined because of residency, that programmes and other residents were unsupportive of residents' physicians' health care needs, and that residency raised special issues of privacy that limited access to health care. The study concluded that despite high rates of receipt of preventive services, these internal medicine residents identified several barriers that limited their access to health care. Program directors should explore these barriers and, at the same time, re-evaluate the messages being sent to resident physicians about maintaining their health and health care so as to minimize the upsurge of self prescription and its hazardous effects among physicians.

In their contribution to the factors that predispose pharmacists to self medication, Balbisi and Ambizas (2005) have observed that pharmacists are among the health care practitioners with the greatest access to medications. Similarly, they possess

impressive knowledge of prescription drugs and their use in the treatment of various ailments. Both general drug knowledge and access to prescription medications may increase the potential for self-prescribing. Additionally, they explained that other factors that may promote self-prescribing among pharmacists include long workdays and the privacy inherent in pharmacists' work environments. Although addiction is not a concern with these medications, this behaviour according to Balbisi and Ambizas (2005), may progress into self-prescribing of controlled substances, leading to addiction and impaired functioning. Furthermore, self-prescribing among pharmacists is not only unprofessional but, may be associated with unlawful behaviours, which may ultimately undermine the profession and pose a threat to the overall health and well-being of those involved.

Lending support to this point of view, Dabney (1999) argued that being and becoming a pharmacist presents a paradox of familiarity wherein technical knowledge and opportunity, in the absence of proper appreciation of the risks of substance abuse, can delude pharmacists into believing that they are immune to prescription drug abuse.

Another important and significant factor that contributes to self medication among physicians and particularly so with resident physicians is the adequacy of care or otherwise for residents. In a study conducted by Rosen et al (2000) the objective of which was to describe residents' perceptions of the health care they received, it was noted that they have extensive demands on their time and relatively unpredictable schedules. They work within a hospital-much more than are typical of more-established physicians-and so special issues of privacy and confidentiality arise. It was also observed from the study that, like their colleague pharmacists, their own medical knowledge may alter their needs or perceived needs for care delivered by

others. At the same time, house officers are socialized into the profession of medicine during their residency and are developing their own standards and practices. They were seen to neglect their own medical care to quite a large extent.

Studies by Stoudemire and Rhodes (1993), Allibone, Oakes and Shannon (1981) have alluded to the fact that maintaining privacy is difficult when working in a health care institution. Some of these issues may arise because of gate-keeping and preferred-provider procedures in residents' insurance plans that limit their abilities to use clinicians outside their work environment and yet among other notions that fellow residents are unsympathetic or inconvenienced by a colleague's need for health care. These studies have further confirmed that, the physician, as a patient may be concerned about revealing personal health concerns to professional colleagues.

Allibone et al (1981) found that in addition to the difficulties encountered in obtaining health care, resident physicians reported environmental obstacles to maintaining health. Resident physicians were of the view that medical residency imparted significant stress, which affected their emotional and physical well being. They observed that up to 30% of medical residents reported a period of depression during their internship. Furthermore, practicing physicians are known to have a high risk of depression, narcotic and alcohol abuses and suicide.

Similarly Stoudemire and Rhodes (1993) have noted that lifestyles of established physicians are associated with occupational hazards, including a propensity to overwork, minimize vacation time, and neglect family and spouses. Addressing some of the access, confidentiality, and peer-related concerns, these studies have observed, will go a long way to improve the rate of self medication among physicians.

In a state-wide rural physicians health and crisis intervention programme, the focus of which is on doctors' duty of care to themselves, their families, and their colleagues Sexton (2003) discussed the problems encountered by physicians and their families and noted that many doctors were distressed and worked without locum support and that doctors had kept on working when unwell. It was further observed that physicians and their spouses had no access to another doctor for both acute and ongoing care, and their health had been compromised accordingly. The study also discovered that rural medical families were concerned about being able to access confidential medical care for themselves and their consequent reluctance to confide in colleagues. Single female physicians and overseas trained doctors were at special risk of mental illness and addiction and that specific strategies aimed at reducing these problems would be necessary. The study noted further that, the stressors peculiar to rural practice included pressure to be "all things to all people," deskilling, closures of rural hospitals, geographical isolation, on-call demands, family fragmentation, spouses' career and children's education issues, among others. From the results of this study (Sexton 2003) made certain pertinent observations and conclusions which have similarly been alluded to by other studies Rucinski and Cybulska (1985), Chambers (1993) and McCall et al (1999) :

- That a high proportion of doctors are perfectionist, self sacrificing, and self critical, predisposing them to stress symptoms.
- That doctors tend to avoid seeking formal health care for themselves, to continue to work when unwell, and to treat themselves.
- That doctors are more likely to receive inferior health care when ill and have major concerns about confidentiality.

- That doctors experience higher than expected rates of suicide, depression, and substance misuse, with female and overseas trained doctors at particular risk.
- That only a minority of doctors have their own general physicians.
- That a large percentage of dissatisfied doctors have considered leaving the profession, feeling that their occupation is affecting their physical and mental health adversely.
- That there is a connection between reduced health and wellbeing of the doctor and poorer care for patients.
- That clear links exist between good spiritual and mental health, the ability to cope with stress and adverse life events, and protection from substance abuse.

2.4 CONSEQUENCES

Rosen et al (2000) have also explained that, several surveys of physicians in the mid-1980s suggested that physicians' personal health habits influence the counselling they provide to their patients, suggesting that training programs might stress personal behaviours and habits as much as technical training in counselling . More generally, the care residents receive may later determine in part the care they deliver as established physicians.

Although, over the counter drugs are meant for self medication, their improper use could also have serious implications.

The impact of the problem of self prescription among physicians and/or pharmacists is severe. Studies by Rivers and Bae (1998) and Bohagian et al (1994) have shown that substance abuse has been shown to be a major risk factor for medical malpractice and negligence lawsuits," the development of physical and

psychological illness,' an adverse effect on the substance abuser's family. Left untreated, the mortality rate of substance abuse among physicians has been reported as high as 17%. Despite its high prevalence among physicians, substance abuse is rarely discussed at professional meetings (with the exception of anaesthesiology organizations) and receives limited coverage in medical school curricula. In the majority of cases, physicians with substance abuse problems remain undetected by their colleagues for several years before any intervention is made. How does such an endemic problem remain so ignored? This according to Rivers and Bae (1998) is largely because physicians who are abusing drugs or alcohol work hard to keep their problem invisible. 'The physician abuser often becomes a loner, avoiding colleagues and friends who might notice the effects of abuse. Any suggestion that the person's behaviour or performance has changed is first met with explanations and later with avoidance or outright anger. The abusing physician will often leave a job (or several jobs) rather than risk being identified as impaired.

Brown and Fleming (1996) have explained that the inability or unwillingness of physicians to recognize the signs and symptoms of substance abuse in their colleagues also contributes to the delay in identifying the physician with a substance abuse problem. Almost every physician is familiar with the patients with end-stage alcoholism or drug abuse who haunt emergency departments. However, far fewer physicians consider substance abuse as a possible diagnosis before the end stage is reached. Fewer than 40% of primary care physicians routinely question patients regarding alcohol abuse, and fewer than 20% screen for potential drug abuse. Only a small minority of physicians feel they have a basic knowledge concerning the diagnoses and treatment of substance abuse.

ASA, (2003) indicates that diagnosing substance abuse in a physician is more

difficult than diagnosing the problem in the general population. Most physician substance abusers continue to function quite well until the problem is far advanced. Because their work provides either the income for drugs or access to drugs, physicians are very likely to protect their performance at work until the disease is neared end stage. The duration of this period varies largely according to the substance(s) involved. Alcoholics can often remain sober during working hours for many years, even though they drink large quantities at night and on weekends. Intravenous opiate or cocaine abusers, on the other hand, may go from experimentation to collapse in a matter of weeks or months.

From the review of the literature, it is conclusive that all health professionals including pharmacists and physicians are no exception to self medication or self prescription. Indeed, the professional exposure to drugs and knowledge of their treatment of disease is a fundamental contributor to self medication among pharmacists and physicians. Additionally, the peculiar demands of their work environment and others, including, excessive work schedules, issues of confidentiality as well as inadequate health care provision for these health professional are factors that further worsen the situation. The consequences of self medication among pharmacists and physicians have been found to have disastrous implications including legal, ethical, health defects on the health personnel, negative effects on the patient and on the quality of health delivery as a whole.

Like any other person therefore, health personnel must accept to and be encouraged through the provision of the necessary health facilities to enter the patient role. This is the only way to reverse the increasing rate of self medication among health professionals including pharmacists and physicians.

CHAPTER 3

3 METHODOLOGY

3.1 STUDY DESIGN

The study design is a quantitative cross-sectional survey. It is described as quantitative because it attempts to measure self-prescription or self-medication practices among physicians and pharmacists through the use of a questionnaire survey. On the other hand, it is also described as a cross sectional survey because the study involves the administration of the research instrument (questionnaires) once only to the sample and the data generated on the measured characteristics are limited only to the specific period of the study.

Cross-sectional surveys provide the opportunity for one-time health assessment problems and projects such as this (Graziano 1993). Furthermore, a quantitative survey is also preferred because as Busha and Harter (1980) put it, most health system researches are quantifiable and for that reason, quantitative surveys are often better preferred in assessing one-time health problem enquiries such as this. This is because of their statistical importance and relevance and also for their uniqueness in enhancing health systems policy and practice as they are easily expressed in mathematical language and consequently, evaluated and interpreted by means of statistical procedure.

3.2 RESEARCH INSTRUMENT

A structured questionnaire (Appendix 1) was used as instrument for data collection. This was designed and divided into three major sections as follows.

Section 1: sought information on the background data of respondents such as age, race, profession, (whether physician or pharmacists) professional status, clinical experience and marital status.

Section 2 requested information on health seeking behaviour and self medication/prescription practices among pharmacists and physicians. This section sought information on whether these two groups of health personnel self medicate, the reasons for doing so, the frequency of self medication, the types of drugs that are commonly involved and Section 3 was on barriers to seeking care from physicians or factors that predispose them to this practice of self medication.

3.3 RESEARCH SETTING

The Korle Bu Teaching Hospital is a national referral hospital as well as a teaching hospital for the University of Ghana Medical School, now College of Health Sciences. It is the first and arguably the best-equipped hospital in the country – Ghana and has modern diagnostic technology, such as C T Scan, M R I, ultrasound echocardiograms, dialysis machines and runs a 24-hour pharmacy and laboratory services.

The hospital has a total bed capacity of one thousand, six hundred (1, 600) including two hundred and twenty (220) Cots. Daily average admission is about one hundred and forty (140) patients with daily average deaths of eleven (11). The out-patient department (OPD) manages about one thousand (1, 000) cases daily. Patients come from all parts of the country but mostly from greater Accra region and Tema District. All other health Institutions including private hospitals and clinics use the teaching hospital as the final referral facility.

The hospital was built by the British colonial government on 9th October, 1923. Ghana then known as the Gold Coast was under the colonial rule. The total work force of the hospital is about three thousand, eight-hundred and eighty (3,880) made up of eleven (11) different professional groups.

The hospital's seventeen (17) clinical departments are made up of Obstetrics and Gynaecology; Surgery (with Allied Surgery); Child Health; Polyclinic; Dentistry; Microbiology; Chemical Pathology; Haematology; Radiology; Paediatrics; Pharmacy and Radiotherapy departments. The others are Medicine; Reconstructive Plastic Surgery and Burns (RPSB); Cardiothoracic; Pathology and the Mortuary.

The Korle Bu Teaching Hospital, as the largest and the first teaching hospital and the nerve centre of national healthcare services, trains health professionals, conducts medical research and performs outreach services on all categories of persons in Ghana and the West African sub-region.

The training Institutions that are administered by the College of Health Sciences are sited on the hospital premises to offer tuition in medicine and allied disciplines. These include the University of Ghana Medical School; the University of Ghana Dental School; the School of Public Health; the School of Allied Health Sciences and the School of Nursing.

3.4 POPULATION

The population for the study comprises of the total number of pharmacists and physicians at the Korle-Bu Teaching Hospital. This is made up of 352 physicians and 58 pharmacists- a total of 410.

3.5 SAMPLING AND SAMPLE SIZE

The study adopted half (1/2) of the population of 410 pharmacists and physicians as sample size. That is, 205 were taken as sample size. All respondents were given the chance of inclusion hence the adoption of simple random technique for the selection of respondents. .

Research evidence provides justification for the selected sample size. Twumasi (1986) explains that even a third of the population as sample size is considered good enough in survey populations that are less than 1000. This is because this contributes to efficiency by lowering variance and hence provides for an enhanced validity and reliability of the survey results.

3.6 PRETESTING

The designed questionnaire was first pre-tested at the same study setting (Korle-Bu Teaching Hospital). In all, ten (10) questionnaires were used for this purpose. The exercise was found useful because it provided the opportunity to make some useful changes to the instrument.

3.7 DATA COLLECTION AND RESPONSE

Questionnaires were randomly distributed to the 205 respondents and follow-ups were made to retrieve those that were completed by the respondents. This was a very difficult task. Notwithstanding the advantage of the students familiarity with the study environment as a practicing pharmacist herself, many efforts aimed at retrieving these questionnaire tended out to be fruitless exercises as many of the

respondents complained of the lack of time to complete the research instrument due to their busy schedules of work. Admittedly many were honest to complain of loss of questionnaires and efforts were made to replace such misplaced ones. As a result of these stated difficulties in administering the research instrument and notwithstanding several efforts made by the student, as many as 43 questionnaires could not be retrieved. In other words, the response rate was 79% representing 162 retrieved questionnaires.

3.8 ETHICAL CONSIDERATIONS

In the design of the study, careful consideration was given to ethics. In the questionnaire design and pre-test, care was also taken to ensure that questions asked were simple and straightforward. As far as possible, questions that would stir up emotions were avoided. The pre-test particularly availed the student the opportunity to closely observe expressions and sentiments both verbal and non-verbal which accompanied certain questions. Those questions, which had a personal and privacy prying touch, were modified in the final questionnaire design. Questions that also required more clarity were so amended to provide simple and precise meaning.

Notwithstanding the fact that all were pharmacists and physicians were potential respondents, the final selection and participation in the study was absolutely voluntary. The introduction to the questionnaire itself also carried with it a written and informed consent.

3.9 VALIDITY AND RELIABILITY

To ensure data is reliable and valid for the study, various meticulous steps were put in place. The questionnaire was carefully designed to reflect the precise objectives of the study. The inputs and comments made on the survey questionnaire by the supervisor were very useful and enhanced the validity and reliability of the research instrument whilst serving as a source of good mentoring. Pre-testing of the designed questionnaire also served a useful purpose. Additionally the questions asked in the questionnaire were simple and straightforward which made it easy for respondents to understand and answer. A statistically representative sample of half of the population adopted for the study and the high response rate achieved (79%) by the survey instrument additionally, served to validate the study results.

3.10 ANALYSIS OF DATA

The responses from the administered questionnaires were closely examined and a coding scheme prepared to facilitate analysis of data. The Statistical Package for Social Science (SPSS) was used for the analysis. A copy of the data was closely studied for possible errors with the assistance of a statistician before the final copy was made.

Data is presented in simple descriptive statistics using tables to depict raw data, frequencies and percentages.

CHAPTER 4

4 DATA ANALYSIS AND PRESENTATION

This chapter analyzed data collected from the survey questionnaire. The analysis was done with reference to the objectives of the study. The research instrument distributed to the sample of 205 achieved a response rate of 79% representing 162 retrieved questionnaires. The chapter has been organized under three major sections namely –demographic characteristics of respondents, health seeking behaviour and self medication practices among respondents and finally, the factors that confront pharmacists and physicians in seeking prescribed medical care.

4.1 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The first objective of this study was to investigate the demographic characteristics of respondents. These demographic variables studied included gender, age, race, profession (whether pharmacist or physician), the number of years of professional practice, the level of professional training and marital status.

The age distribution of respondents is presented in Table 4-1 below.

Table 4-1 Age distribution of respondents

Respondents	Frequency	Cumm. Frequency	Percentage (%)	Cumm. %
< 30yrs.	60	60	37	37
30 – 45 yrs.	90	150	56	93
46 – 60 yrs.	12	162	7	100
Total	162		100	

The modal age distribution was 30-45 year group, which accounted for 90 representing 56% of respondents. Slightly over a third of the respondents are less than 30 years, which also represents 60 (37%). On the whole, the results show a majority young sample of pharmacists and physicians as a predominant 150 (93%) are aged less than 46 years. Only 12 (7%) are those that are aged between 46 and 60 years. The study also assessed the gender distribution of respondents. The results are presented in Table 4-2 below.

Table 4-2 Gender Distribution of Respondents

Respondents	Frequency	Percentage
Male	94	58
Female	68	42
Total	162	100

From table 4-2, it is obvious that of the total 162 respondents, 94 representing 58% are male whilst the rest, 68 representing 42% are female. The male to female ratio in the study sample can be said to be very encouraging as the two professions until recent times particularly in developing countries and Ghana to precise, have tended to be dominated by males.

The study also found it relevant to assess the length of service experience or practice among respondents. The results are presented in Table 4-3 below.

Table 4-3 Years of Service Experience

Respondents	Frequency	Cumm. Frequency	Percentage (%)	Cumm. %
< 5yrs.	86	86	53	53
5 –10 yrs.	50	136	31	84
> 10 yrs.	26	162	16	100
Total	162		100	

Table 4-3 indicates that slightly over half of the respondents 86 (53%) have had service experience of less than 5 years. Thirty-one percent (31%) had practice experience of between 5 and 10 years whilst only 26 (16%) was recorded for those that had practiced for more than 10 years. From table 4-3, it is observable that a predominant number of respondents 84% representing 136 respondents have had practice experience of less than 10 years. The implications of this finding are that most of these respondents therefore, are rather a young professional group who have not had much practice experience.

The research instrument also sought to find out the number of respondents that are pharmacists and the number that are physicians. This information is presented in table 4-4 below.

Table 4-4 Distribution of respondents by profession

Respondents	Frequency	Percentage (%)
Physician	128	79
Pharmacist	34	21
Total	162	100

The results in table 4-4 show that, of the total sample of 162 respondents, the predominant majority 128 (79%) are physicians or medical practitioners whereas; the remaining 34 (21%) are pharmacists. These results are to be expected because of the role of the hospital as a tertiary and teaching hospital. Medical practitioners at various levels are required to provide support for teaching and for clinical practice.

As part of the demographic characteristics of respondents the study also investigated the level of professional training of respondents. Since it was difficult to establish an acceptable categorization format common for both pharmacists and physicians, it was found appropriate to analyze and present the findings separately. The results of

the level of professional status of respondent physicians are illustrated in table 4-5 below.

Table 4-5 Level of professional training (physicians)

Respondents	Frequency	Cumm. Frequency	Percentage (%)
Residents	50	50	39
Medical Officers	24	74	19
House Officers	34	108	26
Consultants/ Specialists	20	128	16
Total	162		100

The results in table 4-5 indicate that of the total of 128 physicians that responded to the research instrument, the highest professional level (consultants/specialist) were the least number of respondents 20 (16%). The next level of respondents in hierarchy (residents) were the highest responding group which recorded 50 (39%) whereas housemen (the lowest professional level) came second in the number that responded to the research instrument. Medical officers, the lowest but one level, placed third in the number that responded 24 (19%). It is clear from the presentation that together “junior doctors” (Residents, Medical Officers and Housemen) as is commonly referred to constitute the majority responding physicians of 108 (84%). This further confirms our earlier observation that the sample is a majority young professional group.

Similarly, the distribution of the professional level or status of pharmacists is also illustrated in table 4-6 below.

Table 4-6 Level of professional training (pharmacists)

Professional Level	Frequency	Percentages (%)
Principal Pharmacist	3	9
Senior Pharmacist	10	29
Pharmacist	12	35
Intern Pharmacist	9	26
Total	34	100

It can be seen from table 4-6 that the highest professional level recorded the least 3 (9%). This is followed by intern pharmacists 9 (26%), senior pharmacists 10 (29%) and pharmacists 12 (35%) in that order. Similarly as in the case of the distribution of professional level of physicians, "Junior pharmacists" are equally in the minority. This is because together, pharmacists, and intern pharmacists account for 21(61%) of the distribution. Table 4-7 illustrates the results of the marital status of respondents.

Table 4-7 Marital status of respondents

Respondents	Frequency	Percentages (%)
Single	62	38
Married	97	60
Divorced	1	1
Not indicated	2	1
Total	162	100

The results in table 4-7 show that majority of the respondents 97 (60%) are married. Those that are single account for 62 (38%). Only 1 indicated a divorced relationship whereas 2 did not declare their marital status.

4.2 HEALTH SEEKING BEHAVIOUR/ SELF MEDICATION

PRACTICES

The research instrument also requested information on the health seeking behaviour of respondents. This is because it is common knowledge that health seeking behaviour has direct impact on the practice of self medication or self prescription. In response to what usually will be the first line of action of respondents when they fall ill, the following responses were provided and presented on table 4-8.

Table 4-8 First action when ill. /self medication

Respondents	Frequency	Percentages (%)
Self-medicate	140	86
Consult a Doctor	16	10
No response	6	4
Total	162	100

It is very clear in table 4-8 that of the total sample of 162 respondents, a predominant majority of 140 that account for 86% admitted that they self medicate whereas only 16 representing 10% consulted a doctor or physician first. Six (6) respondents also representing 4% of the sample did not respond.

The study also wanted to know the level to which respondents received medical advice from a physician in the past 5 years. Table 4-9 portrays the results of this investigation.

Table 4-9 Have you received any medical advice from a physician in the past 5 years?

Respondents	Frequency	Percentages (%)
Yes	10	6
No	152	94
Total	162	100

The results showed that most respondents 152 (94%) did not receive any medical advice from any physician since the past five years. In other words, only 10 (6%) out of the entire sample of 162 received such advice. Apparently, this could be a further indication and attestation to the effect that truly, there is a high rate of self medication among respondents.

In order to establish the gender distribution of what will be respondents' first action when ill, the cross tabulation between gender and what their first action when ill is illustrated in table 4-10 below.

Table 4-10 Gender of respondents * first action when ill/self medication

Respondents		First action when ill			Total
		Selfmedica	Consult a Dr.	No response	
Gender	Male	81(86%)	11 (12%)	2 (2%)	94 (100%)
	Female	59 (87%)	5 (7%)	4 (6%)	68 (100%)
Total		140 (86%)	16 (10%)	6 (4%)	162 (100%)

The results show that out of the total of 94 male respondents, most of them 81 (86%) self medicate as the first line of action when ill. Eleven that make up (12%) will consult a doctor first when ill and the rest, 2 (2%) did not provide an answer to the question. Similarly, of the total 68 female, 59 representing 87% self medicate as their first line of action when they fall ill. Five accounting for 7% consult a doctor

whereas the remaining 4 (6%) did not respond to the question. In other words, of the entire sample of 162 respondents, 140 will self medicate as their first line of action when ill, 16 will consult a doctor, whereas 6 did not respond to the question. Of those who self medicate, 81 were found to be male whilst 59 were female. Similarly, of the 16 respondents those who will consult a doctor as their first line of action, 11 were male whilst 5 were female. Also of the 6 respondents who did not answer this question there were 2 male and 4, female.

The data therefore means that even though there were many more male respondents who self medicated as their first line of action when ill when compared to their female counterparts, the difference in the rate of self medication among female 87% as against 86% for male was not statistically significant.

The study also found it relevant to establish by age what respondents' first action is when they fall ill. In response to this investigation, it was necessary to cross-tabulate age of respondents with their first action when ill. Table 4-11 below presents the results.

Table 4-11 Age of respondents * first action when ill

Respondents		First action when ill			Total
		Self	Consult a Dr.	No response	
Age of Respondents	< 30 yrs.	48(80%)	9 (15%)	3 (5%)	60 (100%)
	30 – 45 yrs.	80(89%)	7(8%)	3(3%)	90 (100%)
	46 – 60 yrs.	12 (100%)	0 (0%)	0 (0%)	12 (100%)
Total		140 (86%)	16 (10%)	6 (4%)	162 (100%)

The results in table 4-11 shows recorded a total of 90 respondents within the age group of 30-45 years. It is clear from the results that this age group of (30- 45years) recorded the highest rate of self medication 80 (89%) as the first line of action when

ill. Within the same age group, 7 (8%) indicated they will consult a doctor as the first action whilst 3 (3%) did not respond to the question. The 'less than 30 years' group which recorded a total of 60 respondents came second in ascending order that indicated self medication 48 (80%) as first alternative when ill. Here also, 9 (15%) indicated they will consult a doctor first whereas 3 (5%) did not respond to the question. The least recorded number of respondents was recorded in the age category of 46-60 years (12 respondents). This age category recorded 100% rate of self medication as their first line of action when they fall ill. In other words, all 12 respondents would self medicate as their first line of action when they are ill.

On the whole therefore it can be seen from table 4-11 that, of the entire sample size of 162 respondents, 140 (86%) indicated self medication as their first alternative when ill. Whereas only 16 accounting for 10% said they would consult a doctor first, 6 (4%) did not provide any response here.

The overall interpretation of these results would therefore mean that the higher that respondent's age, the higher the preponderance to self medicate.

Observably, it is true that professional progression comes with increasing length of practice and experience. The study was interested in finding out whether the length of practice experience has an influence on the health seeking behaviour of respondents. In other words, the study also investigated the extent to which the length of practice influenced respondents' first action when ill. The results of the findings are presented of table 4-12.

Table 4-12 Years of practice * first action when ill

Respondents		First action when ill			Total
		Self	Consult a Dr.	No response	
Yrs of Practice	< 5 yrs.	70(81%)	13 (15%)	3 (4%)	86 (100%)
	5 – 10 yrs.	45(90%)	2(4%)	3(6%)	50 (100%)
	> 10 yrs.	25 (96%)	1 (4%)	0 (0%)	26 (100%)
Total		140 (86%)	16 (10%)	6 (4%)	162 (100%)

It is clear from table 4-12 that 86 respondents had practice experience of below 5 years. Within this age group, 70 (81%) will self medicate as their first line of action when ill, 13 (15%) will take the option of seeing a doctor whilst 3 (4%) respondents did not respond. Respondents with service experience of between 5-10 years said that 45 (90%) they will self medicate first when ill, 2 (4%) will consult a doctor as the first option and 3 (6%) did not respond. The results further illustrate that respondents with practice experience of more than 10 years were 26. Of this number, 25 representing 96% will self medicate as their first action when ill whilst only 1 respondent within this category will consult a doctor.

Here in table 4.12 and again similar to the results as found in table 4-11, the more the practice experience of the respondent the more the likelihood to self medicate.

An establishment of the first line of action by profession (pharmacists or physicians) was investigated by the study. Table 4-13 illustrates the results of the study from the cross tabulation of profession with respondents first action when ill.

Table 4-13 Profession * first action when ill

Respondents		First action when ill			Total
		Self	Consult a Dr.	No response	
Professions	Physician	110(86%)	12 (9%)	6 (5%)	128 (100%)
	Pharmacists	30(88%)	4(12%)	0(0%)	34 (100%)
Total		140 (100%)	16 (11%)	6 (4%)	162 (100%)

The results indicate that of the 128 medical practitioners, a predominant 110 (86%) will self medicate as their initial line of action. Twelve accounting for 9% of these doctors will consult a colleague doctor first, whereas 6 (5%) did not respond to the question. Similarly, of the 34 pharmacists who responded to the research instrument, 30 of them representing 88% will first self medicate whereas only 4 of them which make up (12%) will consult a physician as their first option when they fall ill. All respondent pharmacists answered the question. From the results it is clear that there is no statistical difference in the self medication rates between pharmacists and physicians. This is the case because even though the rate of self medication recorded by pharmacists is slightly higher, (88%) as against 86% by physicians the figures appear rather very close.

One of the main objectives of the study was also to find out the type and pattern of drugs that respondents self medicate or self prescribe. In response to the question as to what type of drugs respondents self medicate, the following information as in table 4-14 was arrived at.

Table 4-14 Drugs self medicated

Drugs Self-Medication	Frequency	Percent %
Oral Contraceptives	9	6
Analgesics	140	100
Anti-Ulcer Drugs	26	19
Anti-Diabetic	3	2
Anti-Asthmatics	8	6
Antacids	82	59
Antimalarials	140	100
Antibiotics	118	84

It is obvious from table 4-14 that of the total of 140 respondents who admitted self medication, all of them 140 (100%) self medicated with analgesics and antimalarials. From the table, the next most used drug was antibiotics which recorded a very significant figure of 118 (84%). Antacids were the next to antibiotics as the fourth most self medicated drug recording as high as 82 (59%). Of the 8 identified groups of medications, anti-ulcer drugs came next to antacids also recording 26 (19%). Anti-asthmatics and anti-diabetics were the drugs that were least used without professional advice which recorded 8 (6%) and 3 (2%) respectively.

As a follow up to what reasons predispose respondents who self medicate to do so, varied responses were given that have been analyzed and presented in table 4-15.

4.3 FACTORS RESPONSIBLE FOR SELF MEDICATION

PRACTICES

Predisposing factors for self medication practices among pharmacists and physicians were also assessed since this constituted a major objective of the investigation. The results of the findings are presented in table 4-15.

Table 4-15 Reasons for self medication

Respondents	Frequency	Percentage %
Lack of time	29	16
Do not have a primary physician	13	7
Familiarity of treatment options	80	43
Condition does not merit seeing a physician	60	32
Privacy	4	2
Total	186	100

The results in table 4-15 include multiple responses. In other words, the sample of 162 respondents had the option to indicate more than one response or reason that in their opinion account for, or predispose them to self-medication. A total of 186 such responses were thus recorded. The highest response was familiarity with treatment option 80 (43%). Next in order of hierarchy is the fact that respondents did not consider the illness condition serious enough to merit seeing a physician 60 (32%). The third in succession is the lack of time 29 (16%). The lack of a primary physician recorded 13 (7%) whereas privacy concerns is the least recorded 4 (2%). These findings in table 4-9 constitute some of the major concerns of this study and they have implications for health human resource managers in particular as they relate the health and welfare of the caregiver.

CHAPTER 5

5 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 DISCUSSION

In this study, the prevalence of self-medication among doctors and pharmacists at the Korle bu Teaching Hospital was investigated. Most of the respondents 150 (93%) were aged less than 46 years. Only 12 (7%) were between 46 and 60 years. Out of the 162 respondents, 128 (79%) were physicians and 34 (21%) were pharmacists.

Gender distribution of respondents showed that 94 (58%) were male whilst the rest, 68 (42%) were female. Even though a significant majority of the respondents 97 (60%) are in married relationships, the fact that over a third 62 (38%) were single makes room for comment. Sexton (2003) observed among other things that single physicians, particularly female, were at a special risk due to the strenuous job requirement without partner support predisposing them to frequent illness and in extreme cases drug addiction.

5.1.1 Health Seeking Behavior/ Self Medication Practices

The study records a very high rate of self medication or self prescription practices among pharmacists and physicians. That is, as many as 140 respondents representing 86% admitted to the practice. The high rate of self medication practices has further been confirmed in the study when it was recorded that most respondents 152 (94%) did not receive any medical advice from any physician since the past 5 years. Varied rates of prevalence of self medication practices among health professionals have

been reported in the literature. These variations have been the result of methodological differences and sometimes inefficiencies. The studies of Kriegler et al (1994), Bissell et al (1989) as well as Dabney and Hollinger (1999) among others, provide empirical evidence in support of this claim. These methodological variations have in effect, often resulted in the differences in prevalence rates of self medication practices among health personnel. Kenna and Wood (2004) recorded a prevalence rate of 58.7% among pharmacists; McAclife et al (1987) noted a similar rate of 59% percent among physicians whereas Christie et al (1998) observed a 52% rate among physicians.

In this study, similar rates of self medication between females (87%) and males (86%) were observed. Self medication rates among pharmacists (88%) and physicians (86%) were not statistically different. This finding is however in consonance with what has been generally observed in the self medication literature such that, even though no sector of the medical community is immune to the problem of self medication, practicing pharmacists have been often quoted as the most serious offenders of self medication practices (Balbisi and Ambizas, 2005; Dabney, 1999).

The study further indicated that the higher the respondents age, the more likely the respondent is to self medicate. Respondents of less than 30 yrs recorded a self medication rate of 48 (80%), those of between 30-45yrs rate of self medication 80 (89%) and 46-60yrs rate of self medication is 12 (100%). Similarly, therefore, it was expected that the more the practice experience of the respondent the more the likelihood to self medicate. Thus respondents of practice experience of less than 5yrs recorded 70 (81%) those of between 5-10yrs recorded 45 representing (90%) and for those over ten years (10yrs), 25 (96%).

All respondents who self medicated did so with analgesics, 140(100%) as well as with antimalarials, 140(100%). This is to be expected because many analgesics are over the counter drugs that are by law obtainable without prescription. The high prevalence of malaria in Ghana must be the most probable reasons why antimalarial drugs were frequently self prescribed. Antibiotics were next recording significant rates of 118 (84%) respectively. Antacids 82 (59%) and anti-ulcer drugs 26 (19%) came next whereas oral contraceptives, antiasthma and anti diabetic drugs were found to be the least self prescribed drugs.

5.1.2 Factors Responsible For Self Medication Practices

The single most cited factor or reason for the high rate of self medication among health personnel and in particular among pharmacists and physicians is knowledge of drugs and their use. This study has equally confirmed this when respondents indicated their familiarity of the drug and treatment options 80 (43%) that has been cited among others as the most common reason why they self medicate. Indeed, it has been observed that pharmacists and physicians great access to medication as well as their knowledge of drug use are fundamental pointers to the high rate of the practice of self prescription. As a result of this knowledge base the study also recorded that a significant number of respondents 60 (32%) said that their illness condition was not serious enough to merit seeing a physician. This means that they have imposed their subjective judgment in determining both their own diagnosis and treatment. These observations conform to those of Balbisi and Ambizas (2005) and Dabney (1999).

Issues pertaining to privacy, though the least factor recorded by this study 4 (2%) has also received extensive observation in previous studies. Stoudemire and Rhodes

(1983), Allibone , et al (1981) Rosen et al (2000) all noted that lack of adequate health care whilst working for longer hours among others predispose these health personnel to self medication.

5.2 CONCLUSIONS

Pharmacists and physicians are no exception to self medication or self prescription. The professional exposure to drugs and knowledge of their treatment of disease remains the fundamental contributor to self medication among pharmacists and physicians, the peculiar demands of their work environment including, excessive work schedules, issues of confidentiality as well as inadequate health care provision for these professionals and their families are factors that further worsen the situation. The higher the practice experience, the higher the tendency to self medicate among physicians and pharmacists. The three most common abused categories of drugs include analgesics, antimarials and antibiotics.

In order to curb the spate of self medication practices among pharmacists and physicians functional policy initiatives are required. Like any other person therefore, they must accept to, and be encouraged to enter the patient role.

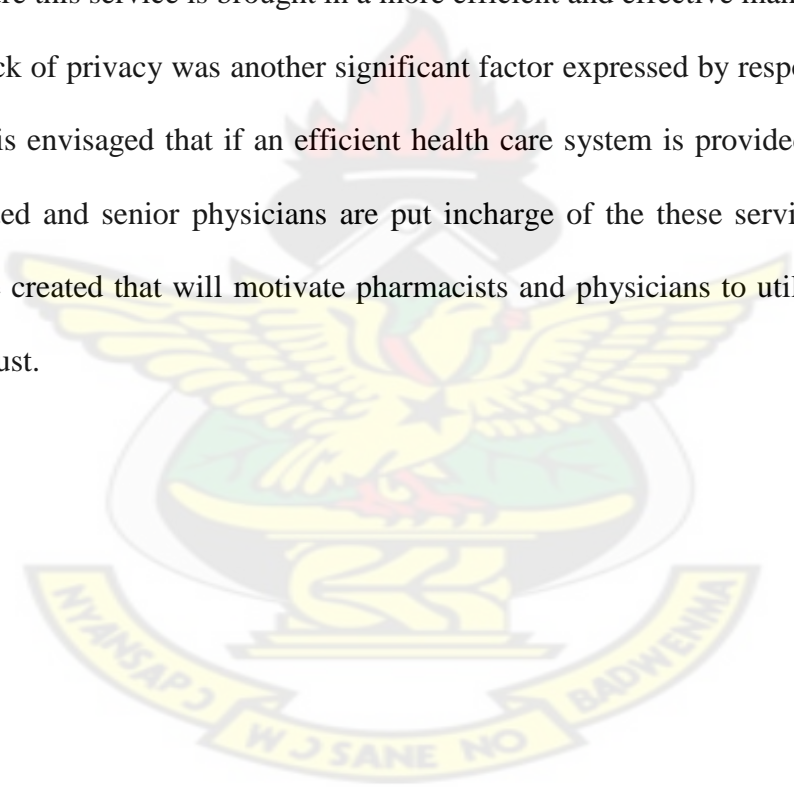
5.3 RECOMMENDATIONS

Pharmacists and physicians must accept and be encouraged to enter the patient role when they are ill. The implications of self medication or self prescriptioin practices among health personnel and the consequences should be introduced to students of

medicine and pharmacy at the undergraduate levels. This should equally be seriously stressed and addressed during internships for both pharmacists and physicians.

The Korle Bu Teaching Hospital must provide a well motivated, congenial and improved health care services for health personnel including pharmacists and physicians and their families inclusive. The study has shown that a significant number of respondents complained of lack of access to a physician. Indeed this fact is because the staff clinic services that was being provided by the hospital has not been functional for sometime now. It will be appropriate for the hospital authorities to ensure this service is brought in a more efficient and effective manner.

The lack of privacy was another significant factor expressed by respondents. To this end it is envisaged that if an efficient health care system is provided and very well respected and senior physicians are put incharge of the these services, confidence will be created that will motivate pharmacists and physicians to utilise the services with trust.



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KNUST



APPENDIX I

QUESTIONNAIRE

I am –Dorcas Poku Boateng--, a pharmacist at the National Cardiothoracic Centre.

I am carrying out a study on the health seeking behaviours of doctors and pharmacists in this hospital as part of requirements for a MSc. Clinical Pharmacy programme at KNUST.

I would be grateful if you would take off a bit of your time and answer these questions for me.

The information obtained would be treated with the confidentiality that it deserves. I am counting on your co-operation.

1. DEMOGRAPHY

- 1.1. Sex 1) male 2) female
- 1.2. Age 1) <30years 2). 30-45years 3). 46-60years 4). >60 years
- 1.3. Race 1). African 2). Non African
- 1.4. Years in Practice 1). <5 years 2). 5-10 years 3). >10years
- 1.5. Profession 1). Medical practitioner 2). Pharmacist

- 1.6. Level of training 1). General practitioner 2). Houseman
3). Resident 4). Specialist/consultant
5). Others (Please specify) _____

- 1.7. Marital status 1). Single 2).Married
3) Other (divorced, widow/widower)

2. HEALTH SEEKING BEHAVIOUR

2.1. What is your first action most of the time when you feel ill?

- 1). self-medicate 2). Consult a doctor 3) ignore the feeling
4). other (specify) -----

2.2. If you self medicate when you feel ill, please choose a reason for doing that.

- 1). Lack of time 2). Do not have a primary physician 3). I am very familiar
with treatment options 4). ____ I believed the condition did not merit a
physician visit 5). Other reasons -----

2.3. Which of the following drug classes have you ever used on your own without

- prescription? 1). Oral contraceptives 2) Analgesic 3). Antibiotics
4). Antimalarials 5). Antacids 6). Anti-ulcer Drugs 7). Anti-Asthmatics 8).
Anti-Diabetics

2.4 In the last five years, have you received medical advice from a physician?

- 1). Yes 2). No

2.5. If No to Q2.4 why? 1). Never feel ill 2). Was ill but did not
feel like seeing a physician

3). Other (specify) -----

3. BARRIERS TO SEEKING CARE FROM PHYSICIANS

3.1 What in your opinion prevents doctors/pharmacists from seeking health care from physicians as a first line of action:

.....
.....
.....

THANK YOU FOR YOUR TIME

