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RELEVANCE OF PATIENT'S KNOWLEDGE, ATTITUDES AND BELIEFS IN THE RATIONAL USE OF BIO- MEDICAL DRUGS. A CASE OF KAYUNGA TOWN COUNCIL – KAYUNGA DISTRICT

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A RESEARCH DISSERTATION SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN SOCIOLOGY OF MAKERERE UNIVERSITY, KAMPALA

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DECLARATION

I, Kabukaire Sarah, declare that this thesis is my original work and has not been submitted for a degree in any other University. The views expressed in this dissertation are mine and not any other person's nor institution. I assume responsibility of any mistakes.

Signed…… Date……

This thesis has been submitted for examination with the knowledge of my supervisor

Signed…… Date……

Prof. Rwabukwali Charles.

DEDICATION

To my children Sarah and Sumie who missed my love and care during the entire MA course duration.

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Name: Kabukaire Sarah Catherine

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Definition of Concepts

Rational use	In this study, rational use meant the use of bio-medical drugs by the patients strictly adhering to the doses as prescribed by the Medical practitioner.
Bio-medical drugs	Drugs dispensed by people who study bio- medicine. Bio-medicine includes the field of surgery, clinical medicine and medical research.
Self – medication	Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment.
Medical practitioner	A medical doctor or physician.

ABSTRACT

Irrational use of bio- medical drugs is a worldwide phenomenon which is occurring in both the developed and developing world. The common practices of irrational use of bio-medical drugs include; multiple drugs on a prescription (polypharmacy), overuse of anti biotics, mis-use and overuse of injections, overuse of relatively safe drugs, use of unnecessary expensive drugs (brand name visa avis generic name) and or self medication. Much as regulatory policies pertaining to the rational use of bio-medical drugs have been enacted, the practice of irrational use is still persistently on the increase. This study hence sought to understand how patients' knowledge, attitude and beliefs influence the rational use of drugs. The study objectives were: to establish the factors determining the patient's use of bio-medical drugs, to examine how the sources of bio-medical drugs influence the rational use of the medicine, to assess how patient's knowledge affects the rational use of bio-medical drugs and to establish how attitudes and beliefs affect the rational use of bio-medical drugs.

To facilitate the study, the methods of investigation were by survey research using structural questionnaires and questionnaire guide for the key informants. The study was conducted in Kayunga Town Council Kayunga District where 94 respondents and 5 key informants who were medical personnel working in different health units were selected. The data was manually coded and then analysed qualitatively and quantitatively. Qualitative data was presented as narratives and quotes while quantitative was analysed by the Statistical Package for Social Sciences (SPSS).

The core finds were that; patients seek the use of bio –medicine because it offers quick relief to ill health, irrational use of drugs is perpetuated by both the private and public healthcare providers, the health providers do not provide adequate information to enable the patients rationally use the medicine the patients do not entirely subscribe to the use of bio- medicine but use it concurrently with traditional medicine.

In conclusion, it would hence necessitate the collaboration of the heath seeker, health provider and the policy formulators to improve on the rational use of medicine. It was recommended that government considers increasing the, medical personnel in the rural public health facilities to reduce on the Doctor- patient ratio in addition to considering the adoption of the Assets model of Health provision.

CHAPTER ONE: INTRODUCTION

1.0 Background to the study

Patient's knowledge, attitudes and beliefs as regards medication are not only of critical importance in the prevention of drug related problems but are major factors that influence treatment success if properly understood and incorporated in the provision of health care (Ssemaluulu & Adome, 2006)

There could be different perceptions and meanings regarding rational use of medical drugs but the conference of experts on the Rational use of drugs convened by the World Health Organisation (WHO) in Nairobi in 1995 defined that: 'Rational use of drugs requires that patients receive medication appropriate to their clinical needs, in doses that meet their own requirements for an adequate period of time at the lowest cost to them and their community (Holloway & Ivanovska, 2003, pg 12 ; Bhatnagar,Mishra & Mishra, 2003). However, irrational use of drugs among communities is a worldwide problem occurring in both developing and developed countries (Holloway & Ivanovska, 2003; WHO, 2004; Otoom & Sequera, 2006). Worldwide, it is estimated that half of all medicines are inappropriately prescribed, dispensed or sold and that half of all patients fail to use their medicine properly. It is further estimated that 2/3 of global antibiotic sales occur without prescription (WMS, 2004; Holloway & Ivanovska, 2003). Common practices of irrational use of drugs include; multiple drugs on a prescription (polypharmacy), overuse of anti-biotics, misuse and over use of injections, short consulting time, poor patient compliance with health worker prescription, overuse of relatively safe drugs, use of unnecessarily expensive drugs (brand name vis-à-vis generic name), self medication (Arustiyono, 1999; Holloway & Ivanovska, 2003).

Studies reveal that the use of biomedical drugs in Africa is affected by the health care system in the respective countries. In 1978, during the World Health Organization (WHO) Conference on Primary Health care (PHC) in Alma Ata Country, it was recognized that in many African countries two health care systems exist; the traditional health care system and one based on modern medicine or biomedicine (Stekelenburg, Jager, Kolk, Westen, Kwaak & Wolffer. 2005). It was further established that though all patients would like to visit the hospital, 80% of the population in sub Saharan Africa (SSA) still employ the services of traditional healers (Stekelenburg et al., 2005; Faxelid, Ahlberg, Ndulo, and Krantz, 1998;

Shankar et al, 2002). This occurs to the extent that for a hospital and traditional healer in the same distance within reach to the patient, 49% of the population would visit the traditional healer compared to 34% visiting a bio-medical practitioner say at the hospital (Stekelenburg, Jager[b],Kolk[c], Westen[c],Kwaak[d],Wolffers, 2005; Faxelid, Alberg,Ndulo,Krantz, 1998).

In the last one to two decades, whenever the issue of use of bio-medical drugs by patients was raised, it was limited to a discussion of compliance or lack there of. There is often the assumption that patients use drugs 100% the same way that the prescriber intended and that all medicine is acquired in the presence of a prescriber thus ignoring common practices, which include: self-medication, over use of anti biotics and injections and polypharmacy (Foster, 1991; Arustiyono, 1999; Holloway & Ivanovsska, 2003,). Studies have established that there are various reasons as to why individuals irrationally use medicine which include: lack of knowledge, lack of skills or independent information, unrestricted availability of medicines, over work of health personnel, inappropriate promotion of medicines and profit motives from selling medicine (Holloway, 2006[a]).

In addition, poor doctor - patient relationship has been identified as one of the causes for irrational drug use (Foster, 1991; Chesney 2000; Ssemaluulu and Adome, 2006) in the context that doctors do not communicate well with the patients to earn their trust and confidence. Medicine is given without proper explanation regarding dosage, mode of administration, side effects and cost of the drugs where necessary. It has also been perceived that poor patients-practitioner relationship could be the root cause of poor prescription and dispensing practices. Results from the WHO data - base presented at the International Conference on Improving the Use of Medicines ICIUM) in Thailand 2004 indicated that in Africa, Asia and Latin America, only 40% of all patients were treated in accordance with clinical guidelines (Holloway, 2006[b]).

Self-medication with bio-medical drugs is significantly practiced in all developing countries (Foster, 1991; Adome, Whyte & Hardon, 1996; Shankar, Partha,& Shenoy, 2002). Though it is often argued that self-medication is widely practiced because it is cheaper and more convenient for the patients than the processes of going to a health centre (Foster, 1991), it can also be argued that the socio- cultural aspects of the communities in the developing countries has a greater influence to this phenomenon. This is because individuals are born

into a culture where herbal medicine is used and considered to be an appropriate remedy for the cause of illness (Shankar et al, 2002). Yet this herbal medicine is just picked from the forests or courtyards and one does not need any prescription from a professional. In addition, herbal medicine can be taken any time when the patient feels the pain and issues of dosages are not specific (Shankar et al, 2002). With this kind of cultural context society finds no reason not to self-administer biomedical drugs too.

In Eastern Africa, Uganda is known to take the lead in self-medication (Foster, 1991). Injections are also self administered from home; with the awareness about how reused injections can spread HIV/AIDS, people buy their own needles and syringes and administer the drugs at home (Foster, 1991). The use of injections has been widely favoured because of the belief that the injected medicine goes direct into the blood system enabling rapid reaction of the medicine unlike oral medicine, which first goes to the stomach. This also relates to the cultural practices whereby the herbs are applied where the sickness is. If a patient, for example, had a headache, the herbs would be rubbed on the head. These practices have affected the use of bio-medical drugs in Uganda to the extent that some patients open capsules like tetracycline and they pour the powder onto an open wound or into an infected eye (Foster, 1991).

Further still self-medication is perpetuated by the type of health problems among the community. It was established that most common health problems included; respiratory tract infections (RTIs) (29.7%), malaria (25.6%), intestinal worms (8.4%), diarrhoea (7.3%), eye infections (4.1%), skin Diseases (3.7%) and HIV/AIDS as a recent addition ((MoH, 1996, 1999/2000). These diseases can be treated by bio – medical drugs that could be easily accessed at the various drug outlets without consulting a physician. In addition the social stigma associated with some diseases like HIV/AIDS makes people to opt for self medication (Mwoga, 2000).

The inappropriate use of medicine is not only widespread but also costly and extremely harmful to the individual and the entire community. A study on community drug use in Uganda (Adome et al, 1996) revealed that irrational use of medicine was at 57% and took the forms of non – compliance with health workers' prescriptions, self medication, misuse of antibiotics, use of needlessly expensive drugs, over use of anti biotics, over use of relatively safe drugs like pain killers and use of non essentials combination drugs.

Consequent studies (Adome et al, 1996) established that there were adverse effects associated with irrational use of drugs which included; ineffective treatment, over dosage and development of drug resistance sicknesses. More recently it has also been established that poor adherence to antiviral medication accelerates development of drug – resistant HIV (Chesney, 2000) and can also create cases of drug addiction (Mehta, Moore, Graham, Neil 1997).

Irrational use of medicine is also associated with the medicine supply system. In Uganda all drugs are supplied to government health units by the National Medical stores (NMS) while the NGO health units receive drugs from Uganda joint medical stores (UJMS). Privately owned pharmacies also supply drugs not only to private retail outlets like the drug stores and clinics but to government and NGO health units (Mwoga, 2000). This could be so because of the free market policy and the inadequate availability of required drugs sometimes at both UJMS and NMS. In addition, there are other programmes that distribute drugs such as Tuberculosis/leprosy (TB/L), Malaria Control Unit (MCU) and Sexually Transmitted Infections (STI). This drug supply system with many entities involved at times makes it difficult for the National Drug Authority to implement its supervision and regulatory measures effectively.

Irrational use of medicine is also perpetuated by the health seeking behaviour of the community, which health seeking behaviour could be influenced by various factors including culture, gender roles to mention but a few. Among the Karamojong for instance, the head of the household determined the treatment actions for any disease and utilisation of resources in the home (Emusu, 1999). In such a situation the chances of medicine sharing in the family are high to reduce on the medical expenditure. Another study established that the multiple roles for women and financial dependency could not allow them to fully seek for health services when they are sick (Nanteza, 2000). This causes interruption in dosages or and or self-medication with the related disadvantages.

Since it is believed that patient's knowledge, attitudes and beliefs affect rational drug use, then it is vital that these variables are studied and avenues of incorporating them into medical care are explored and considered. It would be fruitful to consider a patient's lifestyle when prescribing a particular regimen than just giving the right drugs. Someone who spends his/her day away from home for instance, would be better off with drugs

administered twice a day, if such a person is given drugs to take three times a day, chances of forgetting the drugs at either the place of work or residence will be high - thus creating interruptions in dosage. Studies also suggest that since self-medication is so wide spread it would be most realistic to accept the situation and educate the community about how to treat themselves safely and effectively (Foster, 1991)

1.1 Statement of the problem

The cornerstone of any health system is the ability to offer both preventive and curative care to its users. However, such a health care delivery system could be successful only if the recipients used the medicine rationally. Yet various studies have established that irrational use of drugs is an eminent phenomenon in Uganda, which affects the efficacy of the national health care delivery system (Chesney, 2000; Whyte & Birungi, 1995). This hence necessitates the attention of the concerned stakeholders.

Earlier Studies indicate that some countries like Peru, Nigeria, Indonesia, Papua New Guinea and Afghanistan were able to implement measures to curb irrational use of drugs by providing informative manuals to the users (Management Sciences for Health, 1982), which spelt out issues of dosage and contra-indications. Much as numerous studies have been made about improving health care, hardly any has focused on improving healthcare through drug use and specifically rational drug use in Uganda, hence creating a gap between health care provision and utilisation. Therefore this study sought to investigate and document factors that influence drug therapy specifically, to understand the influence of patient's knowledge, attitudes and beliefs in rational use of medical drugs.

1.2 Objectives of Study

1.2.1 General Objective

To investigate how patients' knowledge, attitudes and beliefs influence the rational use of bio-medical drugs.

1.2.2 Specific objectives

1. To establish the factors determining the patient's use of bio-medical drugs
2. To examine how the sources of bio-medical drugs influence the rational use of the medicine.
3. To assess how patient's knowledge affects the rational use of bio-medical drugs.
4. To establish how attitudes and beliefs affect the rational use of bio-medical drugs.

1.3 Scope of Study

In Uganda, irrational use of drugs is a national problem affecting both rural and urban communities. In this study the term 'rational use' was used in the context of the medical practitioners. The medical practitioners define the rational use of medicine as a situation whereby patients receive medication appropriate to their clinical needs in doses that meet their own requirements for an adequate period of time at the lowest cost to them and their community. It was believed that irrational use of bio- medical drugs was more rampant in the rural areas where the number of medical practitioners was very few despite the availability of government hospitals and health centres. This has made people to seek medical services from alternative sources, which include: vendors, drug shops and ordinary shops (*dukas*) where the providers may not be qualified medical practitioners. It was also known that biomedicine was not very popular in the rural areas because of the strong cultural beliefs and attitude towards illnesses. All or certain illnesses were known to be cases of witchcraft whose treatment was always sought from traditional healers. Knowledge about drugs and illness was known to be very minimal in rural areas because of low levels of education, limited access to the necessary information and inadequate numbers of resource personnel. Hence the study focused on how the patients manipulated this kind of situation to use bio-medical drugs. Due to resource constraints, it was neither possible to cover all the districts in Uganda nor the whole of Kayunga District, hence the choice of Kayunga Town Council for the case study. Selected respondents at household level were interviewed to obtain first hand information on how their knowledge, attitudes and beliefs influence their rational use of bio-medical drugs.

Since knowledge, attitudes and beliefs change with changes in society systems over years, the study covered the period ranging from 1995 to 2008. This is because there had been reported improvement in the provision of medical services during the last 10 to 15 years. The respondents were free to express their views in relation to experiences within that period.

1.4 Significance of the study

The findings of the study are important as a requirement in the partial fulfilment of the award of a Masters of Arts Degree and to supplement on existing literature about the individual health seeking behaviour. It should be noted that most of the earlier studies conducted in Uganda have focused on access to health care(Adome, whyte & Birungi.

1995, Birungi,1996) undermining how healthcare is utilised hence creating a gap between health care provision and utilisation. This study was geared towards establishing how rationally healthcare was utilised. The findings will therefore contribute empirical knowledge about the rational use of bio- medical drugs in healthcare provision.

In addition, the findings will provide information to stakeholders like: the Ministry of Health for guidance when making policies about provision of medical services since studies have ranked irrational use of medicine as one of the top ten (10) causes of death (WHO, 2004), the Ministry of Finance and Economic Planning that can be useful during resource allocation. It is estimated that due to irrational use of drugs, governments spend a lot of funds purchasing not only drugs but also unnecessary drugs. The findings will also benefit organisations and individuals that are involved in the provision of medical services for instance those offering services to HIV/AIDS infected people and caring for the aged.

1.5 Conceptual framework

The study was conceptualised to include variables that internally and externally affect the health seeking behaviour of an individual as indicated in ***Figure 1***

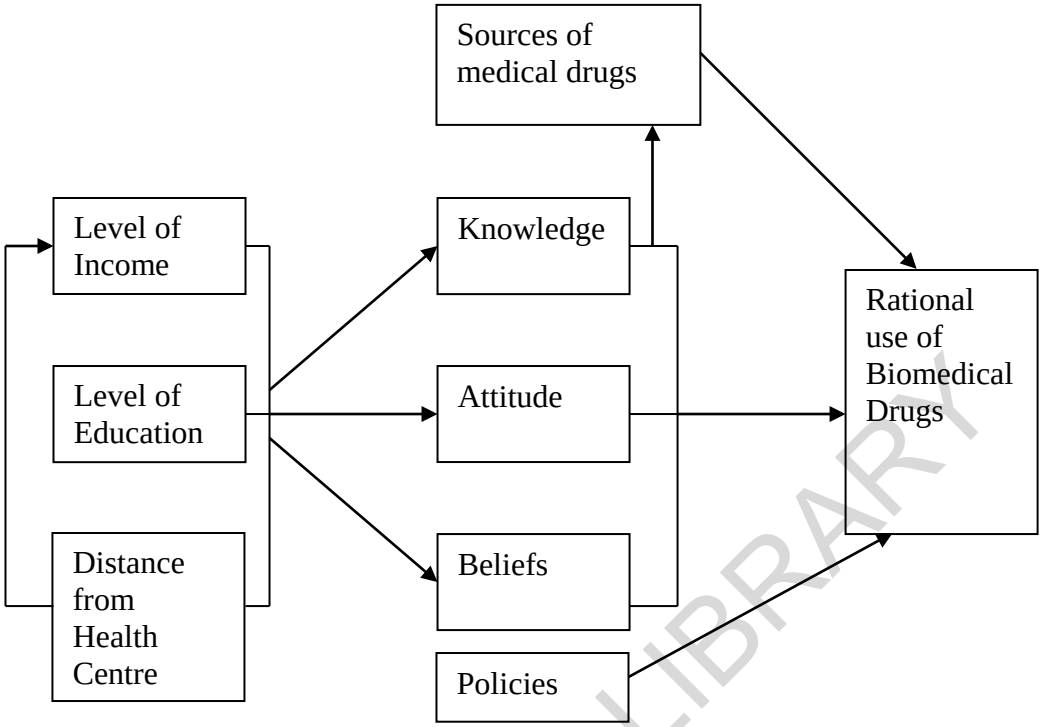


Figure 1. Conceptual framework

The conceptual framework explains how the variables are related. Rational use of bio-medical drugs, which is the dependent variable, is being influenced by the independent variables, which are patients' Knowledge, attitudes and beliefs. The independent variables are intervened by the level of education, level of income and distance from health centres. Knowledge, attitude and beliefs will vary according to ones level of income, education level and distance from health centre, though distance from health centre will depend on the patients' level of income. In addition, patients' knowledge, attitude and beliefs influence the choice for sources of bio- medical drugs, and sources of bio- medical drugs affect the rational use of medicine. Then government policies affect the rational use of bio-medical drugs though they are external to the individual.

1.6 Layout of dissertation.

The dissertation is arranged in eight chapters. Chapter one introduced the study and presented background information. It also states the problem, objective of study, scope, significance of the study, theoretical and conceptual framework. Chapter two presented a review of the literature based on the objectives of the study that is, patients' considerations for using bio-medical drugs, sources of bio-medical drugs, patients' knowledge and the rational use of medicine and patients' attitudes and beliefs in the rational use of bio-medical drugs. Chapter three presents the methodology used in the study. It includes the research design, a justification of the area of study, study population, sample size, data collection and data processing methods as well as limitations of the study and ethical considerations. Chapter four presents a discussion on the demographic characteristics of the study group and patients' consideration for using Western medicine. Whereas chapter five discusses the sources of bio-medical drugs and how they affect the rational use of medicine, chapter six discusses how patients knowledge influences the use of bio-medical drugs it as well as the dissemination of information from doctor to patient. Chapter seven focuses on the attitudes and beliefs towards rational use of medicine in relation to compliance. Finally chapter eight presents the summary findings, conclusions and recommendations in regard to improving the rational use of medical drugs.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.0 Introduction

There is a significant volume of literature that describes the use of bio –medical drugs in the context of health- seeking behaviour both in the developed and developing countries. However, in Uganda though numerous studies have been conducted on the use of bio-medical drugs, very few of them have been published and hardly any of them focus on rational use of bio-medical drugs. Therefore this section presents literature reflecting on the health seeking behaviour of the individual, the influence of knowledge, attitude and beliefs in the use of bio- medical drugs in general and Uganda in particular. In addition, drug regulations policies have also been cited that stipulate the sources of bio-medical drugs.

2.1 The choice for bio-medical drugs

Bio-medical drugs are drugs dispensed by people who study bio- medicine. Bio- medicine includes the field of surgery, clinical medicine and medical research.

Health seeking is as old as mankind and it is common knowledge that all societies have been engaged in a variety of ways of dealing with disease. Studies have established that in all societies there have been remedies and people to advise on how to deal with disease and its consequences, like traditional healers and medical personnel depending on the social construction of the community. The same studies further revealed that for a vast number of people, traditional medicine was the only form of medicine available until especially the colonial period when allopathetic medicine spread in the Third World (WHO 1988). It has been established that people are pragmatic, that they make their initial choice of treatment on the basis of their perception of the cause of illness; whether natural or supernatural and when the selected treatment fails to work they shift easily to a conceptually different treatment (Twaddle & Hessler, 1987; WHO, 1988; Adome,Whyte,Hardon, 1996). In the context of the pragmatism of the individual and in reference to literature, the picture portrayed is that, it would not matter where the individual sought treatment first when they fell sick, as long as the first attempt failed they would shift to another alternative. Many cultures believe that Western medicine is effective in the treatment of acute illness like malaria and diarrhoea but not chronic and minimal health problems. A study in Taipei revealed that all adult problems were first treated at home while severe acute disorders were taken first to indigenous healers then to western style doctors (Kleinman, 1981).

Later studies however revealed that allopathetic therapy was not only sought for acute illness but even for chronic disorders like diabetes and cancer. A study about health care practices among migrant Yugoslavian and Swedish diabetic females for example, indicated that patients sought health care predominantly from nurses and physicians and not anywhere else (Hjelm, Nyberg, Isacsson, & Apelqvist,1999).

Considering the health seeking behaviour of people as explained above, it could be argued that patients act with a certain degree of rationality when seeking health services. People believe that biomedical drugs are effective but prefer to start with remote modes of treatment. Biomedical drugs are sought for ailments where the known local remedy has failed and the impact of the illness to the individual is visibly severe. This perhaps is a result of the perception that pharmaceuticals offer immediate cure for the ailments that they are sought for as revealed by a study on community use of drugs in Uganda (Adome, 1996).

2.2 Sources of Bio-Medical drugs

Studies have established that there are three systems in which drugs are supplied in Africa, these include; private commercial, private non- profit and public or government (Foster, 1991).

The private commercial sector constitutes the sale of drugs in private pharmacies, drug shops, clinics and illicit drug sellers. Private pharmacies are run by qualified pharmacists and concentrated in the urban areas. Studies conducted in nine (9) West African countries revealed that with a total of 542 pharmacies, 301(56%) were located in the capital cities (Foster, 1991).

Drug shops are much more common in rural areas and it has been established that many people seek medical advice from there because drug shops are more close to the people. In Kenya for instance, people patronized the drug shops because the alternatives were quite distant and the shops could be open even in emergencies (Foster, 1991). However, irrespective of the source of drugs, it is common practice for the patients if they have not been healed of the ailment, to seek medical advice from the health centres where there are professional practitioners (Kleinman, 1981; Zachariah, Nkhoma, Arendt, Chantulo, Spielmann, 2002; Faxelid et al, 1998; Stekelennburg et al 2004)). A study on health seeking and sexual behaviour in patients with sexually transmitted infections in Malawi indicated that 53% of the clients had taken some form of medication before going to the clinic, the sources of which were traditional healers, private clinics, pharmacists and market Vendors (Zachariah et al,2002; Faxelid et al, 1998).

In Uganda the health care provision system is constituted of the formal and informal sector. The formal are those practitioners that are licensed to practice as they do and informal are the practitioners and providers not licensed to practice as they do (Adome et al, 1996). The major distinction between informal and formal is in authorization to practice and not in professionalism. So it is likely that unqualified personnel would be found providing services in a formal clinic, pharmacy and or drug shop. However like in other countries, there is a close relationship between the formal and informal sector (Adome et al, 1996; Vander, 1988) mainly evidenced in cases of staff sharing and obtaining of medicine. It should be noted that both the informal and formal sectors are regulated by the drug policy.

Like all other nations, there are a series of drug regulations governing the practice of pharmacy in Uganda which include; Eddagala Luwungula, 1952; Poisons guide, 1960; Dispensing Tariff 1962, Trade Guild, 1963 and Pharmacy & Drugs Act 1970(NDP, 1993). Due to the political, social, and economic changes in the country especially after 1986, the Pharmacy & Drugs Act 1970 became outdated. Drugs imported could no longer match the disease patterns. For instance, malaria was among the first five killer diseases and HIV/AIDS was rampantly spreading and killing people (Adome at al, 1996). Hence in 1993 the National Drugs Policy Act was passed and its guiding principal was to ensure at all times, availability of essential, efficacious and cost-effective drugs to the entire population of Uganda as a means of providing satisfactory health care and safe guarding the appropriate use of drugs (Adome at al, 1996; NDP, 1993). Further changes were to be experienced later; due to the dwindling economic resources the concept of the national drug list was formulated whereby the government only imports those much-needed drugs in the economy (Adome at al, 1996; Foster, 1991; WHO, 2004).

However the implementation of good policies like the ones above requires the existence of an ideal situation. It should be noted that the provision of health services in Uganda is affected by 2 major issues as summarised by the white paper on health (MoH, 1993 in Muneene et al 1997):

a) A decline in budgetary allocation. Government can provide only 50% of the recommended public spending in health and clinical services.

b) Total breakdown of the service sector particularly health and education which resulted mainly from the civil war covering a period of 1970 and early 1980s (Lawson, 2004). It was reported for example that approximately 60% of medical doctors and 78% of pharmacists were lost in a space of 4 years (Scheyer & Dunlop, 1985 in Muneene et al, 1997). Districts would go without medical officers for months, newly qualified doctors were put in charge of District hospitals and district medical offices could fail to secure transport to collect drugs from the national stores (Muneene, 1992 in Muneene et al, 1997). It is argued as unreasonable to require an individual to seek medical advice from a qualified medical practitioner before taking a drug when that qualified worker is not easily accessible (Dodge & Wiebe, 1985, Adome et al 1996).

Considering the above scenario, the community stepped in to overlook the provision of medical services by setting up corner drug shops characterised by unqualified personnel

previously or currently related to medical institutions and very high medical costs (Scheyer&Dunlop, 1985 in Muneene et al, 1997). A study by Whyte, Adome and Birungi (1996) on community use of drugs in Uganda established that 52% of drugs supplied were from ordinary shops (*dukas*) and drug shops in the local setting. This was attributed to the views that private entities offered courteous services, were conveniently located, easily accessible (24 hour services) and the drugs were readily available. Related findings were reported that individuals, poor or non poor, preferred curative care from NGOs and private health units compared to the less expensive government care mainly due to limited business hours in government units, inadequate availability of drugs coupled with unfriendly staff (Adome et al, 1996; Dodge & Wiebe, 1985; Christensen, 1990, Lawson, 2004). However, studies revealed that the existence of a government or NGO healthy facility within reasonable proximity per se did not guarantee it to be the primary source of pharmaceuticals (Christensen, 1990; Bakeera, Wamala, Galea, State, Peterson, Pariyo, 2009). Implying that the utilisation of health units was not just dependent on its proximity to the people but perhaps there are other reasons to consider like quality of services.

Since the 1990, there have been major health sector reforms that are largely based around a Health Sector Strategic Plan (HSSP), which commenced in 2000/1 and is revised every year. It encompasses a sector wide approach (SWA) in improvement of health services through further decentralization of the national health care delivery system. This has been evidenced by mainly upgrading and construction of Health Centres country wide to parish level (though the capacity for these health centres to deliver is still remote), scraping off of user fees which had been introduced in the 1990s and efforts to post trained medical personnel to these units through the decentralized local governance system (Lawson 2004).

2.3 Effects of knowledge, attitudes and beliefs towards rational use of drugs.

2.3.1 Introduction

It is often thought to be axiomatic that treatment agents would prescribe a course of treatment to be followed by patients and that patients would follow the treatment prescribed. Among the professionals it is assumed that the uncooperative patient is the exception to the rule and that failure to cooperate is to be explained as a negative character trait of the patient who does not care about his own health and lacks a will to live.

However the truth of the matter is that most people do not cooperate with all the treatment as prescribed. Some people discontinue treatment sooner or later than their physicians had

desired (Sweet & Twaddle, 1969). For people not to cooperate is not a justification that they do not care about their health but it is believed that they are either ignorant about the use of the medicine or they have in built sentiments about the drugs, illness or the health practitioner as to be discussed below;

2.3.2 Attitudes and beliefs towards the rational use of bio- medical drugs

Some patients are known to have a negative attitude towards medication. It was established for instance that among the mentally ill, patients were not rationally using the drugs for fear of addiction and the belief that medication use was a sign of weakness (Mehta et al, 1997). This suggests that an individual would intentionally not use the drugs despite having seen a physician just to prove that he or she is strong and the ailment can eventually go by itself.

Since people seek medical drugs symptomatically by conferring with other people especially family members, the phenomenon of social networks is considered important in the rational use of medicine (Freidson, 1961). A study on Adherence to Medical HIV Therapy revealed that poor social relationships and activities were associated with lower adherence among HIV infected people while among the elderly and mentally ill, lack of involvement by family and friends, social isolation and living alone were associated with increased risk of non - adherence (Mehta et al, 1997; Chesney, 2000; Therapist perspective, 2003). It is believed that religion is one of the variables important in upholding social relationships with relatives (Hjelm, Nyberg, Isacsson, & Apelqvist, 1999)

When taking medication, the patient always had the perceived benefit of getting cured and when it is not achieved, the patient's use of drugs will be affected. Amongst the HIV infected patients it was established that perceived lack of benefit reduced the adherence to HIV therapy (Mehta et al; Chesney, 2000).

Much as it is believed that biomedical drugs offer immediate relief, the decision for an individual to seek professional help depends basically on two factors; the degree of correspondence between lay and professional cultures and the number of people consulted (Twaddle & Hessler, 1987, Kleinman, 1981). It is hence argued that contact with a professional is most likely when the cultures of the individual seeking help is similar to that of the professional and secondly when the referral structure is extended (Friedson, 1961). For this reason, it's not rare to find patients seeking medical services from professionals

with whom they are ethnically matched (Twaddle & Hessler, 1987). This phenomenon was also revealed in a study of medical practice carried out in Toronto, Ontario & Providence Rhode Islands that established that Jewish patients tended to go to Jewish Physicians and Irish patients went to Irish Physicians (Hall, 1946, Twaddle and Hessler, 1987).
It is believed that when the professional and client of the medical service are of different cultural backgrounds, symptoms may be misinterpreted which can lead to misdiagnosis and inappropriate treatment (Therapist Perspective, 2007).

It would therefore be argued that an extended referral system and similarity in culture between the patient and professional builds the confidence of the patient towards the professional hence enabling the patient to be satisfied with the services provided.

2.3.3 Patient's knowledge and the rational use of bio-medical drugs

Like already discussed above, before an individual agrees to take on any treatment they have to believe that their current alteration in health is significant enough to seek help. The individual may then decide to seek treatment from; a hospital, pharmacy, traditional healer amongst others. It is therefore upon the health care provider to offer the best necessary advice to the patient as regards his /her health condition. Mubangizi (2006) in factors influencing consumer use of medicine noted that communication between professionals and consumers was very fundamental to the improvement of rational use of medicine. He also agrees with other researchers that the professionals are expected to provide information like; educating the patient about the correct use of the medication (dosage, frequency and duration of use), involving the patient in deciding what form of treatment to take, the name of the medicine, the purpose for which the medicine is being taken and the side effects of the medicine (Ssemaluulu & Adome, 2006; Mehta et al, 1997; Edwards, Elwyn, Hood, Atwell, Robling, Houston, Kinnersly, Russell, and the study group, 2004, Mubangizi, 2006). In Uganda, many studies have related failure of therapy to the bad attitude and poor communication skills of health care providers especially in government health institutions (Ssemaluulu & Adome, 2006). However another study established that the inadequate provision of information is an outcome of the shortage of qualified medical personnel in public health facilities (Mubangizi, 2006).

The use of bio-medical drugs depends on a patient's acceptance of the information about the health threat itself and is a perception of the practitioners' friendliness, empathy, interest

and concern (Ssemaluulu & Adome, 2006; Tarun, 2003; Arustiyono, 1999). Studies have established that many patients (97.5 % in Uganda) leave hospital without knowledge of the drug names prescribed to them; cost of the drugs, dosage interval, and possible side effects and how to go about them; and what to do if a dose is missed (Seppuya G, 2003; Ssemaluulu & Adome, 2006; Adome et al, 1996). It could be argued that the situation of poor communication between patients and health care providers is mainly attributed to the fact that the professional practitioners spend very little time with the patients. It was reported that at health centres in developing countries, the average contact time is often only one to three minutes, deemed too short for effective communication (Arustiyono, 1999). It is argued that because of this kind of poor communication between patients and biomedical practitioners many patients seek the services of traditional healers (Stekeleburg et al, 2004; Faxelid et al, 1998), for they are known to spend much time with the patient for effective communication.

As already discussed in the above sections, policies have been enacted at international level to curb the irrational use of medicine. This approach however assumes a dependency mind of the community upon the medical practitioners. Studies have established that the medical service delivery system internationally is based on the deficit model of health provision. The deficit model focuses on identifying problems and needs in populations (Morgan & Ziglio, 2007) hence making it have draw backs of defining communities and individuals in negative terms disregarding what is positive and works well in particular populations. Morgan & Ziglio (2007) suggested that governments should adopt the assets model of health provision which tends to accentuate positive capability to identify problems and active solutions. They focus on promoting salutogenic resources that promote self-esteem and coping abilities of individuals.

2.4 Theoretical framework

The direction of this study was based on the model for health care-seeking behaviour, which contends that health care could be sought in the popular, folk or professional sector (Klein man 1981). This health related behaviour is explained by the Health Belief Model (HBM) which was developed by Rosenstock and Kegels in the 1950s (Glanz,Lewis,&Rimer, 2002). The HBM attempts to explain and predict health behaviour by focusing on the attitudes and beliefs of individuals. The major assumption of the health belief model is that the beliefs of an individual determine behaviours to a greater extent (Glanz et al, 2002). However, in the

same study, Glanz et,al argue that over the last 30 years emphasis on individual's behaviour as determinants of their health status has shifted and most outstanding leaders in health education stress the importance of political, economic and social factors as determinants of health. This therefore necessitates the incorporation of knowledge in addition to attitudes and beliefs as regards understanding the health- care seeking behaviour.

The key components of the HBM are;

Threat in terms of perceived susceptibility to ill-health or acceptance of diagnosis: An individual will accept to use bio- medical drugs after acknowledging that his current ill - health can only be reversed by the use of such.

Perceived Seriousness of the condition: individuals used bio –medical drugs depending on how seriously severe they considered the sickness to be. For instance, it is believed that medical drugs offer quick relief. So, acute illnesses like malaria are rushed to hospitals while chronical cases take a longer time to consider the use of bio- medical drugs.

Perceived benefits: this is where by the individual has to consider the outcome expectations if they went to hospitals. Will they completely be cured if they used bio-medical drugs or if one knew exactly what he /she is suffering from will it improve on their well-being.

Cue to action; this would explain the perceived barriers to taking action. For instance what would prevent or encourage an individual to use bio- medical drugs. This is where by aspects of the lay referral systems are covered. That is, an individual will use bio- medical drugs because he/ she have been recommended to do so by someone they know. Or the patient knows of someone who suffered the same illness and was cured by bio-medical drugs.

Self efficacy: this would explain the confidence by an individual to use the bio- medical drugs without being coerced by another party.

It should be noted that the HBM does not consider factors external to the individual that could influence his/her health seeking behaviour like government policies. However for the objectives of the study to be met, government policies had to be addressed as indicated in the conceptual framework. In this context, this study considered policies in regard to structures and systems established by government to influence the health- care seeking behaviour.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter indicates how the study was designed and conducted, by highlighting the; area of study, study population, sampling and sample size, methods of data collection that were used for and their justification as well as the limitations of the study.

3.1 Research Design

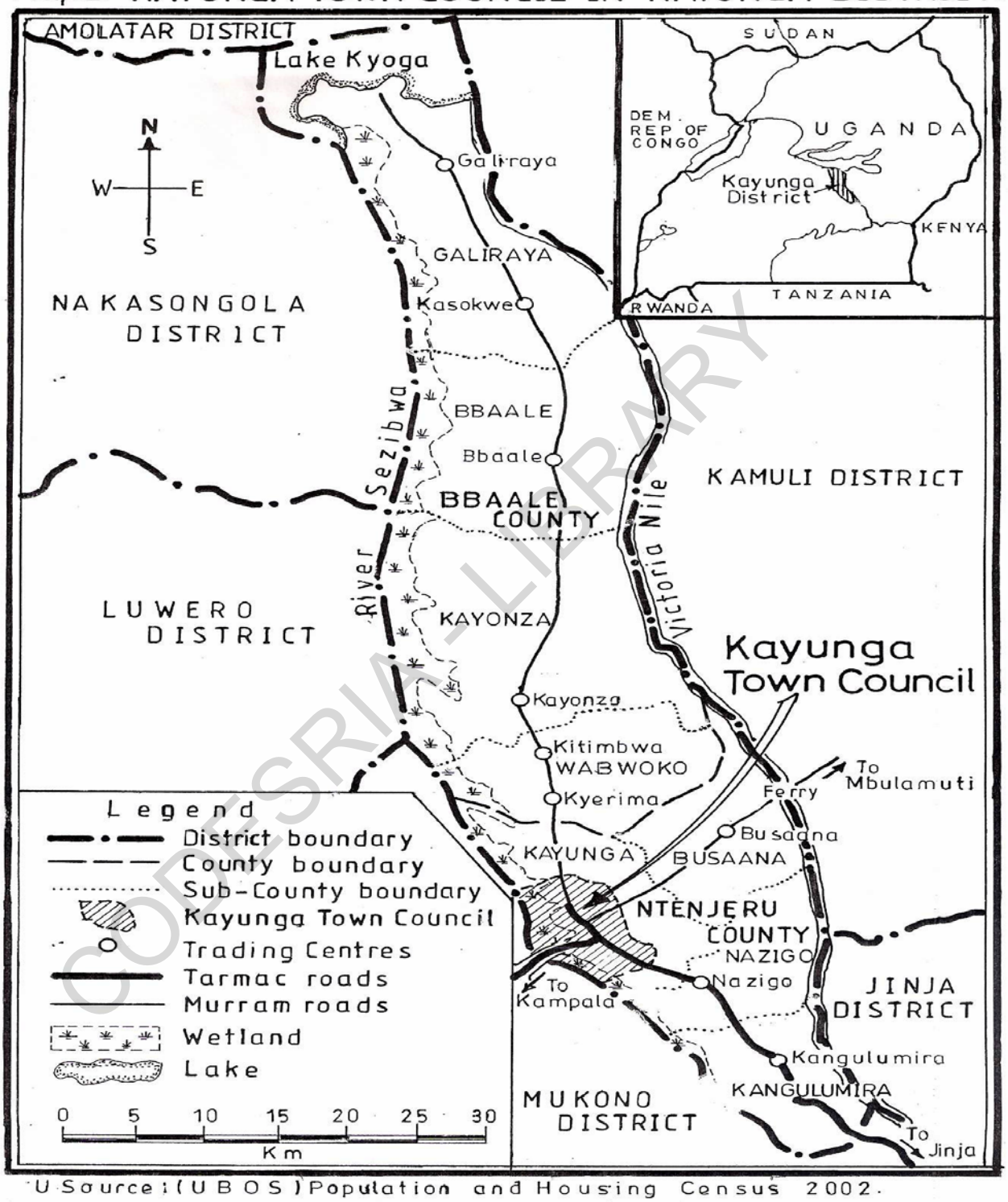
The study was cross-sectional and descriptive as defined by Neaman (1997), using both quantitative and qualitative methods. The research was part of a study programme with a limited time frame as regards completion of the course hence making a one-time observation of phenomenon most appropriate. In addition, the descriptive research design enabled the researcher establish how relevant patients' knowledge, attitudes and beliefs are in the rational use of bio- medical drugs. The data gathering techniques in descriptive research which include field surveys, as was used in the study, enabled the researcher to provide an accurate profile of the group under study (patients), describe the relationship between the variables under study, find information to stimulate new explanations about the rational use of bio-medical drugs and document information that contradicts prior beliefs about the rational use of biomedical drugs.

The research design however had the weakness of observing phenomenon at only one point in time thus hindering the capture of social change that take long periods of time, and their impact on the variables under study. This however was minimized by the open ended questions in the questionnaire where by the respondents were free to express their views which could be in relation to past experiences.

3.2 Area of Study

The study was conducted in Kayunga Town council. Kayunga DistrictKayunga attained District status in December 2002. It was curved from Mukono District and is 74 km East of Kampala City. It is found in the central part of Uganda, bordering Mukono in the South, Jinja in the South-east, Apac in the North, and Luwero in the Mid-west. The western border with Jinja and Kamuli is formed by River Nile while the Northern part with Lake Kioga. The District is comprised of 2 counties; Ntenjeru and Bbaale, 9 Sub Counties, 61 Parishes, 375 Villages (Kayunga Local Government, 2007). The case study, Kayunga Town Council is Peri- urban and found in Ntenjeru County. The District is endowed with diversity in ethnicity with the

Map 2. KAYUNGA TOWN COUNCIL IN KAYUNGA DISTRICT.



Source: (UBOS) Population and Housing Census 2002.

Prevalent tribes being; Baganda, Basoga, Baruli, Iteso, Jopadhola, Kuku, Bagwere, Banyole and Banyala.

The main economic activity is agriculture practiced by 96 % of the population. The district has a total population of 294,613 with Kayunga Town Council harbouring 19, 797 (Kayunga District Local Government, 2007).

Kayunga town council was selected as a case study because it is in Ntenjeru County which is one of those regions in Uganda with a distribution of health centres that meets the average National standard of 74% of the population being within 5km distance to the health unit (Kayunga District Local Government, 2007). This therefore enabled the researcher obtain relevant information to do with knowledge, attitudes and beliefs without the obscuring factor of long distance from health units which had been advanced by policy makers as the main reason for the minimal utilisation of health services.

3.3 Sample size

The study targeted all households in the town council and all respondents were residents of the area. The respondents included; Women and men aged 18years and above since 18 years is the constitutional age of consent, and key informants included Medical Personnel, Pharmacists and Drug store Operators.

Since the sampling unit was the household, the sample size was determined after establishing the total number of households in Kayunga Town Council to cover only a selected number of households. According to the 2001 Population Census, Kayunga Town Council had 4,726 households (Kayunga District Local Government, 2007).

Therefore, the Sample Size (n) was calculated using the following formula:

$$n = \frac{Z^2_{\alpha/2} \times (p) \times (1-p)}{e^2}$$

Where:

Z = Z value = 1.96 for 95% confidence level

p = percentage picking a choice, expressed as decimal

(0.5 used for sample size needed)

e^2 = confidence interval, expressed as decimal (in this case I have chosen 0.1 = ±10)

Where: $Z_{\alpha/2}$ = 1.96

P = 0.5
e = 10%

Therefore:

$$n = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.1)^2} = 96.04$$

The sample size was therefore rounded off to be 96 Households.

In the event that the population is finite, the Sample Size (n) could be corrected as follows:

$$\text{Corrected } n = \frac{n}{1+ (n-1)/Pop}$$

Where:

Pop = Population size = 4,726

Therefore:

$$\text{Corrected sample size was } n = \frac{96}{1+ (96/4,726)}$$

Giving approximately 94 households as the sample size.

3.4 Sample procedure

Since Kayunga town council has four wards, all the wards were involved in the study. The sample was selected by cluster sampling where by, 2 villages were randomly selected from each ward from where the respondents were picked. There was no defined sampling frame because it was not possible to establish the exact number of households in each village, as there was no documentation to that effect. With the assistance of the local leaders, respondents were randomly selected by considering 1 household after every 2 households skipped. The key informants were purposively sampled targeting individuals working in the public and private health units specifically, Doctors, Medical Assistants, Midwives and or Nurses.

3.5 Data collection methods

The principle method of data collection was by survey research where by structured questionnaires with both open and close – ended questions were used. Close-ended

questions guided the respondents to give only the necessary responses relevant to the study while open-ended questions enabled the respondents to express their free will of opinion where necessary. A structured questionnaire was used because it was easy to administer and enable the researcher control the flow of responses without deviation by the respondent hence making the interview period acceptably short for both researcher and respondent. The questionnaire was filled by the researcher while reading he questions to the respondents. Interviews were conducted at the respondents' home and lasted about 20-25 minutes with a 3mininutes break.

To guide the interviews with the key informants, an interview schedule was drawn which enabled the respondents to respond to only aspects of healthcare relevant to the study while creating a free will of expression where necessary. After identifying the key informants, the researcher organised to meet them at an appointed time after the day's work. The interviews lasted between 30 – 35 minutes with a 3 minutes break. There were no logistics for both the interviews.

3.6 Data analysis

Both qualitative and quantitative data was gathered for this study .Quantitative data were analysed using the Statistical Package for Social Sciences (SPSS). Presentation of data was in frequency tables for univariate variables. Cross tabulation was used for the bivariate and multivariate variables. Qualitative responses were analysed and presented as narratives by use of quotes and texts.

3.7 Quality control

To ensure quality control a pre-test of the research instrument was conducted to perfect the instruments. Also the researcher did not employ any research assistants but conducted the field interviews b herself. The researcher ensured that all questionnaires were systematically filled.

3.8 Limitations of the study

It was envisaged that since the scope of this study was limited to a case study of Kayunga Town Council, the findings would not be appropriate representations for the other regions in Uganda. This was attributed to the differences in the socio- economic conditions, cultural values and practices between different ethnicities in the country.

3.9 Ethical considerations

Ethical issues were considered when conducting this survey as expounded below: Undue stress was overcome by conducting the field interviews at the respondents' residences, which were considered safe, comfortable and less stressful. To curb Psychological abuse, the respondents were not in anyway subjected to situations, which made them lose their self-esteem. They were encouraged to answer questions honestly without telling lies and every tool used while conducting this study was explained to the respondents. The researcher sought the consent of the local leaders and the respondents before conducting the interviews. This enabled the respondents to answer confidently and without the fear of being accused of involvement in illegal activities. The respondents were informed about the purpose of the research before they answered the questionnaire to allow them an opportunity to decide whether they would participate or not because participation was absolutely voluntary.

To ensure privacy**,** the respondents' answers provided in the questionnaires were the only answers to be considered. Respondents were not subjected to any other experiment or observation without their knowledge. Anonymity was upheld by not disclosing the respondents' identities after information was gathered; names were not attached to the questionnaires. Where names were attached to the responses like for the key informants, the names were kept in confidence by the researcher from the field report.

CHAPTER FOUR: PATIENTS' CONSIDERATION FOR USE OF WESTERN MEDICINE[1].

4.0 Introduction

To establish the relevance of knowledge, attitudes and beliefs in the rational use of bio-medical drugs, various factors were considered for investigation, the findings of which are presented in this and the subsequent chapters. In this chapter the demographic characteristics of the study group and reasons for patients' use of Western medicine are presented.

4.1 Demographic characteristics of the study group.

The characteristics of the respondents was considered to enable the researcher have an insight into the kind of people involved in the study. They also enabled the identification of eligible respondents and to minimize errors of omission and commission. More so literature has established that demographic factors have a great influence on an individual's health seeking behaviour (Shaikh & Hatcher, 2004) as they define individual values and behaviour. Demographic factors also affect awareness and recognition of severity of illness as well as, availability and acceptability of health care services. In the same study Shaikh & Hatcher (2004) established that gender discrimination against women in issues of, child rearing, nutrition, health care seeking, education and general care have made women highly vulnerable and disadvantaged which makes them susceptible to irrational use of medicine. Sometimes religious misinterpretations have endorsed the women's inferior status. Gender discrimination, which is culturally entrenched, has caused the women to have limited access to the outer world hence limiting their access to health services too.

The study group comprised of 99 participants of which 94 were respondents to the self-administered questionnaire while 5 were key informants. The key informants were medical personnel from the different medical drug outlets in the area of study like; hospitals, drug shops, pharmacies, clinics and health centres.

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[1]Also known as bio-medicine which includes surgery, clinical medicine and Research.

4.1.1 Age of Respondents

There were 6 age categories starting from 18 to 68 years and above. Analysis of the respondents revealed that half of them were between the age of 18 -27 at 47 (50%), followed by those in the age group of 28 -37 with 22 (23.4%) and 12 (12.8%) for the ages of 38-47 as indicated in Table 1. The high percentage of respondents being youth could be attributed to the AIDS pandemic which claimed the lives of many parents leaving children at a tender age with the eldest of them taking on the mantle of house hold heads. Besides the effects of the AIDS pandemic, Uganda's life expectancy which is very low at 50.4 years for both sexes, 52.0 years for females and 48.8 years for males (Kayunga Local Government,(2007) has also left young people and or women being heads of households.

Table 1. Frequency distribution of respondents by age group.

Age group (years)	Frequency	Percentage
18 -27	47	50.0
28 – 37	22	23.4
38 – 47	12	12.8
48 – 57	7	7.4
58 – 67	4	4.3
68 and above	2	2.1
Total	**94**	**100.0**

Effects of the AIDS pandemic and low life expectancy could be the cause for the many female-headed households as established by this study. Of the 94 respondents 50 % were female and 50% male, where as of the 5 key Informants 2 were female and 3 male.

4.1.2 Marital Status

The majority of the respondents 50 (53.2 %) were married, singles were 33(35%) with divorcees scoring lowest at 2.1% and separated at 3.2% (see Table 2). The widowed were 6 (6.4%) and these included both widows and widowers.

Table 2. Frequency distribution of Respondents by marital status

Category	Frequency	Percentage
Single	33	35.1
Married	50	53.2
Divorced	2	2.1
Widowed	6	6.4
Separated	3	3.2
Total	**94**	**100.0**

The findings that 53.2% of the respondents were married yet over 55% of the total number of respondents were youth would indicate a high rate of early marriages in this region. Early marriages is not a phenomenon unique only to the study area but it is a common practice in the whole country as it was revealed in the 2002 census analytical report that 60% of the persons aged 15 years or more were in a marriage union(Kayunga Local Government, (2007). In this study I did not define marriage however according to the census 2002 Report, marriage was defined as "a union between a man and a woman who are living together as husband and wife whether or not they have been through any civil or religious ceremonies" The constitution of Uganda stipulates that youth are persons ranging from 18-30 years yet earlier studies established that the mean age for marriage in the central region where the study area lies is 19.9 for females and 24.1 for males (UBOS, 2007).

The divorcees were the least perhaps because people are not comfortable revealing whether they are divorced or separated as it is considered shameful in society. In addition it is difficult to secure a divorce since many marriages are traditional where there are no defined laws for divorce. It is hence common for some one to say that they are married yet they have been living separate from their spouses for over 5 or more years.

4.1.3 Education level

Most of the respondents were found to have some level of education with 20 (21.3%) having University level followed by 19 (20.2%) with Tertiary and 'O' level as indicated in Table 3. The area of study being peri-urban; attracts many educated people seeking for employment opportunities hence registering a high rate of educated people. The proportion of those with no education at all was lowest 6(6.4%) perhaps because the people in this area

have embraced the government policy of Universal Primary Education where primary education is considered free for all.

Table 3. Frequency distribution of Respondents by education levels.

Education level	Frequency	Percentage
No education	6	6.4
P1 –p7	13	13.8
S1 –s4	19	20.2
S5 –s6	17	18.1
Tertiary	19	20.2
University	20	21.3
Total	**94**	**100.0**

Further analysis was made to find out whether there were variances in the education levels in relation to gender. Statistics revealed that there were more women with lower levels of education and more men with higher levels of educations. It was established, as presented in Table 4 that 4 (66.7%) of the 6 respondents with no education, 9 (69.2%) of the 13 respondents with P1 –P7 and 10 (52.6%) of the 19 with S1 –S4 were female. At the higher level, 12 (60.0%) of the 20 respondents with university education, 10 (58.8%) of the 17 for S5 –S6 and 10 (52.6%) of the 19 with tertiary education were male. This implies that either the drop out rate is high among girls than boys or there is preference for educating the boys to attain better education level than the girls. These findings concur with arguments that in the African culture there has always been a preference to educate the boys to the girls as reported by a study in Cote d'Ivoire which established that there was a general sentiment in the communities that, educating girls does not result in economic advantages (CICRED, 1999). Related findings are from a study by Wakam (CICRED,1999) on "Demographic Structure of household and children's schooling in Cameroon" which revealed that the demographic structure of households helps to explain the schooling of girls via households while the economic structure of households explains the schooling of boys via possibilities for young boys to earn income (CICRED, 1999). The findings also relate with an earlier study by Sudarkasa (1982) which established that education delivery systems in developing counties were directly mainly toward males in that women per take of formal and non formal education in fewer numbers and for shorter periods of time than men. It can be

argued that the education opportunities open for both men and women could be directly linked to the sex role differences that exist in the societies, also as revealed by Sudarkasa (1982).

Table 4. Frequency distribution of respondents by education level and gender

Level of Education							
Sex	**No Education**	**P1 –P7**	**S1 –S4**	**S5 –S6**	**Tertiary**	**University**	**Total**
Male	2 (33.3%)	4 (30.8%)	9 (47.4%)	10 (58.8%)	10 (52.6%)	12 (60.0%)	47 (50%)
Female	4 (66.7%)	9 (69.2%)	10 (52.6%)	7 (41.2%)	9 (47.4%)	8 (40.0%)	47 (50%)
Total	**6 (6.4%)**	**13 (13.8%)**	**19 (20.2%)**	**17 (18.1%)**	**19 (20.2%)**	**20 (21.3%)**	**94 (100%)**

However a critical analysis revealed that there was no statistically significant relationship between level of education and sex with **X^2= 0.0546 (P ≥ 0.05).** Meaning that some one's gender cannot influence their being, educated or not.

The findings could be indicating the impact of the advancement of movements like the women movement, which advocates for women empowerment and development of the girl child. Uganda also joined the other countries in the world and enacted affirmative action policies to ensure that the girl child is developed. These included the introduction of the 1.5 points programme in 1990 where by, for each girl who sat for the Advanced Level exams, a 1.5-point mark was added to her results to increase the chances of joining University.

It was however realized that the 1.5 programme benefited the already advantaged girls who had attained the minimum level of education leaving out the many who were not even able to go to primary. In this context, Universal primary education (UPE) was introduced in 1998. On inception, UPE was to benefit only four children in every family but later on the programme was revised to cater for all primary school going children.

In 2007 Universal Secondary Education (USE) was introduced because it was established that there were still high levels of dropouts especially in the rural areas. For Kayunga Town Council, the statistics indicated no preference for the boy child in education perhaps because the area being Urban- rural attracts many educated people. In addition to being the

business centre of Kayunga District, the Town council also is the seat to the district headquarters hence offering employment to the highly qualified personnel in the District.

4.1.4 Income levels

The study revealed that 44.7% of the respondents earned between 51,000/- - 150,000/- Shs, 24 (25.5%) earned 151,000/- –300,000/-, 22(23.4%) earned not more than 50,000/- Shs only 5(5.3%) earn above 300,000/- as indicated in Table 5. The study did not specify the type of employment but considered income levels in general. A critical analysis of the level of education and the income levels presuppose that the employment terms in Kayunga town council are very poor as regards salary.

Table 5. Distribution of respondents by level of income

Level of income	Frequency	Percentage (%)
00 – 50.000	22	23.4
51,000 – 150,000	43	44.7
151,000 – 300,000	24	25.5
301,000 and above	5	5.3
Total	**94**	**100.0**

4.1.5 Ethnic grouping

It was established that 61.7% of the respondents were of the Ganda tribe. This could be because the research was conducted in the Central region, which is inhabited mostly by the Baganda. The Soga tribe scored second highest with16.7% perhaps because it is one of the neighbouring regions only separated by the Nile River so it is possibly easy for people to cross over. The respondents comprised of many tribes (14) as indicated in Table 6 considering the sample size. This was perhaps due to the fact many people from different regions of Uganda and neighbouring countries migrated to this district for it was sparsely populated by the indigenous inhabitants yet very fertile. Ethnicity was considered in the study because each ethnic grouping has different cultural beliefs and practices, which are believed to affect people's attitudes in taking health care decisions. Studies have established that cultural beliefs and practices often lead to self-care, home remedies and consultation

with traditional healers and or advice with the elderly women in rural communities (Sheikh & Hatcher, 2004), which are all components in the rational use of medical drugs. A study about patients' experiences of living with and receiving treatment for fibromyalgia syndrome for instance revealed that black and ethnic community patients expressed a degree of suspicion towards the medication prescribed and the attitudes displayed by some doctors (Lempp, Hatch, Carville & Choy, 2009).

Table 6 Distribution of respondents by ethnicity

Tribe	Frequency	Percentage%
Ganda	58	61.7
Nyankole	3	3.2
Nyara	2	2.1
Soga	15	16.0
Nyoro	5	5.3
Langi	1	1.1
Gishu	2	2.1
Rwandese	1	1.1
Kenyan	1	1.1
Ateso	2	2.1
Congolese	1	1.1
Kiga	1	1.1
Lugbara	1	1.1
Acholi	1	1.1
Total	**94**	**100.0**

4.2 Reasons for Using Western Medicine

An analysis of why patients use Western medicine revealed six major reasons as indicated in Table 7. For this question, more than one response was allowed and the study revealed that (33) 35.1% of the respondents used western medicine because it was an effective curative. This finding concurs with earlier studies on use of community drugs in Uganda which established that western medicine was used because it was effective (Odoi et al, 1995) this implied that the patients have confidence in the medicine for its curative ability and fast reaction.

One of the respondents, a 32-year-old progressive farmer said '*I get cured quickly*'. Another one, an elderly female peasant said '*I am weak so I need Western medicine because it cures me very fast and helps me build my strength.'*

It was too established that 20.2% of the respondents use Western medicine because of its high quality standards. This embedded issues including; good packaging with expiry dates indicated, clean as compared to other alternatives like herbal medicine and approved by the National Bureau of Standards.

Table 7. Distribution of patients' reasons for using western medicine

Reason	Frequency	Percentage
Effective	33	35.1
High quality standards	19	20.2
Defined Doses	13	13.8
Accessible	13	13.8
No other choice	12	12.8
Cheap	7	7.4
Used world wide	6	6.4
Easy to administer	4	4.3
None of these	3	3.2

Respondents who said that western medicine had defined doses tied with those who used it because it was easily accessible at 13.8%. The defined doses like taking 2 tablets three times a day for 5 days or 10 mls twice a day for 5 days simplifies its administration and enables the patient to know quickly whether they will be healed or not. The key informants who were medical personnel supported this argument. To quote one of them, '*it makes it easier for us to follow up the treatment course of our patient because the patients are advised to comeback after completing the dosage and they do not feel any improvement in their health condition'*, As example, a comparison was made with traditional medicine, which has no defined doses such that if someone were using it, they would take a long period to tell whether the medicine is having any impact on the ailment.

Accessibility of drugs meant that they could be got or purchased from anywhere and openly from the legalized places like drug shops, pharmacies, and or health centres. The respondents who said they used Western medicine because they had no other choice were 12.8% of. These included people who said that they had no knowledge of any other type of medicine, since their parents only used western medicine to cure them; others said they had

no choice because they are under an insurance, which covers only western medicine. The lowest scores were for those who used western medicine because it was easy to administer 4.3% and 6.4% said it is used worldwide.

The 3.2% who said 'none of these' were those respondents who did not use western medicine at all. They preferred using local herbs because they are cheap and easy to get. One respondent said, '*I just go in the bush behind my house and pick the herbs and I do not need a doctor to prescribe for me.'*

4.3 Common diseases in the community

An analysis of the most common ailments in the community revealed malaria taking the lead at 43.6% followed by infections at 23.4 % as shown in Table 8. Infections included both bacteria and viral infections like coughs, flue, STIs, STDs, HIV/AIDS and Bronchitis. This could perhaps explain why most people use Western medicine because it's an effective cure. For its known that Malaria fever is an acute and leading killer disease in the less developed countries hence it requires immediate remedy as established in a study in Taipei (Kleinman, 1981) and in a later study in Uganda about community use of drugs (Adome & white, 1996).

Table 8. Distribution of common ailments

Ailment	Frequency	Valid Percent
Water borne diseases	1	1.1
Infections	22	23.4
Chronical Diseases	14	14.9
Malaria Fever	41	43.6
Stress	16	17.0
Total	**94**	**100.0**

The findings differed a little with the earlier reports (MoH, 1996) which revealed the common health problems to be Respiratory Tract Infections (RTIs) 29.7%, malaria (25.6%), Intestinal worms (8.4%), and diarrhoea (7.3%). Malaria has since become the most occurring disease in communities perhaps because of change in weather towards a warmer

globe. In addition STIs were not reported because there were fewer people registering as patients with STIs.

4.3.1 Disease Distribution in the community.

Statistical analysis was made to assess how the common ailments are distributed in the community in relation to gender and age. It was established that for all the diseases mentioned in 4.3 above, the prevalence was higher among the women than in the men as indicated in Table 9.

Notable was that majority 10 (71.4%) of the 14 people suffering from chronic diseases were women and 12 (54.5%) of the 22 suffering from infectious disease were women, then 11 (68.8%) of the 16 respondents often affected by stress were men. The findings in a way confirmed study findings in a Disease Control Priorities Project (DCPP) (2008) which established that women suffered from more illnesses and disabilities in their lives than the men. The high number of women suffering from infections in this study could be due to the high rate of prevalence of HIV/AIDS among women as established in related studies (AVERT, 2010). Such studies showed that of the 31.1 million adults living with HIV around the world, in 2008, half were women. The study further revealed that 98% of these women lived in developing countries. Malaria fever which was almost evenly distributed cut across gender with 51.2% of the 41 suffering from malaria being male and 48.8 % female.

However the statistics indicated that the two variables have no significant relationship as $\mathbf{x^2 = 0.197 (P \geq 0.05)}$ Meaning that the diseases that were prevalent among the men were most likely to be the same diseases prevalent among the women. Concerning this, studies revealed that men and women suffer differently even if it were the same disease (DCPP, 2008) the same studies established that women's health disadvantages often arise from gender inequalities which are pervasive particularly among the poor in the developing world.

Table 9. Distribution of common ailments by gender

Sex	Water borne		Infections		Chronic		Malaria fever		Stress		Total	
	No	**%**	**No**	**%**	**No**	**%**	**No**	**%**	**No**	**%**	**No**	**%**
Male	1	100	10	45.5	4	28.6	21	51.2	11	68.8	47	50.0
Female	0	0	12	54.5	10	71.4	20	48.8	5	31.3	47	50.0
Total	**1**	**1.1**	**22**	**23.4**	**14**	**14.9**	**41**	**43.6**	**16**	**17.0**	**94**	**100.0**

Statistical analysis was made to establish whether age had a bearing on the type of disease an individual could suffer from. There are arguments that some diseases are more prevalent among the aged than in the young. More so that the older people were prone to taking ill more often than the young ones. This was however proved to the contrary as analysis indicated no statistical significance between the two variables with $\mathbf{x^2 = 0.309\ (P \geq 0.05)}$, implying that the same diseases, which could be prevalent among the young people, would also affect the aged.

However a Doctor from the hospital who was one of the key informants revealed that in a day, they handled more elderly people than the young ones (18 – 40years) and that most admissions were for the elderly (43 years and above). In addition, the doctor said that most admissions for the elderly were for chronic diseases like High blood pressure and diabetes while malaria affects both the aged and young equally with acute case registered in infants. This differs from a study by UIHPE (2000) which reported that individuals with chronic diseases in Europe were less likely to seek care. The findings also contrast with a study in Uganda which revealed that people, especially women who had conditions that needed longer term care, were less likely to seek health care when ill (Nanda, 2002). The variation in findings could be due to the decline in the family support and social network system in the European setting while, for Nanda's (2002) study, it could be because it was targeting only women. In this study, the key informants did not specify the gender differences.

4.3.2 Common diseases and use of western medicine

Statistics indicated that the reasons for using Western medicine were not inclined to any particular type of sickness but were based on the ability of the drugs to satisfy the patients' desires of getting cured as indicated in table 7. These findings concurred with a study in Yugoslavia about health practices which revealed that Western medicine was not only sought for acute illnesses like malaria but also for chronical diseases like diabetes (Hjelm et al, 1999). The statistics revealed a low percentage of 14 (14.9%) for people with chronic diseases who sought the use of bio-medical drugs. This could be because majority of the respondents were below 50 years of age and their incomes were low. It is known that most chronic diseases like diabetes, heart disease, high blood pressure and or cancer occur naturally in advanced ages but more so they are life style diseases, which are popular among the rich (IUHPE,2000).

The study revealed that infectious diseases were the second commonly occurring illness next to malaria with 22 (23.4%) of the cases under study. This could be attributed to the fact that in this study 'infectious' covered a wide range of diseases from the simple ones like flue and cough to adverse ones like HIV/ AIDS.

The key informants revealed that it was not common to get patients suffering from flu and cough as those were considered trivial diseases to be taken to hospital. The most common infections they attended to were HIV/AIDS, skin infections, chest infections and other sexually transmitted infections like syphilis, Candida gonorrhoea etc. It was however not in the interest of this study to establish whether the people with infections first sought treatment elsewhere like it was reported in earlier studies in Malawi and Zambia where people with STDs first sought the services of traditional healers then after failing to get cured they found their way to hospital (Faxelid et al, 1994; Faxelid et al, 1998). Further analysis to establish whether there was relationship between the type of disease and the use of Western medicine revealed a statistical significance between the two variable, $\mathbf{X^2 = 0.024}$ **(P $\leq$ 0.05)** meaning that the type of ailment could influence where one sought treatment.

The findings therefore, established that when an individual fell sick, the ultimate aim for seeking treatment was to get healed as fast as possible. An individual would hence go where

reaction was rapid. People were knowledgeable about the curative capacity of Western medicine as an effective cure so they opted for it. Findings also indicated that the packaging of western medicine enhances the trust and confidence of its users in that if other medicines were packaged in the same way, people would use them too. More so, Western medicine was widely used by almost all categories of people; irrespective of education, age, income level, ethnic grouping and gender.

It was hence evident that the study community utilised the services provided under the Western medical health care system, which included the use of bio- medical drugs, but the question is whether the drugs obtained by the patients were rationally used, as to be established in the subsequent chapters.

CHAPTER FIVE: SOURCES OF BIO- MEDICAL DRUGS

5.0 Introduction

The aim of this study was to establish how knowledge, attitudes and beliefs influence the rational use of bio-medicine. It was cited in previous studies that sources of medical drugs contribute highly to how an individual uses the medicine. In a WHO report, Holloway (2006 [b]) stated that in a study of the treatment of acute diarrhoea in the private and public sectors, 40% in the public sector and 20% in the private sector were treated in compliance with clinical guidelines. The same study revealed a high practice of poly-pharmacy in the private sector than in the public sector (Holloway, 2006[b]). In this chapter therefore, sources of medical drugs and what influences people to go to particular drug outlets were discussed. In addition the phenomenon of self-medication was discussed and how it affects the rational use of medicines**.**

5.1 Medical Drug Outlets

The most obviously known places from where medicine was obtained were considered in the study and statistics indicated that 33 (35.1%) of the respondents, got medicine from drug shops followed by hospitals with 32 (34.0%) then 13(13.8%), 11(11.7%) and 5(5.3%) from health centres, clinics and herbs respectively, see Table 10. This concurs with earlier studies in Mbarara Municipality (Mwoga, 2000) and Tororo district (Kabugho, 1999) which established that private health facilities were the most common source of health care for the rural households. The findings are however different from Senegal where majority of people obtain their drugs from public healthcare units (Faye ,Diop, Gaye, Bal, Dieng, N'dir & Diallo, 1997). This was probably due to the Bamako initiative which promoted availability of drugs in public healthcare units in Senegal. If the findings of this study and the previous studies (Mwoga, 2000) and (Kabugho, 1999) are evaluated, it is realised that Mwoga (2000) and Kabugho (1999) do not quantify the usage of the private health facilities by the patients. It hence creates difficulty to establish whether there has been an increase in the usage of public health facilities since then. However the percentages in this study indicate a very small margin between the usage of private facilities and public facilities which could be attributed to the abolition of cost sharing in government facilities. This would then confirm findings in a study, 'from management of disease to management of health systems' (Pichette & Mtasiwa, 2003) which established that availability of free drugs would influence the level of utilisation of health facilities.

Table 10 Distribution of respondents per source of medical drugs.

Medicine source	Frequency	Percentage
Hospital	32	34.0
Health centre	13	13.8
Drug shop	33	35.1
Clinic	11	11.7
Herbal	5	5.3
Total	**94**	**100.0**

5.1.1. Factors influencing the choice for a particular drug outlet.

Further analysis into why people chose to obtain medicine from a particular outlet revealed that many respondents (36) 34.3% said their choice depended on the convenience of the place. The biggest number which was (37) 35.2% said they went where they could obtain free medicine while (11) 10.5% considered availability of drugs as indicated in Table 11. Respondents were probed further to tell whether they always got the medicine they were prescribed for. It was revealed that most of the people who got medicine from public health centres were given half dosages citing inadequate availability of drugs. This confirms reports from a survey by HAI Africa and WHO in sub–Saharan Africa which revealed that the median availability of the essential medicine in public health facilities was below 70% which implies that many patients return home without getting the medicine they want and or the right doses (Mubangizi, 2006). In this case, patients resort to obtaining the medicine from the private sector where they may face alterations in the prescribed medicine to fit within their affordability or in case where a patient was given half dosage, they would wait to go back to the public hospital to check whether some more drugs have been supplied. This causes an interruption in the administration of the drugs yet the sickness is not totally cured. The medical doctors said this interruption in administration was one of the reasons for the development of drug resistant diseases. Inadequacy of medicine would also breed situations of medicine sharing amongst individuals with intention of helping one another yet unknowingly causing more problems for themselves.

Convenience as a reason for opting for a drug source was used to mean issues like, proximity (as regards distance) no long queues and long waiting hours, open until late in the night, fewer bureaucracies in obtaining medicine. Such factors as mentioned are synonymous with drug shops, which are open until late in the night, and there are no lines and consulting the doctor first for prescription. A patient just buys the medicine direct from the dispenser. Perhaps this explains why many of the respondents 35.1% got medicine from drug shops (refer to Table 10). These findings concur with what was revealed in a study on community use of drugs in Uganda by Adome et al (1996) which contended that most people obtained medicine from shops (dukas). The variance probably is that while in the previous study drugs were bought from ordinary shops (dukas) in this study, it was established that medical drugs were no longer sold in ordinary shops but only in places specifically authorized by government to offer medical services. In light of the findings therefore, much as the literature associated irrational use of drugs more with the inappropriate practices of the private sector especially drug shops, the public sector has also contributed to irrational use of medicine due to its inadequate provision of services. It was evident that the policy formulators have not associated irrational use of medicine with inadequate supply of the needed drugs in the public hospitals hence focusing all enabling policies on empowering the communities about drug use and emphasizing professionalism. It is however difficult to promote educational talks about rational use of drugs when what is to be rationalised is scarce. The public hospitals endeavour to professionally prescribe and dispense medicine but they are not appreciated by the community because they fall short of what to dispense.

Table 11 Reasons for choice of drug outlet

Reason	Frequency	%age
Professional	7	6.7
Free medicine	37	35.2
Availability of drugs	11	10.5
No choice	4	3.8
Convenient	36	34.3
Cheap	10	9.5
Total	105	100

Besides the reasons advanced by the respondents for obtain medicine from particular drug outlets as presented in Table 11 above, I thought it necessary to assess whether some demographic factors could have an influence on the choice for a drugs' source as discussed below:

5.1.2 Level of education against source of drugs

The level of education was considered as one of the variables that influence people's attitudes towards making certain decisions. In regard to this, analysis to establish whether a patients' level of education had an influence on the choice of health service providers to go to was made. The results revealed that there is no statistically significant relationship between the patient's level of education and where they sought medicine from, **X^2=0.000 (P ≤ 0.05).** Meaning that an individual's level of education would not determine where they obtained the medicine from. An Earlier study on determinants of health seeking behaviour in Uganda by Lawson (2004) established that there is a gradual increase in the demand for healthcare upon completion of some primary education through to university education. Patients who possess a university education are likely to demand for formal health care relative to those with no education and there also appears to be a quite distinct trend away from government hospital facilities to private as the education attainment increases. This also supports an earlier study in Bolivia by Li (1996) which hypothesized that the educated transferred away from government health care because they regarded its quality inferior. A study on the impact of access to health services in infant and child hood mortality in rural Uganda established that utilisation of health services by infants depended on level of maternal education (Katende, 1994). Another study (Betran & Mclnnes, 1993) justified these findings that the choice is not influenced by higher income levels among the educated people but the perception that private providers have a greater positive effect on their health.

If, based on the findings in this study, the availability of drugs was the measure for rational use of medicine, then it would be prudent to assert that the practice of irrational use of drugs was absent among the highly educated because they have access to all the drugs they need in the private facilities. However much as they could access the drugs, they obtained them from sources (private care providers) whose quality of care provision has been questioned. There is a growing body of evidence that private care providers are involved in poor dispensing methods, prescribing of excessive costly or unnecessary drugs and therapeutic injections (Greenhalgh, 1987; Aljunid, 1995; Bojalil, Guiscafre, Espinosa, Martinez,

palafox, Romero & Gutierrez, 1998; Thaver, Harphan, Mepake & Garner, 1998; Siddiqi, Hamid, Rafique, Chaudry, Shahab & Saverborn, 2002 Janjua,kahan,Usman, Azam, Khalil, Ahmad, 2006; Holloway, 2006) which have promoted especially self- medication and polypharmacy consequently.

5.1.3 Level of income against source of medicine

Level of income was considered in this study because it would determine how affordable the medicine could be for an individual. It was assumed that public hospitals attracted a big numbers of patients because services were free. It was revealed by some respondents that individuals with some money would not go to waste time in the long queues of the hospitals. To quote, a middle aged male shopkeeper said;

> *"I have my money so I go to a private clinic where I pay instead of wasting time in long lines in the hospital"* these sentiments were echoed by a 26 year old teacher who said,
> *"With money everything is possible."*

However Statistical analysis to establish whether there was a relationship between the level of income and where one got medicine from when sick indicated that the relationship was not statistically significant; **X^2= 0.943 ($p \geq 0.05$).** Meaning that where one obtained medicine from would not necessarily depend on an individual's level of income. This concurs with some studies which established that by- passing of local facilities in favour of high quality facilities was not income group sensitive in addition, more seriously ill individuals were likely to travel further than the less ill (Akin & Hutchson, 1999). On the contrary an earlier analysis of income groups established that wealthier households were price inelastic in regard to health care demand (Li, 1996) in Bolivia and (Alderman & Getler, 1998) in Pakistan.

5.1.4 Sources of medicine by gender

Statistics in Table 12 revealed that, of the 32 people who went to hospitals, 19 (59.4%) were women while of the 33 people who get medicine from drug stores 22 (66.7%) were men and also that all the 5 people who used herbal medicine were women. More women than men could be found in hospitals perhaps because the women were not economically empowered so they sought for affordable or free services. Hospitals were the best option because it was established that the drugs if available were given free. The same reason of economic inability could be the basis for the finding in this study that only women used herbal medicine, for it was freely picked, prepared and administered by the patient herself. Thus

concurring with a study in Zambia which revealed that because women had fewer resources, they relied more on government clinics and faith healing churches where consultation was free (Faxelid et al, 1998).

Table 12 Gender against medicine source.

	Where do you get medicine from when you feel sick?					
	Hospital	Health Centre	Drug shop	Clinic	Herbal	Total
Male	13	7	22	5	0	47
	40.6%	53.8%	66.7%	45.5%	.0%	50.0%
Female	19	6	11	6	5	47
	59.4%	46.2%	33.3%	54.5%	100.0%	50.0%
Total	32	13	33	11	5	94
	34.0%	13.8%	35.1%	11.7%	5.3%	100.0%

More men 22/33(66.7%) than women got medicine from the drug store perhaps because they were economically empowered so they could afford to buy the drugs. However, the fact that more men obtained drugs from drug shops may not be so much to do with affordability but convenience of the service providers to enable the men in balancing their social responsibilities. It could be argued that since the men are culturally the bread winners in their homes, they cannot afford to spend lots of time as is required if one went to a hospital. They, therefore, have to look for facilities that offer quick services to guarantee them enough time to look for means of survival for their families.

Hence much as the statistics in 5.1.3 above indicate no significant relationship between income levels and choice of drug outlet, a comparison between gender and choice of medicine source reveal that one's economic empowerment very much affects where they seek medical services. For this reason there are more women in government hospitals than men because perhaps the women are not as economically empowered as the men. So they

cannot afford the services in private service centres. The economic empowerment of women is confirmed in the earlier reports (UBOS, 2007), which reveal that more women than men are engaged in less high-income employment with 75% of women engaged in agriculture and only 25% in non- agricultural economic activities. Yet agriculture in Uganda has a lower income earning potential because it is not developed enough to compete well on the world market. Hence supporting a report(MoFPED,2003) which contended that women's lack of control over disposable income limits their consumption of health services due to inability to either pay for private fees in public facilities, transport costs or procuring drugs when there are stock-outs in public facilities or consultative in private facilities.

An earlier study established that increased income levels amongst women influence the type of health care sought. Specifically, traditional healthcare was used less and private healthcare used more as an individual's income increased (Lawson, 2004)

5.2 Self medication

Earlier studies placed Uganda in the lead of the East African nations in self-medication (Foster, 1991). With this contention, this study sought to establish whether despite the recent developments in the provision of health services the phenomenon still prevails and further still find out the sources of the medicine that is self prescribed. When asked about whether they first sought medication elsewhere before going to the health units (hospital, health centres and clinics), 39/94 (41.5%) of the respondents agreed and 55/94 (58.5%) objected to doing so.

It was revealed that those who said yes, got medicine from the local drug shops and clinics with the view that,

> *"It is always first Aid before going to the Hospital, said a 40 year old civil servant. Another 25 year male shopkeeper said "the sickness could be minor and manageable without going to hospitals" while a middle aged house wife and mother of 4 children said, I use herbal medicine first then when it fails i go to the hospital."*

It was further established that the most commonly self-prescribed medicine were painkillers. The findings imply that self-medication was still practiced. I would consider 41.5% to be a very high rate though it is lower than in the earlier studies, which reported self-medication at 53% (Zachariah et al, 2002; Faxelid et al 1998). Interviews with the key

informants confirmed that use of non-prescribed medical drugs was very rampant and it is coupled with the use of traditional medicine. Much as the respondents said that they only self administered painkillers, interviews with the key informants working with a pharmacy and drug shop revealed that it was common for patients to come with no prescriptions to buy drugs like: anti-malarials and anti-biotics. Hence concurring with an earlier study (Mwoga, 2000) that the most frequently self administered drugs were; anti- malarials (Chloroqiune, fansider, Atemeter), Analgesics (Asprin, panadol, Hedex, Action, Diclofenac) and anti bacterials (Cotrimoxazole, Amoxylin). In Thailand self–medication is practiced but the most frequently used drugs were; Analgesics, anti- inflammatory drugs and Vitamins. They differ from Uganda probably because of the differences in the type of commonly occurring health problem. The medical practitioners especially in hospitals said that by the time the patients came to hospital they were in very critical conditions. Actually, in most cases, the patients would be brought with support; they can neither walk nor stand by themselves. This, the medical staff said, has made their work very challenging considering that there is one main hospital serving the entire District coupled with inadequate facilities especially to handle acute cases.

5.2.1 Self medication and education

The level of education was considered to be one of the variables, which influence peoples' attitudes when making choices. Hence analysis was made to establish whether there is a relationship between patients' level of education and taking of medication before going to hospital. The statistics indicated that the practice prevails more among the highly educated people with 12 (60%) of the 20 respondents who were of university level admitting to the practice as indicated in the Table 13. the statistics indicate a descending order of use as regards education level with the lowest being 2 (33.3%) of the 6 respondents who had no education at all. This could imply that the educated people assume that they can read and understand so well what is written to equip them with enough information about what medicine they can use without consulting the medical personnel. The findings contrast with an earlier study in the Netherlands which found out that use of non-prescribed drugs was higher among individuals with lower education level (Krol,Muris, Schattenberg, grol, Wensing, 2004).

Table 13. Self-medication against education level

Education level							
Self medication	**No Education**	**P1- P7**	**S1-S4**	**S5 -S6**	**Tertially**	**University**	**Total**
Yes	2 (33.3%)	7(53.8%)	8(42.1%)	4(23.5%)	6(31.6%)	12(60.0%)	39(41.5%)
No	4 (66.7%)	6(46.2%)	11(57.9%)	13(76.5%)	13(68.4%)	8(40.0%)	55(58.5%)
Total	6(6.4%)	3(13.8%)	19 20.2%)	17(18.1%)	19(20.2%)	20(21.3%)	94(100.0%)

X^2= 0.233($P \geq 0.05$).

However further analysis reveals that there is no significant relation ship between the level of education and taking medication before going to hospital with **X^2= 0.233($P \geq 0.05$)**. This implies that, the practice of self-medication could be prevalent among both the literate and illiterate people.

5.2.2 Self medication and gender

More women than men practice self-medication as indicated in Table 14 with 25 (64.1%) of the 39 respondents who admitted to the practice being women. This could be attributed to proximity of the source of medicine. Since it was revealed that most people who practice self administration of drugs get medicine from drug shops (Mwoga, 2000) and or friends or family members, chances of the women being involved are high since they have an extensive social network where amongst other issues they share about their health condition which prompts another to assist by advising on what medicine to use. On the contrary, a study in Zambia (Faxelid et al, 1998) established that both women and men with sexually transmitted diseases (STDs) often used self treatment or consulted providers outside the professional health sector. The difference in findings could be due to differences in the study population. This study considered a general outlook as regarded self medication while the Zambian study considered only patients with STDs. There was a social stigma towards people with STDs which could make it difficult for an individual to visit a health provider, hence the option of self medication.

Table 14 distribution of self medication by gender

Sex	**Yes**	**No**	**Total**
Male	14 (35.9%)	33(60.0%)	47(50.0%)
Female	25(64.1%)	22(40.0%)	47(50.0%)
Total	**39(41.5%)**	**55(58.5%)**	**94(100.0%)**

Much as the theoretical framework of this study considers the health seeking behaviour to be individual perception oriented, there are other factors outside the individual him/herself like national policies. National policies determine the type of drugs to be sold through the essential national drug list and where the drugs are to be sold through the national drug regulatory policies like the National Drug Authority for Uganda. A study on the use of prescribed and non-prescribed medication for dyspepsia in Netherlands established that the practice of using non-prescribed medicine was enhanced by the introduction of more drugs on over the counter (OTC) market. In the Netherlands for instance, it was reported that some drugs like h2Ras and antacids could be bought in the super markets though the dose of h2RA is half that of the lowest prescription dose (Krol et al, 2004). Krol et al (2004) further revealed that TV commercials and other marketing strategies were used to promote this type of self- medication. In relation to this I would also argue that the practice of self-medication has very much been publicized by radio and TV commercials. More so I believe most patients start with pain killers like Hedex, Panadols, and Curamol because they are the most widely advertised with the last catch phrase of "if symptoms persist seek medical advice".

In addition, disease type may also affect the choice of health care. Consider for instance Malaria, which ranked high among the common diseases in this study 41/94(43.76%). The disease is highly endemic and acute necessitating quick and timely medical attention especially within 24 hours of onset of illness (Kengeya- Kayondo, Carpenter, Kintu, Nabaitu, Pool & Whitworth, 1994, Nshakira, Kristensen, Ssali & Whyte, 2002). Yet most public health facilities especially in the rural areas are far and do not operate at night, the individual is therefore left with no option but to utilize the private service providers. There have been interventions to reduce self-medication by providing homa packs (Killian, Tindyebwa, Gulack, Byamukama, Rubbale, Kabagambe & Korte, 2003) for malaria at community level through the public health system but it targets only children and malaria specifically.

Considering the reasons advanced by the respondents for seeking treatment in the different health units, it was established that much as people expected professional services from the hospital and health centres, they were faced with the fear of making long queues which they considered time wasting. In hospitals it's known that the medical staffs are very few compared to the number of patients they serve. One of the key informants, a doctor in the Hospital, said that in a day he attends to over 300 (three hundred) patients while in the

clinics it’s between 10 – 25 patients. Clinics were not also considered first because people did not want to pay consultation fee for something of which they assumed they knew the medicine. So people just went straight to drug shops or pharmacies where they bought the drugs they preferred.

CHAPTER SIX: PATIENTS KNOWLEDGE AND RATIONAL USE OF DRUGS

6.0 Introduction

In this chapter, the knowledge of the patients as regards the use of medicine is examined. The Patients' Knowledge of medical drugs was measured by considering how much the patients knew about the cost of medicine, side effects, names of drugs and how much time the patient spent with the doctor.

6.1 Dissemination of Information from Doctor to Patients

To establish whether patients were getting enough information as regards their health conditions or treatments, I thought it necessary to know whom patients talked to when they went to seek treatment. It was assumed that the kind of information revealed to the patient depends on the medical personnel they talked to. Asked whom they spoke with when at a treatment center, 46 (48.9%) said they spoke to a doctor, 31 (33.0%) spoke to a nurse while 11 (11.7%) did not know whom they spoke with as indicated in Table 15. Those under the do not know category are people who could not tell whether they talked to a doctor or a nurse or any other. There is also a tendency of referring to whoever works in a health unit as a doctor or nurse. So, sometimes patients confide in cleaners, security people and the like.

Table 15: Frequency distribution of the personnel patients talk to at treatment centers.

	Frequency	Percentage
Doctor	46	48.9
Nurse	31	33.0
Midwife	1	1.1
Don't know	11	11.7
Other (Specify)	5	5.3
Total	**94**	**100.0**

Patients were asked whether the personnel who handled them explained their health condition clearly to them. It was revealed that 69 (73.4%) had their condition well explained, 19 (20.2%) were not sure while 9 (6.4%) said their condition was not well explained as in Table 16. These findings are not consistent with a recent study in Europe about patient experiences when receiving treatment for Fibromyalgia (FMS) which revealed that no information was given to the patients following their FMS diagnosis hence prompting them (patients) to seek information from other sources such as the internet,

leaflets, self –help groups or books(Lempp et al, 2009). The difference in findings could be attributed to differences in the health problems, where as the health workers in this study were handling common ailments which have received attention worldwide for a long time, FMS is more complicated and still being researched on.

Table 16 frequency distribution for a well-explained health condition

	Frequency	Percentage
Yes	69	73.4
Not sure	19	20.2
No	6	6.4
Total	**94**	**100.0**

Further analysis was made to establish whether the explanation of the patients' health condition depended on the personnel they talked to at the treatment centres. In regard to this, it was established that, as indicated in Table 17 below, of the 46 patients who talked with a doctor, majority 44 (95.7%) said their health condition was well explained to them while only 2 (4.3%) were not sure whether they got a proper explanation. Then, of the 31 patients who were handled by Nurses, 16(51.6%) got clear explanation, 12 (38.7%) were not sure about the explanation and 3(9.7%) said they were not explained to clearly the state of their health condition. The findings also revealed that of the 11 people who could not tell whom the talked to, 3 (27.3%) got no proper explanation and those who were not sure tied with those whose condition was well explained.

Table 17. Condition well explained against medical personnel talked to

	Doctor	Nurse	Midwife	Don't know	Other	Total
Yes	44(95.7%)	16(51.6%)	0	4(36%)	5(100.0)	69(73.4%)
Not sure	2(4.3%)	12(38.7%)	1(100.0)	4(36.4%)	0	19(20.2%)
No	0	3(9.7%)	0	3(27.3%)	0	6(6.4%)
Total	**46(48.9%)**	**31(33.0%)**	**1(1.1)**	**11(11.7%)**	**5(5.3%)**	**94(100.0%)**

$X^2 = 0.000$ ($P = \leq 0.05$).

These findings could imply that the more the medical personnel were qualified the better they handled patients. Considering the findings, regarding the patients handled by the

doctors for example, only 2 (4.3%) people of the 46 said they were not sure about the explanation given to them as compared to a big number of 15 (48.4%) of the 31 patients handled by nurses who said they were not satisfied with the explanation given.

Further statistical analysis established that there was no significant relationship between the medical personnel a patients talked with and how the patients, health condition was explained; **X^2= 0.000 (P =≤ 0.05).**

Respondents were asked how they would tell that they have been given the correct drug and it was established that majority of the respondents could not tell the name of the medicine given to them but could only know that it was the right drug after taking the medicine and experience an improvement in their health condition. The following verbatim responses are illustrative:

> *"I would know that it is the right drug when I feel better after taking it" said a 20-year-old peasant. While a 35 year old teacher said, "I read the name and all necessary information from the leaflet attached to the medicine", and 60 year old widow said "My children can tell when they read since I cannot see properly".*

These findings concur with those from previous studies, which revealed that in Uganda, 97.5% of patients leave the hospital without knowledge of the drugs names prescribed to them and cost of drugs and side effects (Seppuya .2003, Ssemaluulu & Adome, 2006: Adome et al 1995). However, when asked whether they were told how to use the medicine that was prescribed to them, majority, and 93 (98.9%) answered in the affirmative. This contrasts with earlier findings (Mwoga, 2000) that health workers were not availing patients with information on how to use the drugs and instead they got it from the source of drugs.

When asked what kind of information they provide to the patients concerning the medicine, medical practitioners from the hospital said that they offer the necessary information to enable the patients comply with the given medicine. Whereas a nurse at a privately owned clinic said that she tells the patients about how to use the medicine as prescribed and the side effects. Perhaps this explains why in the earlier studies (Donaldson, 1999, Odoi, Whyte, Ortenblad, Nsabagasani, Turinde , 1995) it was established that the private sector attracted more patients because individuals tend to seek care where they felt they were considered more as partners in their own health care.

I would argue that the staff in government hospitals opted to provide selective information because they were rude and irritable as reported in earlier studies (Adome et al, 1996) and also concurring with a study in Nigeria which revealed that health workers exhibited a negative attitude towards people living with HIV/AIDS (Reis, 2005). On the other hand, it could be due to the big number of patients (about 200 patients a day) they handled leaving them with no time to explain everything about the medicine to each individual.

When asked whether all the patients they handled had medical prescriptions, the doctors from the hospitals and clinics said they themselves made the prescriptions after thorough diagnosis while those at the drug stores said some patients would come with prescriptions while others had none. The key informant further explained that if a patient did not have a prescription, medicine would be given to them depending on how they explained their ailment to the health care provider.

Considering the findings, the kind of information given to the patients had a very negative bearing to rational use of the medicine. First of all the probability that the patient would take the wrong drugs/medicine was very high and even when it was the right drug it would not be taken as the doctor intended. The patients were quite often left at the mercy of the drug dispenser. For instance, if the prescribed medicine was not available, the patient would not be able to tell whether the alternative suggested by the dispenser was actually effective. It was established that doctors do provide for alternatives yet the patient cannot go back to consult the doctor due to the long queues, yet the hospitals close at 6.00 P.M to out patients. When patients did not have prescriptions, they would sometimes be given so many drugs and or very strong drugs leading to misuse and/or over use of medical drugs (poly-pharmacy). This normally is a two way gain as established by Bhatnagar et al (2003) in a study about drug prescription practices in rural Varansi. On the side of the private practitioners, they could over prescribe anti-biotics especially because they offer high monetary gains than other drugs. On the other hand, the patients may put pressure on the medical drugs provider to give them a particular drug because they provide quicker relief.

6.2 Cost of Medicine

The study revealed that most patients 58.5% were told the cost of the medicine and 41.5% left the hospital without knowledge of the cost of medicine making the proportion of the population who are sent out with no information about cost rather high. However, since it

was established that many people went to government hospitals because they get free medicine, it could happen that majority of the 41.5% who do not know the cost of the medicine prescribed to them were obtaining it from hospital and health centres, hence making it unnecessary for them to know the cost.

When the respondents were asked whether they always got the medicine they wanted, those who went to the hospitals revealed that sometimes they would be given half doses or nothing at all and advised to go and buy the medicine from the pharmacies outside the hospital. They further explained that this always happened when the prescribed drug was out of stock or they would be given half dosage to ration for the other patients too. It was also established that in cases where the drugs were out of stock, those advised to buy out of the hospital were not informed of the cost. This confirms findings of an earlier study (Mubanginzi, 2006) which established that the median availability of essential medicines in public health facilities was below 70% hence resulting into many patients who went to public health facilities for treatment often going back home without getting the medicine they needed.

The medical personnel concurred with the patients that they were under stocked with medicines to the extent of only having pain killers at times. They added that it was not intentional for them not to provide medicine to the patients but it was due to the inadequate supply from the National medical stores. Their counterparts from the private clinics however said that they had in stock most of the drugs but they had a challenge of patients preferring original expensive drugs to the generic cheaper ones. This too concurs with the earlier finding that individuals preferred the expensive medicine with the view that they were effective in healing sicknesses than the cheaper generic ones (Mubangizi, 2006)

Statistical analysis was made to assess whether correct information about cost of medicine depended on which medical personnel handled the patient. It was established that the percentage of those who talked to the nurse and were ignorant about the cost was slightly higher at 54.8% of the 31, with 30.4% of the 46 people who were handled by doctors as indicated in Table 18. Further analysis revealed that there is no statistical significance between a patient knowing the cost of medicine and the medical personnel they talked to **$x^2 = 0.076$ ($P \geq 0.05$)**

Table 18. Knowledge about Cost of medicine against medical personnel talked to.

	Doctor	Nurse	Midwife	Don't Know	Other	Total
Yes	32(69.6%)	14(45.2%))	1(100.0%)	4(36.4%)	4(80.0%)	55(58.5%)
No	14(30.4%	17(54.8%)	0	7(63.6%)	1(20.0%)	39(41.5%)
Total	**46(48.9%%**	**31(33.0%)**	**1(100.0%)**	**11(1.7%)**	**5(5.3%)**	**94(100.0%)**

x^2= 0.076 (P ≥ 0.05)

With no knowledge about the cost of the medicine prescribed to them, patients go to pharmacies to be met with a rude shock of high priced drugs they could not afford. It is common practice for the private health service providers to encourage the patient to take drugs for whichever money the patients has can fetch with the explanation that they could always go for the remainder of the dosage when they got the money. It may sound logical and helpful but the health provider bases his/her advise on the assumption that the patient will be able to get the money for the remaining dosage to be able to comply with the Doctors' prescribed regimen.

In many instances however, it was established that due to economic inadequacies, patients faiedl to get the money to buy the rest of the drugs in time. Yet even when they got the money, they did not refer to the doctor for review but just bought what remained of the previous dosage. Sometimes when the patients felt better they ignored to get the remainder of the drugs to complete the dosage but would only remember when symptoms recur. Sometimes patients continuously use prescribed medicine, meaning that when an individual is faced with similar symptoms as previous, they would use the previous prescription to buy the medicine they want without going back to the physician. This bred phenomenon of on demand drug therapy which was also established by Krol et al (2004), and interruption in dosage tantamount to irrational use of drugs because much as the patient has the prescription, they were not following the doctors' prescription advice.

These findings concur with those of earlier studies, which revealed that due to economic constraints HIV/AIDS patients were not adhering to the treatment regimen for the ARTs thus resulting into drug resistance (Chensney, 2000; Sheehy, 2007). It was further argued that free access to treatment encourages rational use of medicine because it is less susceptible to interruptions. This argument however ignores other factors like the

demographic characteristics of patients as discussed in the previous chapters and patients, attitudes as to be discussed in the subsequent chapter.

Considering the findings as presented above, irrational use of medicine in relation to cost of medicine cannot only be interpreted as an individual behavioural response to health seeking but a structural and policy ieffect too. It is hence upon the government to provide adequate supply of medicine in especially the rural hospitals and or health centres. Note should be too taken that dosage interruptions are not about occasional missed taking of drugs but it is about supply and or availability of drugs as revealed in the study about resistance to Anti – HIV drugs in Uganda (Sheehy, 2007).

6.3 Side Effects of the medicine

The survey established that 40.4% (38) of the respondents left the physician with no knowledge of the side effects of the medicine prescribed to them. This percentage is remarkably lower than the 97.5% that was reported in the earlier studies (Ssepuya, 2000; Ssemalulu & Adome, 2006). Though the statistics have tremendously dropped, 40.4% is still high enough to have a great impact on the rational use of medicine.

Further analysis was carried out to find out whether knowledge about side effects depended on whom a patient talked to when at a treatment unit. Statistics indicated that of the 46 people who went to a doctor, majority, 35 (76.1%) had knowledge of the side effects of the medicine prescribed to them. While of those who talked with nurses 16/31 (51.6%) had no knowledge of the side effects and 15/31 (48.4%) were told of the side effects, then of the 11 who did not know which medical personnel they talked to, majority 8 (72.7%) had no knowledge of side effects as indicated in Table 19.

Table 19. knowledge of side effects against medical personnel talked to.

	Doctor	**Nurse**	**Midwife**	**Don't know**	**Other**	**Total**
Yes	35(76.1%)	15(48.4%)	0	3(27.3%)	3(60.0%)	56(59.6%)
No	11(23.9%)	16(51.6%)	1(100.0%)	8(72.7%)	2(40.0%)	38(40.4%)
Total	**46(48.9%)**	**31(33.0%)**	**1(1.1%)**	**11(11.7%)**	**5(5.3%)**	**94(100.0)**

x^2= 0.011 (P $\leq$ 0.05).

A critical analysis revealed that there was a statistically significant relationship between knowledge of side effect and the medical personnel that a patient talked with;
x^2= 0.011 (P $\leq$ 0.05). This means that the medical personnel that a patient spoke with could determine whether the patient is informed about the side effects or not. This concurs with a study which revealed that sometimes, the health providers are not anymore knowledgeable about the side effects or drug reactions than the patients (Kaffle & Gartoulla, 1993).

Inadequate knowledge about the side effects of medicines increase the chances of a patient abandoning its use especially when the side effects are severe and it could be one of the reasons why some respondents said they preferred to use herbs because the medical drugs are toxic. This confirms an earlier study (Astin, 1998) which established that patients would opt for alternative medicine because of the adverse effects associated with conventional medicine.

Much the less, the drop in statistics from 97.5% in 2006 to 40.4% in 2009 of those who had knowledge about the side effects of the medicine cannot be ignored. This trend could be attributed to the improvement in medical services in the country in that currently the medical personnel have more concern about the patients. It can also be argued that the statistics were low because in this study majority of the respondents 33 (35.1%) sought their health services from drug shops than in the government hospitals. In drug shops, it is said that the staff are very courteous and responsive to the patients needs. It could also be attributed to the existence of many drug outlets, which has created competition so the physicians have to offer the best services to attract and maintain their clients. Much too thanks to the era of the informed patient as reported in Therapy perspectives (2007) where a patient has to ask a multitude of questions prompting the physician to explain more about how the medicine works.

6.4 Patient – physician relationship

Earlier studies have established that the relationship between the physician and the patient is very crucial as regards health care provision. Good relationship creates rapport and enhances excellent communication between patients and doctor hence enabling the doctor educate the patient about the correct use of medication as well as involving the patient in deciding the form of treatment to take (Mehta, 1997: Edwards et al, 2004: Ssemalulu & Adome, 2006).

Good communication however requires the physician to spend a long time with the patients with the assumption that this would build their confidence in the doctor and a high chance of the patient accepting the health information given to them. To this regard, respondents were asked how much time they spent with the physician during a single visit. Statistics as indicated in the Table 20 revealed that 57.4% of the patients spent below 10 minutes with the physician while 40.4% spent above 10 min. more specifically, a big number 21 (22.3%) spent only 4-6 minutes with the physician.

Table 20 Frequency distribution of time spent with doctor.

Time (in minutes)	Frequency	Percentage
1-3 Min	15	16
4-6	21	22.3
7-9	18	19.1
10 and above	38	40.4
Other	2	2.1
Total	**94**	**100.0**

When asked about how much time they spent with the patient, the medical personnel could not commit themselves to a particular time period. It was revealed that the time spent by a Doctor with a patient depended on the kind of sickness they were handling. However doctors in the public hospitals said that it was difficult to spend much time with the patients considering that they always have so many patients to handle in a day – over 300. When computed, this amounts to an average of 1.5 min per patient for a (9) nine-hour working day. I believe that 1.5minutes is a very short time for a patient to spend with the doctor irrespective of what sickness. Most probably the patient is just getting acquainted to the doctor as regards aspects of sex, language and probably accent. However, though handling over 300 patients per doctor per day seems like an exaggeration, it portrays the desperation of the medical staff in government hospitals due to inadequate availability of doctors. Perhaps this doctor handles so many people that he looses count and to him they seem like over 300. On the other hand, the counter part in a private clinic said she handles about 10 patients per day and spends a minimum of 10 minutes with each patient.

The findings from the study confirm reports from earlier surveys which said that in developing countries the contact time for doctor- patient is 1 -3 minutes (Arustoyono, 1999) Contrary to earlier researches which pin this phenomenon to the rudeness of the medical staff in hospitals (Adome et al, 1996), this study establishes that it is not entirely due to being rude and irritable but the doctors are in a hurry to ensure that each patient in the queue is attended to. Further probing revealed that patients themselves were also conscious about the length of time they spent with the doctor. They hence prefer not to be elaborative to save time for the other patients waiting in the queue.

It has been established that because of this inadequate communication resulting from less contact time with the physician, patients in developing countries opt to seek health services from the traditional healers (Stekelenburg et al, 2004: Faxelid et al, 1998) whose working methods enable them spend more time with the patients. In this study however the contrary was established, that, patients do not seek services of traditional healers because they had limited time with the physician but are content with the time they spent with the physician as long as they got cured. This can also be confirmed by the statistics which indicated that majority (62) 66.0% of the respondents said that the time they spent with the physician was enough.

With reference to the findings as discussed above, the physician – patient relationship has very minimal impact on rational use of medicine however lack of knowledge about cost of drug, and side effects causes interruptions in dosage administration which tantamount to irrational use of drugs.

CHAPTER SEVEN: ATTITUDES AND BELIEFS TOWARDS RATIONAL USE OF MEDICINE

7.0 Introduction

Earlier studies revealed that the way patients used medicine had a strong bearing on their attitudes and beliefs towards the medicine or life as a whole (Faxelid, Ahlberg, Ndulo, Krantz. 1994). This chapter focuses on how patients' attitudes and beliefs have affected the rational use of drugs in relation to compliance to dosage and the type of medicine used.

7.1 Compliance to dosage of medicine.

Compliance to medicine prescribed was considered because it is an attitude and perception driven phenomenon. Non-compliance to prescribed medicine includes failure to complete dosage, use of many drugs and interruptions in dosage. Respondents were asked whether they always took the medicine as prescribed by the physician. The results indicated that (82) 87.2% complied with the doctors' advice. This contrasts with an earlier study (Lara, 1990) which revealed a low rate of compliance. The difference in the study findings could be attributed to the high percentage of literate respondents in this study hence enabling them to read leaflets and, or, there could have been an improvement in the doctor- patient communication over the years.

However, interviews with the key informants revealed the contrary. Medical staff said that many patients do not use the medicine as prescribed. Patients would take the medicine for a few days and when they felt better they would stop. It was reported that others were not patient enough to wait for the medicine to act on the sickness because they wanted first reaction. So if after 2 days there is no improvement, they abandon that drug and try another type, when it fails they tried another and another.

The key informants further revealed that some patients were reported to go to hospital expecting to be given a lot of drugs and when they got only one type of medicine especially small tablets in size, they imagined that they were not effective. So a patient will just stop using those drugs claiming they do not work, they prefer big sized tablets. One key informant, a doctor in the government hospital, also said that some patients do not comply with the dosage especially when it is low. They assume the dosage is not effective. People

comply more when the drugs are many and big in size hence concurring with an earlier study by Njenga (2006) as discussed in the next sub-section.

The preference for big sized tablets and plenty of medicine is more to do with the historical background of the Africans in the context that individuals were used to taking herbs in big quantities with no defined doses, they therefore expect the same to be applied for western medicine.

The key informants also reported that there were people who said that taking medicine was wastage of resources. This was common among men who felt they were strong and considered some sicknesses minor only to be brought to hospital in critical condition. This confirms study findings among the mentally ill which revealed that the some people with mental illness could not comply with the treatment regimen because taking drugs was considered a sign of weakness (Mehta et al. 1997). The doctors also revealed that the phenomenon of high dosage is common among those who use syrups; they just do away with the measurements because they consider the prescribed quantities very small and take the medicine from the bottle.

7.2 Compliance and Preference for drug type.

The study also established that most patients had preference for some particular types of medicine to others. When asked which type of medicine they preferred, majority (77) 81.9% of the respondents said they preferred tablets and also admitted that tablets were prescribed for them when they sought medical services as indicated in the Table 21. They added that tablets were better because one does not need to go back to hospital every day to get them; a patient carries his/her dosage all at once. They also said that tablets are potable and can be swallowed from anywhere (in case of working people) unlike injections where you need to find a skilled person to give the Jab. "*Nowadays malaria drugs are good not like in those old days. Tablets are what are prescribed in hospitals"* said a 42 year old house wife. The (11) 11.7% respondents who preferred injections said that injection were better because they are taken once not like tablets where one has to take several times in a day. When probed whether if they were not given the type of medicine they preferred they would not use the drugs, respondents said that they would consider taking the drugs since it was the doctors' decision.

Table 21. Frequency distribution for type of medicine prescribed.

	Frequency	Percentage
Tablets	77	81
Syrups	2	2.1
Injections	11	11.7
Others	4	4.3
Total	**94**	**100.0**

However some said, to quote a 27 year old accountant, "*if they don't give me what I want I will take and keep the medicine then go to another doctor in a clinic*". Another one said; "*if they are tablets, I would take some and when I feel better I stop".* This concurs with findings in a study by Dr. Njenga (2006) who established that some patients would be dissatisfied if the doctor did not prescribe strong brightly coloured medicine; preferably in capsule form complimented by a painful injection. In the same study he also contended that many rural people believed that the severity of an illness was judged by the number of pills and injections required in its treatment while the urban believe the latter was judged by the number of investigations with associated cost.

Such attitudes as discussed above adversely influence the rational use of medicine in a way that some people take incomplete dosages that do not cure the disease but make it more resistant to the drugs or they collect and keep away drugs in large amounts that they later pass on to other people without the doctors' advice.

Analysis to assess whether compliance depended on drug type revealed that of the 77 respondents who were usually prescribed with tablets, majority, 66 (85.7%) complied with the prescription while 11 (14.3%) did not, whereas all the 11 respondents who used injections complied as prescribed as indicated in Table 22. Analysis to establish whether there is a relationship between the drug used and compliance revealed that there was no significant relationship; **$X^2 = 0.184$ ($P \geq 0.05$).**

Table 22 Medicine types against compliance

	Tablets	Syrups	Injections	Others	Total
Yes	66(85.7%)	1(50.0%)	11(100.0%)	4(100.0%)	82(87.2%)
No	11(14.3%)	1(50.0%)	0	0	12(12.8%)
Total	**77(81.9%)**	**2(2.1%)**	**11(11.7%)**	**4(4.3%)**	**94(100.0%)**

X^2= 0.184 (P ≥ 0.05)

The findings contrast with earlier studies carried out in developing countries which reported excessive use of and preference for injections by patients (Arustoyono, 1999; Tarun, 2003; Foster, 1991; Birungi, 1995) with the belief that the medicine injected into the blood stream reacts faster than when administered orally. However the study findings concur with findings of a study carried out in three district of Uganda which established that 80% of respondents used tablets and only 7% used injectables (Odoi et al, 1995). The findings indicate that there has been a drastic change in the health seeking habits where people have shifted from the use of injections to the use of tablets. This could be a result of the wide spread health promotion initiatives sponsored by the ministry of health where the public is encouraged to use tablets because they are as effective as injection. These promotions have been publicized mainly through the media both print and audio. More so the change could be attributed to the measures taken by the ministry of health to include more drugs of tablet form than injections on the National drug list.

However much as the findings indicate high use of tablets than injections, this study was about the rational use of medicine. Considering the statistics in Table 22 rational use of medicine is high among those using injections as indicted that (11/11)100% complied with the prescribed dosages. Hence irrational use of medicine in regard to drug type may not necessarily be a breed of individual attitude but could be aspect of convenience and disease type.

7.3 Belief Systems

In this study I did not probe so much into people's belief systems but the respondents were asked what religion they belonged to and it was established that 63.9% were Christians who included, Catholics, Protestants, Pentecostals and other Christians.

Analysis was to establish whether there was a relationship between religion and compliance to medical prescriptions revealed that respondents from all religions complied well as indicated in Table 23 with 85.2% of the 27 Protestants, 89.5%of the 19 Catholics, 83.3% of the 30 Muslims and 100% of the Pentecostals. Further statistical analysis revealed that there was no significant relationship between religion and compliance; **x^2 =0.672 (P ≥ 0.05)**. Meaning that whatever an individual believed in had no influence on adherence to the prescribed medicine.

Table 23. Religion and compliance to medical drugs.

	Protestant	**Catholics**	**Muslim**	**Pentecostal**	**Traditional**	**Other Christians**	**Total**
Yes	23(85.2%)	17(83.3%)	25(83.3%)	11(100.0%)	3(100.0%)	3(75.0%)	**82(87.2%)**
No	4(4.3%)	2(2.1%)	5(5.3%)	0	0	1(25.0%)	**12(12.8%)**
Total	**27(28.7%)**	**19(20.2%)**	**30(31.9%)**	**11(11.7%)**	**3(3.2%)**	**4(4.3%)**	**94(100.0%)**

In relation to religion and health however, Uganda like many other African countries has a history of high dependency on traditional healing systems. For whatever sickness and death there must be a cause connected to the society amongst which one lives. There is no documented evidence about witchcraft Practices in Kayunga but considering the radio reports of cases of arrest over people linked to traditional healing and some events that have been witnessed by the researcher in broad day light like when witch doctors were trying to dig out fetishes that were alleged to have been planted in the taxi park, the practice is still alive.

Nevertheless, studies have indicated that the WHO recognizes the traditional health care system along side the one based on bio- medicine (Stekelenburg et al, 2004).

It is important to note however that traditional treatments are in 2 forms: the traditional healers and the traditional herbalists. The traditional herbalists use local herbs to treat ailments while traditional healers use spiritual powers (diviner – mediums) to diagnose sickness and then use herbs to treat and sometimes demand that sacrifices be made to appease the spirits for the ailment to go.

In this study when asked where they got medicine from when they fell ill, only 5 (5.3%) of the respondents said they used herbal medicine (refer to table 11 chapter 5), these respondents said they never used modern medicine because they do not have trust in it. They said they preferred herbal medicine because it was near, just behind the homestead and it is cheap, the patient picks it for himself, mixes and then administer as may be required.

However, interviews with medical doctors at the main hospital revealed that the use of traditional medicine is very high only that those patients would not openly admit to using herbs. The medical officers said that people are so superstitious that they never thought of natural causes of illnesses but thought in terms of only being be –witched hence they always sought the services of the traditional healers to invoke the spirits to explain to them the causes of their ailment. The medical personnel believe the traditional healers cannot manage the patient's ailments because they do not have the necessary equipment to diagnose the aetiology of the disease. They feel this is the reason why many patients are brought to hospital in critical condition after failing with the traditional healers.

In this study not much was found out about why patients sought the services of traditional healers because majority, 95.6% (refer to Table11 chapter 5) of the respondents said they used western medicine. Perhaps people were not comfortable about admitting that they used traditional medicine because of the recent negative attitude towards traditional healers. Media reports of murder in relation to sacrifice especially of children have been so rampart and in each case there has been a link to traditional healers as the suspected perpetrators. So, people fear to be known as having any association with traditional healers lest they are referred to as accomplices.

In Uganda however the ministry of gender culture and social development legally recognizes traditional healers and herbalists. Earlier studies in countries like Cameroon, Zimbabwe Zambia and Tanzania also reported that patients sought the services of traditional healers first before gong to hospitals or health centres (Faxelid et al, 1998). In the developed countries like USA, studies reveal an increase in the use of alternative medicine (Astin, 1998). WHO acknowledged the use of traditional healers with a view that they could possibly play a positive role in the promotion of health care in the community because their methods are culturally accepted and holistic compared to modern medicine. They also

thought that the self-esteem of the patients could be stimulated because people use their own instead of the foreign care to maintain or improve health (Stekelenburg et al, 2005). It was also important to note that traditional medicine users did so not because they were dissatisfied with conventional medicine but largely because they found the health care alternative to be more congruent with their own values, beliefs and philosophic orientation towards life (Astin, 1998).

Belief systems influence the rational use of medicine because they shape individual attitudes towards the use of the medicine in question. In this study it has been established that because of the historical background of the Africans as regards explanation of causality, Traditional medicine is still used. Individuals are not satisfied with the medical explanation of the causes of illness so they seek for alternative explanations in traditional healing systems of any kind. However considering the literature and the key informants' reports, the patients use traditional medicine and western medicine concurrently often starting with traditional medicine then western. In such a situation the chances of irrational use of medicine are high as evidenced in possibilities of using half dosages, over dosages and use of many drugs.

In conclusion, I would think that the use of Western medicine has so much been enhanced by the general improvement of the level of development of the economy of Uganda, which has brought about changes in every aspect of society including attitudes and beliefs. Society has come to appreciate the impact of western medicine because more people are involved in dispensing of the drugs now than before. Considering drug shops, for example, they are operated by people who are known in the community. So, the medicine is no longer regarded entirely as foreign but something that can be adapted to, since it could be dispensed by their children. More so the improvement in communication and wide area of media coverage especially radio has brought health education programmes in homes. However, the medical personnel themselves can influence attitudes and beliefs of the patients because, in regard to the findings, patients have complete trust in the personnel offering the medical services and they consider as gospel truth what the doctors tell them. Considering the use of traditional medicine, though people are still not open talking about their involvement, the use of herbs conspicuously co – exists with the use of Western medicine.

CHAPTER EIGHT: SUMMARY, CONCLUSION & RECOMMENDATIONS

8.0 Introduction

This chapter presents a summary of the key findings about the rational use of bio-medical drugs and recommendations.

8.1 Patients' Use of Bio- Medical Drugs

The study established that bio –medical drugs were widely used by across-section of people irrespective of gender and location. It was also revealed that when individuals fall sick, the first instinct that creates the urgency to seek treatment was to get healed. So individuals act by identifying where they get a fast reaction towards improvement in their health condition. Western medicine has been proven to offer quick relief so it is sought for all kinds of illnesses from acute ones like malaria to chronic ones like diabetes.

Various factors were found to be influencing patients in the use of bio-medical drugs, which include; good packaging and proximity to the drugs. However what gives it more strength is the professionalism of the personnel who handle the patients and equipment used to diagnose the sickness through the laboratory tests. So patients are assured that the doctors are treating what they have knowledge about. Western medicine is also used because of its availability all over the country. This makes it possible for individuals to access it whenever needed and even in situations where a patient has travelled and forgotten to carry the drugs; he/she can purchase them from elsewhere in a drug shop or pharmacy.

8.2 Sources of bio-medical drugs

It was established that medical drugs were obtained from hospitals, health centres, drug shops and clinics. The study revealed that many people obtained medicine from drug shops because they are near to the people than any other drug outlets. Hospitals were not easy places to get drugs from because there are always congested due to inadequate availability of medical personnel thus creating long unbearable queues. It was too established that though more people obtained medicine from drug shops they were aware that the staff operating them were not well qualified.

The study also revealed that self-medication is still practiced though it has gone down from 53% in the earlier reports (Adome at al, 1995) to 41.5% in this study. Self medication is mainly perpetuated by many factors including the following; inadequate availability of medical staff who attend to the patients so they resort to self treatment, wide distribution of drug outlets which has made it easier for people to have access to the medicine, the T.V/ radio commercials which encourage people to first treat themselves and seek medical advice if symptoms persist, the era of the informed patient, people think they know what they are suffering from- they can even search on the internet, the poor economic conditions which may lead to people sharing medicine more so breaking treatment regimens, the rude personnel in hospital who force patients to buy drugs for themselves, unavailability of medicine in the hospitals coupled with poor services send people to get medicine from drug shops without prescription.

8.3 Knowledge and rational use of drugs.

The study revealed that there was poor dissemination of information from physicians to patients. Many patients left the hospital with no knowledge of the medicine name, cost and side effects of the medicine they had been given. The study also confirmed earlier studies that the poor dissemination of information could be a result of the poor relationship between the medical personnel and the patient, which hinders certain information to be shared between the two parties.

Doctors, on the other hand, said that they offered the necessary information to enable the patients comply with the medicine. The study also revealed that medical personnel from private health centres like clinics spent more time with the patients enabling for meaningful dialogue between service provider and seeker. For medical officers in government hospital, having enough time which is more than 5 minutes is a myth because they handle so many patients in a single day, 200 patients to cite one key informant who said so.

8.4 Attitudes and beliefs towards the rational use of bio- medical drugs.

The study established that people's attitudes towards the use of bio-medicine has changed over time from a therapy that was considered to handle only acute illnesses to one which can be used often for all sicknesses. Unlike in the earlier days where people preferred injections, people prefer tablets because one does not have to go back to hospital to be injected and they do not need a professional person to administer like injections do. Besides,

the most prescribed type of medicines was tablets. As reported by the key informants, people preferred big sized tablets and many drugs per prescription.

The study revealed that the traditional belief systems had an impact on the rational use of drugs since people were using the two therapies interdependently. The traditional medicine was in most cases sought first before patients went for Western medicine. Even when they went to hospital, it was not known by the medical doctors whether the patients stopped using the traditional medicine or they continued with it besides the Western medicine. It was established that people were still superstitious so they consult witch doctors to explain the aetiology of disease.

8.5 Policies

The conceptual framework indicated that policies also affect the rational use of drugs. However it was not possible to assess the influence of policies because it would have required a lot more time than there was for completion of the thesis. In addition too, sometimes the lay people like the respondents who were involved in this find difficulty interpreting policy issues.

It is however evident that government policy favours bio-medicine over any other therapies because it is where the ministry of health has openly put effort to fund, improve and develop by for instance, training the personnel through formal education, construction of hospitals and health centres and provision of drugs in hospitals yet hardly no funds are made available for the improvement of the traditional health care systems. Further still there are rules and regulations governed by statutory bodies like the National Drug Authority, National medical Stores established by government to ensure availability and rational use of medicine.

8.6 Conclusions

The study establishes that much as the definition of rational use of bio-medical drugs incorporates the economic and social aspects of patients, (Holloway & Ivanovska, 2003; Bhatnagar et al, 2003), medical personnel still limit rational use of drugs to only compliance to the prescription as reported earlier (Arustiyono, 1999). In this context, the information given to the patients is limited to only that which they (medical personnel) assume is enough to enable the patients comply with the medicine. In regard to this, medical personnel

seem to place the blame of irrational use of medicine entirely on the patients. The study establishes that patients do not intentionally mis-use the drugs but other factors like the social, economic, cultural practices, environmental factors and government policies influence the rational use of medicine. To the patients, the way they used medical drugs was influenced more by the impact of the medicine to improvement of the health condition than compliance to the prescribed regimen. The study therefore established that the patient's definition of rationality was in terms of perceived benefit. That was perhaps the reason as to why, where bio - medicine, was not working well, the patient would shift to alternative medicine, the most common of which was traditional medicine. Much as the medical personnel did not recommend the use of traditional medicine, the dangers of its being used and especially in high quantities was not known and documented so there was no empirical evidence upon which the doctors could base their arguments against its use. More so the study established that the inadequacy of drugs from the government facilities pushed people to seek the services from the private practitioners who are known to be profit oriented hence perpetuating polypharmacy and or self medication.

8.7 Recommendations

In view of the findings of the study, I would consider the following recommendations: the government should ensure that medical personnel are increased in the hospitals especially in the rural areas to reduce on the long waiting hours for the patients and long queues. This would encourage individuals who buy drugs from the drug shops where the staffs are less qualified to go to the hospitals and get professional advice. In addition to the personnel, the facilities should be improved to offer better services. More still, social services, like tap water and electricity should be developed to enable the qualified personnel live in comfort. This would involve lobbying for increased budget allocation to the ministry of health to facilitate the development of the necessary infrastructure and facilities.

The ministry of health should facilitate health education and promotion programmes about the rational use of medicine at community level. This would entail developing a human resource at national level through training. The trained personnel would then conduct training sessions at community level to effectively reach the lowest person in the community. This would empower the masses with information about the use and or misuse of medicine including the dangers of self medication. The current health education programmes are broadcasted on radio and or TV where the level of interaction is highly

limited to the presenters' view and they are not directed specifically to rational use of medicines. The education programmes should de developed in such away to accommodate open dialogue from the community. In Burkina Faso for instance, public awareness campaigns to sensitise the communities about the dangers of street vending were made through the Interactive Cinema Debate strategy (ICD) (contact, 2006). The ICD strategy consists of open – air public screening of a film which is followed by an audience debate on the subject of the film.

The government should adapt the asset model of provision of health services as discussed in section 2.3.3 other than the deficit model as presented in that is being used now. The deficit model is inclined towards identifying problems and needs in populations hence defining communities in negative terms disregarding what works well in particular populations where as the assets model focuses on promoting salutogenic resources within the community that promote self esteem and coping abilities of individuals.(Morgan & Ziglio, 2007). The assets model would be effective because it empowers individuals and makes them understand that they are partners in health care delivery. The assets model is already used in the treatment of patients with chronic cardio-vascular diseases like high blood pressure and diabetes.

Since the government licensed the operation of traditional healers as a body, there is also need for the government to come out with a broad statement to advise the community about how and possibly when the patients need to seek the services of traditional healers. This would enable society to identify which sicknesses to be or not to send to the traditional healers. This would encourage the patients to be open about the practice when they go to seek medical services from the hospitals which would enable the doctors to obtain the necessary information to facilitate their course of treatment in relation to administration of the effective drugs. When patients are offered effective medicine, their level of compliance and or adherence is high hence reducing on irrational use of medicine.

In addition still, informative manuals written in different readable languages in the country should be distributed all over the nation. The manuals should spell out the proper manner in which medial services should be sought, medicine use and dangers of misuse.

Further research is also needed to identify measures of establishing strategies to curb irrational use of medicine in the communities. This could include for instance an inquiry about the effectiveness of the exisisting policies related to rational use of medicine and identifying the gaps between what has been done by government and what is missing

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Appendix I: Questionnaire Schedule for Respondents

THE RELEVANCE OF PATIENTS KNOWLEDGE, ATTITUDE AND BELIEFS ON THE RATIONAL USE OF BIO-MEDICAL DRUS. A CASE STUDY OF KAYUNGA TOWN COUNCIL. KAYUNGA DISTRICT.

INTRODUCTION:

Good morning/afternoon sir/madam,

This is a research about patients' knowledge, attitudes and beliefs towards the rational use of bio-medical drugs. The study is being conducted by a student from the department of Sociology at Makerere University as part of the requirements for attaining a Master of Arts degree. This research seeks to:-

1. Assess patient's considerations for the use of bio- medical drugs.
2. Examine how the sources of bio-medical drugs influence the rational use of medicine.
3. Assess how patient's knowledge affects the rational use of bio-medical drugs.
4. Establish how attitudes and beliefs affect the rational use of bio-medical drugs.

This questionnaire is one of the tools for data collection necessary for achieving the above objectives. You are kindly requested to spare some minutes of your time to respond to the questions there in. the information you give will be treated with confidentiality and its use will be restricted to pursuing the objectives of this research. Your cooperation is highly appreciated.

Section A Background information

1. Age (in years). _____
2. Sex. (tick one) 1=.Male ☐ 2=Female ☐
3. Marital Status. (Tick one) 1=. Single ☐ 2= Married ☐ 3=. Divorced ☐
   4=. Widowed ☐ 5=. Separated. ☐ 6= Other ☐
   (Specify)
4. Educational Level: 1= No education ☐ 2=. P1-P7 ☐ 3=. S1-S4 ☐
   4=. S5-S6 ☐ 5=. Tertiary ☐ 6=. University ☐
5. Level of income per month. (Ug shs.)
   1=50,000/- – 150,000/- ☐ 2=. 151,000/- – 300,000/- ☐
   3=. 301, 000 and above. ☐
6. Tribe……

Section B Why use Medical drugs.

7. What is your common ailment? _____
_____

8. When you feel sick where do you seek treatment?

1= Hospital ☐ 2= Health centre ☐ 3= Clinic. ☐

4= others (specify) ☐

9. Give reasons for the choice in question 8 above.

_____
_____

10. Why would you choose to use western medicine when you are sick?

_____
_____

11. When you are sick who decides that you should go to the hospital?

1=. Myself ☐ 2=. Wife ☐ 3= Husband ☐

4= Friends ☐ 5= Other (Specify) ☐

Section C Sources of Medical Drugs

12. Where do you get medicine from when you fall sick? (Tick as appropriate)

1= Hospital ☐ 2= Health Centre. ☐ 3= Drug shop. ☐

4= Other (Specify). ☐

13. Why do you get medicine from the choice in 11 above?

---

14. Do you always get the medicine you want? Please explain.

_____
_____

15. Does the person who gives the medicine explain well how you are to use it?

1 = Yes ☐ 2=No ☐ 3 = Not sure ☐ 4= Don't Know ☐

16. Are you told to go back after you have completed the dosage?

1= Yes ☐ 2 = No ☐

17. What do you do if you do not get cured?

---

18. When you fall sick, is there any other medication you use before going to the hospital or clinic?

1= Yes. ☐ 2= No. ☐

19. If yes;

1) Where do you get the medication? ----------
---

ii) Why don't you go straight to the hospital? ----------

Section D Patients' Knowledge and rational use of drugs

20. How do you know that you have been given the correct or right drugs?

21. When you go to the clinic, hospital or health centre, whom do you talk to?

1= Doctor ☐ 2= Nurse. ☐ 3= Midwife. ☐

4= don't know. ☐ 5= other (specify) ☐

22) Does the person you talk to explain to you properly the state of your condition?

1= Yes ☐ 2= Not sure ☐ 3= No ☐

4= Don't know ☐

23. When medicine has been prescribed to you, are you told?

a) How to use it? 1= Yes ☐ 2= No ☐

b) The side effects? 1= Yes. ☐ 2= No ☐

c) The cost of the medicine? 1= Yes. ☐ 2= No. ☐

24. How much time do you normally spend talking to the physician?

1= 1-3 min. ☐ 2= 4-6min. ☐ 3= 7-9min. ☐

4= 10 and above. ☐ 5= other (specify) ☐

25. Do you think that the time you spend with the physician is enough for you to discuss your condition?

1=.Yes ☐ 2= No ☐

26. If No, how much time do you think would be appropriate for you?

Section E Attitudes and beliefs about rational use of drugs.

27. When given medication do you always take it as the physician has told you?

1= Yes ☐ 2= No ☐

28. If No, explain why……
……
……

9. What type of medicine is usually prescribed for you?

1= Tablets. ☐ 2= Syrups ☐ 3= injections ☐

4= others (specify) ☐

30. Of the choices above, which type of medicine would you prefer and why? ____
_____
_____

31. Is there anything you would like to say or add on? ----------
---

----------***Thank you for your cooperation***----------

Appendix II: Interview Guide for Key Informants

THE RELEVANCE OF PATIENTS KNOWLEDGE,ATTITUDE AND BELIEFS ON THE RATIONAL USE OF BIO-MEDICAL DRUGS. A CASE STUDY OF KAYUNGA TOWN COUNCIL. KAYUNGA DISTRICT.

INTRODUCTION:

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1. Assess patient's considerations for the use of bio- medical drugs.
2. Examine the how the sources of bio-medical drugs influence the rational use of medicine.
3. Assess how patient's knowledge affects the rational use of bio-medical drugs.
4. Establish how attitudes and beliefs affect the rational use of bio-medical drugs.

This questionnaire is one of the tools for data collection necessary for achieving the above objectives. You are kindly requested to spare some minutes of your time to respond to the questions there in. The information you give will be treated with confidentiality and its use will be restricted to pursuing the objectives of this research. Your cooperation is highly appreciated.

A. Background Information

1. Age----------

2. Sex----------

3. Status----------

4. Level of Education----------

5. Profession----------

7. Type of drug outlet----------

B. Information about the use of Bio-medical drugs

1. How far is the nearest drug outlet from here? (Km)

2. How many people do you serve in one day?

3. Would you consider that number of people you serve in a day as quite big?

4. What kind of drugs do you sell most?

1=Tablets ☐

2=Syrups ☐

3= Injections ☐

5. What kind of drugs do the people prefer most?
6. Why do people prefer those kinds of drugs?

7. Do the people you dispense medicine to come with medical prescriptions? 8. If no how do you tell which drug they want?

9. Would you say that you explain to the patients properly everything about the drugs they buy?
10. In your opinion what kind of information do you give patients when they buy drugs?
11. How much time do you spend with each patient? 12. Would consider that enough time for the patient to understand what you have explained to them?
13. Do Patients themselves come for the drugs or they send some body else?

14. How can you know that the patient has used the drug in the way that you told them to?
15. Do you think the patients always use the drugs in the right doses you tell them too?

1= Yes ☐ 2= No. ☐

16. It is said by medical practitioners that patients do not use the drugs in the proper manner as prescribed. Why do you think patients fail to use the drugs the way they are prescribed to them?

17. Do patients often come back for review or consultation after using the medicine?

1=Yes ☐ 2= No ☐

18. If No, Why do you think so?

19 Would you say that people are kin on using medical drugs? 20. Would you say that the patients you serve use only medical drugs? (Explain)

21. When these people fall sick, do you think they straight away come for bio-medical drugs?

22 If No why?
23. What measures do you think can be adopted to encourage patients use the drugs in the right way (explain)…

Thanks for your cooperation