

**FACTORS INFLUENCING THE USE OF MEDICINES BY
CONSUMERS IN TIKO SUB-DIVISION, CAMEROON**

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A minithesis submitted in partial fulfillment of the requirements for the degree of Masters in Public Health, in the School of Public Health, Community and Health Sciences Faculty, University of the Western Cape

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November 2009

KEY WORDS

Medicines

Drug

Use

Irrational use

Consumers

Patients

Community

Self Medication

Cameroon

Developing country



ABSTRACT

Background

Irrational use of medicines is a global health problem. The World Health Organization has reported that more than 50% of all medicines are prescribed, dispensed and sold inappropriately, and that more than 50% of patients fail to take their medicines correctly (Holloway, 2006). The rational use of medicines is one of the core components of the National Strategic Plan for the Implementation of a Pharmaceutical Policy in Cameroon (MOH, 2000). In Cameroon, it has been noted that instead of going to the hospital when they fall sick, consumers prefer to self-medicate or visit a street vendor, traditional or faith healer or quack doctor (World Bank, 1995) and that they adjust the quantity of medicines they take based on their ability to pay for them (van der Geest, 1991).

Aim and Objectives

This study described the factors influencing the use of medicines by consumers in Tiko sub-division at household level, community level, health institutions level, and national level.

Study Design

This study used a qualitative study design to explore the factors influencing the use of medicines by consumers in Tiko-subdivision, Cameroon.

Study Population and Sampling

Six focus group discussions with consumers representing the different socio-economic and educational levels of Tiko sub-division were conducted. Two focus groups with members of each of the following organizations - Plantain Traders Association, Township Taxi Drivers Association and Teachers of Tiko High School. Six in-depth

interviews with key informants were carried out, three with workers that sell medicines in community pharmacies and three with workers that sell medicines in the informal sector.

Data Collection and Analysis

Notes and observations were taken during the focus groups and key informant interviews. In addition, the proceedings were audio taped and the recordings were used to expand and clarify the notes. The data obtained was analyzed to identify recurring themes from the various influences of medicine use on consumers.

Results

Factors that influenced consumers' use of medicines were categorized into household, community, health institutional and national levels. At the household level key influences were the consumers' perceived need for medicines, the cost of medicines, the purchasing habits of consumers, the literacy level and consumers' idea about efficacy and power of medicine, together with polypharmacy and polytherapy. At the community level, the medicine use culture, medicine supply channels and the sources of information of medicines influenced consumers' use of medicines. At the health institutional level the influences reported were the quality of services, the cost of medicines, availability of medicines and consulting health worker. At the national level factors included, the media, lack of medicines regulation and control and medicines financing mechanisms.

Discussion

The study found that medicines use in Tiko sub-division was affected by a number of key factors. A number of cross-cutting themes were identified which had a critical impact on the rational use of medicines by this community. These themes were categorized as: sociocultural, economic and regulatory. Amongst the sociocultural factors was the way

consumers perceived their need for medicines, their ideas about efficacy and the power of medicine and their perception of medicines as a commodity. Economic factors included user charges for health care - including medicines, and the high cost of medicines, while regulatory factors emanated from the illicit trade in pharmaceuticals, poor regulatory control and the lack of a national drug policy.

Recommendations

Proposals to improve the rational use of medicines by consumers in Tiko sub-division were identified to remove the sociocultural, economic and regulatory barriers to appropriate medicines use. Sociocultural strategies should focus on public education on medicines through role plays and audiovisual communication tools increase knowledge about medicines and to ensure behaviour change. Economic strategies should include the elimination of user charges and health financing strategies. Regulatory strategies proposed include amongst others, implementation of a national medicines policy and the setting up of a multisectoral task force to control sales of medicines.

DECLARATION

I declare that *Factors influencing the use of medicines by consumers in Tiko Sub-division, Cameroon* is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Full Name : Chana Chapchet Robert. Date : November 2009

Signed :.....



ACKNOWLEDGEMENTS

I would like to thank the following without whom this research project would not have been possible: The District Medical Officer of Tiko Health District, Dr. Folefack, who encouraged me during the study period; the President of the Plantain Traders Association of Tiko and all her team; the President of Tiko Township Taxi Drivers Association and his team members; and the Vice-Principal of Government Bilingual High School, Mr Goghomu, who granted me permission to carry out the study in the school and Mr Musong who assisted in identifying suitable male and female teachers for the study.

I am also indebted to the key informants from Faith Standard Pharmacy Tiko, Friveralin Pharmacy Mutengene and Core Pharmacy Likomba and to those from the informal sector who provided information to me.

I would like to give special thanks to my staff at Core Pharmacy for all their assistance and also to my family who have supported me throughout this research.

Finally, my gratitude goes to Hazel Bradley, who diligently saw to my every need that has finally resulted in this thesis report. Thank you very much, Hazel for your tutorship.

May all honour and glory and might be ascribed to the LORD Almighty my sole companion.

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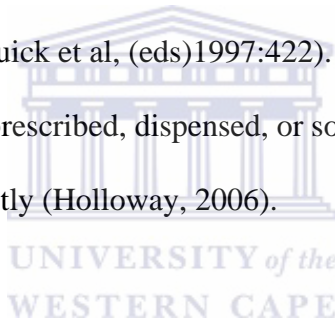


CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

Essential medicines, or drugs, are those which satisfy the priority health care needs of the population (Brundtland, 2002). They should be of good quality, available at all times and affordable. When used properly, these medicines provide simple cost-effective solutions to our health care needs. “The rational use of medicines requires that patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community” (WHO, 1985 in Quick et al, (eds)1997:422). Unfortunately, globally, more than 50% of all medicines are prescribed, dispensed, or sold inappropriately and 50% of patients fail to take them correctly (Holloway, 2006).



Some common types of irrational medicines use include: the use of medicines in situations where no drug is needed; the wrong drugs, or ineffective or unsafe drugs, are prescribed; effective and available drugs are underused; or drugs are used incorrectly (Quick et al, 1997). Other drug use problems include the overuse of drugs and injections due to over-prescribing; the prescribing and use of too many drugs (poly-pharmacy) when generally, one or two drugs would have been sufficient; the use of expensive medicines instead of cheaper alternatives; the non-compliance of patients to a treatment regimen; or self medication, usually with prescription only medicines (Le Grand, Hogerzeil and Haaijer-Ruskamp, 1999; Arhinful et al, 1996).

In 1999, WHO estimated that about 80% of the global population without access to essential medicines was living in low-income countries while only 0.3% of those lacking access to essential medicines lived in high-income countries. However, whilst only up to 20% of the health budget was spent on medicines in high income countries, up to 40% of the health budget in developing countries was used on medicines (WHO, 2004). This means that even though developing countries spend huge amounts to purchase medicines, these medicines are not accessible, and those which are accessible are not well utilized.

The inappropriate use of medicines results in increased morbidity and mortality, especially in disease conditions like hypertension, diabetes and epilepsy where it is critical that medicines are taken regularly and appropriately (Holloway, 2006). It also wastes resources and results in poor patient outcomes and adverse drug reactions (Holloway, 2006). Antibiotic resistance is on the increase due to over use of antibiotics, and inappropriate use of injections, especially non-sterile injections, has resulted in increased transmission of HIV/AIDS and hepatitis (Knor, 2005).

The rational use of medicines is one of the core components of the pharmaceutical policy of Cameroon (MOH, 2000). The strategic document for the implementation of a National Pharmaceutical Policy in Cameroon recognizes that, despite the creation of a Central Pharmaceutical Store for the nation, health units still run out of stock of essential medicines (MOH, 2000). In addition, the illicit trade in pharmaceuticals, most especially counterfeited medicines, is increasing and no public health programmes exist to educate actors involved in medicine use on the appropriate use of pharmaceuticals (MOH, 2000).

In addition, the absence of a public education programme on medicines is further compounded by the lack of sufficient number of health professionals. In 2000, it was estimated that the pharmacist to population ratio was 1:2693 persons while for doctors (general practitioner) it was 1:136,000 persons and for nurses 1:2083 persons (MOH, 2000).

Previous studies conducted in Cameroon to promote rational use of medicines have focused on health worker prescribing and dispensing. This can only partly improve the use of medicines, because Cameroonians, instead of going to the formal health sector when sick regularly self-medicate or visit a street vendor, traditional or faith healer, or quack doctor (World Bank, 1995). When consumers self-medicate, they obtain their medicines from informal drug distribution channels and from pharmacies.

Successful strategies to improve the use of medicines by consumers must be based on a clear understanding of how and why medicines are used irrationally, so that specific issues can be targeted. Interventions to improve the use of medicines, which are appropriate, effective and feasible, can then be developed.

1.2 STUDY SETTING

The study took place in Tiko Sub-division, a rural sub-division in the South-West Province of the Republic of Cameroon. Tiko Sub-division is located in the forest region and has a hot climate. The population size is approximately 200,000 inhabitants, made up of 45% males and 55% females (Mokossa, undated). The principal sources of income of

the Tiko population are trading, farming and plantation wage earnings. Plantation wage earners and farmers make up 81% of the poor population in Cameroon (World Bank, 2008). As in other parts of the country, malaria, HIV/AIDS and tuberculosis are the leading causes of death. Tiko is an easy access point to neighbouring countries like Nigeria and Equatorial Guinea.

Health care provision in Tiko Sub-division can be divided into the formal and informal sectors. The formal sector consists of all accredited hospitals, health centres and community pharmacies. The state owned health care services in the formal sector consists of one district hospital, three maternity units with facilities for out-patient consultations and seven health centres. Private institutions in the formal sector include two faith-based hospitals and five community pharmacies. There are all in all ten medical doctors working in both the public and private sectors. The informal sector is made up of medicine sellers in stalls, kiosks, hawkers and medicine peddlers. Throughout Tiko Sub-division, it is estimated that there are approximately 100 people involved in the informal trade in medicines. Trading informally in medicines is against the law, however, because of poor enforcement of the law, people sell medicines in kiosks, market stalls and even hawk. Although there are raids, albeit infrequent, organized by the forces of law and order to arrest those practicing informal trade in medicines, the practice continues. Those involved in the informal trade in medicines are not registered with the Pharmacy Council in Cameroon and are not under the jurisdiction of any professional body. The medicines they sell range from simple over the counter medicines, like paracetamol, to the most costly antibiotics like the third generation cephalosporins.

1.3 PROBLEM STATEMENT

As a pharmacist working in a private community pharmacy in Tiko Sub-division, I have observed many examples of irrational use of medicines by the local population.

Consumers obtain medicines in various ways. Some come to the community pharmacy with a prescription from a prescribing doctor or nurse, working in either public or private formal health facility; others request medicines from the pharmacy or medicines stores without prescriptions. Frequently consumers request a few capsules or tablets of anti-infectious agents such as antibiotics and antimalarials and, for various reasons, not all of these patients buy the full course of therapy and even when they do, they may not take all the medicines as prescribed. Others self medicate, by regularly buying medicines such as paracetamol and other medicines to relieve pain.

1.4 STUDY AIM AND OBJECTIVES

1.4.1 AIM

The aim of this study was to describe the factors influencing the use of medicines by consumers in Tiko Sub-division.

1.4.2 OBJECTIVES:

The objectives of this study were

- 1- To explore the household level factors influencing medicines use by consumers
- 2- To explore community level factors influencing medicines use by consumers
- 3- To explore health institutions level factors influencing medicines use by consumers
- 4- To explore national level factors influencing medicines use by consumer

1.5 THESIS OUTLINE

Chapter 2 takes the reader through a review of the literature. The literature brings together documented reports on influences of medicine use by consumers and their associated effects on consumers from different parts of the world. Starting with the global effect of irrational medicines use, this chapter illustrates the various levels at which problems with medicines use occur and the possible reasons why they occur. These various levels set the scene for the researcher to conduct an in-depth study within Tiko Sub-division.

Chapter 3 describes the research methodology. The study uses qualitative research methods, which are recognized for its capacity to obtain in-depth information. Qualitative methodology permits the researcher to gain an understanding of the study population's view of events. This chapter offers an explanation and justification on the choice of the methodology used, the tools used in obtaining information and the way the data obtained was analysed. Ethical considerations that were made during the study are also included here.

Chapter 4 contains the results of the study.

Chapter 5 This chapter discusses the findings in the light of published literature. It does not detail every issue reported in the result but selects the salient and emerging ideas. To discuss the results, the researcher stepped aside to understand the key themes that were operating at the various levels of influence and thus the discussions were based on those factors.

Chapter 6 This chapter concludes the study by detailing a summary of the study findings and proposes possible intervention strategies that can be used to promote the rational use of medicines by consumers in Tiko Sub-division



CHAPTER 2

LITERATURE REVIEW

The rational use of medicines is one of the core components of national drug policies. In developing countries, this policy is often implemented through the national essential drugs programme, with emphasis on drug selection, procurement, distribution and use (Laing, Hogerzeil and Ross-Degnan, 2001). Globally, it has been estimated that between 10% and 40% of health budgets are spent on medicines (WHO, 2007). It is also estimated globally that more than half of all medicines in developing countries and those with economies in transition, and a substantial proportion of medicines in the developed world, especially antibiotics, are used irrationally (WHO, 2007). Irrational use of medicines results in the wastage of available resources; increased hospitalization; impoverishment of patients, especially those who must pay out-of-pocket for medical care; increased antibiotic resistance, and increased transmission of HIV/AIDS and hepatitis through the wrong use of injections (Knor, 2005). It has been observed that consumer movements play an important role in promoting rational use of medicines (Laing, Hogerzeil and Ross-Degnan, 2001). Such movements should be encouraged (International conference on national medicinal policies – the way forward, 1997) because “appropriate drug use by patients and consumers is an integral part of successful national drug policy” (Quick et al, (eds), 1997: 497).

In a review of 50 intervention studies to improve drug use in developing countries, Le Grand, Hogerzeil and Haaijer-Ruskamp (1999), found that drug use problems were at community, health institution and the national levels. In addition to these three levels,

Hardon, Hodgkin and Fresle (2004) added household and international levels as spheres of influence of medicines use by the community (see Appendix 1).

2.1 HOUSEHOLD LEVEL

At the household level, people frequently believe that medicines are necessary ‘for every ill’ and will take them even for self limiting illnesses (Rasmussen et al, 1996). They also believe that in order to stay healthy, one needs to take medicines. This is evident in the increase in sales of vitamin products over the past few years (Hardon, Hodgkin and Fresle, 2004). The perceived efficacy and safety of medicines conditions the way people take them. In Sierra Leone, it was observed that red medicines were thought to be good for the blood (Bledsoe and Goubaud, 1985) while Birungi, Asiimwe and Whyte (1994) noted that people preferred injections to oral medicines in Uganda. They perceived oral medicines as food which when eaten may not even be digested before excretion. People adjust the way they take medicines based on their understanding of the cause of the disease and their ability to pay for medicines. In Ghana, heat was thought to be the cause of measles in some communities. A combination of medicines to treat the heat and symptoms of measles was given to make the patient healthy again (Senah, 1997). In Cameroon, medicines are reported to account for more than 50% of household health expenditure and because people pay out-of-pocket for their medicines (Commeyras et al, 2005), they adjust the quantity of medicines they take based on their ability to pay for the medicine (Van der Geest, 1991).

2.2 COMMUNITY LEVEL

At the community level, self medication (Hardon, 1987; Haak, 1988) and patient non compliance to prescribed treatment (Trostle, (nd); Homedes and Ugalde, 1993) were the main causes of irrational medicine use. Often the decision to use medicines, the type of medicines taken and the need to comply with prescribed medication is influenced by socio-cultural factors such as patients' perceptions and preferences for certain drugs (van der Geest and Whyte, 1991; Etkin and Tan, 1994). Birungi, Asiimwe and Whyte (1994) reported the Ugandan peoples' preference to injections and mentioned that in Uganda, both injection providers and users believed that injection restored health better than any other medicine formulation (WHO, 1991; Reeler, 1990; Wolfers and Bloem, 1993). It has been reported that Cameroonians, instead of going to the formal health sector when sick, would self-medicate or visit a street vendor, traditional or faith healer or quack doctor (World Bank, 1995). This community understanding in Cameroon stemmed from the loss of trust in the public health care system that developed at the time when medicines were not available from these facilities and patients resorted to private health care providers and to the informal sector (Van der Geest, 1985). In the Philippines it was found that 75% of medicines were obtained from the private sector, including community pharmacies and neighbourhood stores (Hardon, 1991). Community-based studies in Philippines, Thailand and Pakistan have also revealed that common health problems are treated at home by family members without seeking health workers' advice (Hardon and Le Grand, 1993).

2.3 HEALTH INSTITUTION LEVEL

At the health institution level, it has been found that the quality of prescribing and dispensing, the quality of consultation, drug supply and cost of medicines affect the way

consumers use medicines (Hardon, Hodgkin and Fresle, 2004). In the Philippines, patients keep prescriptions in their homes and use them again to self medicate when they fall sick (Hardon, 1991). The health worker-consumer interaction has been found to influence the way patients adhere to medications (Hardon, Hodgkin and Fresle, 2004). Non-adherence to prescribed medication will occur when patients do not understand their diagnosis, how to take the prescribed drugs, or cannot recall the dosage and dosage frequency (Nyazema, 1984; Ugalde et al., 1986). In Cameroon, prescribers in Cameroon Baptist Convention (CBC) health institutions were found to prescribe according to the patient's ability to pay for the medicines; that is, expensive medicines are prescribed to the rich patients even though there are cheaper alternatives. This resulted in a deviation from the recommendations in the standard treatment guideline for the treatment of malaria (Groom and Hedlund, 1998). Dispensing quality and characteristics also affect the way people take their medicines. Over-prescribing will lead to patients taking more drugs than needed. It was found in Zimbabwe that dispensing doctors prescribed on average 2.3 drugs per patient while non-dispensing doctors prescribed an average of 1.7 drugs (Trap et al., 2002). Commeyras et al (2006) constructed a list of medicines prescribed in Cameroon and found that 50 different medicines were prescribed regularly. However, prescribers were using mostly generic names while dispensers dispensed mostly branded products. It was also found that the average number of medicines prescribed was 4.1 (Commeyras et al., 2006). The drug supply system and the type of medication stocked have important bearing on the way medicines are used. Groom and Hedlund (1998) investigated medicines-use practices in the Cameroon Baptist Convention health services and noted that quinine tablets were prescribed in the 250mg

strength while the stocked quinine tablets were in 200mg and 300mg strengths. They also noted that prescribers made adjustments to the type of medication prescribed based on the cost of the medication.

2.4 NATIONAL LEVEL

At the national level, the national drug policy provides a framework for the selection, procurement, distribution and use of medicines. This policy is the responsibility of the state. Drug use problems at the national level have resulted largely from either a lack of a national drug policy at all or else from weak implementation of the policy (Royal Tropical Institute and London School of Hygiene and Tropical Medicine, 1989). Drug promotion adversely affects prescribing practice and consumers' requests for medication. There have been cases of misinformation in medicine information in the Third World with the view of promoting more use (greater sales) in these regions, as compared to information provided in developed world. It was found that medicine information for the Third World contained exaggerated claims of efficacy with reduced side effects (van der Geest, 1991). Prescribers often lack access to objective information on pharmaceuticals in the developing countries. They rely mostly on information provided by medicines sales representatives (Le Grand, Hogerzeil and Haaijer-Ruskamp, 1997) whose target is to increase the sales of a particular formulation. It has been estimated that companies spend one third of their sales revenue on drug promotion (Mintzes, 1998) Direct-to-consumer advertising is a major way of increasing consumer demand for medicines. In addition, companies create ways of advertising directly to consumers even in places where this act is prohibited (Mintzes, 2002), all to increase consumer demand for medicines.

2.5 INTERNATIONAL LEVEL

Globalisation and international trade regulations, shift in donor support, global consumer advocacy groups and the internet have all had a very strong impact on access to, and rational use of medicines. Donors like the Global Fund for HIV, TB and Malaria, and the Global Alliance for Vaccines and Immunisation (GAVI) have shifted their support from vertical programs such as the provision of essential drugs and have now adopted the sector-wide approach to health reform (Hardon, Hodgkin and Fresle, 2004). Various consumer advocacy groups have lobbied for appropriate medicines policies and even challenged the lack of public health concern as a priority in the drawing up of international trade agreements (Hardon, Hodgkin and Fresle, 2004). The internet has a dual role to play in influencing the way consumers use medicines. On the one hand, it is an important source of healthcare information and serves as a tool for advocacy and networking, and on the other hand its lack of control on content and context ensures the dissemination of unverified and sometimes inappropriate information (Hardon, Hodgkin and Fresle, 2004).

Almost two decades ago Van der Geest (1987) described the extent of self-medication in Cameroon and the political, social and economic factors influencing self-medication. He used interviews and conversational methods to obtain his data. The setting for his study was Ntem, in South Province. This study used in-depth interviews with key informants. The key informants trade in medicines and include pharmacy assistants in community pharmacies and medicine sellers in medicine stores. It also used focus group discussions

with community members to generate information on the factors influencing the use of medicines by consumers in Tiko Sub-division of South West Province of Cameroon.

Those selling medicines through the formal community pharmacies with the exception of the pharmacist are referred to as pharmacy assistants while those involved in selling medicine outside the formal sector will be referred to as medicine sellers.



CHAPTER THREE

METHODOLOGY

3.1 METHOD

3.1.1 STUDY DESIGN

This study was a descriptive exploratory study. It used qualitative research methodology to explore the factors that influence the way consumers perceive and use medicines.

3.1.2 STUDY POPULATION

The study population consisted of all males and females, aged 18 years and above, living in the three zones - Tiko town, Likomba and Mutengene, in Tiko Sub-division involved in either purchasing and/or using medicines (consumers). In addition, medicine sellers and pharmacy assistants were interviewed. The three zones of Tiko Sub-division were chosen because they have more than 70% of population of Tiko Sub-division, and about 80% of the hospitals, community pharmacies and informal private medicine stores and it was easy to commute within these three zones, thus enhancing the feasibility of this study.

In this study there were two different study populations.

3.1.2.1 Consumers of Medicines

Three groups of consumers representing the major different socio-economic and educational groups within Tiko Sub-division were selected. The three groups were: women of the Plantain Traders Association otherwise known as plantain sellers; members of the local Township Taxi Drivers Association herein referred to as taxi drivers, and

teachers of Tiko High School, the bilingual government school serving the area also known as male teachers and female teachers. The women of the Plantain Traders Association are involved in buying and selling of plantains, are mostly from poor socio-economic and educational backgrounds and live in permanent buildings with more than one room. Their average daily gross income at the time of the study was estimated to be up to 10 US dollars. Taxi drivers are mostly young to middle aged men, living in permanent housing structures with more than one room. They are usually on the move, driving from one part of the town to another and have an average daily net income of approximately 20 US dollars. The third group, the teachers, is an educated group of people (both male and female) with a monthly gross income of about 500 US dollars and they live mostly in apartment houses with more than two rooms. It was envisaged that by selecting consumers from these three diverse groups, which represent a range of socio-economic and educational backgrounds, and males and females living in the three zones of Tiko Sub-division, a broad understanding of factors influencing the use of medicines would be obtained based on their different kinds of experiences.

3.1.2.2 Traders in Medicine

Those trading in medicine consisted of those working in private registered community pharmacies known as pharmacy assistants and those working in the informal medicine sales outlets known as medicine sellers. The medicine sellers include hawkers and medicine peddlers, kiosk owners and medicine store owners. They belong to the informal sector because they are not authorized to sell medicines. There are five community

pharmacies in the three zones of Tiko Sub-division and the number of informal medicine sellers was estimated to be 100 persons.

3.1.3 SAMPLING

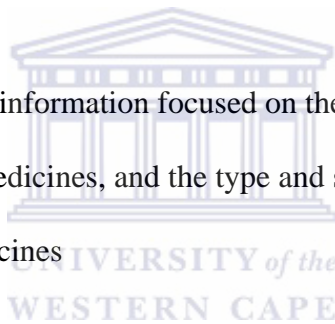
Six focus group discussions were carried out with medicine consumers, two with members of the Plantain Traders Association, two with members of the Township Taxi Drivers Association and another two with teachers from the Teachers Association of Tiko High School (one with male and one with female teachers). It was anticipated that a third focus group discussion for each group would be necessary if contradictory information was obtained in the first two discussion groups; however, this did not happen and so a third focus discussion group was not necessary with any of the consumer groups.

Selection inclusion criteria for the focus group discussions included the following:

Participants must be currently living in one of the three zones of Tiko Sub-division; they must have lived in the area for the past five years; and they must have purchased or used medicines at least once within 30 days of the date of the focus group discussion. The Tiko Health District Medical Officer was contacted to invite the heads of the Plantain Traders Association, Township Taxi Drivers Association and Teachers Association of the High School to a meeting where he was to introduce the researcher. However, the district medical officer was not available within the tight time constraints of the research study and so the researcher contacted the heads of the various associations personally and updated the district medical officer regularly. At the meeting with the union heads the researcher explained the purpose of the study and invited the support of each association for the research. The three associations then agreed to assist with purposively identifying

suitable members, fulfilling eligibility criteria, and inviting them to participate in the focus group discussions. Ten participants were supposed to be invited to participate in each of the six focus groups. This was to allow for the fact that some participants may fail to attend on the planned date. Participants for each group were purposively selected to include various ages and family living situations (such as single, married, living with children or parents). A total of forty-eight participants were interviewed in the focus group discussions. There were eight and seven female participants in the two Plantain Traders Association groups; seven male participants in each of the Taxi Drivers groups; and ten male and nine female teachers.

The questions used to generate information focused on the effects of consumers' health seeking behaviour, access to medicines, and the type and sources of information of consumers on their use of medicines



Six in-depth interviews were carried out with purposively selected key informants from three registered community pharmacies and three informal medicine stores from the three zones in Tiko Sub-division. It was considered more appropriate to interview medicine sellers in stores because they could be traced when need arose unlike hawkers and kiosk owners who do not always have a fixed location. The inclusion criteria were that the registered community pharmacy and the informal store must have traded in that locality for at least three years and that the person interviewed must have worked in that facility for at least one year. This was to ensure that there was sufficient time for people to know that there is a facility that sells medicines and the one year time limit for staff provided

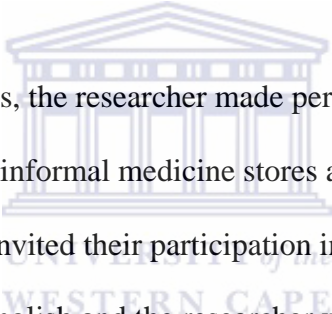
for confidence building in the staff by the population, such that it could confide to the staff on health matters. There are five community pharmacies in the three zones. One zone has three pharmacies while the other two zones have one pharmacy each. However, in the zone with three pharmacies, only one pharmacy met the inclusion criteria and so one pharmacy from each of the three zones was included in the study. In each pharmacy, one pharmacy assistant fulfilling the inclusion criteria was interviewed. In pharmacies where more than one pharmacy assistant met the inclusion criteria, the longest serving staff member on the day of interview was selected.

Three medicine stores, one from each of the three zones were selected and one medicine seller who met the inclusion criteria (in a similar manner to the pharmacies) was selected for interview from each store. The medicine store selected was expected to be the most popular in the zone. However, because of the unwillingness of some of the store owners to participate in the study, another medicine store that met the inclusion criteria except that it was not the most popular in the zone and was willing to participate in the study was interviewed. Pharmacy assistants in the community pharmacies indicated the names of the most popular medicine stores in the zone.

3.1.4 DATA COLLECTION

The focus group discussions were conducted in both English and Pidgin in a central venue conducive to allow participants to freely air their views. English language was used during the group discussion with the male and female teachers while Pidgin was used in the discussion with plantain sellers and taxi drivers. The researcher was assisted

by an observer who took notes and recorded non-verbal cues. The focus groups were audio-taped and the recordings were used to expand and clarify the notes. All the focus group discussions started off timidly after self introduction with sharing of personal experiences on medicines and sicknesses. Appropriate group dynamics was generated as the discussions progressed with participants following on each others experiences either buttressing points or asking for clarification on some experiences from others. Each and every participant in the group discussions contributed to the discussion. This was facilitated by the researcher who identified timid participants and engaged them in the discussions by asking questions like “what do you feel about that or this point raised”?



For the key informant interviews, the researcher made personal contacts with the selected community pharmacies and the informal medicine stores and, after explaining the study purpose and inclusion criteria, invited their participation in the research study. The interviews were conducted in English and the researcher was assisted by an observer who took notes. Interviews were conducted in the community pharmacies and in the medicine stalls. Interviews were audio-taped and notes were also taken. The audio-taped interviews were used to expand and clarify the notes.

An interview guide was used for both the in-depth interviews and focus group discussions. Questions were focused on the factors that influence the use of medicines at household, community, health institutional, and national levels.

3.1.5 RIGOUR

Validity in this study was achieved by applying the following procedures:

3.1.5.1 Triangulation of data sources.

In-depth interviews and focus group discussions were the data collection methods. For the two methods, participants were asked similar questions to elicit responses. I looked for themes and categories that were similar. Narratives of these accounts from both data sources were made and served as corroborating evidence, enhancing reliability of the study.

3.1.5.2 Researcher reflexivity.

Being born in and living in Tiko Sub-division was sufficient for me to enter the study with biased information. In order to eliminate this and ensure reliability, and as suggested by Creswell and Miller (2000), a separate column that highlights my role as a researcher was created. The content of this column was an epilogue that expressed my position before, during and after the research. I stated in this epilogue, my view on the way medicines are used and factors influencing their use.

3.1.5.3 Member checking

Member checking was done as follows: The taped interviews were played back to the interviewees while the notes taken during the interviews were read back to the participants. They were asked to report any omission or indicate if they wanted to add some more information. Except with the last focus group interview with the plantain sellers, who added some information and confirmed the information from the tape and

notes, members from all the other group discussions confirmed that the notes and the taped information were correct. This action confirmed the authenticity of the collected information.

3.1.5.4 Thick, rich description.

By using thick description, my aim was to create verisimilitude by detailing in the form of narratives, interactions with group members and individual encounters during group interviews. I had contextualized encounters to highlight the effect of socio-economic, political, cultural and educational interplay on the participants' view of events. This added credibility to the study.



3.1.6 DATA ANALYSIS

The processes of data collection and data analysis were concurrent (Green and Thorogood, 2004; Liamputtong and Ezzy, 2005). Data analysis started with data collection.

There was a two-phased data analysis process for the focus group discussions. The first phase was the analysis of individual focus group discussions for each category of consumers. This served to identify content similarity within groups to ascertain if a third group discussion was necessary for any of the three categories. It was realized that a third interview for each group was not necessary.

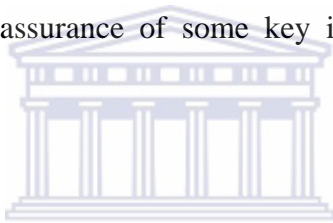
In the second phase of analysis, data from the focus group discussions and the key informant interviews were analysed and recurrent themes were identified. A process of coding and categorizing was followed i.e. the recurrent themes were given specific codes and placed in fixed categories. The constant comparison method was then used to affix specific codes to specific data from the interviews and group discussions.

3.1.7 ETHICAL CONSIDERATIONS

Ethical permission to conduct the research was received from the University of the Western Cape Ethics Committee. Verbal accord to carry out the study was provided by the district medical officer. Further approvals were given by the heads of each of the associations involved in the study and by the individuals who participated. Participation in the study was voluntary. A Participant Information Sheet in both English and Pidgin Languages (Appendix 2a and 2b) that explained the purpose of the study, the role and responsibility of the participants and researcher and the expectation of the participants and researcher was handed to participants. Furthermore, an Informed Consent Form in English (Appendices 3a and 4a) and in Pidgin (Appendices 3b and 4b) was made available to the participants for their approval by signature, before the study began. The participants read the sheet and approved their participation by signing the informed consent form. Interviews and Focus Group Discussions with the teachers were conducted in English while Pidgin was used to communicate with the taxi drivers and plantain sellers. Pidgin was used because it is the language they use to conduct their daily businesses and one in which they are able to express themselves comfortably. Although the forms were available in Pidgin, because some participants were not able to read or

write, the taped Pidgin version was read to them and they gave their consent by writing their names on the forms. All participants were assured that the records of their participation would be kept confidential and were only to be used for the purposes of the study. They were informed that they could decline to comment on any issues that might arise during the interview or focus group and could withdraw from the study at any stage without any adverse consequences.

The study was not invasive. However, because the selling of medicines outside the community pharmacies is strictly prohibited by law in Cameroon, it was envisioned to provide for counseling and reassurance of some key informants. This did not prove necessary so was not provided.



3.1.8 REPORTING AND FEEDBACK

The result of this study has not yet been made known to anyone. However, after the evaluation of the minithesis and upon successful completion, the result will be made known to the district medical office and the medical team in a formal meeting that will be attended by consumers in Tiko Sub-division especially members of the taxi drivers association, members of the plantain traders association and teachers of government high school Tiko.

CHAPTER FOUR

RESULTS

This study used focus group discussions and key informant interviews to obtain information about factors influencing consumers to use medicines in Tiko Sub-division. A total of six focus group discussions were carried out with three groups of medicine consumers: two with members of the Plantain Traders Association, two with members of the Township Taxi Drivers Association and another two with teachers from the Teachers Association of Tiko High School (one with male and another with female teachers). These groups were chosen to represent the range of socioeconomic status in Tiko Sub-division. Participants for each group were purposively selected to include various ages and family living situations (such as single, married, living with children or parents). A total of forty-eight participants were interviewed in the focus group discussions. There were eight and seven female participants in the two Plantain Traders Association groups, seven male participants in each of the Taxi Drivers groups; and ten male and nine female teachers.

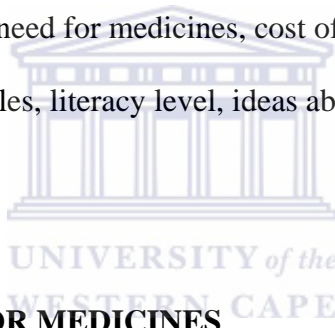
Six in-depth interviews were carried out with purposively selected key informants from three registered community pharmacies and three informal medicine stores from the three zones in Tiko Sub-division.

The questions used to generate information focused on the effects of consumers' health seeking behaviour, access to medicines, and the type and sources of information of consumers on their use of medicines.

The information obtained on the use of medicines by consumers was categorized into four levels of influence: household level, community level, health institutional level and national level and the results are presented below.

4.1 HOUSEHOLD LEVEL

At the household level a number of key factors were identified that influenced the use of medicines including perceived need for medicines, cost of medicines, medicine purchasing and consumption roles, literacy level, ideas about efficacy, the power of medicines and polypharmacy.



4.1.1 PERCEIVED NEED FOR MEDICINES

Consumers' use of medicines in Tiko Sub-division was found to be influenced by their perceived need for medicines. The reasons consumers attached to their perceived need for medicines fell into three main categories: The feeling of ill-health, the feeling of wellness and the desire to stay healthy.

Feeling of Ill-health

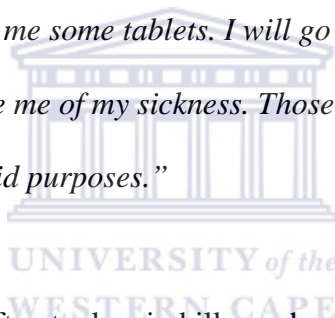
Consumers reported that when they felt sick "*they rushed immediately to get some medicines*". This practice was reported by taxi drivers, plantain sellers and male teachers. Taxi drivers reported that when they "*felt like having fever*", they visited road side

kiosks and medicine stores for a prescription and to purchase medicines. They called the medicine they took “*first aid*” and said that if they did not get better after taking the medicines they would then go to the hospital.

“Me a no di waste time. When ma skin wan just worry me I di go find medicine. A di tell dat boy them wey them di sell say make them mix me some merecin for fever. If a take am den a well then fine. If no bi so then a go go hospital. Da merecin them for corner road e just dey like na first aid”

The English version is:

‘I do not waste my time. As soon as I feel sick, I look for some medicines. I tell the sellers in the medicine store to mix for me some tablets. I will go to the hospital only if the medicine I drank did not relieve me of my sickness. Those medicines sold in medicine stores and kiosks are for first aid purposes.’



Plantain sellers said that they often took pain killers when they felt they were going to suffer from generalized body pains. They said that they did so because they did not want to fall sick and “*loose market days*”.

Some male teachers reported that when they felt sick they did not immediately go to the hospital, but waited for some time believing that the feeling of ill health would pass away. While waiting some took some first aid (“few drugs”). Some male teachers also took medicines regularly to prevent and/or treat back aches.

Pharmacy assistants and medicine sellers reported that consumers often requested medicines from them because they felt sick or were about to get sick. Sometimes consumers asked for specific medicines such as *“a dose of red and yellow capsules to treat a running stomach”* and at other times the sellers prescribed and dispensed medicines to consumers.

Feeling of Wellness

In general consumers reported that they stopped taking medicines when they felt better. This sentiment was reported by taxi drivers and by both male and female teachers. Some teachers said that they deliberately did not use up all the medicines because they thought that it was useful to have some medicines left over to use if the sickness returned. The teachers elaborated that the quantity of individual doses of medicines in a medicine packet was not necessarily equivalent to one course of treatment. Some medications would be left unused after a course of treatment is completed.

Desire to Stay Healthy

The desire to stay healthy was mentioned by participants in all the focus group discussions. They reported that they took medicines *“to stay healthy, for cleansing of the system and to have energy”*.

Male and female teachers said they kept medicines at home. The medicines included paracetamol, quinine, aspirin, ibuprofen, amodiaquine, metronidazole, amoxicillin and tetracycline capsules and ivermectin. They did not know the strengths of the medicines.

These medicines were used to prevent sickness, in addition to taking them as a “*first aid measures*” before a formal consultation with a health worker. Male and female teachers gave anti-malarial medicines to their children. A male teacher said, “*I do keep medicines at home. I buy them from the pro pharmacy in the hospital. I give malaria medicines to my children every six months to prevent them from getting malaria fever. I also give them worm medicines*”.

Pharmacy assistants and medicine sellers reported that consumers gave a variety of reasons when they came to purchase medicines. Sellers in the medicine stores said that some consumers bought medicines regularly because their doctor told them to take the medicine for a long time; others requested medicines for specific purposes. For instance: Antibiotics were reportedly requested because consumers are using them to clean their system; multivitamins are used for lack of appetite and also to protect and prevent their palms from peeling off. Pharmacy assistants further reported that when consumers visited their shops to buy medicines, one of the reasons they gave was that they did not want to suffer from the same illness that they had had before so they needed the same medication as was previously given to them.

“*Some of them come with empty packets of medicine while some write the name of the medicine on sheet of paper. When you ask them they tell you that they had used that medicine before or they are using the medicine regularly. Some come to us without knowing the name of the medicine. This group tries to remember the packet by describing the colour and shape*”.

4.1.2 COST OF MEDICINES

All consumers said that medicines were expensive. Community pharmacies were reportedly the most expensive source, followed by medicine stores and then the public hospital pharmacies. Consumers also believed that the quality of medicines in the community pharmacies was better than that of the medicine stores and public hospital pharmacy.

Purchasing habits of consumers

Teachers said that medicines were expensive especially in the community pharmacies. Male teachers reported that they bought medicines from the hospital pharmacies from where some bought medicines in bulk and kept a stock at home. Teachers said that they felt medicines from the hospital pharmacy were of better quality and cheaper than in roadside kiosk and community medicine stores respectively and so this was the best way to make sure they had medicines available when they needed them. Some male teachers said that when they went for prescription from a doctor, they had to know why the doctor prescribed each and every drug because they did not want to spend money given that times were hard and medicines were expensive. One teacher commented that community pharmacies have various taxes which they pay. In order to avoid buying expensively from the community pharmacies, he bought his medicines through his friend.

“My friend is a nurse in Yaounde. Whenever I need medicine as I needed Oflocet recently I called my friend who gave whom I sent 5000frs CFA to get me a packet. It is the same Oflocet that is sold in the pharmacies for 11,000frs CFA. You know, in the pharmacies they have various taxes they pay. They also have the salaries of the workers to pay. These all put together make the medicine expensive”.

Male teachers reported further that pharmacies did not split packets of medicines. This made it difficult for them to buy from there unlike medicine stores which retail from packets and offer a mixture of medicines.

Plantain sellers said that before they could go to the hospital they had to be sure that they had sufficient money to buy the medicines to be prescribed. When the prescribed medicines were not available at the public hospital pharmacy, they preferred buying the medicines from community medicine stores except when the doctor insisted that they buy them from the community pharmacies. However, even when the doctor insisted, they did not at all times bought all the medicines at once from the community pharmacies. They bought their medicines one after the other as they had the money to pay for it.

The medicines stores and kiosks were the most popular sources of medicines for the plantain sellers and taxi drivers. As previously reported by male and female teachers, some taxi drivers and plantain sellers reported that medicine sellers sold medicines in small quantities and had flexible payment arrangements. Taxi drivers reported that they bought their medicines from medicine stalls according to the amount of money they had. They felt more comfortable using those areas than going to the pharmacies where medicines were sold only in packets.

“For corner road a fit ask for one dose and them go mix me merecin. Sometimes sef man no di hold money but when you tell them say you go came pay them go give you the merecin”.

The English version reads thus:

“In the medicine stores and road side kiosks, I ask for a single dose of medicines and they will mix some tablets for me....At times, when one dose not have money and you tell the sellers there that you will come back and pay, they gave you the medicine.”

Another medicine purchasing attitude reported by taxi drivers when they want to buy medicines from the community pharmacies is that, they ask the pharmacy assistants to select from the list of prescribed medicines and supply to then the most important medicines. Some reported that they bought all the prescribed medicines in bits. Some like the male teachers reported that they went to cheaper sources, bought in bulk and kept them at home and used them gradually.

“Plenty taxi people them dey wey them di sick. If them go hospital and de write medicine we di contribute money sometime for them make them go buy merecine because merecin dear especially merecin for pharmacy”

The English version is:

“There are many taxi drivers who are sick. When they go to the hospital and are prescribed medications, we contribute money that they could buy their medicines. But medicines are expensive especially medicines from the community pharmacies.”

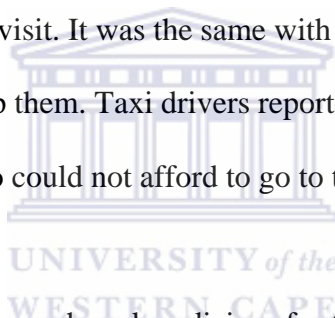
A taxi driver reported in English that he obtained medicines from traditional doctors when he had a sprain and used it alongside western biomedicine.

“I did not have fever but inconvenience (sprain) so I went back to the village where I took some rubs and some leaves. I also visited a traditional healer. It took me just three

days and I was well again. In my area, it is necessary for us to keep some medicines and traditional medicine at home because health facilities are too far apart.”

Cost of medicine and health seeking behaviour

Most of the consumers did not seek for formal health care services at the time they were getting sick. As reported earlier on by teachers, some consumers delay going to the hospital or community pharmacy because of cost. They went first to road side medicine stores and kiosks where they got the medicine they needed at the amount of money they had. Plantain sellers had to delay their seeking health care services until they had sufficient money for a hospital visit. It was the same with taxi drivers who hoped that visiting the roadside would help them. Taxi drivers reported that they often contributed money for a sick colleague who could not afford to go to the hospital or buy his drugs.



Unmarried female teachers also purchased medicines for their household. They purchase based on the amount of money they have and sometimes they used empty packets of previously consumed medication to purchase medicines if they felt that the new sickness of their child was the same as the previous illness.

“I do not have sufficient money. I am a single mother and I have to take care of the children. I have a friend who is a pharmacist. She burrows me medicines when I do not have money. At times I ask her to select those medicines which are very important so I can buy them. I sometimes ask from her pharmacy that they should give me the same medicine as that of the packet I have”.

Cost of medicine and dispensing practice of traders

Traders in medicines said that consumers often complained that medicines were expensive. Sellers in medicine stores said that some consumers would ask for fever medicine for 100frs and by this they wanted just paracetamol to reduce their body temperature. At other times consumers came in asking for a single dose of an anti-malarial and they advised the consumer on the correct dose and duration of treatment. However, some consumers listened while others did not and medicine sellers said that they were compelled to sell according to the demand of the consumer. Pharmacy assistants reported that they always sold according to the standard dose, dosage frequency and duration guidelines.

4.1.3-MEDICINE PURCHASING AND CONSUMPTION ROLE

The roles played by the different consumers also have an influence on the way medicines were used. The general pattern that emerged was that males purchased medicines for the household and females administered them.

Taxi drivers and male teachers said that they purchased medicines for the household. From all the interviewed groups, it was reported that those who were unmarried purchased medicines for their household and also oversaw the administration of the medicines. Plantain sellers said that they frequently consulted with each other on their children's health problems.

“My friend e pickin be get fungi weh ei don worry yi for long. This sick be chop dat pickin for ei head. Ma pickin too be don get that kine sick before and some small

merecin weh ma pickin be takam for dat sick still day house. So a givam for my friend and ei rubbam for ei pickin ei head and di sick finish”.

This in English is translated thus:

“My child has been suffering from a sickness on her head. I have taken her to several hospital to no avail. All what they told me was that it was scabies. When I showed it to this my friend (said pointing to another member in the group discussion) she told me that her child had suffered from the same problem and she gave me medicine left-over after her child had used it.”

Pharmacy assistants and medicine sellers on the other hand, reported that they could not determine for whom medicines were being purchased because everybody went to them to purchase medicines. However, it was reported by medicine sellers that parents decided on what to buy and how much to buy for themselves and for their children. From the pharmacy perspective, pharmacy assistants reported that male and female adults bought medicines for themselves, for their household members and also for their friends. They reported further that children were also sent by adults to buy medicines for the family

4.1.4 LITERACY LEVEL

All consumers said that they received information about their health and the medicines they use from both the prescribing and the dispensing sources. They also said that they relied mainly on the medicine sellers for information on how to take their medicines, the frequency of administration and duration of their treatment.

“When we go for buy merecin, we di just talk wetin di worry we. When we talkam, the man weh e di sell go give we merecin and e go talk say “takam like so or so”. Some time them we di talk say mix we merecin for fever. The man go mix-am and we go go drink am so. If we ask the name for the merecin, e no go tell we but e fit talk say dis yellow wan na for this and that black or white one na for dat”.

The English version is:

“When we are sick, in need of medicines we report to the person selling medicines health condition and get medicines in return. The seller instructs us on how to use the medicine.. At other times we ask them directly to mix some medicines for us. When we ask the name of the medicine, most likely we do not get it but we will be told that the yellow tablet is for X for example, while the blue tablet is for Y”

One male teacher explained that he bought his medicines from a particular medicine store owner and that that seller explained clearly and accurately how one should take his/her medicines. Some teachers also reported that in addition to the information they got from the prescriber and the dispenser, they read through the paper inserts in packages of medicines and assessed doctor’s prescription based on the information from the leaflet. Some of the taxi drivers and market women could not read or write and were dependent on the oral information given to them.

4.1.5 IDEAS ABOUT EFFICACY

Consumers had different ideas about medicines. Some were afraid of some kind of medicines because of side effects, while others believed that some routes of

administration were meant for serious illness. Some also felt that taking several different medicines mixed up together or a combination of some capsules and a drink could work faster than a particular medicine alone.

Efficacy Depending on Route of administration

Taxi drivers had divergent opinions about the efficacy of different routes of administration of medicines. Some believed that injections were for serious illnesses while others believed that medicines administered by injections worked faster than those administered by other routes.

Efficacy depending on source of treatment

“Chinese medicines” were believed to be better compared to other medications. One taxi driver reported that in his area they frequently visited traditional healers because *“the work faster in conditions like sprain”*

Efficacy emanating from side effects

Female teachers reported that they could not take certain medications because of side effects.

“I cannot take mectizan because I saw the side effect of that medicine. It produced rashes on one woman and the nurses told me it was because she took it when she had not eaten”

Efficacy emanating from beliefs

Plantain sellers believed in the power of pain medications. They believed that taking pain medicines will prevent them from falling sick. Some male teachers also took pain killers on the slightest feeling of back pain.

Efficacy emanating from practice

Male and female teachers reported using old packets to request for repeat medication based on previous efficacy of the medication. The male teachers also reported that in some villages, people would not finish their prescribed medications because they wanted to use the balance when they fell sick again.

Efficacy emanating from culture

It was reported by medicine sellers that some patients who came to them asked for antibiotics to cleanse their system after having had sex. Women usually asked for doxycycline while men asked for tetracycline. They also said that some patients requested for multivitamin tablets when their palms were peeling off while others requested for multivitamins which they took believing that it gave them energy.

Consumers, as reported by pharmacy assistants and medicine sellers, also requested for a “mixture of medicines” for fever believing that a mixture of different medicines for fever worked faster than a single kind of medicine.

4.1.6 THE POWER OF MEDICINE

Consumers believed that medicines had the power of healing. Even though they bought medicines from sources where they felt that the medicines were of low quality,

consumers still had the understanding that the medicines they took were going to serve them for some time if not providing them complete cure. They also believed that using medicines will help prevent certain diseases even after willful exposure to sources of infection. Staying healthy and gaining strength was an understanding of consumers. This understanding made them to take certain medicines to stay healthy.

Power in “low quality medicines”

With the exception of community pharmacies, all the consumers interviewed reported that they bought medicines from sources where the quality of the medicines was doubtful. Taxi drivers said that they bought medicines from medicine stores with the hope that they would be relieved of their sickness.

“the merecin them wey we di buyam for corner road na for first aid. If we buyam and we well fine but na just say make e cool man e sick first so that man fit get money for go hospital. We no fit go for pharmacy because e dear”

The English translation is thus:

“The medicines we buy from road side kiosks and community medicine stores are for first aid. We may either get well or not after taking them. The reason we go there is because we need time to look for money to go to the hospital. While waiting for this we need also to take some medicine. We cannot go to the pharmacy because they are expensive.”

Plantain sellers called the medicines they bought from road side kiosks and medicine stores “cassava”.

“ see a just commot farm now an ma skin di hot. A don buy ma panadol for body pain. If a no buyam a go sick. A no say this merecin them na cassava but how a go do? Some time dem e go work some time dem e no go work. When we drink e cool sick after sick came again we go buy small again”

This is translated in English as follows:

“I am just from the farm now and my body is hot. I have just bought some panadol. I know that these medicines are “cassava” but what can we do? Some times they will work and some times they won’t. When we take them, they relieve us of our sickness. Later on, the when the sickness resurfaces, we go there again and get some more.”

Male teachers reported that the quality of medicines they bought from sources outside community pharmacies was doubtful but they bought them because they believed they will get better.

“the type of medicine those guys mix is not known. At times they have standard mix packets and some containing medicines working for the same sickness”.

Power of medicines in cleansing system

People believed that medicines had the power to stop any infection that could have been contracted during sexual intercourse. Pharmacy assistants and medicine sellers reported that when consumers had unprotected sex, they went for some antibiotics which they took to cleanse their system.

Medicine as a source of strength and vitality

All consumers reported that they took medicines for energy. They took multivitamins and other blood tonics believing that they would be strong. Male teachers reported that in villages, people deliberately ask their friends for medicines which make them strong so they can get them. If they found one of theirs looking healthy and strong, they would want to take what that individual took

4.1.7 POLY-PHARMACY

Poly pharmacy or poly therapy was reported to be a common practice - it was promoted by both consumers and sellers of medicines. Some taxi drivers and plantain sellers said that when they became ill they went to the medicine sellers and pharmacy assistants and requested specific medicines whilst others requested that medicines should be mixed for them. A male teacher explained that “*mixed medicines*” was a powder in either a sachet or wrapped in paper. The mixture was made up of several different crushed tablets usually containing some “buta” (an analgesic), some indocid (another analgesic), some quinine, multivitamins etc. The powders were sold as a single dose or in multiples.

Pharmacy assistants reported that patients came to them asking for medicines to be mixed for them but that they were not allowed to do so.

It was reported that when some consumers went to the sellers of medicines with a health problem, after the seller had made a diagnosis, they would receive a prescription. One seller of medicine at a medicine store said she gave a combination of chloramphenicol, Flagyl, ciprofloxacin and Buscopan to treat running stomach. This was a combination of three antibiotics and an antispasmodic preparation.

4.2 COMMUNITY LEVEL

At the community level, medicines use culture, medicine supply channels, medicine information and communication channels and the cost of medicines were found to have an influence on the way consumers use medicines.

4.2.1 MEDICINE USE CULTURE

Medicine use culture within the community gave a picture of what practices, beliefs and knowledge about medicine use were prevailing amongst members of the community. The medicines commonly kept at various homes, the prescribing habits of prescribing officers and the common community understanding about health and medicines shaped the factors that influence medicine use at the community level. From the discussions with all the groups, it was found that issues surrounding medicine use culture seemed to be linked with the medicines commonly kept at home, availability of medicines, size of the packets of medicines (quantity of medicine in a packet), cost of medicines and medicine sharing practice amongst community members.

Medicines commonly kept at home

All the groups interviewed reported that they kept medicines at home. Plantain sellers and taxi drivers reported that they requested for a mixture of medications for the treatment of their fever. Pain medicines were used regularly by all the groups. Male and female teachers kept medicines at home to treat fever, stomach ache and worms. Some gave medicines to their children every six months to prevent malaria. They also used left over medicines from previous consumption. They reported that they kept paracetamol,

metronidazole, amodiaquine, quinine and mebendazole. Women of the plantain traders group also kept paracetamol and left over medicines from previous consumption at home.

Medicine use culture shaped by availability of medicines

Sellers in medicine stores reported that consumers requested specific products without prescription. For example, they requested Flagyl (metronidazole) for running stomach (diarrhea), or a single or multiple dose of mix medication (chloramphenicol, ibuprofen, buta, iron tablet) for fever. They also reported that men drank alcohol while taking their medications and also that female students during holiday period bought menstrogen to terminate unwanted pregnancy. In addition, they reported that females preferred doxycycline while men took tetracycline capsules, which they referred to as “red and yellow capsule” for cleansing of the system and against running stomach (for this they take with a bottle of Guinness, an alcohol).

Pharmacy assistants said that consumers came asking for specific anti-malarial, anti-typhoid, anti-diabetic, anti hypertensive and that consumers requested multivitamin tablets for their children for appetite. They also reported that the type of medicines consumers bought was sometimes influenced by the previous experience of a friend or relative of the consumer.

“Take for example, a pastor came here (a pharmacy) to buy medicine. After she had narrated the problem of her child, I concluded that the child had malaria and I told her. When I was about to give her the malaria medicine, the woman who came with her said that it was aspergic that was good for fever. I insisted and told them that

aspergic was only to bring down the body's temperature. She told me to give as her friend had suggested saying that her friend has children at home so she knew it. I gave as they requested. After about 24hours, the woman who took the aspergic came back complaining that she wanted fever medicine and not medicine to cool body temperature. Unfortunately, she met me selling again and I told her it was her fault. Her friend looked at the counter of medicines and saw another medicine, pregnatal (a ferrous product for pregnant women). She told the woman with the sick child that that pregnatal was the best medicine to replenish iron during pregnancy but that when her daughter went to the antenatal clinic they did not prescribed it for her so she took her daughter to the pharmacy and bought it for her”.

Medicine use culture shaped by package size of medicines

It was also reported that the package size and cost of medicines shaped the cultural pattern of use of medicines. Male teachers “complained” that medicines were sold in packets which contained either more than required individual doses or less than the required quantity of individual doses. When the packet contained more than enough, they took the required amount of medication and used the balance later without thinking of the expiration date. If the packet contained less than the required quantity, and if they could not afford two or more packets, then they took one packet hoping that they got well.

“Medicines sold in pharmacies are in packets which are often more than the number of medicines (doses) that are needed to treat particular disease condition. When people buy and drink these medicines, they do not usually finish the medicine in the whole

packet. Whenever a similar situation occurs, they go back to that packet which they had kept and drink the balance medicines. Most often they do not even think of the expiry date of those medicines any more”.

Some male teachers also said that because roadside kiosks and medicine stores within the community tampered with the expiry dates on packages, they preferred buying their packet medications from the pharmacies. Some however, because of cost, still purchase and use medicines from the roadside and kiosks

“pharmacies do not retail medicines. When medicines are prescribed in the hospital and you go to the pharmacies to buy them, you have to buy the whole packet”.

Medicine use culture shaped by cost of medicine

It was reported by all the interviewed groups that the cost of medicines prevented them from always buying their medicines from community pharmacies where they felt good quality medicines were kept. Because of this high cost, they bought their medicines from roadside stores, community medicine stores and kiosks, where the medicines were sold to them according to the amount of money they had. One of the taxi drivers group gave the report below:

“a know say wen a want merecin di man for corner road di givam for me. But na say a di go dey for first aide. A know again say when a take ma hospital book for m,erecin store, dem dio give me all di merecin weh a wantam. Na ma money di talk”.

This in English is:

“I know that when I need medicines, the street vendor provides me with the necessary medicines I need. However, I go there for “first aide” purpose. I also know that when I take my hospital book to the patent medicine stores, they give me almost all of the medicines I need according to the amount of money I have”.

Medicine sharing practice within the community

As has already been reported, that plantain sellers and taxi drivers share their medicines with their friend. Even teachers also reported sharing medicines with neighbours.

A female teacher also reported the way in which she participated in medicine sharing.

“I used ranitidine for my gastric. I want to know if it is a good medicine for gastric ulcer before I buy it. A friend of mine gave me some tablets from her house. They are almost expired but I drank some and they helped. However, kindly let me know if it’s a good medicine before I buy because I do not want to continue drinking the medicine which is about to expire”.

The male teachers reported that the cost of medicines resulted in everybody taking advantage of the high cost of medicines in pharmacies by getting involved in selling medicines. In the hospital pharmacies for instance, they reported that the medicines which were not supposed to be sold without prescription were sold even in bulk by the sellers to those whom the sellers knew and to some community medicine store owners. Even nurses in the hospital, as the male teachers reported, sold medicines to patients.

4.2.2 MEDICINE SUPPLY CHANNELS

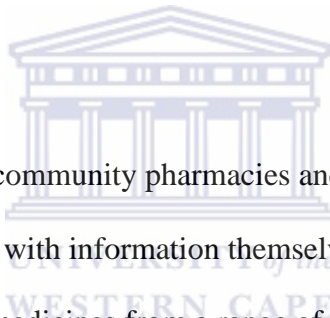
Consumers obtained their medication from various sources. The sources of medicines identified (but not necessarily frequented) by all the groups interviewed were kiosks by the road side, itinerant vendors, community medicine stores, private hospital pharmacy, public hospital pharmacy and community pharmacies. It was also understood that each consumer could buy from the various sources with or without prescription. All the sources sold according to the amount of money the consumers had. However, while the community pharmacies will sell packets and multiple packets of medicines, the other sources of medicines retail from packets and sell in small quantities, according to consumer's money. One teacher shared his view as follows:

“those selling medicines in small stores retail their medicines. They sometimes take medicines which were expired, changed the packet of the expired medicine and put them in another packet which is not yet expired. Some people go there and buy them. They will not sell you the packet but will sell the content of the packet to many persons so you would not know that the medicine was expired”.

Most plantain sellers and taxi drivers reported that they often obtained their medicines from hawkers. All the groups interviewed with the exception of female teachers and some male teachers bought their medicines first from roadside medicine stores and community medicine stores and later bought from the community pharmacy only when the sickness was not cured or were advised to get the medicine from community pharmacy, as explained by community pharmacy sellers.

4.2.3 INFORMATION CHANNELS

Consumers reported that they felt little information was provided on medicines generally. Male teachers mentioned that they heard some information about medicines on the radio and from television broadcasting, but these were not mentioned by the other groups of consumers. Male and female teachers said they got information by reading the package inserts but taxi drivers and plantain sellers said they rely mostly on information from the doctor and medicine seller. Both groups of female consumers - teachers and plantain workers reported that they got information on medicines when they visited antenatal clinics.



Traders in medicines from both community pharmacies and medicine stores reported that, as well as providing consumers with information themselves, they were aware that consumers got information on medicines from a range of other sources - some of questionable quality - such as family, friends, neighbours, radio, and other health workers.

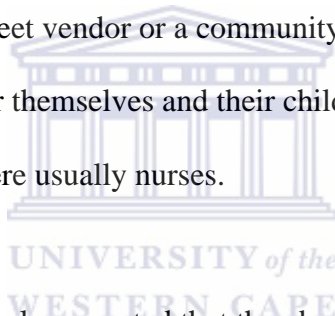
4.3 HEALTH INSTITUTIONAL LEVEL

Consumers' way of using medicines was reported to be affected by the quality of service provision of the health service provider. All the consumers reported that they acquired and used medicines without consulting health workers. It was also reported that the quality of health service delivery could have an influence on the acquisition and use of medicines. Medicines were not in regular supply in some hospitals.

4.3.1 CONSULTING HEALTH WORKERS

As has been reported in earlier paragraphs, consumers in Tiko Sub-division reported that when they felt they were sick they went to community medicine stores to obtain their medicines. The medicines they requested were either medicines which they had used before or medicines that had been prescribed to them by a friend or relative. At other times consumers sought the advice of those selling medicines because what they had taken already had not worked.

Some male teachers reported that when they fell sick, they either stayed at home or went and bought medicine from a street vendor or a community medicine store seller. They also kept medicines at home for themselves and their children. They said that the community medicine sellers were usually nurses.



Plantain sellers and taxi drivers also reported that they bought their medicines from hawkers and street vendors and community medicine store sellers. They went to hospitals and community pharmacies only when their “first aid” did not work.

Female teachers on the other hand visited community pharmacies and hospitals when they or their children were sick. They consulted with the pharmacist or the doctor or nurse in the hospital before prescriptions were taken.

4.3.2 QUALITY OF CARE

The quality of care was divided into the quality of consultation, quality of dispensing and patient waiting time.

Quality of Consultation

Plantain sellers and taxi drivers reported that during the consultation encounter, they did not get any information concerning either their medicines or their illness. They were often told to go and buy this or that medicines. At certain times the doctor instructed them to get their medicines from community pharmacies rather than from medicine stores and kiosks. In the community pharmacies, information on how consumers should take their medicines was not readily given to consumers.

Some male and female teachers reported that they often asked about their medicines and what illnesses they were suffering from when they went to the pharmacy or the hospital. Some male teachers further said that they reached a consensus with the doctors on the drugs they had to take before they purchased their medicines. Male teachers also said that in the community pharmacies, they did not often find the pharmacist but when they did, they got information on what each medicine was meant for and the expected side-effects.

Some male teachers said that language barrier exist between the consulting health worker and the patient: The doctor in some circumstances speaks only French while the patient understands only the local language (vernacular) or Pidgin.

“there are only two doctors in the district hospital to consult more than one hundred patients and that it was not possible in this circumstance for the doctors to provide

information to the patients. The other reason, language barrier, stems from the fact that some doctors.....speak only French..... sent to a zone where people can speak only their vernacular and pidgin. Here again it is not possible for them to communicate”.

Another issue that arose during the discussion was that of wrong diagnosis and therapeutic failure. Some male teachers reported cases where they were wrongly diagnosed of their illness and/or did not get well after taking the medicines prescribed in the hospital. Those who had been wrongly diagnosed reported that they took the wrong medicines for a long time until they had to try another doctor who then diagnosed differently and gave different medicine. They also narrated cases where patients were not appropriately managed, resulting to their death.

“I fell sick and went to the hospital. I was diagnosed as suffering from typhoid and malaria. They gave me some drugs which I took but did not get better. I then went to a pharmacy where I was advised to take some injections for five days, one injection daily. I did and I am better”.

“I had been taking medicines for gastric ulcer for close to seven years. However when I changed my doctor and went to consult another doctor, the doctor’s diagnoses was that I had cysts which had grown overtime from lack of treatment. He then gave me some medicines and after that I have never taken medicines for cyst or gastric ulcer again”.

“I have a bitter experience with the way patients are handled. I have lost two uncles from the “carelessness” of those who treat them. One of my uncles was a diabetic. He

was sick and was rushed to the hospital. While in the hospital, no one cared to know his health status. The only thing that was done to him was that glucose infusion was administered. After the infusion was administered, he went into a coma and never came back. He died some days later. My second uncle died after he had taking mectizan for filarial worms. Some days after swallowing the mectizan, his scrotum became enlarged. Following this state, he was taken to the hospital were it was incised and stuffed with gauze bandage. This resulted in excruciating pain. Because of the too much pain, the uncle was given valium to sleep. He slept and never woke up again”.

Both pharmacy assistants and medicine sellers reported that they gave information related to medicines to patients upon request. Usually, the information was limited to the dose, frequency and duration of treatment. They said further that when patients asked for the purpose of particular medicines, they referred the patient back to the doctor. Pharmacy assistants said that when they wanted to tell the patient about medicine, patients instead of listening said the doctor had told them or they knew about it. This attitude was confirmed from the discussion with taxi drivers where one said,

“the doctor knows the medicine so he sends me to the pharmacy. I go there only to buy the medicine and nothing else”.

Quality of Dispensing

Both taxi drivers and plantain sellers said that medicines were dispensed to them from kiosks, community medicine stores and community pharmacies according to the amount of money they had. They also emphasized that from the kiosks and community medicine

stores, they got medicines which were mixed up for them to take either as a single dose or a multiple of doses. The taxi drivers and plantain sellers said when they bought from the kiosks and community medicine stores they were told of neither the names of the medicines nor their strength. The medicines bought from community medicine stores were of different kinds put together in one container and the patients were directed on how to take them based on the different colours and shapes of the medicines. From the community pharmacies as reported by the taxi drivers and plantain sellers, medicines were dispensed only in packets. Most often, pharmacy assistants gave the medicines without instructions. Both male and female teachers reported that they got information on medicines that had been sold to them by pharmacy assistants upon request.

Male teachers also said that it was a common practice for some of them to buy medicines from the public hospital pharmacy and stock in their houses which they used over time. Those medicines, it was said, were supposed to be sold only on prescription but were dispensed without prescription.

Pharmacy assistants and medicine sellers said that they supplied medicines to consumers with information. They did not specify a medicine related information but some mentioned that they asked the patients to report side effects if the latter were not found in the paper insert.

Patient waiting time

Taxi drivers said that when they were sick, they did not go to the hospital for consultation with a health worker but visited alternative areas where they could get well because they had to wait for a long time before they could see a doctor in a hospital. Some female teachers who visited faith based hospitals reported that there “they waste a lot of time”

“If I had known that I was going to be given only Ibuprofen, I would have bought it from the pharmacy instead of wasting my time in the hospital. Next time I will ask elsewhere before going to the hospital”.

4.3.3 AVAILABILITY AND REGULAR SUPPLY OF MEDICINES

Taxi drivers, plantain sellers and both male and female teachers reported that the public hospital pharmacy did not always have all the medicines that were prescribed by the doctor but that the community pharmacies usually had all the medicines prescribed. When the medicines could not be found in the public hospital pharmacies, they went to the community pharmacies to buy them. They also reported that, they went to the community pharmacies because at times, the doctor requested them to get a particular medicine from the community pharmacy and not from a medicine store for fear of counterfeit. Male teachers reported that nurses working in public hospital also sold medicines especially when the hospital pharmacy was out of stock of medicines and that the medicines those nurses sold were similar to those sold in the hospital pharmacy.

“There is one thing about the drugs in the hospital. At times, they prescribe you medicines and when you go to get them from the pro-pharmacies you do not find anything. But the nurses will turn around and they want to sell you the medicines. The source from where the nurses get their medicines is uncertain. Some say they get it

from the same road side stores (kiosk). Some say they get from pharmacies while others suggest that they purchase all the medicines from pro-pharmacies as soon as they come and at low cost and after that they resell to the patients at higher prices to make profit”.

“Drugs in pro-pharmacies are drugs which people do not like. They are those drugs which cause a lot of problems such as quinine sulfate. They do not have drugs such as Coartem. They have Coartem but it is not always available”.

Some male teachers, some taxi drivers and most of the plantain sellers reported that after leaving the hospital pharmacy without all the prescribed medicines, they took their prescription to medicine stores in the community where they get some or all of their medicines. They went to the medicine stores because the money they had was not enough to buy all their medicines from the community pharmacies and also because they could borrow medicines easily from the sellers of medicines in the community medicine stores. In purchasing from the community medicine stores, they said that the medicines they bought there were at times the same as those sold from the hospital pharmacies and community pharmacies.

Medicine sellers reported that they sold medicines to customers who came with prescriptions from the hospital. Some said that according to their stock, they supplied all the medicines the consumer wanted or the remaining medicine that was not available at the hospital. They also reported that they sometimes sent consumers to the community pharmacies to buy some of the medicines that could be bought only from the community

pharmacies. Pharmacy assistants reported that some medicines could be bought only from the community pharmacies and that in the community pharmacies, consumers got all the medicines they wanted. They also reported that they sold medicines to consumers who came to their pharmacies with prescriptions from all the hospitals in Tiko Sub-division and from friends and neighbours.

4.3.4 COST OF MEDICINES

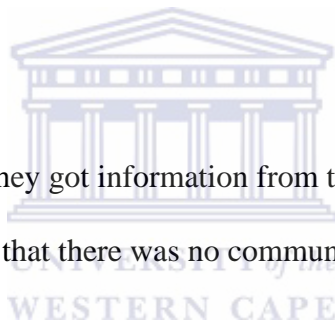
All the consumers of medicines interviewed reported that even though they went to the community stores and kiosks and bought medicines when they felt sick, they went there for “first aid” purposes and some who went there knew that they were buying “cassava”. They reported that their preferred place to buy medicines was the hospital pharmacy which sold “good quality” medicines at very low cost. They would have loved to buy all their medicines from the community pharmacies but because these outlets sold only in packets and were expensive, consumers could not readily afford medicines from this source.

4.4 NATIONAL LEVEL

At the national level, the use of medicines by consumers was found to be principally influenced by the media, medicines policy and regulations and by the type of drug financing mechanism.

4.4.1 THE MEDIA

Consumers reported that the use of radio, television or print media to communicate medicines information was low. Male teachers said that talks about medicines occasionally featured on the radio, the main focus being on malaria treatment. The Ministry of Health had recently used radio to inform the general public of the change in antimalarial policy and the new drugs that have been introduced. Another area in which the teachers said they received information from the radio was on HIV/AIDs sensitization, however, this information was about the disease and not the medicines. Plantain sellers and taxi drivers said they had not heard any information about medicines on the radio and said they relied on their friends, neighbours and medicine hawkers and sellers for information.



Medicine sellers reported that they got information from the television and from the radio. Pharmacy assistants said that there was no communication from the media.

4.4.2 MEDICINES POLICY AND REGULATION

All the consumers interviewed reported that medicines were freely available from a wide variety of sources and that there were no restrictions on purchasing them. Medicine sellers said that they supplied consumers with whatever medicines they requested, whereas pharmacy assistants reported that they sold medicines according to what they felt was professionally appropriate.

4.4.3 MEDICINES FINANCING FOR PATIENTS

All the consumers interviewed made out-of-pocket payments for their medicines. Sellers in community medicine stores and community pharmacies said that they sold in cash based on the amount of money the patient had and that they made special considerations on a one-to-one basis as the need arose.

Table 1 on the following page provides a summary of the main factors influencing medicines use in Tiko Sub-division.



TABLE 1: MAIN FACTORS INFLUENCING MEDICINES USE BY CONSUMERS IN TIKO SUB-DIVISION

LEVEL OF INFLUENCE	FACTORS
Household Level	Perceived need for medicines Cost of Medicines Medicine Purchasing and Consumption role Literacy Level Ideas about Efficacy The power of medicines Poly-pharmacy
Community Level	Medicine use culture Medicine supply channels Information channels
Health Institutional Level	Consulting Health worker Quality of Care Availability and Regular supply of medicines Cost of Medicines
National Level	The Media Medicines Regulation Medicine Financing for Patients

CHAPTER FIVE

DISCUSSION AND LIMITATIONS

5.1- DISCUSSION

The study found that medicines use in Tiko Sub-division was affected by a number of key factors. These factors have been classified at various levels of influence: Household, Community, Health Institutional and National Levels. A number of cross-cutting themes were identified which had a critical impact on the rational use of medicines by this community. These themes were categorized as: socio-cultural, economic and regulatory factors and are discussed in this chapter.

5.1.1- SOCIO-CULTURAL INFLUENCES

The socio-cultural dimensions of a society are those issues which relate to the customs, lifestyle, and values of the members of that community. In terms of the use of medicines, the socio-cultural issues influenced the way members of the community obtained, stored and used their medication. In this study it was found that the way members of the community obtained and used their medicines appeared to be influenced by the way they perceived their need for medicine, their ideas about efficacy and the power of medicine and their perception of medicines as a commodity.

Perceived need of medicines

In the study the use of medicines was mentioned in a variety of contexts: to treat illness, prevent an illness and to maintain wellness. It was common for both male and female teachers, taxi drivers and plantain sellers to obtain medicines to treat a variety of

symptoms, such as pains and fever. It was also common for them to abandon their medicines when they felt well. Teachers, taxi drivers and plantain sellers also took medicines because they wanted to stay strong and healthy. This finding was similar to that of Rasmussen et al., (1996), who reported that consumers believed that *“medicine is needed for every illness. If medicine is not used, the illness will become serious”* and that *“medicine is to the sick, what water is to the thirsty”*.

Consumers' perception of the 'power' of medicines seems to influence their desire to acquire medicines. On the one hand, consumers believed that medicines were powerful and could “cure” certain conditions. For instance, medicine sellers from both the formal and informal sectors reported that consumers used antibiotics to “cleanse their systems”, especially after sexual intercourse; and they also took multivitamin products to prevent the skin of their palms from peeling off. Plantain sellers took paracetamol to cure fever and body pains. Some of these uses are inappropriate and it is uncertain how this misinformation got into the community, it does however illustrate a lack of reliable information about medicines which was found in similar research in Ghana (Senah, 1994), in a Filipino village (Hardon, 1987), in The Netherlands (Haafkens, 1997). At the same time, polypharmacy was rife with consumers requesting mixtures of medication to treat their illnesses. This seemed to indicate that they did not have sufficient trust in one medicine to treat their illness and so they would *“make sure”* by taking two or three medicines together - hoping that at least one will work. For example, sellers of medicines from the informal sector reported that a mixture of medicines that included “buta” (an analgesic), Indocid (another analgesic and anti-inflammatory), some quinine (for

malaria), multivitamins and chloramphenicol were put together in a medicine sachet given for the treatment of typhoid and malaria. It was a common practice for consumers to take antibiotics with Guinness when they have “running stomach” (diarrhea). Guinness (an alcoholic drink) was attributed by consumers in this community to “*cause a tight stomach*” (constipation) -a counter to the running stomach. In other settings polytherapy has been reported to be the outcome of the uncertainty people have on the cause of their illness and choice of therapy (Hardon, Hodgkin and Fresle, 2004). As has been observed in this study and in addition to the above, it could be suggested that polytherapy was practiced because people want to get well fast in order to be relieved of the discomfort associated with their illness and also, for economic reasons - so that they didn't have to be absent from their daily activities. This was particularly true of the poorer groups - the plantain sellers and taxi drivers. Another way in which polytherapy manifested itself in this community was by the use of Western and traditional medicine side-by-side. Some of the taxi drivers reported using pain killers and traditional treatment when they had sprains. Using such combination might lead to therapeutic interaction or people may abandon one and move on to the other. This may have an implication in chronic diseases condition where the medicine has to be taken for a long time.

Sharing of medicines with neighbours and friends was a common practice. Consumers did this by supplying medicines from those stored at home from previous or current treatments. Whilst sharing possessions and helping your neighbour was expected by community members, it is not appropriate behaviour with regard to medicines use. It may mean that individuals do not get a full course of treatment, say for malaria or a sexually

transmitted infection, or they may receive below the therapeutic dose for conditions like hypertension or epilepsy. This illustrates lack of understanding of treatment regimens and may lead to treatment failure and bacteria resistance in the case of the use of antibacterials. (van der Geest and Hardon, 1990; Knor 2005).

Medicines as commodities

Consumers and sellers of medicines in the informal sector believed that medicines have power to treat diseases and heal the sick. However, because of the monetary value attached to medicines, they treated medicines as objects of trade (van der Geest and Whyte, 1989a). It was common in this study for consumers to request for a “*few tablets of...*” and for sellers to offer a “*few tablets of antibiotics*” for treatment of diseases. Trading in medicines seemed to be seen as a means of making a living by some medicine sellers. The study found that consumers wanted to stay healthy - medicine was thought to be a tool to achieving this and thus many people were trading in pharmaceuticals (van der Geest, 1982; van der Geest and Whyte, 1991b)

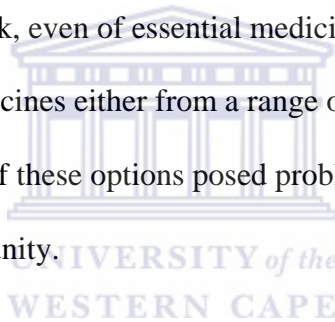
5.1.2 ECONOMIC FACTORS

In Tiko Sub-division, financial considerations seemed to have played a key role in consumers’ access and use of medicines.

In Cameroon, consumers pay all costs of visits to health facilities, even government ones - this includes the costs of medicines. The system of user fees was introduced to decrease unnecessary demand for health care services, raise additional funds for the health system

and improve efficiency, especially the availability of essential medicines (Shaw and Griffin, 1995). Prior to the implementation of user fees government pro-pharmacies always ran out of stock of essential medicines (van der Geest 1981; Hours 1985).

In government hospitals, essential medicines are sold in pro-pharmacies and they are substantially cheaper when purchased here than from other sources. However, consumers said that they did not obtain medicines from the pro-pharmacies for various reasons. The reasons included the fact that sometimes doctors prescribed medicines that were not on the essential list and therefore not stocked at the pro-pharmacy, and that the pro-pharmacy was often out of stock, even of essential medicines. So, this left them with the option of having to obtain medicines either from a range of informal traders or registered community pharmacies. Both of these options posed problematic issues for the rational use of medicines in this community.



Consumers reported that the medicines from the community pharmacies were good quality but expensive. Van der Geest (1987) compared prices of medicines sold at the community pharmacies with those sold at the government pro-pharmacies and found that those sold through community pharmacies were about 400 times higher. This resulted in consumers asking pharmacists about which medicines to buy from a list of prescribed medications. This would result in patients not following the prescribed regimen. This could have been different if pharmacists were stocking generic medicines at affordable prices. Pharmacies are challenged to stock cheaper generics where they can make generic

substitution. Even though consumers should get quality medicines and advice from a community pharmacy this source is not accessible to many due to cost.

Many consumers said they visited medicine stores or hawkers as their first port of call because medicines from these places were cheaper than in community pharmacies. In addition they said medicine sellers were '*more flexible*' and amenable to selling part of packets. The medicine store owners opened up packet of medicine and sold part of its content to the patient. Splitting a patient-ready pack of medicines is forbidden by law in Cameroon. More so, this practice of selling by the pill does not promote rational medicines use because most patients do not come back to complete their course of medicines. It was also reported that roadside sellers and kiosk owners put expired medicines into packets which had a valid date and sold them to unsuspecting consumers. Whilst selling of medicines by the pill could help alleviate immediate symptoms, it may not treat the underlying cause of the disease and in case of infectious disease; this might result in resistance to the microorganism (Knor, 2005).

5.1.3 REGULATORY FACTORS

Regulatory decisions about medicines are supposed to restrict the handling and use of medicines as a means of contributing to the safe and appropriate use of medicines (Holloway, 2005). To date, there is no national essential drug policy in Cameroon. The strategic document for the implementation of a National Pharmaceutical Policy in Cameroon recognizes that, despite the creation of a Central Pharmaceutical Store for the nation, health units still experience stock-outs of essential medicines (MOH, 2000). In

addition, the illicit trade in pharmaceuticals, most especially counterfeited medicines, is increasing and no public health programmes exist to educate actors involved in medicine use on the appropriate use of pharmaceuticals (MOH, 2000). In addition, the absence of a public education programme on medicines is further compounded by the lack of sufficient number of health professionals.

This study found that consumers in Tiko Sub-division bought their medicines, in ascending order, from hawkers, street corners, medicine stores, pro-pharmacies and community pharmacies. Community pharmacies are the only officially licensed outlets to sell drugs to the public. Pro-pharmacies are to issue drugs to the sick who visit public hospitals. However, the illicit trade in pharmaceuticals is unbridled. The illicit trade in pharmaceuticals in the Cameroon and other African countries, Ghana and Nigeria, has been reported in other studies (van der Geest, 1982; Alubo, 1985; Senah, 1994). The uncontrolled sale of medicines causes the circulation of poor quality medicines, compromising patient safety and rational use.

Consumers reported that medicines found in the various medicine sales outlets were not of same quality. Poor quality medicines were reported in the community medicine stores and with hawkers. In community pharmacies, though the medicines were of good quality, consumers reported, they were expensive. In pro-pharmacies, the medicines were invariably out of stock. It has been reported elsewhere that when medicines were out of stock dispensers dispensed what they have in stock (Groom and Hedlund, 1998). Sometimes they dispensed branded products when international non proprietary names

(generic names) were prescribed (Commeyras et al., 2006). Consequently, it is frequent in these settings that dispensers and patients do not adhere to prescription regimens.

It was reported by male teachers that in Tiko Sub-division doctors were few compared to population size and that some doctors did not understand English or pidgin, which are the common languages of community members. Holloway (2005) suggested that setting educational standards for health professionals and developing and enforcing codes of conduct would improve medicines use. Medicine use by community members is unlikely to be appropriate if prescribers do not communicate adequately with patients.

5.2 STUDY LIMITATIONS

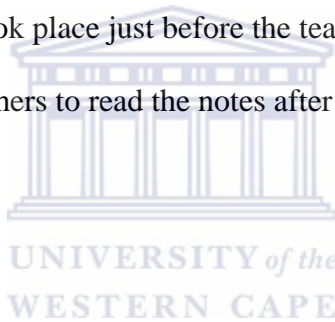
The study had a number of limitations. Firstly, in qualitative research it is expected to continue to generate information from in-depth interviews and focus group discussions until no new information is obtained. However, as this study was for a mini-thesis required for my MPH, the time and resources were limited and thus the interviews and focus group discussions were limited in number and were not exhaustive.

Secondly, it is forbidden by law to sell medicines outside community pharmacies in Cameroon, thus, some key informants working in the informal sector were understandably reticent in providing information. Also, as a pharmacist in this Sub-division, it was possible that those selling medicines saw the researcher as a competitor, trying to gain access to privy information.

It was not possible for the District Medical Officer to schedule an appropriate time to introduce the researcher and the research study to the three associations, so the researcher convened a meeting with the association heads and kept the District Medical Officer informed with the progress of the research.

In addition, even though the focus group discussions took place in an appropriate central venue, some participants did not appear to be free to speak out their views during the group discussions.

The focus group discussions took place just before the teachers went on holidays and so it was not possible to get the teachers to read the notes after they had been expanded.



CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSION

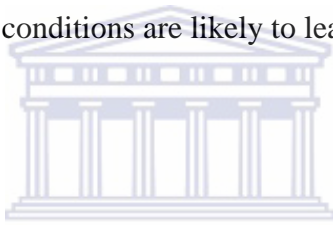
The study showed that the use of medicines by consumers in Tiko Sub-division was influenced at four different levels: household, community, health institutional and national levels. Key factors which operated across the various levels of influence were socio-cultural, economic and regulatory factors. This study complemented research already done in the area of improving medicines use by consumers (Hardon, Hogkin and Fresle, 2004).

The principal barriers to appropriate use of medicines were found to emanate from all levels. While some of them were driven by community perceptions and understanding of disease and medicines, others were driven by national regulatory and economic policies on medicines supply in Cameroon.

Socio-cultural factors that affected community members were found to relate to the perception of community members that they needed medicines to stay healthy and when they felt sick. They would also abandon their medicines when they felt they were well again. As the result of these perceptions they bought medicines in small quantities, practiced polypharmacy/polytherapy, shared their medicines with one another and even self medicated with prescription medicines. Sellers of medicines appeared to treat medicines as a commodity by dispensing medicines according to the amount of money consumers have, rather than according to a prescription or course of treatment. Many also

traded in medicines of doubtful quality, some of which were date-expired and others which may have been stored incorrectly.

Economic factors seemed to be centered on user charges for health care. The health policy in Cameroon requires consumers to pay for health care charges including medicines they purchase. Medicines are expensive items for most consumers in settings like this where the majority of people are poor. In addition to the fees, medicines in public hospital pharmacies are always out of stock. Consumers cope by reverting to those who sell the cheapest medicines and who are willing to sell them in small quantities they can afford. Unfortunately these conditions are likely to lead to inappropriate use of medicines by consumers.



Regulation of medicines availability and sales was found to be weak in this setting. Medicines are sold to the public by hawkers, drug peddlers, in street corners, medicines stores in the community, in the government hospital pro-pharmacies and by community pharmacies. Many of those involved in selling medicines are not licensed to do so. Consequently, the quality of medicines they sell and their competency to sell them are not regulated and are dubious. Consumers accessed and used medicines from all these sources, oftentimes without prescriptions.

6.2-RECOMMENDATIONS

The following are a set of recommendations for interventions to promote appropriate medicines use by consumers in Tiko Sub-division. They are arranged such that they

address socio-cultural, economic and regulatory barriers identified to undermine appropriate medicines use.

6.2.1- SOCIOCULTURAL STRATEGIES

- Public education campaigns using printed materials and the media: This can reduce the incidence of inappropriate use of specific medicines such as antibiotics and anti malaria.
- Role plays in schools, especially at primary and secondary levels, targeting specific areas of medicine misuse common to Tiko Sub-division, an contextually tested, can build up a positive medicines use culture at an early age.
- Behaviour change communication messages using mass media such as radio and television networks to targeting specific behaviours such as medicine sharing and using left over medicines from previous consumption, mixing medicines and polytherapy, may have a positive impact.

6.2.2- ECONOMIC STRATEGIES

- Eliminate user fees on medicines from government pharmacies
- Introduce insurance schemes for health care and medicines
- Implement appropriate stock management procedures in public hospitals, so that medicines are not out of stock.

6.2.3- REGULATORY STRATEGIES

- Enforce the laws that prohibit the sale of medicines by unauthorized persons
- Classify medicines into prescription only and over the counter medicines and limit the prescription of certain medicines by level of prescriber.
- Establish a national drug policy together with a multisectoral and decentralized task force that enforces the principles of the national drug policy.
- Improve supervision of the pro-pharmacy staff in hospitals to ensure that standard operating procedures are maintained.



REFERENCES

- Alubo, S.O. (1985) Drugging the Nigerian People: The Public Hazards of Private Profits In The Impact of Development and Modern Technologies in Third World Health. Barbara E. Jackson and Antonio Ugalde, eds. Pp. 89-113. Williamsburg, VA: *Studies in Third World Science*, No. 34.
- Arhinful, D.K., Das, A. M., Hadiyono, J.P., Heggenhougen, K., Higginbotham, K., Iyun, F.B., Quick, J., and Ross-Degnan, D. (1996). Working Draft: How To Use Advanced Qualitative Methods To Design Drug Use Interventions. *INRUD Social Sciences Working Group*
- Birungi, H., Asimwe, D., and Whyte, R.S. (1994). Injection Use and Practices in Uganda. *Action Programme on Essential Drugs*, World Health Organisation.
- Bledsoe, C. H., and Goubaud, M. F. (1985). The reinterpretation of western pharmaceuticals among the Mende of Sierra Leone. *Social Science and Medicine* 21(3):275-82.
- Brundtland, H. G. (2002). Essential Medicines: 25 Years of Better Health. *Journal of the American Medical Association* .288:3102
- Commeyras, C., Ndo, J. R., Merabet, O., Kone, H., and Rakotondrabe, F. P. (2005). Étude de l'accessibilité et des déterminants de recours aux soins et aux médicaments au Cameroun. I. Élaboration et validation de la méthode d'analyse de l'interface offre/demande en santé *Cahiers d'études et de recherches francophones / Santé* . Volume 15, Numéro 3, 161-6, Juillet-Août-Septembre 2005, Étude originale

Commeyras, C., Ndo, J. R., Merabet, O., Kone, H., and Rakotondrabe, F. P. (2006) Caractéristiques de la consommation de soins et de médicaments au Cameroun. *Cahiers d'études et de recherches francophones / Santé*. Volume 16, Numéro 1, 13-9, Janvier-Février-Mars 2006, Étude originale

Creswell, J.W., and Miller, D.L. (2000) Determining Validity in Qualitative Inquiry. *Theory into Practice*, Volume 39, Number 3, Summer 2000.

Etkin, N.L., and Tan, M.L. (eds). (1994). *Medicines: Meanings and Contexts*. Health Action Information Network

Green, J., and Thorogood, N, (2004) Developing Qualitative Research Designs. In *Qualitative Methods for Health Research*. London: Sage Publications; 3-26; 46-50 and 173- 200.



Groom, A., and Hedlund, K. (1998). Promoting Appropriate Drug Use in Missionary Health Facilities in Cameroon. *Action Programme on Essential Drugs*, World Health Organisation WHO/DAP/98.14.

Haak, H. (1988). Pharmaceuticals in Two Brazilian Villages: Lay Practices and Perceptions. *Social Science and Medicines*; 27(12) 1417-27.

Haafkens, J. (1997) *Rituals of Silence: Long term tranquilizer use by women in The Netherlands. A social case study*. Amsterdam: Het Spinhuis.

Hardon, A. P. (1987) The use of modern pharmaceuticals in a Filipino village: Doctors' perception and self medication.' *Social Science and Medicine* 25(3): 277-292.

Hardon A (1991). Confronting ill health: medicines, self-care and the poor in Manila. Quezon-City, *Health Action Information Network*.

Hardon, A. P., and Le Grand, A. (1993). *Pharmaceuticals in communities. Practices, public health consequences and intervention strategies*. Bulletin 330. Amsterdam, Royal Tropical Institute.

Hardon, A.P., Hodgkin, C. and Fresle, D. (2004). How to investigate the use of medicines by consumers. *World Health Organisation and University of Amsterdam*.

Holloway, K. (2005). Impact of Health Care Systems on Drug Use (20-21 October) *Institut Pasteur Euroconferences, Paris [ABSTRACT]*

Holloway, K. (2006). Understanding Rational Use of Medicines. *Contact no: 183* Autumn/Winter 2006 p 2-4.

Hours, B. (1985). L'état sorcier: Sante publique et societe au Cameroon. *Paris: L'Harmattan*.

International conference on national medicinal policies – the way forward. *Australian Prescriber* 1997; **20** (Suppl 1).

Khor, M (2005). Medicines Becoming Useless Due To Overuse, Global Trends. *Third World Network*, 6 June2005

Laing, R. O, Hogerzeil, H.V., and Ross-Degnan, D. (2001) Ten recommendations to improve use of medicines in developing countries. *Health Policy and Planning*; **16**(1): 13–20.

Le Grand, A., Hogerzeil, H.V., Haaijer-Ruskamp, F.M. (1999). Intervention Research In Rational Use of Drugs, A Review: *Health Policy and Planning*; 14(2): 89-102

Liamputtong, P.R., and Ezzy, D. (2005) In-depth Interviews. In *Qualitative Research Methods. Sydney: Oxford University Press* : 54-99

Mintzes, B. (1998). Blurring the boundaries. New trends in drug promotion. *Amsterdam, Health Action International Europe.*

Mintzes, B. (2002). Women and drug promotion: the essence of womanhood is now in tablet form. *WHO Essential Drugs Monitor*, 31:2.

(MOH) Ministry of Health (2000). National Strategic for the Implementation of a Pharmaceutical Policy. *Yaounde: Ministry of Public Health*

Mokossa, T. (ed) Unofficial Report of the electoral district register of the Social Democratic Front Party for Tiko Sub-division.

Nyazema, N. Z. (1984). Towards better patient drug compliance and comprehension: a challenge to the medical and pharmaceutical services in Zimbabwe. *Social Science and Medicine* 18(7):551-4.

Quick, J. D., Rankin, J. R., Laing, R. O., O'Connor, R. W., Hogerzeil, H.V., Dukes M.N.G., and Garnett, A.(eds)(1997). *Managing Drug Supply*. West Hartford, Connecticut, USA: Kumarian Press.

Rasmussen, Z. R., Rahim, M., Streefland, P. S., Hardon, A., Juroonisa (1996) Enhancing appropriate medicine use in the Karakoram Mountains. *Community drug use studies*.

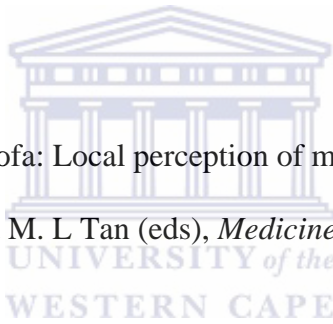
Amsterdam, Het Spinhuis

Reeler, A. V. (1990). Injections: A Fatal Attraction. *Social Science and Medicine*; 31(10): 1119-25.

Royal Tropical Institute and London School of Hygiene and Tropical Medicine (1989). An Evaluation of WHO's Action Programme on Essential Drugs. *KIT and LSHTM*.

Sandelowski, M. (1986) The Problem of Rigour in Qualitative Research. *Advances in Nursing Science*, 8(3). 27-37.

Senah, K. A. (1994). 'Blofa tshofa: Local perception of medicines in a Ghanaian coastal community.' In: N. L Etkin and M. L Tan (eds), *Medicines: Meanings and contexts*. Quenzon City: HAIN: 83-101.



Senah, K. A. (1997). The popularity of medicines in a rural Ghanaian community. *Community drug use studies*. Amsterdam, Het Spinhuis.

Shaw, R. P., Griffin, C. (1995). Financing health care in sub-Saharan Africa through user fees and insurance. *Washington DC: World Bank*.

Trap, B., Hansen, E.H., Hogerzeil, H. V. (2002). Prescription habits of dispensing and non-dispensing doctors in Zimbabwe. *Health Policy and Planning* 17(3):288-95.

Trostle, J. (ed) The History and Meaning of Patient Compliance as an Ideology. In: Gochman, D.S. (eds). *The Handbook of Health Behaviour Research*. Vol. II. New York: Plenum forthcoming.

Van der Geest, S. (1982) Part 1: The efficiency of Inefficiency: Medicine Distribution in SouthCameroon. *Social Science and Medicine* 16(24) 2145- 2153.

Van der Geest, S. (1985). The Intertwining of Formal and Informal Medicine Distribution in South Cameroon. *Canadian Journal of African Studies*, Vol. 19, No. 3, 569-587

Van der Geest, S. (1987) Self-care and The Informal Sale of Drugs in South Cameroon. *Social Science and Medicine* 25(3) 293-305

Van der Geest, S. (1991) Marketplace Conversation in Cameroon: How and Why Popular Medical Knowledge Comes into Being. *Culture, Medicine and Psychiatry* 15: 69-90, 1991

Van der Geest, S., and Hardon, A. (1990) Self Medication in Developing Countries *Journal of Social and Administrative Pharmacy*. 7(4): 199-205

Van der Geest, S., and Whyte, S. R., (1989a) 'The charm of medicines: metaphors and metonyms.' *Medical Anthropology Quarterly* 3(4): 345-367.

Van der Geest, S., and Whyte, S. R., (eds). (1991b). The Context of Medicines in Developing Countries. Studies in Pharmaceutical Anthropology. *Amsterdam: Het Spinhuis*

Wolffers, I., and Bloem, M. (1993). Injections in Developing Countries: A Neglected Risk factor in Health Care. In: Bloem, M. and Wolffers, I. (eds). The Impact of Injections on Daily Medical Practice. *Amsterdam: Free University Press*.

World Bank (1995) Cameroon: diversity, growth and poverty reduction. Report no. 13167-CM. *Population and Human Resources Division, Central and Indian Ocean Department, African Regional Office.*

World Bank (2008) Cameroon Poverty Reduction Strategic Paper [Online] Available: <http://go.worldbank.org/G1AZYHQVV0/> Downloaded 2008/11/01

World Health Organization. (1987). The Rational Use of Drugs, Report of the Conference of Experts 25-29 November 1985, Nairobi. *Geneva: World Health Organisation.*

World Health Organisation (1991) A Report on an Informal Workshop on Injection Practices Research, Geneva, 2-5 May 1990. (*WHO/DAP/91.8.*).

World Health Organisation (2004) The World's Medicines Situation. (*WHO/EDM/PAR/2004.5*) Geneva, *World Health Organisation.*

World Health Organisation (2007) Progress in the rational use of medicines, Report by the Secretariat. *Sixtieth World Health Assembly, Provisional agenda item 12.17.*

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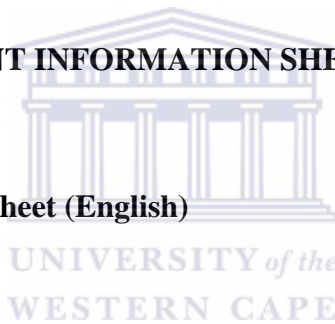
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APPENDICES

APPENDIX 1: PARTICIPANT INFORMATION SHEET

1.1 Participant Information Sheet (English)



PARTICIPANT INFORMATION SHEET

FACTORS INFLUENCING THE USE OF MEDICINES BY CONSUMERS IN TIKO SUBDIVISION, CAMEROON

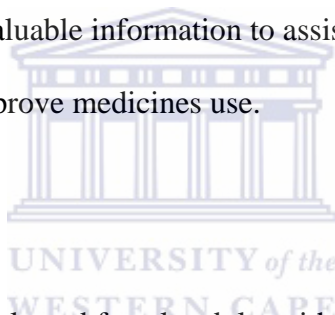
Dear Sir,

I am a student studying at the University of the Western Cape, Cape Town, South Africa. I am researching on factors influencing the use of medicines by consumers within Tiko Sub-division, Cameroon and would be grateful for your participation. The successful completion of this study will serve as my mini-thesis which is part of the

University of the Western Cape, School of Public Health requirements for the award of Masters in Public Health degree.

Why am I doing this?

Irrational use of medicines, wastes money, increases hospitalization, transmission of life threatening diseases like HIV/AIDS and Hepatitis B through injections and may cause death. Consumers in Tiko subdivision have the opportunity of deciding their sources for purchasing medicines, the way they use medicines and the type of medicines they take. This study will describe the factors that influence use of medicines in Tiko Subdivision and will provide valuable information to assist in designing contextually appropriate interventions to improve medicines use.



Who are the participants?

The participants are male and female adults within Tiko Sub-division, Cameroon who use medicines; and those who sell medicines in pharmacies and in neighbourhood stores.

What do we expect from the participants in the study?

I will be asking you to participate in either a focus group discussion (medicine consumers) or an interview (medicine sellers). The focus group discussion or interview will last about 40 minutes. You will be asked some questions about the use of medicines by the interviewer.

What can participants expect?

Notes will be made at the focus group discussions and interviews and in addition the proceedings will be recorded. At the end of each session, participants will be read their answers for confirmation. Confidentially of the participants names and information will be respected during the research period, only the researcher will have access to the information and it shall be destroyed thereafter. Participants will sign an inform consent form before the study begins. The study is not designed to help you personally but it will provide information on medicines use in Tiko Sub-division that could be used to design interventions to improve rational medicines use in the future.

Can you withdraw from the study?

You may withdraw from the study at any time and are not obliged to give any reasons for that. If you find a question embarrassing you may decide not to respond to it. The study is completely voluntary and will have no influence on your job, family life or any other personal issue.

Any further questions?

More information can be obtained from Chana Robert, Core Pharmacy Likomba, Tiko Phone 3351609 or 75413254. If you are willing to participate in this study, please read and sign the consent form.



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APPENDIX 1b- Participant information sheet in Pidgin

(Tin Weh Man Weh I Go Work with Me Must Know)

WETI DI MAKE PEOPLE FOR TIKO USE MERECIN DI WAY DEY DI USAM

Ma Papa them, my mami them, my brothers and sisters them,

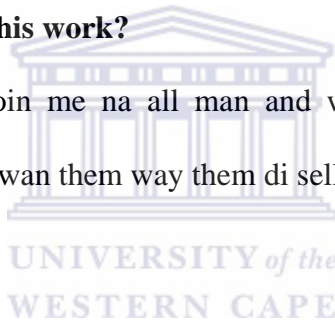
Me I de go school for University of the Western Cape, Cape Town, South Africa. I de do some work weh e if a finisham, a go get Masters degree for Public Health. Dis work na for know di tins them weh dem di make people dem for Tiko Sub-division di use merecin di way weh dem di usam. I cam for wona because say a know say na only wona fi gi me dis information. So I di beg wona make wona join me for dis work.

Wetin maekam a di do weti a di do?

I you no use merecin as you suppose for usam you go loss moni, dem go admit you for hospital, sometime sef, if you use injection weh you no be suppose for usam some kine sik dem like HIV/AIDS and Hepatitis catch you. Anoder reason na say you fit even die because say you no use merecin for the correct way. People for Tiko di decide woside them go buy merecine, how them go usam and di cana merecin way dem go drinkam. Dis work go show di thing dem way dem di make Tiko people for use merecine di way them di usam. If we know dis tins them, then we go correct de bad wan dem and try make good wan dem plenty.

Na who them go join me for this work?

People wey them go join me na all man and woman for Tiko wey I de use merecin. Another people na da wan them way them di sell merecin too.



Wetin we go do we wona?

A go ask wona say make wona join me for story. Two kana story go de. For one kind we go join for group with people weh them di use merecin (consumers). Another kind na say a go di story we people one one (in-depth interview). Da group story go stay for about 40minutes. Question we them go ask you na only about how people them di use merecin.

Make wona know how things go dey?

As the in terview and story for group di take place, we go di write di things them weh wona di tell we. We go also tape them. Any time weh we finish any interview, we go

read de things them we we writam make wona make correction and talk say di things them correct. Make wona also know say no man e name or wetin any man talk no other man no go nowam. Na only me a fit get di information but after dis study a do tieram. Before this work go start, wona go sign some form for show say wona don gree for work with me. I fine for know say this work na for help di whole Tiko, no be one man. If we get correct information them we go see how we fit see say people use merecin correct weh them no loss their money

Some man ask say a fit say a no go continue for this work?

Yes any time you thing say you want for commut for this work, you fit commut. When you commut no man no go force you say you must talk why you commut. Even so sef if some question dey weh you no wan answeram, you fit talk say you no go talk you. This work na for free and e no get any thing for do wetin your work your family life and other private things them.

Any further questions?

If you want for know more find me for Core Pharmacy Likomba, Tiko Phone 3351609 or 75413254. Ma name na Chana Robert. If you go join me for this work then, you go sign agreement form after a readam for you.



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APPENDIX 2: CONSENT FORMS.

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Appendix 2a: Consent form for focus group discussions in English

RECORD OF INFORMED CONSENT TO CONDUCT A FOCUS GROUP

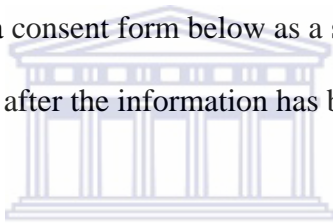
INTERVIEW

Thank you for coming here to participate in this focus group discussion today.

The purpose of this study is to understand factors that influence the use of medicines by consumers in Tiko Sub-division, Cameroon. This is part of my work to obtain a Masters degree in Public Health.

As has been mentioned in the Participant Information Sheet, acceptance to participate in this study is your choice and is completely voluntary. You may choose to withdraw from the study or refuse to participate in the study at any time. Such refusal to participate will not result to your loss of any benefit or to any penalty. You may also choose not to answer particular questions that maybe are asked. If there is anything that you do not feel comfortable to discuss, feel free to say so.

I understand that the information discussed in the FGD will remain confidential and will not be discussed with anyone-else outside of this group. In order for us to start, each of you is required to sign a consent form below as a sign of your approval after having read the information (or after the information has been read to you).



I have read the information about this research study on the Participant Information Sheet, or it has been read to me. I have had the opportunity to ask questions, and any questions that I have asked has been answered to my satisfaction.

I hereby consent to participate in this study.

My signature attests to my acceptance to participate in the study.

Name of Participant.....

Participant signature

Date.....

Researchers Name.....

Researcher Signature.....

Date.....



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Appendix 2b: Consent form for focus group discussions in Pidgin

BOOK FOR SHOW SAY WONA GREE MAKE A STORY WETIN WONA FOR

BUNDLE of the
UNIVERSITY of the
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A di tank wona say wona don cam today make we get dat we story for bundle.

De reason weh a di do dis work na for sabi the tins dem way dem di make Tiko people dem use merecin. Dis one na work we a di doam for get Masters degree for Public Health.

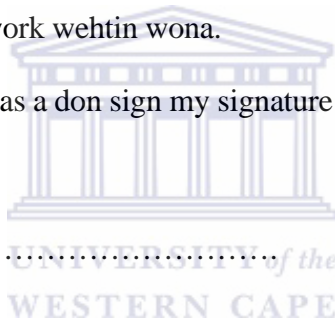
Wona don see am for dat other book weh I de talk about wetin you go know if you wan for join me for this work say, for join me for dis work no man no di force wona. Na you sef sef like am. For people weh dem go join me, if you like you fit talk say you no go continue for de talk again. No man no go blame you. Even sef, if some questions dem de weh you no like am, you fit just stay you quiet, na ya right. If you deny for talk, no man no go punish you and you no go loss nothing.

For say make we start di work, any man weh I deh for here go sign I signature for dis paper.

As you deh sign, you must know say you don understand say all the information weh we go talkam no go go outside and na secret. Dis information weh wona don get tam, dem readam for wona and wona understand. Now wona go sign one by one say wona don gree for work with me and for say make we start we work.

A don read all de story weh concern dis work. I don ask questions and dem don answer me. I like am and a go work wehtin wona.

So me a don gree for work. See as a don sign my signature me sef sef.



Name of Participant.....

Participant signature

Date.....

Researchers Name.....

Researcher Signature.....

Date.....



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Appendix 2c: Consent form for Key Informant Interview in English

RECORD OF INFORMED CONSENT TO CONDUCT AN INTERVIEW

Thank you for agreeing to allow me to interview you.

The Purpose of this study is to explore the factors influencing the use of medicines by consumers in Tiko Sub-division, Cameroon.

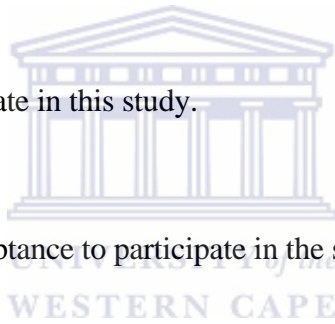
As mentioned in the Participant Information Sheet, your participation in this study is your free choice, completely voluntary. You may choose to withdraw from the study or refuse to participate in the study. Refusal to participate will not result to your loss of any benefit or to any penalty. If you choose to participate, you may stop at any time. You may also choose not to answer particular questions that you are asked. If there is anything you do not want to be discussed, feel free to say so.

The information collected will be treated very confidentially and will only be used for the purposes of the research study.

If you have chosen to participate, please sign below before I can proceed with the interview.

I have read the information about this research study on the Participant Information Sheet or it has been read to me. I have had the opportunity to ask questions and any questions that I have asked has been answered to my satisfaction.

I hereby consent to participate in this study.



My signature attests to my acceptance to participate in the study.

Participant Name.....

Participant signature.....

Date.....

Researchers Name.....

Researcher Signature.....

Date.....

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Appendix 2d: Consent form for Key Informant Interview in Pidgin

BOOK FOR SHOW SAY YOU GREE SAY MAKE A ASK ONE MAN QUESTION

A di tank you say you don give me time say make a talk wetin you.

De reason weh a di do dis work na for sabi the tins dem way dem di make Tiko people dem use merecin. Dis one na work weh a di doam for get Masters degree for Public Health.

A bi don tokam before for da book weh I right di tin weh man must know if I wan work with me say, na you sef sef don gree say make a ask you questions. Because na you don gree, you fit still talk say you no go continue for de talk again. Even sef, if a ask you some kind question weh you no like am, you fit talk say you no go answer so you shitdon quiet. Anyhow, if you no answer, no man no go punish you or report you. You no go loss ant ting if you no answer.

Any ting weh you go tell me as a di ask you question, a no go tell any man. All de ting we you go tell me we go usam only for dis work.

If you don gree for join me, you go sign dis form for under here before we fit start talk.

A don read all de story weh concern dis work. I don ask questions and dem don answer me. I like am and a go work wehtin wona.

So me a don gree for work. See as a don sign my signature me sef sef.

Participant Name.....

Participant signature.....

Date.....



Researchers Name.....

Researcher Signature.....

Date.....

APPENDIX 3: INTERVIEW GUIDE

Appendix 3.1: Interview guide for focus group discussions

1- General questions

- What health problems have you or your household suffered from recently?
- What steps did you take in order to get well?
- Who made the decision for the action?
- Who usually makes decisions in your house when some one is sick?

2- Knowledge of medicines

- What are the most common signs and symptoms of ill health that you experience which informs you of your need for medicines?
- From your experience what medicines do you usually use when you get these signs and symptoms

(probe: kindly tell us the 1- name, 2- presentation, 3- strength (mg), 4- frequency of administration, 5- duration

- How often do you decide to buy and use medicines without seeking the advice of a health professional?
- Where do you usually get prescriptions for your medicines?
- From where do you buy the medicines?
- Generally speaking what do you know about the medicines you drink in terms of:

How it works, when to drink the medicines, which medicines you have to take alongside the medicines you take, which medicines you have to avoid when you take the medicines

3-Attitude questions

- From your experiences, what importance do you attach to the use of medicines?
Probe for particular case stories.
- What factors have particular influence on the way you think about medicines?
Probe: stories related to cultural factors, religion, friends, family, finance and
- What influence do you exercise on those who prescribe or sell you medicines on the type of medicines they prescribe or sell to you?
Probe: to know if there is particular preference to injections, tablets, capsules or syrups and why these preference?
- What do you think about the way medicines are prescribed? Do you feel that these prescription styles have particular influence (positive or negative) on the way you use medicines?

4- Practice questions

- When you fall sick and you want to get well what experiences have you ever gone through in this process? Can you share your experiences on a particular time or instance
- To what extent do you think that the social environment including the things we here, the people we mix-up with affect the way we hve been using medicines

Probe: what have you personally experience on this line?

- What do you think about those persons who use medicines on a daily basis?

Probe : what kind of medicines do they take, what reasons do they give and how rational do you think is their reason for this?

- Do you feel that people buy all the medicines they are prescribed?

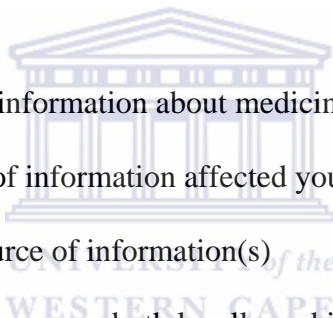
Probe : what could be the reason for buying all or not buying all?

- Do you feel that people use all the medicines that they are prescribed

Probe: what could be the reason for using all or not using all?

Questions about information

- From where do you get information about medicines?
- How has this source(s) of information affected your use of medicines
- How reliable is your source of information(s)
- What other information sources, both locally and internationally has affected the way you use medicines?
- If given the chance, what contributions can you make to improve the way medicines are used by people of Tiko subdivision



Appendix 3.2: Interview guide for key informant interviews

1- Generally,

- What are the most common illnesses that people who come to you suffer from?
- In what ways do you try to solve their problems

Probe: the different options, do they always offer medicines, how do they decide on the choice of medicines to offer them?

2- Questions about knowledge

- When patients come to ask for particular medicines, what reasons do they give for asking for a particular medicine?

Probe for things that influence them:, such as had it before, told about it by family member or neighbour, recommended by health professional

- What kind of medicines do they most commonly ask for?

Probe for therapeutic class, probe for name of the medicines

- What do you think these patients know about the medicines they ask for?

Probe for: how to take it, when to take it, duration to take the medicines, common side effects.

- Where do you think they get information about the medicines they take?
- In your opinion, how have these sources of information affected the way patients use medicines?

- What type of information you think is important for patients to know (not to know) about medicines?

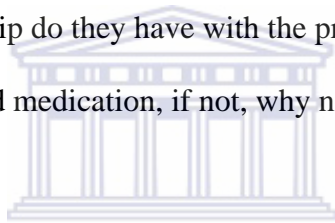
3- Questions about practice

- When people come to you to buy medicines who usually prescribes for them?

Probe for:

(1) if self medication, what reason do they give, which medicines do they usually get and for how long do they take them?

(2) If they come with prescription, who prescribe for them, what relationship do they have with the prescriber, do they buy all the prescribed medication, if not, why not?



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4- Questions on attitude

- In your opinion, which type of medicines do you the most of (fastest)?

Probe for reason why these medicines are most common (sold faster)?