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**SCHOOL OF MEDICINE**  
**DEPARTMENT OF NURSING SCIENCES**

**FACTORS INFLUENCING USE OF TRADITIONAL MEDICINE TO PRECIPITATE  
LABOUR BY ANTENATAL MOTHERS IN MPIKA DISTRICT**

**BY**

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TABLE OF CONTENTS AND APPENDICES

ITEM	Page
Acknowledgements-----	i
Table of contents -----	ii
List of appendices -----	vi
List of tables, -----	vii
List of figures -----	ix
Acronyms -----	x
Declaration -----	xi
Statement -----	xii
Dedication -----	xiii
Abstract -----	xiv

CHAPTER ONE

1.0 INTRODUCTION-----	1
1.1 Background Information -----	1
1.2 Statement of the problem -----	3
1.3. Factors influencing use of Traditional Medicine to precipitate labour by antenatal mothers -----	5
1.4 Diagram of problem analysis -----	8
1.5 Justification of the study -----	9
1.6 Research objectives -----	9
1.6.1 General objectives -----	10
1.6.2 Specific objectives -----	10
1.7 Hypothesis -----	10
1.8 Definition of terms -----	10

1.81	Conceptual Definition of terms -----	11
1.82	Operational Definition of study variables-----	12
1.9	Variables and cut off point -----	12

## CHAPTER 2

2.0	LITERATURE REVIEW -----	15
2.1	Introduction -----	15
2.2	Socio-Economic Factors -----	16
2.3	Knowledge on normal labour -----	18
2.4	Knowledge on herbs and dangers of using them-----	19
2.5	Past experience of labour and use of herbs -----	22
2.6	Service delivery -----	24
2.7	Cultural factors -----	27
2.8	Conclusion -----	28

## CHAPTER 3

3.0	RESEARCH METHODOLOGY -----	29
3.1	Introduction -----	29
3.2	Research Design -----	30
3.3	Research Setting -----	30
3.4	Study Population -----	31
3.5	Sample Selection -----	32
3.6	Sample Size -----	32
3.7	Data Collection Tool -----	32
3.8	Data Collection Technique -----	33
3.9	Validity -----	33
3.10	Reliability -----	34
3.11	Pilot study -----	34
3.12	Ethical consideration -----	34

5.9.1	The Nursing practice -----	71
5.9.2	The Nursing Administration -----	72
5.9.3	The Nursing Education -----	72
5.9.4	Nursing Research -----	72
5.10	Recommendations -----	73
5.11	Dissemination of findings -----	75
5.12	Limitations of the study -----	75
5.13	Conclusion -----	76
5.14	References -----	78

## LIST OF APPENDICES

	Page
1. Questionnaire -----	81
2. Informed Consent -----	88
3. Letter requesting permission to carry out pilot study -----	89
4. Letter to carry out research study -----	90
5. Budget -----	91
6. Work plan -----	92
7. Gantt Chart -----	93

## LIST OF TABLES

	page
Table 1.1	Variables and indicators and cut off point ----- 13
Table 4.1	Distribution of socio-Demographic characteristics ----- 37
Table 4.2	Knowledge on labour ----- 38
Table 4.3	Responses on when labour is considered to be prolonged----- 38
Table 4.4	Respondents' Responses on what could cause delay in labour ---- 39
Table 4.5	Knowledge on herbs used to precipitate labour ----- 40
Table 4.6	Knowledge on the types of herbs used to precipitate labour----- 40
Table 4.7	Responses on dangers of using herbs to precipitate labour----- 42
Table 4.8	Responses on whether there are benefits in using herbs ----- 42
Table 4.9	Respondents' Responses on the types of benefits for using herbs--- 42
Table 4.10	Responses as to whether they have had used herbs before----- 44
Table 4.11	Respondents' experiences after using the herbs ----- 45
Table 4.13	Whether Respondents knew somebody who have had used herbs --- 46
Table 4.14	Time taken to reach the nearest health facility ----- 46
Table 4.15	Whether Respondents' would tell the Health Personnel when asked whether they have had taken some herbs ----- 47
Table 4.16	Beliefs on what causes women to experience prolonged labour ---- 48
Table 4.17	Responses as to whether their cultures encourage use of herbs----- 49
Table 4.18	When women are encouraged to take the herbs ----- 49

Table 4.19	Suggestions on what can be done to discourage women from using herbs-----	50
Table 4.20	Respondents' use of herbs in relation to age range -----	51
Table 4.21	Respondents' use of herbs in relation to number of pregnancies -----	51
Table 4.22	Respondents' use of herbs in relation to number of pregnancies -----	52
Table 4.23	Respondents' use of herbs in relation to knowledge on normal labour-	52
Table 4.24	Respondents' use of herbs in relation to level of knowledge on dangers of using herbs -----	53
Table 4.25	Respondents' use of herbs in relation to place of delivery -----	53
Table 4.26	Respondents' use of herbs in relation to their knowledge of someone who had ever used herbs to precipitate labour before -----	54
Table 4.27	Respondents' use of herbs in relation taken to reach the health facility -	54
Table 4.28	Respondents' use of herbs in relation to whether respondent would tell the health personnel -----	55
Table 4.29	Respondents' use of herbs in relation to attendance of health talk on normal labour -----	55
Table 4.30	Respondents' use of herbs in relation to attendance of health talk on dangers of using herbs to precipitate labour -----	56
Table 4.31	Respondents' use of herbs in relation to their beliefs on what causes Prolonged labour -----	56
Table 4.32	Respondents' use of herbs in relation to whether their cultures encourage use of herbs -----	56

## LIST OF FIGURES

	Page
Figure 1.1      Problem Analysis diagram -----	9
Figure 4.1      Respondents' level of knowledge on normal labour -----	39
Figure 4.2      Respondents' Responses on how the herbs work -----	41
Figure 4.3      Respondents' Responses on whether the herbs are dangerous -----	41
Figure 4.4      Respondents' Responses on whether use of herbs should be encouraged-----	43
Figure 4.5      Respondents' level of knowledge on dangers of using herbs -----	43
Figure 4.6      Respondents' sources of influence to use the herbs -----	45
Figure 4.7      Respondents' Responses on whether they have had attended any health talk on normal labour -----	47
Figure 4.8      Respondents' Responses on whether they have had attended any health talk on dangers of using traditional medicine to precipitate labour -----	48




## LIST OF ACRONYMS

CHAZ	Churches Health Association of Zambia
CSO	Central Statistics Office
DHMT	District Health Management Team
DISH	Delivery of Integrated Health Services
HIMS	Health Information Management System
RHC	Rural Health Centre
TBA	Traditional Birth Attendant
ZDHS	Zambia Demographic Health Survey
WHO	World Health Organization
IEC	Information Education & Communication
PHC	Primary Health Care
MoH	Ministry of Health
CBoH	Central Board of Health
UNZA	University of Zambia


## DECLARATION

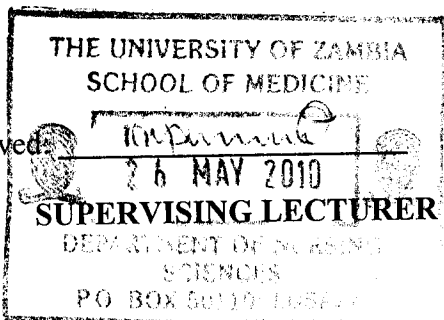
I, **Bwalya Pearson**, hereby declare that with the exception of the assistance acknowledged, the work presented in this study for Bachelor of Science in Nursing Degree is the result of my own efforts and studies. This work has not been presented either wholly or in part for any other degree and is not being currently submitted for any other degree.

Signed: 

Date: 16/05/2010

## CANDIDATE

Approved: 



Date: 26/05/2010

## STATEMENT

I **Bwalya Pearson** hereby certify that this study is entirely the result of my own independent investigation. The various sources, to which I'm indebted to, are clearly acknowledged in the text and in the references.

Signed: 

## CANDIDATE

Name: Bwalya Pearson

Date: 16/05/2010

## **DEDICATION**

This study is dedicated to my parents Mr. Andrew Bwalya Piyala and Mrs. Esther Bwalya for their love, support and encouragements in whatever I have done in my life; it's also dedicated to my dear wife Muloongo for being a good friend, wife and most of all, the source of inspiration to me.

## ABSTRACT

Reproductive Health is becoming a great concern to consumers of services, health care providers and policy makers. This is because of the escalating maternal morbidity and mortality some of which can be prevented through consented efforts. Use of herbs to precipitate labour is common especially in rural areas and in most cases may lead to complications like ruptured uterus, severe hemorrhage, birth asphyxia, still births, fetal and maternal deaths (WHO, 1993).

The study sought to identify factors influencing use of Traditional Medicine to precipitate labour by antenatal mothers in Mpika District. The research hypothesis was that Antenatal mothers use Traditional Medicine to precipitate labour because of inadequate knowledge on progress of normal labour and dangers of using the herbs.

A descriptive quantitative and cross sectional survey was used. A pilot study was conducted at Chilonga Mission Hospital in Mpika District. The research was conducted in five centres within Mpika District which is situated in Northern Province of Zambia and the centers were selected by random sampling. A sample of fifty (50) antenatal mothers attending antenatal clinics from the five health centres was randomly selected. A structured interview schedule was used to collect data which was analyzed manually by using of a scientific calculator.

The findings of the study showed that 30% of the respondents have had used herbs to precipitate labour before, 68% knew someone who have had used the herbs to precipitate labour and 44% said they wouldn't tell a health personnel when asked whether they have used the herbs. Of the respondents who had used the herbs, 80% used the herbs to precipitate labour and 53.3% had a quick delivery.

The study further revealed that respondents who had low levels of knowledge on labour were more likely to use the herbs. Out of 15 respondents who used the herbs, 53.3% had low level of knowledge on normal labour. The study revealed an association between distance to the health facility and use of herbs. Majority (86.3%) of the respondents who used herbs had to take more than half an hour to reach the nearest health facility. The study further revealed that there is an association between attendance of health talk on

normal labour; dangers of using herbs and actual use of herbs. Out of 15 respondents who used the herbs, 60% did not attend any health talk on normal labour and dangers of using herbs respectively. The study findings further showed that there is a relationship between cultural background and use of herbs. Majority (80%) of respondents whose culture encourages use of herbs actually used the herbs.

The study findings therefore, revealed that level of knowledge on normal labour and dangers of using herbs; age; distance to the health facility, cultural backgrounds are among the factors influencing use of herbs to precipitate labour by antenatal mothers.

Therefore, the hypothesis that antenatal mothers use herbs to precipitate labour because of inadequate knowledge on progress of normal labour and dangers of using herbs has been supported by the findings of this study and hence the researcher failed to reject the hypothesis.

Hence, the Researcher's major recommendations are that; the Ministry of health as a policy making body should embark on a deliberate program to test the efficacy of some of the herbs used by women to precipitate labour; the ministry of health should also develop proper IEC messages targeted at pregnant women which should be simple and in different languages especially on process of normal labour and dangers of using herbs; the ministry of health should come up with ways of capturing data on women using herbs to precipitate labour and outcomes of pregnancies of such women.

## **CHAPTER 1**

### **1.0 INTRODUCTION**

#### **1.1 BACKGROUND INFORMATION**

The World Health Organization (WHO) estimates that about 580,000 women of reproductive age die each year from pregnancy and child birth related complications and a high portion of these deaths occur in sub Sahara of which Zambia is part (WHO, 2006). For every woman who dies, 30-50 women suffer injury, infections and/or disease. More than a decade of research has shown that most of maternal deaths and disabilities can be prevented if women have access to good quality health services during pregnancy and child birth (Belew, 1999). In addition to maternal mortality, there are almost eight million early neonatal deaths and stillbirths each year (WHO, 2006).

WHO (1999) attributed maternal mortality to low economic and social status of women and lack of access to, and use of essential obstetric services. Low social status of women limits their access to economic resources and basic education, and thus their inability to make decisions related to their health and nutrition. United Nation Population Fund (1998) indicated that adherence to some tribal customs also increases the risk of maternal deaths. Among these customs, women drink herbs that they think will help them deliver quickly. The concoctions are often home made, sometimes toxic and prepared in unhygienic conditions.

According to Maine (1999) in a study conducted in Indiana, United States of America among women in extremist religion communities, although well nourished, well educated and financially secure, have maternal mortality rates hundred times higher than the national figures. Maine (1999) attributed the high maternal mortality rate to their religious beliefs that do not allow use of modern medical care even if in emergency situations. In most cases, they resort to use of herbs. It's further reported that social and cultural factors determine whether or not women will visit health care facilities. Many say the obstetric services are disrespectful to women (DISH, 2000).

In the African context, traditional medicines in pregnancy and labour continues to play, as it did in the past an important role in health systems (Maimbolwa, 2004). Being an African country, Zambia is not spared from the revelations. Traditional medicine has been practiced for centuries and is still being used by Zambian people (Lilgestron et al, 1998). Child birth in Zambia is a branch of traditional medicine (Maimbolwa, 2004).

It is important for women to understand what labour is, what to expect when labour occurs and what to do when labour begins. According to WHO (1996) criteria, Normal Labour is defined as spontaneous onset of labour, low-risk at the onset of labour and delivery. The infant is born spontaneously in the vertex position between 37 and 42 completed weeks of pregnancy. After birth, the mother and infant are in good condition. The length of first and second stages of labour (from beginning of cervical dilatation to delivery of birth) varies widely and can last 14-18 hours (Tortora & Grabowski, 2000). On the other hand, precipitate labour can last six hours or less than an hour (WHO, 2004). It is also quick and can be very traumatic for both the mother and the baby as the body is doing the work of what normally can be an average eight hours or so in too much shorter time frame (Tortora & Grabowski, 2000). Very rapid labour (precipitate labour) may also lead to heavy, often dangerous bleeding after delivery (post-partum haemorrhage) of which the interval from onset to death of post partum haemorrhage can be two hours (Maine, 1999).

Mpika District is a rural district situated in Northern Province of Zambia. Like any other rural area, women strongly believe in local herbs which they bath, drink or sit in during pregnancy, child birth and immediately after birth (Kasolo, 2000). These herbs have been found to be useful to women in the sense that they help in precipitating labour (Maimbolwa, 2004). According to the Bemba belief which is shared by the Bisas who occupy most parts of Mpika district, difficulty in labour or delay in delivery is believed to be punishment for marital infidelity or being lazy. The woman is pressured to confess her misdeed and later advised to take the herbs to prevent consequences of infidelity and also that labour may continue without complications (Launshi, 1994). These beliefs and practices have forced some women to resort to use of traditional medicine so as to avoid the consequences at all cost. According to Kyomuhando (2003), community members share their cultural values and common perception of what constitute conception, pregnancy, labour, birth and the



postpartum period. These perceptions might to a large extent be shrouded in myths and superstition reflecting lack of knowledge of physiology of the birth process.

However, treatment of prolonged/ obstructed labour by ineffective and harmful traditional medicines and practices can cause uterine rupture. Rupture of the uterus still constitutes one of the major causes of maternal death in obstetric practice in developing countries (WHO, 2004). According to Mpika District HIMS (2008), the District recorded 8/1860 (0.4%) maternal deaths between the years 2007-2008. The number of still births were 21/3335 (0.6%) which is also a high number and 250/3335 (7.5%) of live births were born with Asphyxia. Studies like the ones discussed above have indicated that women are using traditional medicine to precipitate labour and the consequences that comes about as a result of such practices.

## **1.2 STATEMENT OF THE RESERCH PROBLEM**

For individual women, childbearing is a major life event making significant turning point in life (Lozoff & Jordan, 1998). Child birth as a physiological event is universal but also surrounded by different social and cultural practices and beliefs. Women strongly believe in local herbs which they bathe in, drink or sit in during pregnancy, child birth and immediately after delivery (DISH, 2000). These herbs have been found useful and are used by women in addition to antenatal care in health facility (DISH, 2000). Despite the fact that pregnant women especially in rural areas trust in the use of traditional medicine in labour, they do not communicate this to the health care providers especially when they go to the health facility for delivery (DISH, 2000).

According to a study done by Motsei (2006) in South Africa, the use of traditional medicine as perceived by the Tswana is an important component in the experience of pregnancy and labour. However, communication about use of herbs between pregnant women and health staff is poor and hinders reporting or recording of dosage and evaluation of effects (Freeman & Motsei, 2000). As such, it is not easy to find records of how many women are using herbs during labour. Besides, there may be a combination of traditional and conversional medicine at the health facility since healthy care providers are not informed and this can bring about complications.

Many women especially in rural areas use traditional medicine to quicken the progress of labour with a view to spending as few hours as possible at the health facility (Kasolo & Ampaire, 2000). According to Maimbolwa (2004), the majority of social support women accompanying pregnant women to maternity units were aware of on going Zambian traditional birth practices and beliefs. Those who considered themselves Traditional Birth Attendants (TBAs) advised women on the use of traditional medicine to precipitate labour during pregnancy. However, the advice given to women on the use of herbs to precipitate labour is done by the TBAs and relatives to pregnant women without the understanding of the duration of normal labour and knowledge on the pelvic adequacy which are very important factors. These practices are in most cases dangerous as it is discovered that after taking the herbs, some women do not reach the health facility for delivery but deliver on their way to the facility (Kasolo & Ampaire, 2000). Apart from that, it is discovered that the herbs used may be toxic to both the mother and the unborn child and the nature of precipitate labour can lead to maternal distress, postpartum haemorrhage, trauma and fetal distress (DISH, 2000). If the baby is born distressed without a skilled attendant and equipment, he/she will end up dying which increases neonatal deaths. According to CSO (2007), Northern Province was the second highest in the country with a neonatal death of 34/1000 live births. UNFPA (1998) also indicated that mothers who adhere to traditional beliefs and culture are at higher risk of dying during pregnancy and delivery. This may explain the high maternal mortality in Zambia which is at 591/100,000 live births (CSO, 2007). Complications like post partum haemorrhage, maternal distress and birth Asphyxia will demand the attention and skills of hospital personnel and specialized equipment that is only found in 2<sup>nd</sup> level hospitals.

Mpika District recorded 8/1860 (0.4%) cases of maternal deaths with seven of them coming from rural areas in the year 2008 (Mpika District HIMS, 2008), Apart from that, there were 21/3335 (0.6%) cases of still births and 250/3335 (7.5%) babies were born with birth asphyxia within the same stipulated time. There were also about 52/520 (10%) cases of precipitate labour recorded at Mpika and Chilonga Hospitals respectively (Delivery records, 2008). These statistics are a testimony to the extent of the problem. Women play a principal role in rearing children and management of family affairs and their death due to maternal-related causes is a significant social and personal tragedy.

Studies have been carried out in Lusaka and other areas on the prevalence of traditional medicine in pregnancy and labour but no study had been carried out to determine factors that influence use of traditional medicine to precipitate labour by antenatal mothers especially in Mpika district. However, in order to reduce maternal mortality, there is need to address these issues and involve the decision makers at all levels.

### **1.3 FACTORS INFLUENCING USE OF TRADITIONAL MEDICINE TO PRECIPITATE LABOUR BY ANTENATAL MOTHERS**

There are many factors which can influence use of traditional medicine to precipitate labour by antenatal mothers. These factors can be socio- cultural-economic related, service related or labour related and includes the following:-

#### **1.3.1 SOCIO-CULTURAL –ECONOMIC RELATED FACTORS**

**1.3.1.1 Availability of traditional medicine:** - availability of traditional medicine can lead to antenatal mothers having easy access to them. Due to the fact that many herbs are harvested in the bushes which are within their reach, women especially young ones can be easily influenced by their relatives and friends to use them unlike a situation where such herbs are not seen or easily accessed.

**1.3.1.2 Cultural beliefs:** - cultural beliefs can influence antenatal mothers' knowledge and health seeking behavior leading to heavy reliance on traditional medicine and home deliveries. Many women especially in rural areas believe that delay in labour is an indication of infidelity in marriage and the pregnant woman can be taken to task and so is her spouse and hence a woman will ensure that such speculations do not occur by taking the herbs to precipitate labour.

**1.3.1.3 Peer pressure:-** peers can easily influence the antenatal mother to use traditional medicine for fear of being laughed at in case of complications after failing to follow their advice. Most women believe in stories told by friends and if such stories are about favorable outcomes experienced by women who used the traditional medicine in labour, a woman may tend to have a go at it.

1.3.1.4 **Past experience:-** if a mother have had used the traditional medicine before and she had no complications, she may resort to using it again. The pregnant woman will not follow any advice that may be given to discourage her from using the traditional medicine as she may have already experienced it.

1.3.1.5 **Educational level:-** women with little education will be more likely influenced by culture and traditional beliefs. They may not have access to written information on dangers of using traditional medicine in labour.

1.3.1.6 **Age /parity:-** the very young especially primigravida may have limited knowledge on physiology of normal labour and are more likely to be influenced as they may be told on how painful labour is and the consequences of a prolonged labour. The very old and grand multiparous women may also have fears concerning subsequent pregnancies because of their at –risk state communicated to them at the health facility by health care providers. Health care providers may tell them that they are more likely to face complications at delivery and hence will try by all means to avoid such.

1.3.1.7 **Social economic status:-** women of low social economic status may fail to access quality health services and resort to use available resources which may include traditional medicine in home deliveries.

## 1.3.2 SERVICE RELATED FACTORS

1.3.2.1 **Attitude of health workers:-** health workers' negative attitude towards work where they are unable to give proper health education on the dangers of using Traditional medicine to precipitate labour or identifying women who are at risk of using traditional medicine and educating them can lead to high use of traditional medicine by women. Sometimes negative attitude of the health personnel especially when the woman is in labour can lead to the woman resorting to use of traditional medicine as she would want to deliver as soon as possible before being rebuked by a sarcastic health worker.

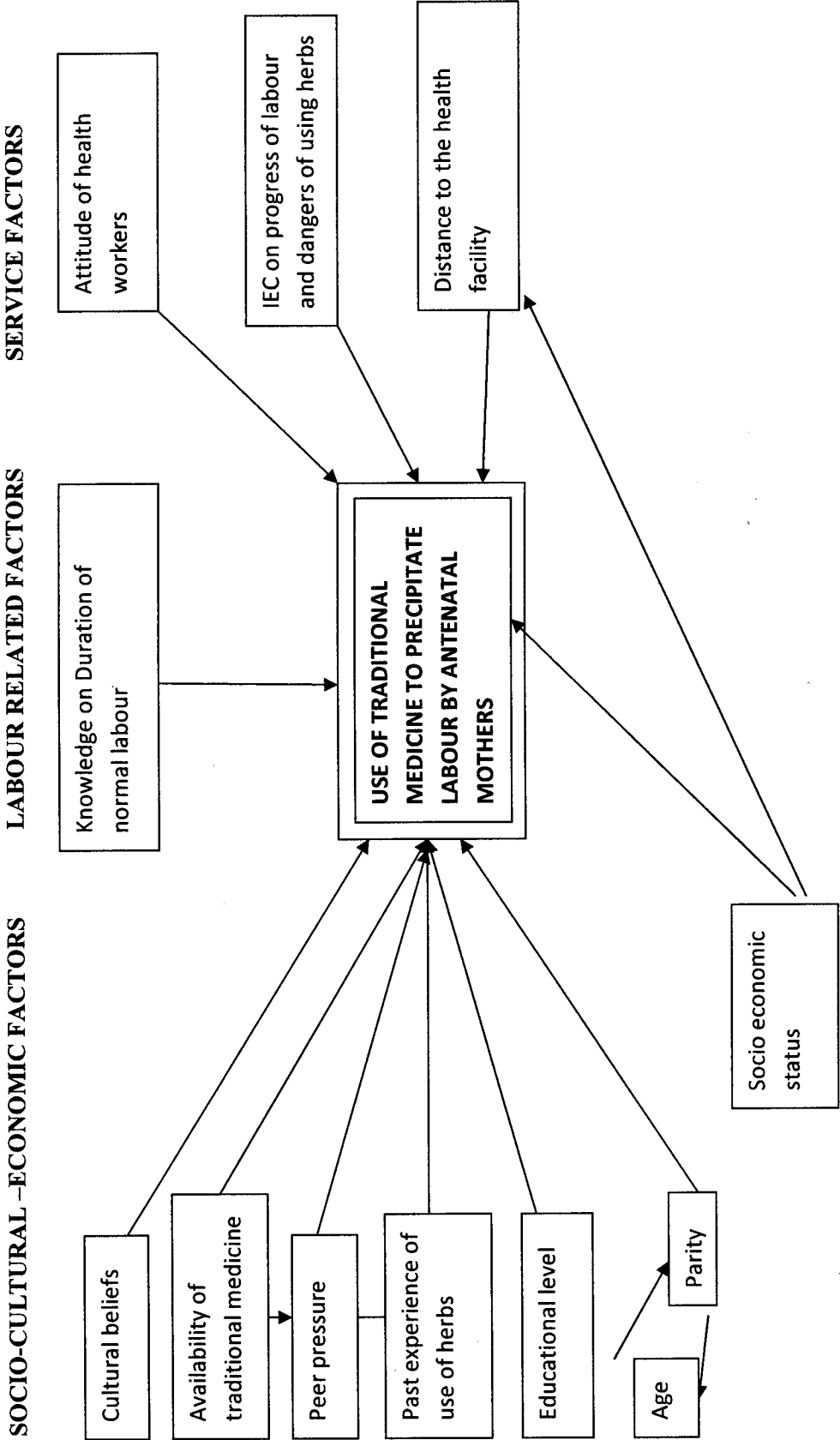
**1.3.2.2 Distance to the health facility:-** long distance to the health facility may lead to women shunning the health facility care services and hence using available resources like traditional birth attendants and traditional medicine. Distance to the health facility can also hinder women from accessing information concerning their pregnancy which is provided during antenatal clinics.

### **1.3.3 LABOUR RELATED FACTORS**

**1.3.3.1 Knowledge on duration of normal labour:-** lack of knowledge on duration of labour and its process can make a woman use traditional medicine especially when labour is seen to prolong. Some women may consider 4 hours to be a long time in labour and hence may resort to use traditional medicine to precipitate labour.

FIGURE: 1.1 PROBLEM ANALYSIS DIAGRAM

1.4 FACTORS INFLUENCING USE OF TRADITIONAL MEDICINE TO PRECIPITATE LABOUR BY ANTENATAL MOTHERS



## **1.5 JUSTIFICATION**

Studies done in Zambia and elsewhere have shown that there is prevalence use of traditional medicine by antenatal mothers especially in rural areas and this has contributed to maternal mortality and neonatal mortality. A study conducted in Lusaka by Banda et al (2007) revealed that 54.9 % knew someone who was given traditional medicine during the current pregnancy and 64.2% would not tell their obstetric care giver if they took herbs. This has also shown the extent and seriousness of the situation. However, despite all the above highlighted gaps, there seems to be limited information on available interventions to reverse the situation. Although some studies have been done on the prevalence use of herbs in Lusaka by Banda et al (2007) and Musonda (1997), there has been no study done on factors that influence use of herbs by antenatal mothers especially in Mpika district which is one of the rural areas where use of herbs could be high due to people's inclination to culture and traditions for such a study could have given recommendations on how to tackle the problem and hence the need for the researcher to carry out the study.

The purpose of study was to identify factors that influence use of Traditional medicine to precipitate labour by antenatal mothers; and use the research findings to discuss with relevant groups and individuals; and coming up with recommendations that will help in preventing women from using the herbs which are in most cases toxic and lead to serious complications thereby contributing to a reduction to both maternal and neonatal deaths. In addition to that, the study helped in determining gaps in as far as knowledge on labour and dangers of use of traditional medicine are concerned and hence recommendations will help in strengthening the health education given to women.

## **1.6 RESEARCH OBJECTIVES**

### **1.6.1 GENERAL OBJECTIVES**

To identify factors that influence use of Traditional Medicine to precipitate labour by antenatal mothers in Mpika District.

## 1.6.2 SPECIFIC OBJECTIVES

1. To identify socio-cultural-economic factors that may influence use of herbs to precipitate labour by antenatal mothers.
2. To establish whether there are services related factors that influence use of herbs to precipitate labour by antenatal mothers.
3. To identify labour related factors that may influence use of herbs to precipitate labour by antenatal mothers.
4. To determine whether there are variations in the type of women who use traditional medicine to precipitate labour or not

## 1.7 HYPOTHESES

1. There is no relationship between use of herbs to precipitate labour and knowledge on progress of normal labour and dangers of using the herbs.
2. Antenatal mothers use traditional medicine to precipitate labour because of inadequate knowledge on progress of normal labour and dangers of using the herbs.

## 1.8 DEFINITION OF TERMS

### 1.8.1 CONCEPTUAL DEFINITION OF TERMS

- 1.8.1.1 **Pregnancy related maternal death** implies the death of a woman while pregnant or within 42 days after termination of pregnancy, irrespective of the cause of death (Oxford Medical Dictionary, 1998).
- 1.8.1.2 **Health facility:-** Health institution which provides health care services to the masses, such as health centre or clinic which is manned by a health personnel (MOH, 2008).
- 1.8.1.3 **Maternal Mortality Rate-** describes death as a result of pregnancy or childbirth and includes the first six weeks of puerperium usually expressed in per 10,000 or 100,000 childbirths and per time unit (Oxford Medical Dictionary, 1998)
- 1.8.1.4 **Quality:-** is the proper performance according to standard (Oxford Advanced Dictionary, 2000).



**1.8.1.5 Traditional birth attendant:** - is a person who assists the mother at child birth and who initially acquired her skills delivering babies by herself or by working with other birth attendants (WHO, 2002).

**1.8.1.6 Precipitate labour:** - when the uterus has contracted vigorously and frequently resulting in duration of labour that is less than 1 hour, then the muscles may have insufficient opportunity to retract (WHO, 2002).

## **1.8.2 OPERATIONAL DEFINITION OF VARIABLES**

**1.8.2.1 Socio-Economic-Demographic factors** – refers to age of mother, marital status, educational level occupation, peer pressure, number of pregnancies and number of children among others.

**1.8.2.2 Cultural factors-** relates to cultural beliefs of mothers on normal labour and use of herbs.

**1.8.2.3 Service related factors** – refers to attitude of health workers towards antenatal mothers, hospital policies restricting full utilization of health services, distance to the health facility and quality of services provided.

**1.8.2.4 Labour related factors-** relate to knowledge of antenatal mothers on duration of normal labour and causes of prolonged labour

**1.8.2.5 Traditional medicine:-** is the sum total of all knowledge and practices whether they can be explained or not, used in the prevention of prolonged labour and other complications that may arise and relying exclusively on practical experience and observation handed over from generation to generation, whether orally or in writing.

1.9    VARIABLES, INDICATORS AND CUT-OFF POINT

	VARIABLES	CUT-OFF POINTS	INDICATORS	QUESTION
Dependent	Use of traditional medicine to precipitate labour by antenatal mothers	YES	If the respondent has used traditional medicine before, knows somebody who used herbs and is willing to use it ag	20, 26
		NO	If the respondent has never used traditional medicine to precipitate labour.	20
independent	Knowledge on normal labour	High level	When respondent is able to score 5-6 out of 7 of the knowledge on normal labour questions	7-9
		Moderate	When respondent is able to score 3-4 out of 7 of the knowledge on normal labour questions	7-9
		Low	When respondent is able to score 1-3 of the knowledge on normal labour questions	7-9
	Knowledge on herbs and dangers of using them	High	When the respondent is able to score 9-11 out of 11 of the knowledge on herbs and dangers of using herbs questions	10-17
		Moderate	When respondent is able to score 5-8 out of 11 of the knowledge on herbs and dangers of using herbs questions	10-17
		Low	When respondent is able to score 1-4 out of 11 of the knowledge on herbs and	10-17

			dangers of using herbs questions	
<b>Independent</b>	<b>cultural beliefs</b>	Good	when respondent is able to score 3-5 out of 5 of the cultural questions	35-38
		Bad	when respondent is able to score 0-2 of the cultural beliefs questions	
	<b>Distance to health facility</b>	Very far	If the mother has to walk for more than 3 hours to reach the health facility	28
		Far	If the mother has to walk 1-3 hours to reach the health facility	28
		Near	If the mother has to walk 31-59 minutes to reach the health facility	28
		Very near	If the mother has to walk less than 30 minutes to reach the health facility	28
	<b>Education level</b>	High	When the mother has reached college or university level	3
		Medium	When the mother has secondary level	3
		Low	When the mother has reached primary level	3
		Very low	When the mother has reached has never been to school	3

	<b>Service delivery</b>	Good	When mother feels there are no rules preventing women from delivering at the health facility, have had attended health talks on both normal labour and dangers of using herbs	31-33
		Fair	When the mother is satisfied with the services but feels women are not treated well, have has attended IEC on either normal labour or dangers of using herbs.	31-33
		Poor	When woman is not satisfied with services, has never attended health talk on normal labour or dangers of using herbs	31-33

## **CHAPTER 2**

### **2.0 LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

Literature review is a key step in research process. It refers to an extensive, exhaustive and systematic examination of publications relevant to the research project (Basavanthappa, 2007). Literature review involves finding, reading, understanding and forming conclusions about published information on a particular topic under study (Treece and Treece, 2001). The types of information for review of literature are conceptual and data based literature (Basavanthappa, 2007). The common sources of literature are books, chapters of books, journal articles, abstracts, critique reviews, abstracts published in conference proceedings, professional and government reports, and unpublished doctoral dissertations and thesis (Basavanthappa, 2007).

The typical purposes for analyzing or reviewing existing literature are to generate research questions, to identify what is known and not known about the topic, to identify conceptual theoretical traditions within the bodies of literature and to describe methods of enquiry used in earlier work including success and short comings (Basavanthappa, 2007).

The literature review focuses on factors influencing use of traditional medicine to precipitate labour by antenatal mothers. Among others, the literature review looks at the socio-economic factors; knowledge on normal labour; knowledge on herbs and dangers of using them; past experiences of labour and use of herbs; services delivery and cultural factors. When focusing on these factors, the global, regional and local perspectives have been considered.

#### **2.2 SOCIO-ECONOMIC FACTORS**

Socio- economic factors primarily influence decision- making on whether to seek care, rather than affecting whether women reach health facility (Lale & Rosalind 2007)

Maternal health care use is reported to vary within developing countries, with most findings showing differences between affluent and poor women and between women living in urban

and rural areas (Magadi & Zulu, 2007). Additionally, factors related to place of residence and socio-economic status may account for variation in use of maternal health care. These factors include women age, education, religion and parity (Wirth, 2007).

**2.2.1 Maternal Age**

Age is often presented as a proxy for accumulated experience, including in the use of health services (Magadi & Zulu, 2007). According to Magadi & Zulu (2007), older women are possibly more confident and influential in household decision making than young women and adolescents in particular. Furthermore, older women may be told by health workers to deliver in a health facility since older age is a biological risk factor. As such, it's likely that older women who are more confident and influential in decision can also decide to deliver from home and use traditional medicine despite being advised to deliver from the health facility. Age is highly correlated with parity and in some settings with educational level. It is also associated with marital status and decision-making power (Reynolds, Wong & Tucker, 2006).

**2.2.2 Marital Status**

Marital status may influence the choice of delivery place, probably via its influence on female autonomy and status or through financial resources (Reynolds, Wong & Tucker, 2006). Single or divorced women may be poorer but enjoy greater autonomy than those currently married. Young single mothers may be cared for by their natal family, which may encourage skilled attendance especially for first birth. On the other hand, single mothers may be stigmatized and prefer to deliver at home because they anticipate a negative provider attention (Duong, Binns & Lee, 2003). Several studies include marital status and find no association with skilled attendance (Letamo & Rkgoasi, 2009) while some find less facility use among married women (Stekelenburg et al, 2004). From these studies, marital status can be said to be a hindrance to seeking skilled attendance as well as a motivator. However, in the context of use of herbs to precipitate labour, marital status influences use in the sense that mothers who may decide to deliver in homes due to the above factors may be predisposed to all kinds of cultural practices which include use of herbs as they are in most cases delivered

by either traditional birth attendants or their relatives who are known to encourage use of herbs to precipitate labour.

### **2.2.3 Mother's Education**

There are multiple pathways that could explain why “maternal education” is consistently and strongly associated with all types of health behavior (Bell, Curts & Alayon, 2003). This include increased knowledge on benefits of the preventive health care and awareness of health services, higher receptivity to new health –related information, socialization to interact with formal services outside the home environment, familiarization with modern medical culture, access to financial resources, more control over resources within the household and wiser spending. According to studies done by Glei & Elo (1992); Navaneethan & Dharmalingan (2002); and Renolds, Wong & Turker (2006), Education also reflects a woman's childhood background, including familiarity with health services and certain beliefs and norms. These studies can help us to understand the fact that women with minimum education can readily be influenced by their friends to use herbs to precipitate labour because they may have limited knowledge on the benefits of utilizing health facilities and may not be receptive to new ideas including health education on dangers of using the herbs.

### **2.2.4 Mother's Occupation**

Women who are working, earning money may be able to save and decide to spend on facility delivery. However, in many settings, women either do not earn money for their work or do not control what they earn. Relatively, few studies include women's occupation. Several find that farming women are less likely to have skilled attendance at delivery than those in other occupations (Nwakoby, 2004; Addai 2005). This may stem from limited financial resources and health services in rural areas. As such, since occupation of women can influence their decisions on place of delivery, it can be said that women like farming women who are less likely to have skilled attendance as highlighted above are more likely to deliver in homes where use of herbs is common.

A number of studies do not find that formally employed women are more likely to use delivery services, while others find that formally employed women are more likely to use delivery services. In two southern Indian states (Navaneethan & Dharmalingan, 2002) and in

Nepal (Chowdhury et al, 2007) however, working women are less likely to use services than non working women. In all these settings, access to health facility is very important as lack of it can lead to women utilizing available resources which may include use of herbs to precipitate labour in home deliveries.

## **2.3 KNOWLEDGE ON NORMAL LABOUR**

There are so many variables during childbirth, such that it's hard to say what is "normal." Some women can walk around quite happy and pain free while they are 4-5 cm dilated while some women push for hours (shmek 2007). The reaction of women to labour differs from an individual to another (Darwisya, 2006).

According to World Health Organization (WHO) criteria, normal labour is defined as "spontaneous onset of labour, low-risk at the start of labour and remaining so throughout labour and delivery. The infant is born spontaneously in the vertex position between 37 and 42 completed weeks of pregnancy. After birth, the mother and infant are in good condition" (WHO, 1996). Basing on this definition of normal labour, we can say that the use of traditional medicine to precipitate labour should be avoided as labour is supposed to commence on its own and since in most cases taking too much of the herbs can lead to complications like ruptured uterus.

Nonetheless, most women especially in rural areas don't know what normal labour is and how long it should last (DISH, 2000). According to Kasolo & Ampaire (2000), many women especially in rural areas use traditional medicine to quicken the progress of labour with a view to spending as few hours as possible at the health facility.

Niven and Gijbers (2007) conducted a study on obstetric and non obstetric factors related to labour pain. In their study, the pain associated with childbirth was rated by 104 women during the first stage of labour and 24-48hrs after delivery. The nature of pain was analyzed in terms of a number of obstetrics and non-obstetric factors many of which affected the women's perception of pain. Parity, duration of second stage of labour, artificial rupture of membranes expectation of labour, use of herbs; desirability of pregnancy and the stressfulness of the birth were all associated with variation in the intensity of labour pain. Age, social class, miscarriage, duration of the first stage of labour, African syntocinon



(herbs) use and presence of the husband at the birth was not significantly related to the intensity of labour pain. This is contrary to other studies which stated that use of herbs can lead to severe pain and other complications. However, this study did not indicate the herbs used and their toxicity.

## **2.4 KNOWLEDGE ON HERBS AND DANGERS OF USING THEM**

Native cultures all over the world have traditionally used herbs to maintain health and treat illness (Ergil & Kramer, 2004). The Global Conference on the role of Traditional Medicine in Reproductive Health which met on July 28, 2005 in Geneva made the following proclamations; that in order for traditional medicine to thrive for the benefit of mankind, traditional healing practices and researchers must be guaranteed to all people by states, governments and indigenous governments alike, that traditional healing practices and conventional medicine practices must be recognized in parallel and not integrated into one another and that each indigenous nation must claim control over their knowledge through indigenous science and research, to extend traditional knowledge for the benefit of each other (WHO, 2006).

From these proclamations, it can be appreciated that the role of traditional medicine and practices especially in reproductive health has been recognized. This recognition can be attributed to the fact that some mothers are able to communicate use of herbs to health care providers especially when complications arise. Condemning indigenous medicine because they are different from modern medicine would not be wise. Culture and alternative practices must be important for psychological health and should therefore be recognized when appropriate (WHO, 2002).

However, according to WHO (1993) report, most medical personnel consider the use of traditional medicine in child birth as harmful and condemn the practice. Cases have been reported of women coming to the hospital with tonic uterine contractions or even ruptured uterus after having taken too much of certain herbs. Such practices are harmful and attempts should be made to modify or eliminate them (WHO, 1993).

Nonetheless, many countries world wide use traditional medicine despite their dangerous effects. According to Mardiros (2001), one of the components of PHC for Canada's

indigenous people is the utilization of traditional ethno medicine and the recognition of the important role of traditional practitioners in Indian society.

A study done by Sutieyla & Zsoy (2003), in Turkey and Iran, two Middle Eastern countries, revealed that some traditional practices are still used, although in both countries, a number of contemporary practices and medicines have replaced them. Some of the traditional practices were; pressing the abdomen for women in labour and use of herbs which women drinks and bath in to precipitate labour.

Traditional remedies are part of the cultural and religion life of African people (Simmonds & Smith, 2001). While not addressed as frequently in the literature, the safety of herbal medicines in under developed countries is also a major concern. In South Africa, it is estimated that between 60% of the native population use traditional medicines usually in combination with modern medicine (Stewart, Steenkamp & Zuckerman, 2005). Cases of acute poisoning by traditional medicine are not uncommon, many of which have resulted in significant morbidity and mortality (Thomson, 2005). Therefore, it is important that women are advised on the dangers of using traditional medicine since some may be given wrong herbs which may be toxic to both the mother and the fetus since there is no provision to measure there toxicity.

According to Joy Veale (1992) a lecturer in Pharmacology at the University of Witwatersrand, there are about 36 plants in South Africa used to induce labour of which 15 are toxic. The toxicity tests for these herbs were carried at the University of Witwatersrand and hence it can be concluded that most of the women who use these herbs do not know their toxicity. Mabina M (1998) also revealed that African –traditional herbal medication is commonly used in pregnancy by women attending King Edward VIII Hospital in Dubai. She further documented that use of traditional medicine in pregnancy especially in labour can lead to fetal and maternal distress affecting the pregnancy outcome.

To induce labour or stimulate contractions in prolonged labour, several herbs are available and the therapeutic effects of several South African plants have been tested (Kaido et al, 1997 and Varga and Veale, 1997). However, some studies, especially among the Zulu and Xhosa population of South Africa, revealed harmful effects and complications during labour

(Mabina, et al 1997 and Varga and Veale, 1997). According to Mabina et al (1997), the Kgaba remedy the Tswana use is based on mixture of plants and minerals that can vary among traditional healers several of these plants are poisonous while others are not tested or officially documented. The above findings shows that despite the fact that traditional medicines like Kgaba are often used by pregnant women in South Africa for various reasons which among them are to induce and precipitate labour, they have harmful effects and the fact that their combinations are not officially documented is a source of worry.

Bullough and Leary also carried out a study on 116 maternal deaths in Central Region of Malawi in 1994. This study revealed that 7 deaths were suspected to have been caused by herbal medicines although in no case was the medicine identified. They also reported that there is a prevalent belief in Malawi that some medicine used during home delivery is oxytoxic in action and that to some extent responsible for high rate of ruptured uterus. The other revelation from Bullough and Leary study was that all of the medicines given by TBAs are made from roots, bark or leaves of locally available flowering plants. This study brought out the fact that use of traditional medicine can contribute to maternal mortality and ruptured uterus. It has also brought to our attention the fact that TBAs participates in giving out these traditional medicine to pregnant women in most cases.

In Zambia, traditional medicine has been practiced for centuries and is still widely used by Zambian people. Childbirth in Zambia is a branch of traditional medicine (Maimbolwa, 2004). Modern medicine has often demonstrated skepticism towards traditional health care, which has been called quackery and witchcraft (Lilgestrom et al, 1998).

In the late nineteenth century, Zambia was colonized by Britain. The introduction of modern medicine was accompanied by official disapproval and discouragement of traditional medicine which assumed low status (Twumasi, 1994).

Banda Y. et al, (2007), conducted a study among pregnant women in Lusaka to study the prevalence of and predictors for traditional medicine use among pregnant women seeking care in Lusaka, Zambia public health system. The results were that of the 1128 women enrolled, 335 (30%) reported visiting a traditional healer in the past; 237 (21 %) reported using traditional healers during the current pregnancy. overall, 54% believed that admitting

to a visit to a traditional healer would result in worse medical care. Other information revealed was that 54.9 % knew anyone who was given traditional medicine during pregnancy by the family, 64.2% would not tell their obstetric care giver if they took herbs and 57% thought that telling their obstetric care providers that they used traditional medicine would affect the care given. The conclusion of this study was that; use of traditional medicine during pregnancy is common. As such, health care providers must open lines of communication with traditional healers and with pregnant women themselves to maximize program success. The study also reiterated the importance of recognizing and directly addressing the use of traditional medicine during antenatal care & labour. This probably could mean that it's not only in rural settings where herbs are being used.

Another study conducted in Zambia by Musonda (1997) on prevalence of the use of traditional medicine in Home deliveries in Lusaka, revealed that the majority of the respondents 46% knew that there are dangers in using traditional medicine, 28% stated that there are no dangers in using traditional medicine while 21% did not know of effects of traditional medicine on child birth, 32% stated that traditional medicine can kill both the mother and baby during delivery, 22% stated that it is useful when used during delivery and 20% stated that it can kill the fetus before it is born.

It is a well known practice in Zambian community, that women take traditional medicine of some sort in connection with child birth (Maimbolwa, 2004). Furthermore, many people generally combine modern and traditional medicine to complement each other (CSO, 2001). What is not so well known, however is what women take and what the actual pharmacological effects of these "traditional medicine" are.

## **2.5 PAST EXPERIENCE OF LABOUR AND USE OF HERBS**

Most obstetric complications occur around the delivery period and often can not be predicted. Therefore, skilled attendance at delivery and access to emergency obstetric and neonatal care are crucial for decreasing maternal mortality and neonatal mortality (Lema, Marca et al, 2006).

In her study on previous delivery service use, Weed (2004), revealed that women who delivered with a skilled attendant previously become familiar with this setting, which may

make them more likely to use it again. Also most women who used traditional herbs previously are likely to use them again (Weed, 2004). Naturally, the same determinants that played a role for previous use are likely to influence present use.

In another study conducted by Lust (1999) in Australia, it was revealed that complications experienced during previous delivery and loss of the newborn can make women aware of the dangers of childbirth and the benefits of skilled interventions and thus make them use skilled attendance during deliveries. Furthermore, the study revealed that women with specific medical interventions in previous delivery e.g C/section will be encouraged by health workers to seek skilled care for subsequent deliveries since there is increased risk for rupture with a scarred uterus. Complications during an attempted home delivery often influence women and their families to seek professional care, even though the original intention was to deliver at home. It further revealed that a precipitate labour may mean a woman intending to deliver in a health facility ends up delivering at home or on the way. The two studies revealed to a large extent that past experience of utilization of health facility, use of herbs and complications experienced during labour can affect the decisions made by a woman in her current pregnancy as far as these issues are concerned.

Hoffmann (2003) documented some experiences of some pregnant women on the efficacy of herbs. Among others, one woman who started using 'Evening Prime Rose' (an herbal remedy to precipitate labour) at 38 weeks had this to say "I delivered a beautiful baby boy on Sunday- a day before my due date. It was my easiest delivery and fastest recovery. No IV's were needed, no pain medication of any kind- this is my sixth delivery and I have had all kinds, so I know what I'm talking about". Another woman had this to say "I used traditional herbs to precipitate labour for the first two and decided not to bother with my third, but ended up wishing I had"! (Hoffmann, 2003).

From the two experiences of women, we can deduce the fact that some women who have had used traditional medicine to precipitate labour before have no regrets whatsoever and are willing to use the herbs again. This is an indication that past experience of labour has some effects on the use of the herbs.

## 2.6 SERVICE DELIVERY

Midwives are important care givers for pregnant women and should strive to give evidence based advice on herbal use in pregnancy. If traditional –use is the only available information, the pregnant woman should be made aware of this to enable her make an informed decision about the eventual use (Belew, 2003). According to Caddick (2000), we in the health profession can not say that herbs and plants are not any good. All we can tell our patients is- there's never been any financial incentive to study these things, and therefore, we can not advise them on one way or the other.

Skilled attendance at childbirth is crucial for decreasing maternal and neonatal mortality, yet many women in low and middle –income countries deliver outside of health facilities without skilled help (Sabine & Oona 2006). In a study conducted by Sabina and Oona (2006) on Factors influencing home deliveries, it showed ample evidence that higher maternal age, education and household wealth and low parity increase use of health facilities as does urban residence. It further revealed that facility use in the previous delivery and antenatal care use are also highly predictive of health facility use for index delivery, though this may be due to confounding by service availability and other factors. The same study also revealed that obstetric complications also increase use of health facilities. On the other hand, distance to health facilities decrease use.

Distance to health services exerts a dual influence on use as a disincentive to seeking care in the first place and as an actual obstacle to reaching care after a decision has been made to seek it (Sabine et al, 2006). Many pregnant women do not even attempt to reach a facility for delivery since walking many kilometers is difficult in labour and impossible if labour starts at night and transport means are often unavailable. Those trying to reach a far- off facility often fail and women with serious complications may die en route (Sabine et al, 2006). Women failing to reach the health facility because of long distance may end up delivering in homes where use of herbs is common.

In another study conducted by Sabine et al (2006), in Peru on 'Cultural adaptation of birthing services in rural Ayacucho, Peru, it was discovered that maternal mortality is particularly high among poor, indigenous women in rural Peru, and use of facility care is low, partly due

to cultural insensitivities of health care systems. From this, we can learn that implementing a model of skilled delivery attendance that integrates modern medical and traditional practices or medicine is feasible and sustainable. Indigenous women with little formal education do use delivery services if their needs are met. This contradicts common victim-blaming attitudes that ascribe high levels of home deliveries to cultural preferences or ignorance.

Another study conducted in Vietnam by Midhet, Becker & Brenda (1998) revealed that traditional medicines along with western medicines were generally dispensed by the midwives in addition to providing pre and post- natal care and carrying out a number of services for families who visit the commune stations.

A similar study by David W. (1999) in Mexico also revealed that traditional practitioners tend to integrate traditional healing and herbal medicine with modern medicine, preventive care and community health promotion (WHO/RM: 1995). The two studies have brought to light the fact that many nations have seen the effectiveness of using traditional medicine in combination with modern medicine. As such, it may be very difficult to detach people especially women from using them.

A study conducted by Rolanda V. (2001) on Traditional Medicine in late pregnancy and labour; perception of KGABA remedies amongst the Tswana in South Africa revealed that most black women use antenatal services and deliver in clinics, and a considerable number complement this use of formal health services with traditional medicine. Jewkes, et al (1998) also revealed that about 60% of South African women use traditional medicine during pregnancy. He further went on to say; "in pregnancy, herbs are normally used orally on a regular basis as tonic to clean the womb, to attain an easy and quick delivery and in order to protect the child from evil and to have a healthy child"(Goncalves, 2001). Other factors underlying the use of traditional medicine have been identified as social pressure, dissatisfaction with the behavior of clinic staff, reluctance of clinic staff to give drugs and lack of privacy within the clinic environment (Jewkes et al 1998 and Abraham et al, 2002). These studies have shown the extent to which traditional medicine is used in South Africa and what make people especially women use them. Despite this continued use of traditional medicine by women in South, some studies have indicated that many of the herbs used are toxic.

In another study carried out by Kasolo & Ampaire on behalf of Delivery of Improved Services for Health 1 (DISH 1) Project in Nairobi, Kenya, it was revealed that there are many traditional practices surrounding pregnancy and child birth which prevent women from attending antenatal care or delivering at health facilities. Men and women strongly believe in local herbs which they bathe in drink or sit in during pregnancy, child birth and immediately after birth.

Quezada A. (2002) conducted a study in Botswana on indigenous women perception of Hospital Deliveries. In his study, it was discovered that indigenous women prefer traditional midwives because they share the same background, values and beliefs and they feel understood and respected by them.

On the other hand, indigenous women dislike giving birth in clinics or hospitals because they feel that the professionals don't know their habits and values, and they believe that they run the risk of being operated on or sterilized without consent. This can explain why there is need for serious health education to women especially when it comes to dangers of home deliveries. The modern maternity care introduced in many African countries focuses on technology based interventions; less attention has been paid to understand women's social background and cultural contexts in which maternity care is provided (Abour Zach et al, 1996). Cultural and alternative practices might be important for psychological health and should therefore be encouraged when appropriate (WHO, 2002).

However, a maternal mortality study carried out in Zambia by Ministry of Health (MOH) revealed that 18% of women of reproductive age (12-50 years) died from pregnancy related and child bearing complications. Nearly two-thirds of those who died delivered at home, assisted by relatives (MOH) Central Board of Health (CBOH), 1998). It is assumed that home delivery is associated with use of herbs because women are free to use them unlike in hospital where health workers may discourage them.

According to ZDHS, 2007, 94% of women received Antenatal care from skilled health personnel, of those, half of births (52%) occurred at home and Northern Province had the lowest number of hospital deliveries at 25% (CSO, 2007). Increasing the number of births delivered in health facility is an important factor in reducing deaths arising from



complication of pregnancy. The expectation is that if a complication arises during delivery, a skilled health worker can manage the complication and /or refer the mother to the next level.

## **2.7 CULTURAL FACTORS**

Kasolo and Ampaire conducted a study in Uganda in 2000 which was named DISH II. This project looked at factors influencing use of health care facilities. The study brought out the fact that women produce children not for themselves but for the clan. Therefore, it is important that she produces a child in good health that has a father and will be a responsible citizen. This belief forces women to accept whatever the husband or in-laws say or offer which may include traditional medicine because the woman does not want to be accused of carrying another man's child. In some cases, pregnant women work in fields until they get labour pains. When labour starts, they do not have enough time to prepare. They need to get someone to stay with the older children and look after the husband before they go to the health facility to deliver. As such, they find it more convenient to deliver at home and this is where they are exposed to all kinds of traditional practices and medicines. The findings of Kasolo's study corresponds with those from South Africa, hence, it's an indication that people share certain beliefs and practices. The findings of this study may also explain why there is an increase in home deliveries especially in rural areas.

In another study conducted by Okocha et al, 1998) on social cultural factors in maternal morbidity and mortality in a semi-urban community in Southern Nigeria, the study findings indicated that people had clear ideas about what constitute haemorrhage and its occurrence at any time during pregnancy, delivery and postpartum. About 10 causes of haemorrhage were identified. Causes such as consumption of sweet foods, evil forces, indulgence and fate could not be treated by modern medicine. People believed in both traditional and modern obstetric practices. Women routinely visited traditional healers during pregnancy when there were no complications. TBAs viewed themselves as skilled and capable of handling all conditions and were unwilling to refer patients to modern health facilities. This could mean that there are misconceptions on issues concerning pregnancy, labour and delivery. As a result of their self confidence, TBAs can encourage a woman to take traditional medicine when it is discovered that a woman is having complications in labour.

Maimbolwa, (2004) in a study on views about social support in Zambia maternity facilities; revealed that health workers and some mothers suspected and feared that female relatives would bring, "Traditional Medicine" mainly intended to shorten the labour, if they were allowed to provide social support in labour wards. The majority of the social support women were aware of on-going Zambian tradition of childbirth practices and beliefs. Half of them who considered themselves as traditional birth assistants (Mbusas) advised the pregnant woman on the use of traditional medicine and sexual relation during pregnancy. Newly delivered mothers expressed a desire for having a supporting person present during labour to provide emotional and practical support. Those who were not in favor of the idea gave reasons such as; relatives would interfere with the care provided. Health care staff cited hospital policy and administration of traditional medicine as reasons for not allowing a social support person to stay with a laboring woman. This could mean that those with women support persons are more likely to use herbs during labour.

## **2.8 CONCLUSION**

The Literature review has revealed that traditional medicine is used in many countries by pregnant women to induce and precipitate labour. In most cases, TBAs who are utilized most when it comes to home deliveries have a big influence on women and they are sometimes involved in advising women on the use of traditional medicine. Literature review has also shown that in many countries, the role of traditional practices and medicines has been identified and hence, women use traditional medicine in combination with modern medicine.

However, it is discovered that many women use traditional medicine in pregnancy and labour without knowing their adverse effects. This has lead to complications like fetal and maternal distress and subsequent maternal and fetal deaths thereby contributing to the ever increasing maternal mortality and fetal deaths.

In Zambia, most studies evaluated the use of traditional herbs by pregnant women. However, no study has been done in Mpika District to identify factors influencing use of herbs by pregnant women.

## **CHAPTER 3**

### **3.0 RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

Research methodology refers to the development of research instruments and methods used in research investigation (Polit & Hungler, 2007). It is a broad term involving all strategies that describe how, when and where data is to be collected and analyzed. This chapter describes the research methodology that was used in the study. The purpose of the study was to identify factors that influence use of traditional medicine to precipitate labour by antenatal mothers in Mpika District.

#### **3.2 RESEARCH DESIGN**

A research design is a plan, structure and strategy of investigations of answering the research question (Basavanthappa, 2007). The two basic purposes of the research design are; to provide answers to research questions and to control variance. In this study, the researcher used a descriptive, quantitative and cross sectional survey. A descriptive design is a non-experimental research designed to discover new meaning and to provide new knowledge when very little is known about a phenomenon of interest and involves a systematic collection and presentation of data to give a clear picture of a particular situation (Dempsey and Dempsey, 2001). Quantitative research is a formal, objective systematic process to describe, test relationships, and examine cause and effect interaction among variables (Basavanthappa, 2007). It is based on the measurement of quantity or amount and it is applicable to phenomenon that can be exposed in terms of quantity. On the other hand, cross sectional survey is a design which is aimed at quantifying the distribution of certain variables in a study population at one point in time (Sweeney and Olivieri, 1999).

The descriptive design was chosen because the study described the factors which influence use of traditional medicine to precipitate labour by antenatal mothers. The quantitative design was also used because the subject's responses were quantified and objectively measured. In addition to that a cross sectional design was used because data from subjects was collected

at one point in time and there might be no need to go back to the same subjects or study setting to get the same data. This type of design was appropriate because it is less expensive as respondents remained in their natural environment and it was also less time consuming considering the limited time in which the study was carried out.

**3.3 RESEARCH SETTING**

Research setting is a place or area where the research study will be conducted (Basavanthappa, 2007). The research was conducted in 5 Health centres within Mpika District which is situated in Northern Province of Zambia. The district covers about 41,000 square kilometer and lies between 600m and 1500m above sea level. It is vast and the biggest district in Northern Province. The vastness of the district compounded with the rough terrain makes the accessibility to health services very difficult to Mpika community (Mpika DHMT 2008-2010 Action Plan)

According to CSO (2000), Mpika district has a total population of 147,000 with annual growth rate of 1.7. Like any other rural district in Zambia, about 70% of the population lives in rural areas and 30% live in the peri urban parts of the district. People live in scattered villages, townships and compounds which makes accessibility to health facilities difficult (Mpika DHMT 2008-2010 Action Plan).

There are twenty (20) health centres in Mpika with one district hospital and one mission hospital. My research setting comprised of five health centres which are; Mpepo RHC, Chikakala RHC, Mpika Urban, Lukulu RHC and Mpumba RHC. These centres were selected by simple random sampling. Though not adequately staffed, all the health centres offer maternal and child health services in addition to other curative, promotive and preventive health services.

**3.4 STUDY POPULATION**

The study population is the total group of individual people or things meeting the designated interest to the researcher (Basavanthappa, 2007). The target population is the entire population in which the researcher is interested in and to which he /she would like to generalize the results of the study (Polit and Hungler, 2007). The accessible population is the

population of people available for a particular study, often a random subset of the target population (Polit & Hungler, 2007). The study population for this study consisted of all antenatal mothers in Mpika District, target population consisted of antenatal mothers between the ages of 15-49 years in Mpika District, while the accessible population was, antenatal mothers between 15- 49 years in 5 health centers in Mpika district.

### **3.5 SAMPLE SELECTION**

Sample selection is the process of obtaining information about an entire population by examining only a part of it (Basavanthappa, 2007).

In this study, the researcher used a probability sampling method called simple random sampling using the lottery technique to select the sample. On each antenatal day, pregnant women from within the selected clinics were given numbers and then these numbers were put in a box and shaken. The numbers were picked at random from the box to allow chance for every member to participate in the study. The women whose numbers were picked were the ones who were included in the study population. In each clinic, at least 5 people were selected on each antenatal clinic day and a total of 10 mothers were selected in two separate days per clinic.

#### **3.5.1 Inclusion Criteria**

The inclusion criterion which is also known as eligibility criteria is defined as the criterion that specifies the characteristics of the population (Basavanthappa, 2007). The inclusion criteria consisted of antenatal mothers between the ages of 15- 49 years in five centers in Mpika District. The group was selected because they were antenatal mothers and within the child bearing age who were more likely to be vulnerable to use of traditional medicine to precipitate labour. In each health centre 10 antenatal mothers who picked numbers randomly were included in the study.

#### **3.5.2 Exclusion Criteria**

Exclusive Criterion is defined as a population that does not possess the characteristics (Basavanthappa, 2007). In this study, antenatal mothers who were less than 15 years old were excluded because they needed someone to sign consent for them and so were mothers who

were mentally challenged as they were less likely to cooperate and give genuine answers. Others excluded were those who picked numbers which were not considered for the study.

Mothers who were less than 15 years were excluded because they needed somebody to sign consent for them and so were mothers who were mentally disturbed as they were less likely to cooperate and give genuine answers.

### **3.6 SAMPLE SIZE**

Sample size is a small part of the population selected in such a way that the individuals in the sample represent as near as possible the characteristics of the population (Dempsey and Dempsey, 2001). In this study, a sample size of 50 participants from the five selected health centres was randomly selected because of limited resources and time in which the study was to be conducted and submitted to the Department of Nursing Sciences.

### **3.7 DATA COLLECTION TOOL**

A data collection tool is an instrument that is used to measure variables and gather information. It is the formal written document used to collect and record information, such as a questionnaire (Polit and Hungler, 2007).

An interview schedule was used to collect data. An interview schedule is an instrument of gathering self-report information, which is formally written (Polit and Hungler, 2007). The interview schedule consisted of questions in which the wording of both the questions and response alternatives were predetermined. The interview schedule contained questions on all the variables under study and was divided into 6 sections.

This data collection tool was chosen because of the following advantages:

- (i) It could be used on both the literate and illiterate.
- (ii) Responses could be obtained from a wide range of subjects
- (iii) Non-verbal behavior and mannerisms could be observed
- (iv) Questions could be clarified if they are misunderstood
- (v) In-depth responses could be obtained.

- (vi) The interviewer has an opportunity to observe the environment during the interview.

Disadvantages to the method include:

- (i) Training programmes are needed for interviewers
- (ii) Interviews are time consuming and expensive
- (iii) Arrangements for interviews may be difficult to make
- (iv) Subjects may provide socially acceptable responses
- (v) Interviews may misinterpret non-verbal behavior

### **3.8 DATA COLLECTION TECHNIQUE**

Data collection Techniques is the process of gathering needed information to address a research problem (Polit and Hungler, 2007). To gather the needed information from the respondents, the researcher started by introducing himself and getting permission from the health worker on duty and asked for a private room where respondents were interviewed from. The researcher then introduced himself to the respondents and the purpose of the study was explained carefully to the respondents. The respondents were assured of confidentiality by explaining to them that no other person at the health centre will be given the information collected from them and that their names were not going to appear anywhere on the questionnaire. Apart from that, they were told that all the filled in interview schedules were going to be properly secured by the interviewer. Verbal consents were obtained from them. In the private room, the interviewer repeated to the respondent the introduction, purpose of the study and verbal consent. Instructions were read and so were the questions of which the respondent was asked to answer truthfully. After the questions were answered, the interviewer thanked the respondent for the participation and another participant was called in.

### **3.9 VALIDITY**

Validity is the ability of data gathering instrument to measure what it intended to measure (Dempsey and Dempsey, 2001). In this study, the researcher ensured validity by employing strategies that dealt with threats to validity like appropriate selection of study design, random selection of study participants, and use of a pilot study to pre-test the research instruments.

In addition to that, same questions which were clearly constructed to avoid ambiguity were asked to each respondent in the same sequence.

**3.9 RELIABILITY**

Reliability in quantitative research is the stability of a measuring instrument over time. It is how well the measuring instrument will produce the same information each time it is used (Dempsey and Dempsey, 2001). This means that the instrument used should be able to bring out the accurate information even when it is used after some time. Reliability of the study was measured by testing the research tools before the main study through a pilot study which was done in a similar environment with similar characteristics.

**3.11 PILOT STUDY**

A pilot study is a small-scale dress rehearsal that proceeds as if it were the actual study except for the fact, that subjects who will participate in the actual study are not used (Basavanthappa, 2007). The primary objective of the pilot study is to test as many elements of the research proposal as possible in order to correct any part that does not work properly. The study will test validity and reliability of the instrument in order to detect and solve any detected problem. The researcher conducted the pilot study at Chilonga Mission Hospital and a sample size of 5 respondents was selected by random sampling. The 5 respondents selected represented 10% of the 50 respondents which is the sample size of the actual study. After conducting a pilot study, the researcher made some changes in the approach as far as obtaining consent was concerned. The researcher resorted to asking for verbal consent instead of written consent which many women did not understand while others refused to put their figure prints on.

**3.12 ETHICAL CONSIDERATION**

Ethics are a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal and social obligations to the study participants. As such, before conducting the study, the researcher requested for permission from supervisor to get ethical clearance. After that, permission was sought from the Provincial Director, District Director, in-charges of the 5 health centres which were part of my study



setting and other key leaders like village headmen where the study was conducted from. After that, permission was sought from all participants by means of verbal consent. The completed interview schedules were kept under strict security to avoid unauthorized access to the information gathered; I also ensured anonymity and confidentiality during the interview by ensuring that codes were used instead of names and that each respondent was interviewed separately from others in a private room.

## **CHAPTER FOUR**

### **4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS**

#### **4.1 INTRODUCTION**

In this chapter the investigator discusses the analysis and presentation of findings of the study. The aim of the study was to identify factors influencing use of traditional medicine to precipitate labour by antenatal mothers in Mpika District. Data was collected from 50 antenatal mothers in 5 health centres in Mpika District by use of a structured questionnaire.

#### **4.2 DATA ANALYSIS**

Data analysis is the systematic organization and synthesis of research data, and the testing of research hypothesis using those data (Polit and Hungler, 2007).

The raw data that was collected was sorted out and then grouped into categories. The questionnaires were edited for completeness, uniformity, accuracy and consistency after which data was coded. The responses from closed-ended questions were entered on the data master sheet while responses from open ended questions were categorized in different groups and then coded after which the data was entered on the data master sheet. The analysis of data was done manually using a scientific calculator.

#### **4.3 PRESENTATION OF FINDINGS**

The findings of the study are presented in frequency tables, percentages, cross tabulation, bar graphs and pie charts. The use of graphs and bar charts in the presentation of the research findings made the work presentable and easily understood by the readers of the research study.

The frequency tables summarize the results of the study in a way that enable readers to be able to understand the findings of the research study. Cross tabulation of the variables helped to show clearly the relationship between variables and then the researcher was be able to draw meaningful inferences.

4.3.2 SECTION B: KNOWLEDGE ON NORMAL LABOUR

TABLE 4.2 RESPONDENT’S KNOWLEDGE ON DURATION OF NORMAL LABOUR (n=50)

VARIABLE	FREQUENCY	PERCENTAGE
How long should normal labour last		
1-3 hours	14	28
4-6 hours	8	16
7-12 hours	10	20
13-18 hours	11	22
19- 24 hours	7	14
TOTAL	50	100

Table 4.2 indicates that about 44% of the respondents have had limited knowledge on duration of normal labour as only 22% of respondents could state the normal duration of normal labour.

TABLE 4.3 RESPONDENTS’ RESPONSES ON WHEN LABOUR IS CONSIDERED TO BE PROLONGED (n=50)

When labour is considered to be prolonged	FREQUENCY	PERCENTAGE
After 1 hour	1	2
After 2 hours	8	16
After 3 hours	11	22
After 18 hours	22	44
After 24 hours	8	16
TOTAL	50	100

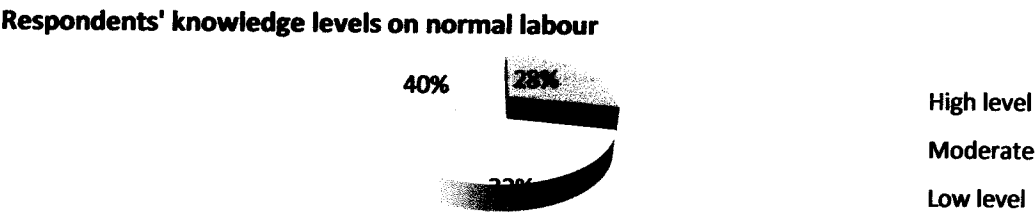
Most (44%) of respondents considered labour to be prolonged after 18hours, while 22% considered it to be prolonged after 3 hours.

**TABLE 4.4 RESPONDENTS' RESPONSES ON WHAT COULD CAUSE DELAY IN LABOUR (n=50)**

What could cause delay in labour	FREQUENCY	PERCENTAGE
Big baby	22	44
Mother's laziness	36	72
infidelity	30	60
Mother's illness	21	42
Small mother	8	16
Don't know	2	4
Total does not add up to 100 due to multiple responses		

Majority (72%) of the respondents stated that mother's laziness could cause delay in labour while 60% believed that infidelity could cause delay in labour.

**FIGURE 4.1 RESPONDENTS' KNOWLEDGE ON NOMAL LABOUR (n=50)**



Most (40%) of the respondent had low level of knowledge on normal labour, while 28% had high level of knowledge.

4.3.3 SECTION C: KNOWLEDGE ON HERBS AND DANGERS OF USING THEM

TABLE 4.5 RECONDENTS' KNOWLEDGE ON HERBS USED TO PRECIPITATE LABOUR (n=50)

VARIABLE	FREQUENCY	PERCENTAGE
Knowledge of traditional medicine used to precipitate labour		
YES	26	52
NO	24	48
TOTAL	50	100

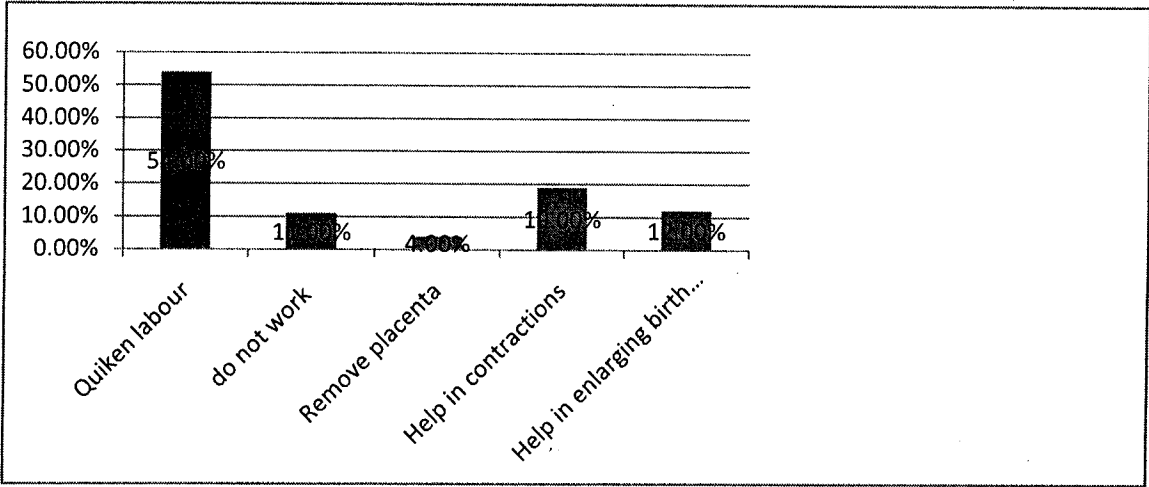
Slightly above half (52%) of the respondents knew some traditional medicine used to precipitate labour.

TABLE 4.6 RESPONDENTS' KNOWLEDGE ON THE TYPES OF HERBS USED TO PRECIPITATE LABOUR (n=26)

Type of traditional medicine known by respondents	FREQUENCY (n=26)	PERCENTAGE
Roots	21	81
Powdered bark	1	4
Powdered leaves	4	15.
TOTAL	26	100

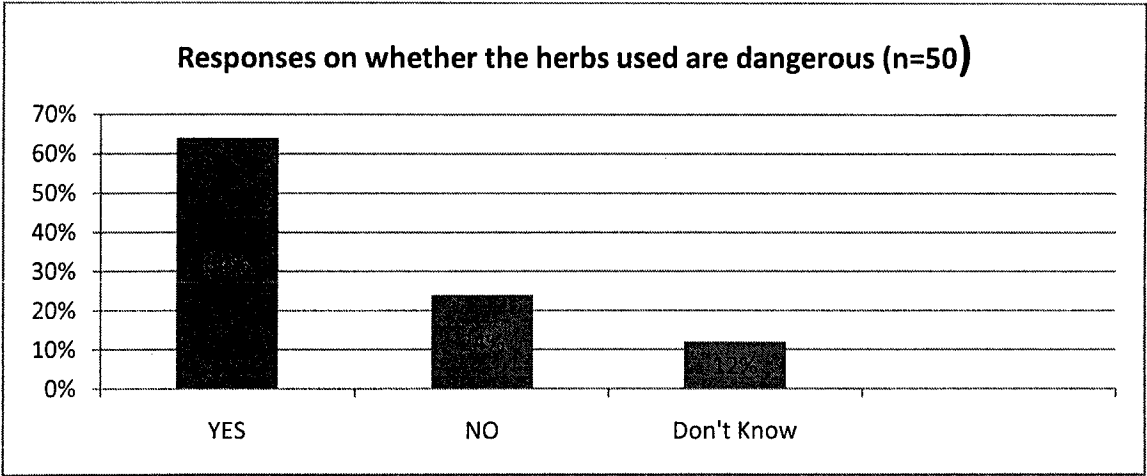
Of the 26 respondents who knew the traditional medicine used to precipitate labour, 81% knew roots as one of the types of the traditional medicine used to precipitate labour.

**FIGURE 4.2 RESPONDENTS' RESPONSES ON HOW THE HERBS WORK (n=28)**



Slightly above half (54%) of the respondents considered the herbs to have the effect of quickening labour while only (11%) considered the herbs not to be effective.

**FIGURE 4.3 RESPONDENTS' RESPONSES ON WHETHER THE HERBS USED ARE DANGEROUS**



Most (64%) of the respondents considered the herbs to be dangerous, while 24% considered them to be safe (not dangerous).

**TABLE 4.7 RESPONDENTS' RESPONSES ON DANGERS OF USING HERBS (n=32)**

Dangers of using the herbs	FREQUENCY (n=32)	PERCENTAGE
Can cause death of fetus	29	91
Can cause rupture of uterus	25	78
Can cause haemorrhage	16	50
Can cause death of mother	18	56
Can cause deformities	4	13
TOTALS DOES NOT ADD UP TO 100 DUE TO MULTIPLE RESPONSES		

Majority (91%) of the respondents said the herbs can cause death of the fetus while 78% said use of herbs can lead to ruptured uterus.

**TABLE 4.8 RESPONDENTS' RESPONSES AS TO WHETHER THERE ARE BENEFITS IN USING THE HERBS TO PRECIPITATE LABOUR**

Whether there are benefits in using herbs to precipitate labour	FREQUENCY (n=50)	PERCENTAGE
YES	29	58
NO	13	26
Don't Know	8	16
TOTAL	50	100

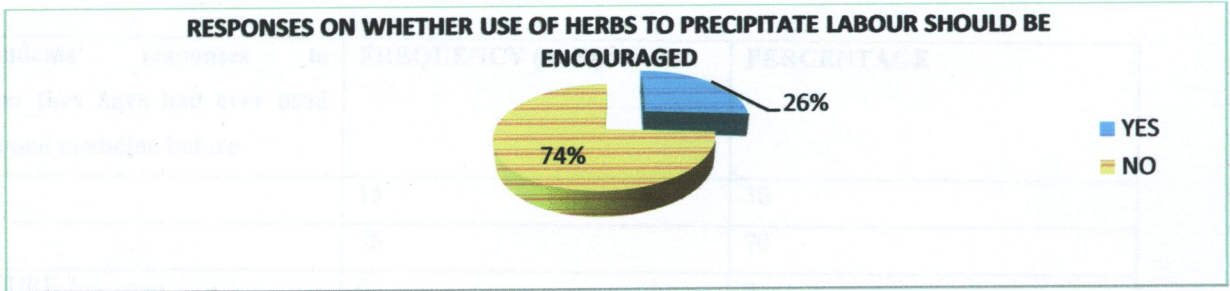
Most (58%) of the respondents stated being that there are also benefits in using the herbs, while 26% said there are no benefits in using the herbs and the other 16% couldn't tell.

**TABLE 4.9 RESPONDENTS' RESPONSES ON BENEFITS OF USING HERBS**

Benefits	FREQUENCY (n=29)	PERCENTAGE
Quicken labour	21	72
Lessens pain	5	17
Cleanse the birth canal	1	3
Prevents complication	2	7
TOTAL	29	100

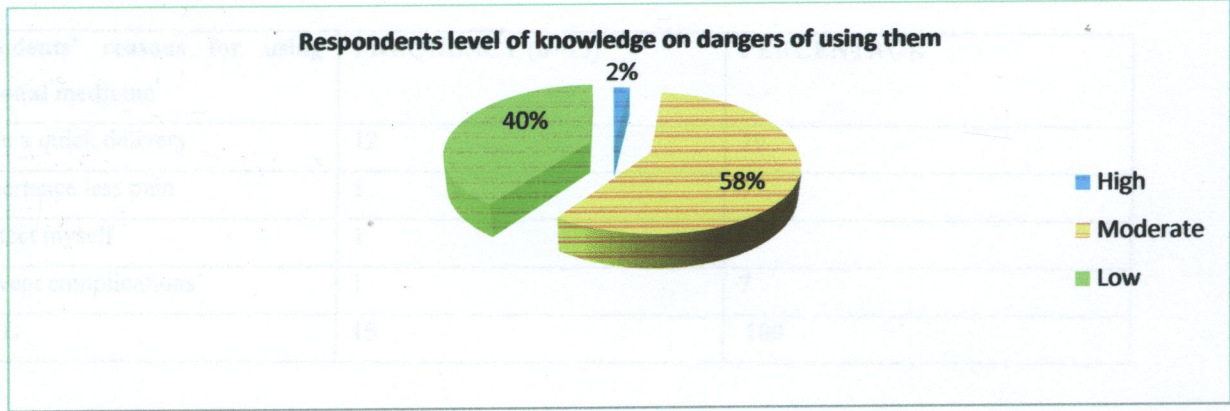
The majority (72%) of respondents who stated that there are benefits in using herbs said the herbs help in quickening labour.

**FIGURE 4.4 RESPONDENTS’ RESPONSES ON WHETHER USE OF HERBS SHOULD BE ENCOURAGED**



Most (74%) of respondents felt that use of traditional medicine to precipitate labour should be discouraged while 26% felt that use of herbs should be encouraged.

**FIGURE 4.5 RESPONDENTS’ LEVEL OF KNOWLEDGE ON DANGERS OF USING HERBS (n=50)**



Most (58%) of the respondents had moderate knowledge on dangers of using herbs, while 40% had low knowledge on dangers of using them.



4.3.4 SECTION D: PAST EXPERIENCE OF USE OF HERBS

TABLE 4.10 RESPONDENTS' RESPONSES AS TO WHETHER THEY HAVE HAD USED HERBS TO PRECIPITATE LABOUR BEFORE (n=50)

Respondents' responses to whether they have had ever used traditional medicine before	FREQUENCY (n=50)	PERCENTAGE
YES	15	30
NO	35	70
NOT SURE	0	0
TOTAL	50	100

Majority (70%) of respondents have had never used herbs to precipitate labour while (30%) have had used the herbs before.

TABLE 4.11 RESPONDENTS' REASONS FOR USING THE HERBS (n=15)

Respondents' reasons for using traditional medicine	FREQUENCY (n=15)	PERCENTAGE
To have a quick delivery	12	79
To experience less pain	1	7
To protect myself	1	7
To prevent complications	1	7
TOTAL	15	100

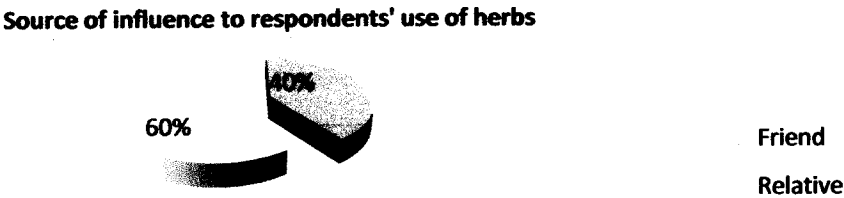
Majority (79%) of those who used traditional medicine used it to quicken delivery.

**TABLE 4.12 RESPONDENTS' EXPERIENCES AFTER USING THE HERBS (n=15)**

Responses to what the respondents' experiences where after using the herbs	FREQUENCY (n=15)	PERCENTAGE
Had a quick delivery	8	53
Had less pain	1	7
Had complications	1	7
Had severe pain	1	7
Did not deliver early	4	26
TOTAL	15	100

Most (53%) of the respondents have had a quick delivery after using the herbs while 26% did not deliver early.

**FIGURE 4.6 RESPONDENTS' SOURCE OF INFLUENCE TO USE HERBS (n=15)**



Majority (60%) of the respondents were influenced by their relatives to use the herbs, while 40% were influenced by friends.

**TABLE 4.13 RESPONDENTS RESPONSES ON WHETHER THEY KNEW SOMEBODY WHO HAVE HAD USED THE HERBS BEFORE**

Responses on whether respondents know someone who have used traditional medicine to precipitate labour	FREQUENCY (n=50)	PERCENTAGE
YES	34	68
NO	16	32
TOTAL	50	100

Most (68%) of the respondents knew someone who have had used traditional medicine to precipitate labour before, while 32% did not know anyone.

**4.3.5 SECTION E: SERVICE RELATED FACTORS**

**TABLE 4.14 RESPONDENTS RESPONSES ON TIME TAKEN TO REACH THE NEAREST HEALTH FACILITY**

VARIABLE	FREQUENCY	PERCENTAGE
Time taken to reach the nearest health facility (n=50)		
0-30 minutes	6	12
31 min to 1 hour	17	34
1 hour to 3 hours	16	32
More than 3 hours	11	22
TOTAL	50	100

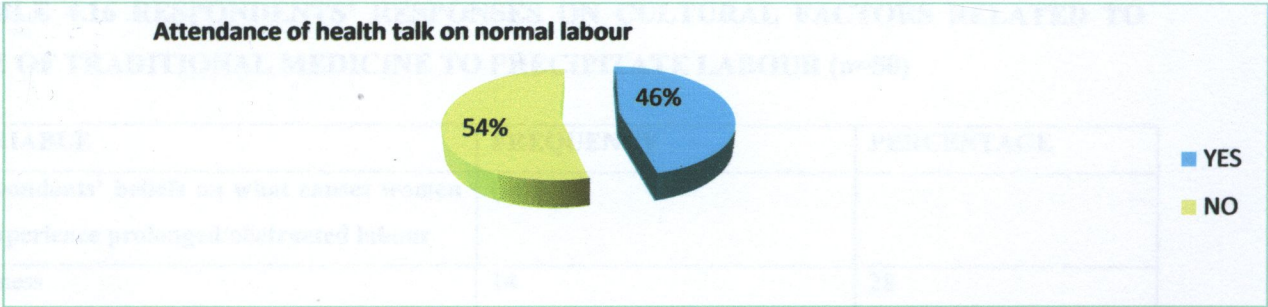
Majority (88%) of the respondents spend more than 30 minutes walking to the nearest health facility while (22%) have to walk for more than 3 hours.

**TABLE 4.15 RESPONDENTS' RESPONSES ON WHETHER THEY WOULD TELL THE HEALTH PERSONNEL WHEN ASKED WHETHER THEY HAVE HAD TAKEN SOME HERBS**

Whether respondents would tell a health personnel when asked on whether they have had taken some herbs to precipitate labour	FREQUENCY (n=50)	PERCENTAGE
YES	26	52
NO	24	48
TOTAL	50	100

Slightly above half (52%) of the respondents said they wouldn't tell a health personnel when asked whether they have had used herbs to precipitate labour, while 48% said they would tell the health personnel.

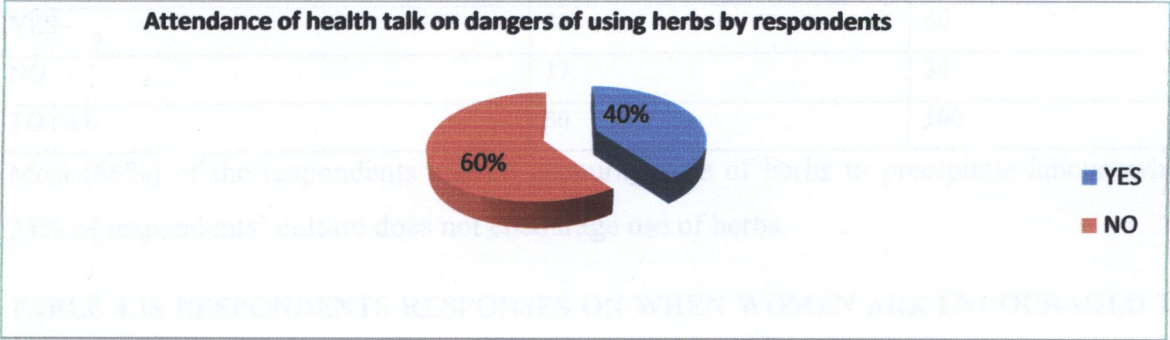
**FIGURE 4.7 RESPONDENTS' RESPONSES ON WHETHER THEY HAVE HAD EVER ATTENDED ANY HEALTH TALKS ON NORMAL LABOUR (n=50)**



Slightly above half (54%) of the respondents have had not attended any health talk on normal labour, while 46% have had attended.



**FIGURE 4.8 RESPONDENTS' RESPONSES ON WHETHER THEY HAVE HAD EVER ATTENDED A HEALTH TALK ON DANGERS OF USING TRADITIONAL MEDICINE TO PRECIPITATE LABOUR (n=50)**



Most (60%) of the respondents have had not attended any health talk on the dangers of using herbs to precipitate labour, while 40% have had attended.

**4.3.6 SECTION F: CULTURAL FACTORS**

**TABLE 4.16 RESPONDENTS' RESPONSES ON CULTURAL FACTORS RELATED TO USE OF TRADITIONAL MEDICINE TO PRECIPITATE LABOUR (n=50)**

VARIABLE	FREQUENCY	PERCENTAGE
Respondents' beliefs on what causes women to experience prolonged/obstructed labour (n=50)		
Laziness	14	28
They are bewitched	17	34
They had extra marital affairs (incila)	36	72
Large baby	6	12
Family history	3	6
TOTAL DOES NOT ADD UP TO 100 DUE TO MULTIPLE RESPONCES		

Majority (72%) of the respondents believed that infidelity (incila) is the cause of obstructed/prolonged labour, while 34% believed that witchcraft causes prolonged/obstructed labour.

**TABLE 4.17: RESPONDENTS' RESPONSES AS TO WHETHER THEIR CULTURES ENCOURAGE USE OF HERBS**

Responses to whether respondents' cultures encourage use of traditional medicine	FREQUENCY (n=50)	PERCENTAGE
YES	33	66
NO	17	34
TOTAL	50	100

Most (66%) of the respondents culture encourage use of herbs to precipitate labour, while 34% of respondents' culture does not encourage use of herbs.

**TABLE 4.18 RESPONDENTS RESPONSES ON WHEN WOMEN ARE ENCOURAGED TO TAKE THE HERBS (N=33)**

When women are encouraged to use the herbs to precipitate labour	(n=33)	
While pregnant before going in labour	10	30
Immediately labour commences	21	64
If there is prolonged or obstructed labour	13	39
anytime	3	9
When infidelity is suspected	1	3
TOTALS DOES NOT ADD UP TO 100 DUE TO MULTIPLE RESPONSES		

Of the 33 respondents whose culture encourages use of herbs, 64% said they are encouraged to use the herbs immediately labour commences.

**TABLE 4.19 RESPONDENTS SUGGESTIONS ON WHAT COULD BE DONE TO DISCOURAGE WOMEN FROM USING TRADITIONAL MEDICINE TO PRECIPITATE LABOUR**

Suggestions on what could be done to discourage women from using the herbs	FREQUENCY (n=50)	PERCENTAGE
Give them health education on labour and dangers of using herbs	35	70
To encourage hospital deliveries	6	12
To have more TBA's	1	2
To teach mothers others means of delivering early	6	12
To encourage male participation in Health Issues	1	2
To rebuke women who use the herbs	2	4
<b>TOTAL</b>	<b>50</b>	<b>100</b>

Majority (70%) of the respondents suggested that health education on labour and dangers of using the herbs to precipitate labour should be given to women to discourage the use of herbs.

4.3.7 RELATIONSHIPS BETWEEN VARIABLES

TABLE 4.20 RESPONDENTS' USE OF HERBS TO PRECIPITATE LABOUR IN RELATION TO AGE RANGE

Ever used Herbs to precipitate labour	Age ranges				
	15-24	25-34	35-44	45-49	Total
Yes	5 (25%)	3 (17%)	7 (70%)	0 (0%)	15 (30%)
No	15 (75%)	15 (83%)	3 (30%)	2 (100%)	35 (70%)
Total	20 (100%)	18 (100%)	10 (100%)	2 (100%)	50 (100%)

Most (70%) of respondents aged between 35 and 44 have had used the herbs to precipitate labour while majority (83%) of those aged between 25 and 34 have had never used the herbs to precipitate labour before.

TABLE 4.21 RESPONDENTS' USE OF HERBS IN RELATION TO EDUCATION LEVEL

Ever used Herbs to precipitate labour	Education level				
	primary	secondary	college	never been to school	Total
Yes	11 (73.3%)	1 (6.7%)	0 (0%)	3(20%)	15 (100%)
No	19 (54.2%)	12 (34.2%)	1(2.8%)	3(8.6%)	35 (100%)
Total	30 (60%)	13 (26%)	1 (2%)	6 (12%)	50 (100%)

Majority (73.3%) of the respondents who used herbs to precipitate labour attained primary education while only 6.7% who attained secondary education used the herbs.



**TABLE 4.22 RESPONDENTS' USE OF HERBS IN RELATION TO NUMBER OF PREGNANCIES**

Ever used Herbs to precipitate labour	Number of pregnancies			
	1	2-5	6 and above	Total
Yes	0 (0%)	7 (26%)	8 (62%)	15 (30%)
No	10 (100%)	20 (74%)	5 (38%)	35 (70%)
Total	10 (100%)	27 (100%)	13 (100%)	50 (100)

Most (62%) of respondents who have had 6 pregnancies and above used the herbs to precipitate labour, while all respondents who have had 1 pregnancy never used the herbs.

**TABLE 4.23 RESPONDENTS' USE OF HERBS IN RELATION TO KNOWLEDGE ON NORMAL LABOUR**

Ever used Herbs to precipitate labour	Knowledge on normal labour			
	High	Moderate	Low	Total
Yes	4 (27%)	3 (20%)	8 (53%)	15 (100%)
No	10 (29%)	13 (37%)	12 (34%)	35 (100%)
Total	14 (28%)	16 (32%)	20 (40%)	50 (100%)

Slightly above half (53%) of the respondents who used herbs had low knowledge on normal labour. Of the 35 respondents who did not use the herbs to precipitate labour, 37% had moderate knowledge.

**TABLE 4.24: RESPONDENTS' USE OF HERBS TO PRECIPITATE LABOUR IN RELATION TO LEVEL OF KNOWLEDGE ON HERBS AND DANGERS OF USING THEM**

Ever used herbs to precipitate labour	Level of knowledge on dangers of using herbs			
	High	Moderate	Low	Row Total
yes	0 (0%)	10 (67%)	5 (33%)	15 (100%)
No	1(2.8%)	19 (54%)	15(43%)	35 (100%)
Total	1(2%)	29(58%)	20(40%)	50 (100%)

Most (67%) of the 15 respondents who used the herbs to precipitate labour had moderate knowledge on herbs and dangers of using them while no respondent with high knowledge on dangers of herbs used them.

**TABLE 4.25: RESPONDENTS' USE OF HERBS TO PRECIPITATE LABOUR IN RELATION TO PLACE OF DELIVERY**

Ever used herbs to precipitate labour	Place of delivery			
	Home	At the Health facility	on the way to health facility	Total
Yes	10 (67%)	4 (27%)	1 (6.%)	15(100%)
No	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total	10 (10%)	4 (2.6%)	1(6.7%)	15(100%)

Most (67%) of respondents who used herbs to precipitate labour delivered from home, while 27% delivered at the health facility and only 6% delivered on the way to the health facility.

**TABLE 4.26: RESPONDENTS' USE OF HERBS TO PRECIPITATE LABOUR IN RELATION TO THEIR KNOWLEDGE OF SOMEONE WHO HAVE EVER USED THE HERBS TO PRECIPITATE LABOUR**

Ever used herbs to precipitate labour	Knowledge of someone who have used the herbs to precipitate by respondent		
	Yes	No	Total
Yes	12 (80%)	3 (20%)	15 (100%)
No	22 (63%)	13 (37%)	35 (100%)
Total	34 (68%)	16 (32%)	50 (100%)

Majority (80%) of the respondents who used herbs to precipitate labour knew someone who have had used herbs to precipitate labour before. On the other hand, 63% of the 35 respondents who have never used the herbs, knew someone have had used herbs before.

**TABLE 4.27: RESPONDENTS USE OF HERBS IN RELATION TO TIME TAKEN TO REACH THEIR NEAREST HEALTH FACILITY**

Ever used herbs to precipitate labour	Time taken to reach the nearest health facility				
	Less than 30 minutes	31min to 59 minutes	1-3 hours	more than 3 hours	Total
Yes	2 (13%)	5 (34%)	6 (40%)	2 (13%)	15 (100%)
No	3 (9%)	13 (37%)	12 (34%)	7 (20%)	35 (100%)
Total	5 (10%)	18 (36%)	18 (36%)	9 (18%)	50 (100%)

Of the 15 respondents who used the herbs 40% had to take 1-3 hours to reach the nearest health facility while 13% have to walk for less than 30 minutes.

**TABLE 4.28 RESPONDENTS' USE OF HERBS TO PRECIPITATE LABOUR IN RELATION TO WHETHER RESPONDENT WOULD TELL HEALTH PERSONNEL WHETHER SHE HAS USED HERBS TO PRECIPITATE LABOUR**

Ever used Herbs to precipitate labour	Whether respondent would tell the health personnel when she has used the herbs		
	YES	NO	Total
yes	9 (33%)	6 (26%)	15 (30%)
No	18 (67%)	17 (74%)	35 (70%)
Total	27 (100%)	23 (100%)	50 (100%)

Most (67%) of the respondents who said they could tell the health worker when they have used herbs to precipitate labour have had never used the herbs before while 74% of respondents who said they could not tell the health worker have had never used the herbs compared to 26% of who have had used the herbs.

**TABLE 4.29 RESPONDENTS USE OF HERBS TO PRECIPITATE LABOUR IN RELATION TO ATTENDANCE OF HEALTH TALK ON NORMAL LABOUR**

Ever used Herbs to precipitate labour	Whether respondent had ever attended health talk on normal labour		
	YES	NO	Total
Yes	6 (40%)	9 (60%)	15 (100%)
No	17 (49%)	18 (51%)	35 (70%)
Total	23 (46%)	27 (54%)	50 (100%)

Most (60%) of the respondents who have had used herbs to precipitate labour had not attended any health talk on normal labour while only 49% of those who had never used the herbs did attended a health talk on normal labour before.

**TABLE 4.30 RESPONDENTS' USE OF HERBS IN RELATION TO ATTENDANCE OF HEALTH TALK ON DANGERS OF USING HERBS TO PRECIPITATE LABOUR**

Ever used Herbs to precipitate labour	Whether respondent had ever attended health talk on dangers of using herbs to precipitate labour		
	YES	NO	Total
yes	6 (40%)	9 (60%)	15 (100%)
No	14 (40%)	21 (60%)	35 (100%)
Total	20 (40%)	30 (60%)	50 (100%)

Most (60%) of the respondents who have had used herbs to precipitate labour had never attended any health talk on dangers of using herbs compared to 40% who have had attended. Of the 35 respondents who never used the herbs, only 40% had attended health talk on dangers of using herbs to precipitate labour.

**TABLE 4.31 RESPONDENTS' USE OF HERBS IN RELATION TO THEIR BELIEFS ON WHAT CAUSES PROLONGED/ OBSTRUCTED LABOUR**

Ever used herbs to precipitate labour	Respondents' belief on what causes prolonged/obstructed labour					
	Laziness	they are bewitched	they had extra marital affairs	large baby	family history	Total
yes	1 (7%)	4 (27%)	8 (53%)	0 (0%)	2 (13%)	15 (100%)
No	8 (23%)	3 (9%)	15 (43%)	5 (14%)	4 (11%)	35 (100%)
Total	9 (18%)	7 (14%)	23 (46%)	5 (10%)	6 (12%)	50 (100%)

Most (53%) of respondents who have had used herbs to precipitate labour believed that extra marital affairs (incila) causes prolonged/ obstructed labour. Of the 35 respondents who never used the herbs 43% also believed that extra marital affairs (incila) causes prolonged/ obstructed labour.

**TABLE 4.32 RESPONDENTS USE OF HERBS IN RELATION TO WHETHER RESPONDENTS' CULTURE ENCOURAGE USE OF TRADITIONAL MEDICINE TO PRECIPITATE LABOUR**

Ever used Herbs to precipitate labour	Whether respondents' culture encourage use of traditional medicine to precipitate labour		
	YES	NO	Total
yes	12 (80%)	3 (20%)	15 (100%)
No	19 (54%)	16 (46%)	35 (100%)
Total	31 (62%)	19 (38%)	50 (100%)

Majority (80%) of respondents who have had used herbs to precipitate labour before said their culture encourage use of herbs; while 54% of respondents who never used the herbs also said their culture encourage the use of herbs.

## **CHAPTER FIVE**

### **5.0 DISCUSSION AND INTERPRETATION OF FINDINGS**

#### **5.1 INTRODUCTION**

The research study was conducted to identify factors influencing use of traditional medicine to precipitate labour by antenatal mothers in Mpika District. The researcher was prompted to do this study by the increase in the number of babies born with Asphyxia 250/3335 (7.5%), high number of still births 21/3335 (0.6%) and maternal mortality which were 8/1860 (0.4%) cases in the year 2008 in Mpika District (Mpika District HIMS, 2008). In most cases, these cases of maternal mortality, still births and neonatal asphyxia were attributed to use of herbs to precipitate labour by antenatal mothers, which is common in rural areas.

The discussion of the study is based on analysis of data collected from a sample of fifty (50) antenatal mothers who were randomly selected for interviews by use of a structured interview schedule in five (5) randomly selected health centres in Mpika District. The health centres selected were; Mpepo RHC, Mpika Urban, Lukulu RHC, Mpumba RHC and Chikakala RHC.

#### **5.2 SOCIO- DEMOGRAPHIC CHARACTERISTICS**

The socio-demographic characteristics of the respondents which were relevant to the study and essential for interpretation included; age, marital status, level of education, number of pregnancies and number of children.

The study subjects were women in the childbearing (15- 49 years) and most (78%) were aged between 15- 34. The majority (92%) of the respondents were married with 54% having history of having had 2-5 pregnancies. Slightly less than half (42%) respondents had 1-3 children. This could be attributed to the fact that marriage is universal in Zambia and women marry at an early age. By the age of 17, nearly one third (1/3) of women had already had her first child, and by the age of 19, the proportion of child bearing increases to two thirds (2/3) (Nsemukila, et al, 1998).

Most (60%) of the respondents have had attained primary education and 82% were not in formal employment. It is most likely that low education could affect the respondents' level of understanding of certain things concerning normal labour. Their low educational level could also be the reason for their unemployment. This corresponds with studies done by Gleib & Elo (1992); Navaneethan & Dharmalingan (2002); and Renolds, Wong & Turker (2006). According to these studies, education reflects a woman's childhood background, including familiarity with health services and certain beliefs and norms. These studies can help us to understand the fact that women with minimum education can readily be influenced by their friends to use herbs to precipitate labour because they may have limited knowledge on the benefits of utilizing health facilities and may not be receptive to new ideas including health education on dangers of using the herbs.

### **5.3 KNOWLEDGE ON NORMAL LABOUR**

Section B of the questionnaire had closed ended questions that aided in determining the basic knowledge that antenatal mothers had on normal labour. Knowledge may influence one's action. As such, having knowledge on normal labour may prevent one from using herbs to precipitate labour.

The findings showed that only 22% of the respondents could state the normal duration of labour while (28%) of respondents knew that normal labour should last between 1-3 hours with the other 16% stating that it has to last between 4 to 6 hours. This is an indication that about 44% of the respondents have had limited knowledge on duration of normal labour (**Table 4.2**). The findings also showed that only 44% of respondents could state what prolonged labour is while 22% considered labour to be prolonged after 3 hours (**Table 4.3**). These findings are similar the DISH (2000) findings that stated that most women especially in rural areas do not know what normal labour is, and how long normal labour should last. The findings of this study have also shown some gap in the understanding of normal labour by women as it shows that 44% consider precipitate labour to be normal labour. According to Tortora & Grabowski (2000), the length of 1<sup>st</sup> and 2<sup>nd</sup> stages of labour (from beginning of cervical dilatation to delivery of birth) varies widely and is influenced by parity, birth



interval, physiological state, presentation and position of fetus, maternal pelvic shape and size and the character of uterine contractions. This can last 14- 18 hours. On the other hand, precipitate labour can last 6 hours or less than an hour (WHO, 2004). It is also quick and can be very traumatic for both the mother and the baby as the body is doing the work of what normally can be an average 8 hours or so in too much shorter time frame.

The findings further showed that 72% of respondents believed that mother's laziness could cause delay in labour with others (60%) believing that infidelity could cause delay in labour (**Table 4.4**). These findings relates well to Laushi (1994) statement who stated that in Bemba land, difficulty in labour or delay in delivery is believed to be punishment for marital infidelity. The woman is pressured to confess her misdeed and later advised to take the herbs to prevent consequences of infidelity and also that labour may continue without complications. The man is also asked to confess when it is suspected that he was the one involved in any loose conduct. Bubeshi, 1994 also stated that according to the Bembas, if a woman experiences a difficult pregnancy or labour, is hospitalized, has an episiotomy or caesarian section performed, she is considered lazy and she is exposed to all kinds of insults and humiliation from mates and the in-laws. This limitation in knowledge on what causes prolonged/ obstructed labour could explain the level of knowledge of individual women and its influence on their beliefs and perceptions. The findings of this study have also shown that women do not only use herbs to precipitate labour but also treatment for difficult labour.

Generally, the study revealed that 40% of respondents had low level of knowledge on normal labour, 32% had moderate knowledge while 28% had high level of knowledge (**Figure 4.1**).

#### **5.4 KNOWLEDGE ON HERBS AND DANGERS OF USING THEM**

Section C of the questionnaire had both closed and open-ended questions that aided in determining the basic knowledge that antenatal mothers had on herbs and dangers of using them.

The findings showed that slightly above half (52%) of respondents knew some traditional medicine used to precipitate labour (**Table 4.5**) and that of the 26 respondents who knew the herbs, 80.8% knew roots as a type of traditional medicine used to precipitate labour (**Table 4.6**). The findings corresponds with a study by Steenkamp & Zuckerman (2005) in which it was found that, while not addressed as frequently in the literature, in South Africa, it is estimated that between 60% of the native population use traditional medicines usually in combination with modern medicine. The findings also relates with Maimbolwa (2004) findings that stated that it is a well known practice in Zambian community, that women take traditional medicine of some sort in connection with child birth. The findings of this study have brought to light the fact that roots are the most known type of traditional medicine that women use to precipitate labour.

The findings further showed that slightly above half (53.9%) of respondents considered the herbs to have the effect of quickening labour while 3% considered the herbs to help in removing the placenta and only 11 % considered the herbs not to be effective (**Figure 4.2**). These findings show that women have other reasons for using the herbs instead apart from quickening labour.

Most (64%) of the respondents considered the herbs to be dangerous, while 24% considered them to be safe (**Figure 4.3**). Majority (90.6) of those who considered the herbs to be dangerous said the herbs can cause death of the fetus and were followed by 78.1% who said the herbs can cause rupture of uterus (**Table 4.7**). These findings support earlier findings by Musonda (1997) who conducted a study on prevalence of the use of traditional medicine in Home deliveries in Lusaka, Zambia, where slightly less than half (46%) of the respondents knew that there are dangers in using traditional medicine, 28% stated that there are no dangers in using traditional medicine. However, the findings have slightly differed with Musonda (1997) findings on the knowledge of respondents on dangerous effects of the herbs in the sense that in Musonda's study, 21% did not know of any effects of traditional medicine on child birth and only 32% stated that traditional medicine can kill both the mother and baby during delivery.

Despite most (64%) of respondents saying there are dangers in using herbs to precipitate labour, slightly above half (58%) of respondents still felt that there are benefits in using the herbs. Of these, 72.4% said the herbs help in quickening labour (**Table 4.9**). This can explain why some women may continue using the herbs despite their dangers.

Nonetheless, majority (74%) of respondents said use of herbs to precipitate labour should not be encouraged while 26% felt that use of herbs should be encouraged (**Figure 4.4**). These findings can explain the fact that despite the adverse affects that can be brought about by use of herbs; there are still some people who are willing to continue using the herbs. These findings can explain the findings of other studies done elsewhere. Some studies, especially among the Zulu and Xhosa population of South Africa, revealed harmful effects and complications during labour (Mabina, et al 1997 and Varga and Veale, 1997). The Kgaba remedy the Tswana use is based on mixture of plants and minerals that can vary among traditional healers several of these plants are poisonous while others are not tested or officially documented. The above findings show that despite the fact that traditional medicines like Kgaba are often used by pregnant women in South Africa for various reasons which among them are to induce and precipitate labour, they have harmful effects and the fact that their combinations are not officially documented is a source of worry. The findings of this study also relates well to the findings of Bullough and Leary (1994) who carried out a study on 116 maternal deaths in Central Region of Malawi in 1994. This study revealed that of the 116 maternal deaths, seven deaths were suspected to have been caused by herbal medicines although in no case was the medicine identified. They also reported that there is a prevalent belief in Malawi that some medicine used during home delivery is oxytoxic in action and that to some extent responsible for high rate of ruptured uterus. This study brought out the fact that use of traditional medicine can contribute to maternal mortality and ruptured uterus.

The study also revealed that slightly above half (58%) of respondents had moderate knowledge on dangers of using herbs, while 40% had low knowledge with only 2% having high knowledge on dangers of using the herbs (**Figure 4.5**). This poses a great

challenge on the part of health workers who have to ensure that knowledge is disseminated to all the concerned people.

## **5.5 PAST EXPERIENCE OF USE OF HERBS**

Section D of the questionnaire had closed ended questions that aided in indentifying the past experience of use of herbs by respondents.

The findings showed that 30% of the respondents have had used herbs to precipitate labour at one time or the other while 70% have had never used the herbs. Most (80%) of those who used the herbs used them to have a quick delivery and only slightly above half (53.3%) of respondents had a quick delivery after using the herbs, while the other 26% did not deliver early (**Tables 4.10, 4.11 and 4.12**). These findings postulate that the use of herbs to precipitate labour is common among antenatal mothers and that most of them use the herbs to precipitate labour. On the other hand, the findings still show that the herbs are effective to some extent as it can be deduced from the (53.3%) who had a quick delivery. These findings corresponds to Lilgestron et al (1998) findings who stated that traditional medicine has been practiced for centuries and is still being used by Zambian people. The findings also relates to (DISH, 2000) findings which stated “Women strongly believe in local herbs which they bathe in, drink or sit in during pregnancy, child birth and immediately after delivery, these herbs have been found useful and are used by women in addition to antenatal care in health facility”.

The study findings further showed that most (66.6%) of respondents who used the herbs delivered in homes compared to 26.6% who delivered in the health facilities (**Table 4.25**). This can probably help in explaining the disparity in the number of hospital deliveries especially in developing countries. WHO (2007) reported that 36% of women actually gave birth in the health institutions with 53% being assisted by a skilled birth attendant. These findings can also explain Maimbolwa (2004), findings which stated that the majority of social support women accompanying pregnant women to maternity units were aware of on going Zambian traditional birth practices

and beliefs. Those who considered themselves Traditional Birth Attendants (TBAs) advised women on the use of traditional medicine to precipitate labour during pregnancy. Basing on this study's findings and that of Maimbolwa, it can be said that since most of respondents who used herbs delivered in homes, there is likelihood that they Traditional Birth Attendants had some influence on them.

The study also revealed that 60% of respondents who used the herbs were influenced by their relatives while 40% were influenced by friends (**Figure 4.6**). This finding can explain the facts that the use of herbs by an antenatal mother has some blessings of those closest to the person who are in most cases are either friends or relatives.

The study also found that most (68%) of respondents knew someone who have had used herbs to precipitate labour while 32% did not know any. This means that despite the fact that only 30% of respondents admitted to have used herbs to precipitate labour, there are still some more people who have had used herbs to precipitate labour

## **5.6 SERVICE RELATED FACTORS**

Section E of the questionnaire had both open and closed ended questions that aided in identifying service related factors that may influence use of herbs to precipitate labour.

The study findings revealed that majority (88%) of the respondents spend more than 30 minutes walking to the nearest health facility, while 22% have to walk for more than 3 hours (Table 4.14) This suggests that majority of respondents do not stay within walk-able distances which is contrary to the National Health Vision "to provide all Zambian with equity of access to cost effective quality health care as close to the family as possible". (CBoH, 2002). As such it is more likely that those who have to walk long distances to the health facility may fail to access health services including delivering at the health facility thereby leaving them with no option but to deliver at home where use of herbs is common.

The findings can explain Sabina et al (2006) findings which stated "Distance to health services exerts a dual influence on use as a disincentive to seeking care in the first

place and as an actual obstacle to reaching care after a decision has been made to seek it". Sabina went on to say "many pregnant women do not even attempt to reach a facility for delivery since walking many kilometers is difficult in labour and impossible if labour starts at night and transport means are often unavailable. Those trying to reach a far- off facility often fail and women with serious complications may die en route.

The study also revealed that slightly above half (52%) of respondents would not tell a health personnel when asked whether they have had used the herbs to precipitate labour compared to 48% who said they would tell the health personnel (**Table 4.15**). Most of those who said they wouldn't tell the health personnel said they wouldn't for fear of being rebuked. These findings may help in explaining why only 30% of respondents admitted to have had used herbs to precipitate labour. It means that some of them might have used the herbs but couldn't communicate to the researcher for fear of being laughed at or other reasons. The disparity between those who can communicate and those who can't, can explain to a large extent why there is a need to ensure effective communication between antenatal mothers and health personnel which can be brought about by accommodating views and beliefs of clients. These findings corresponds with DISH (2000) findings which stated that despite the fact that pregnant women especially in rural areas trust in the use of traditional medicine in labour, they do not communicate this to the health care providers especially when they go to the health facility for delivery. The findings also relates to Motsei (2006) findings which stated that in South Africa, the use of traditional medicine as perceived by the Tswana is an important component in the experience of pregnancy and labour. However, communication about use of herbs between pregnant women and health staff is poor and hinders reporting or recording of dosage and evaluation of effects. As such, it is not easy to find records of how many women are using herbs during labour. Besides, there may be a combination of traditional and conversional medicine at the health facility since healthy care providers are not informed and this can bring about complications.

The study also found that most (54%) of respondents have had not attended any health talk on normal labour compared to 46% who have had attended. On the other hand, 60% of respondents have had not attended any health talk on dangers of using herbs to precipitate labour compared to 40% who did attend. This can explain the fact that in most cases, most of antenatal mothers are denied the chance of learning about what normal labour is and dangers of using herbs which are part of the important information needed to prevent women from using the herbs. This is due to the fact that most women especially in rural areas don't know what normal labour is and how long it should last; as a result, they use traditional medicine to quicken the progress of labour with a view to spending as few hours as possible at the health facility (Kasolo & Ampaire, 2000).

## **5.7 CULTURAL FACTORS**

Section F of the questionnaire contained questions on cultural factors that can influence use of herbs to precipitate labour by antenatal mothers.

The study found that majority (72%) of respondents hold a belief that extra marital affairs (Incila) is the cause of prolonged labour, while 34% still believe that witchcraft causes prolonged/ obstructed labour. Most (66%) of respondents' cultures encourage use of herbs compared to 34% whose cultures do not encourage use of herbs. The study further revealed that most (63.6%) of those whose culture encourage use of herbs to precipitate labour are encouraged to use the herbs immediately labour commences while 39.4% said their cultures encourage use of herbs if there is prolonged or obstructed labour. These findings relates with Maimbolwa, (2004) findings in a study on views about social support in Zambia maternity facilities; which revealed that health workers and some mothers suspected and feared that female relatives would bring, "Traditional Medicine" mainly intended to shorten the labour, if they were allowed to provide social support in labour wards. The majority of the social support women were aware of on-going Zambian tradition of childbirth practices and beliefs. The findings have also shown that apart from using herbs to

precipitate labour, women are encouraged to take herbs for other various reasons such as obstructed labour.

## **5.8 RELATIONSHIPS AMONG VARIABLES**

### **5.8.1 Use of Herbs to precipitate labour and Age**

The study results showed that Most (70%) of respondents aged between 35 and 44 years have had used the herbs to precipitate labour. However, majority (83%) of those aged between 25 and 34 years did not use the herbs to precipitate labour (**Table 4.20**). This shows that use of herbs is high in certain age groups compared to others.

### **5.8.2 Use of Herbs to precipitate labour and knowledge on normal labour**

The study findings showed that slightly above half (53.3%) of respondents who have had used herbs to precipitate labour had low level of knowledge on normal labour compared to 26.7% with high level of knowledge and 20% with moderate knowledge respectively. This implies that there is a relationship between use of herbs and knowledge on normal labour. The findings further showed that women with low level of knowledge on normal labour are more likely to use the herbs than those with high knowledge.

### **5.8.3 Use of herbs to precipitate labour and level of knowledge on dangers of using herbs**

Findings of the research showed that 67% who had used herbs to precipitate labour had moderate knowledge on dangers of using the herbs while 33% had low level of knowledge (**Table 4.24**) of respondents with low level of knowledge on dangers of using herbs to precipitate labour did not use the herbs compared to 25% who used, while 34.5% of those with moderate knowledge on dangers of using the herbs used them compared to 65.5% who did not. On the other hand, 100% of respondents with high knowledge on dangers of using the herbs did not use them. This shows that there is no relationship between use of herbs to precipitate labour and having low level of knowledge on the dangers of using the herbs.



#### **5.8.4 Use of Herbs to precipitate labour and time taken to reach the nearest health facility**

The study results revealed that 40% of respondents who used herbs to precipitate labour had to take 1-3 hours to reach the nearest health facility compared to 13.3% who had to walk for less than 30 minutes (**Table 4.27**). The study has further shown that 86.3% of respondents who used herbs had to walk for more than 30 minutes. This shows that there is a relationship between distance to the health facility and use of herbs. The findings postulated that women who walk for longer distances to the nearest health facility are more likely to use the herbs to precipitate labour.

#### **5.8.5 Use of Herbs to precipitate labour and attendance of health talk on normal labour**

Study results showed that most (60%) of the respondents who used the herbs to precipitate labour did not attend any health talk on normal labour while 40% did attend. On the other hand, 51% of those who did not use the herbs did not attend any health talk on normal labour as well. This shows that more women who have had not attended any health talk on normal labour were more likely to use the herbs than those who have had attended the health talk. Hence, there is need to intensify health talks on normal labour to antenatal mothers by health care providers.

#### **5.8.6 Use of herbs to precipitate labour and attendance of health talk on dangers of using the herbs**

The study findings revealed that Most (60%) of respondents who used the herbs did not attend any health talk on dangers of using herbs and of the 35 respondents who did not use the herbs, 60% did not attend any health talk on dangers of using the herbs to precipitate labour. These findings have further shown a gap as far as health education on the dangers of using herbs to precipitate labour is concerned. The study has revealed that women who did not attend health talk on dangers of using the herbs were more likely to use the herbs.

### **5.8.7 Use of herbs to precipitate labour and cultural background**

The study results revealed that majority (80%) of respondents who used herbs to precipitate labour had a cultural background where use of herbs is encouraged. Of the 35 respondents who did not use the herbs, 54% said their cultures encourage use of herbs. This shows that there is a relationship between culture and use of herbs. The study further revealed that more women whose cultures encourage use of herbs are more likely to use herbs compared to those whose cultures do not encourage use of herbs.

Finally, respondents were asked to give suggestions on what they felt could be done to prevent women from using herbs. In this study, majority (70%) of respondents recommended that health education on labour and dangers of using herbs should be given. This implies that most of them saw a gap as far as health education in these areas is concerned. On the other hand, some respondents (12%) felt that to prevent use of herbs, women should deliver from hospitals where they don't encourage use of herbs, as such; they suggested that women should be encouraged to deliver from the hospital. Others (12%) suggested that health workers should teach women other means of delivering early. This means that some women still feel that a woman should spend few hours in labour.

From these findings, the objectives stated in the study have been met. The researcher identified some socio-cultural factors that may influence use of herbs to precipitate labour by antenatal mothers which among other things included age, educational level, peer pressure, past experience and cultural beliefs on causes of prolonged/ obstructed labour. In addition to that, the researcher did establish that service factors such as distance to the health facility, lack of access to health education on normal labour and dangers of using herbs may influence use of herbs to precipitate labour by antenatal mothers. The researcher also did identify low level of knowledge on duration of labour and causes of prolonged/ obstructed labour as factors that may influence use of herbs to precipitate labour by antenatal mothers. In addition to that, the researcher also discovered that use of herbs may tend to be high in certain age groups like those aged between 35-44 years. Apart from that level of education had

also an influence on use of herbs as more women with primary education were likely to use the herbs than those with higher educational level. The findings also support the hypothesis that “antenatal mothers use traditional medicine to precipitate labour because of inadequate knowledge on progress of normal labour and dangers of using the herbs because most of those who used the herbs had either inadequate low level of knowledge on normal labour or dangers of using herbs and that most women felt that there is need to give women this information through health education basing on their suggestions.

## **5.9 IMPLICATION TO THE HEALTH CARE SYSTEM**

The study findings have shown that 30% of respondents have had used herbs to precipitate labour and 52% knew some traditional medicine used to precipitate labour while the other 68% knew someone who have had used herbs to precipitate labour. This shows despite the number of people who actually confessed to have used herbs being small, there are more women using the herbs as it can be seen from the two figures of those who knew some herbs and those who knew someone to have used the herbs. This therefore, demands for health personnel, policy makers and other stakeholders to be aware of the existence of problem and find ways reversing the situation as other studies from Literature review have shown that use of herbs can lead to serious complications. The other concerns that have been brought from the findings of this study are that 58% of respondents still felt that there are benefits in using herbs and that 52% wouldn't tell the health personnel when asked whether they have had used the herbs. This means that those who think there are benefits in using the herbs are more likely to continue using the herbs and those not willing to tell the health personnel may end up with complications of which the health personnel may not know the cause. As such, there is need to find ways of discouraging women from using herbs to precipitate labour and encourage them to be open to health care providers.

The other findings were that 78% of respondents considered extra marital affairs (popularly known as Incila) to be a cause for prolonged/ obstructed labour and that 80% of respondents who used the herbs said their cultures encourage use of herbs, and that in most cases, women are encouraged to take herbs immediately labour commences. These findings have great impact on health care system as it demands for all stakeholders to be involved in dispelling

such myths and misconceptions. The findings which showed that women take herbs immediately labour commences demand a lot on the part of health care providers as far as getting much details from the woman on admission to prevent complications.

### **5.9.1 THE NURSING PRACTICE**

The study revealed that only 22% of respondents know how long normal labour should last and only 2% had high level of knowledge on dangers of using herbs. This shows a big gap and hence demands for consented efforts by nurses and midwives who have to offer maternal health services to these women. These findings may mean that nurses and midwives do not take much time to explain issues related to labour to women. As such nurses and midwives are required to intensify on health education given to women on these two aspects especially during antenatal. The study further revealed that 58% of respondents felt there are benefits in using herbs. As such nurses and midwives should strive to discourage women from using herbs. This can be done through letting women who have had complications after using the herbs share with their friends during IEC sessions and extensively discussing the effects of herbs on the unborn child and the mother. The study findings have also shown that 52% of respondents said they wouldn't tell the health personnel when asked whether they have had used herbs for fear of being rebuked and mistreated by the health personnel. This impacts on the reporting of complications that arise due to use of herbs and hinders good nurse patient relationship.

In view of these findings, midwives and nurses who are entrusted with the responsibility of taking care of antenatal mothers should ensure that adequate information on labour is given at every contact with the pregnant woman and IEC on dangers of using herbs is reinforced. In addition to that, health workers should ensure that they develop a positive attitude towards pregnant women and show an understanding to their concerns as doing so will encourage them to be open and reveal a lot of things which may include use of herbs to precipitate labour. Besides, health workers who are affected by the burden of taking extra care of women especially when complications occur due to use of herbs or other causes should take it upon themselves to ensure that the community is sensitized on the need to refer pregnant women early to the hospital before labour commences.

### **5.9.2 THE NURSING ADMINISTRATION**

In this study, most (70%) of the respondents suggested that health education on normal labour and dangers of using herbs should be encouraged and given to the women while others talked of encouraging hospital delivery and still others demanded for provision of other means by health workers to necessitate early delivery. All these measures need consented efforts from qualified health personnel. As such, the Nursing administration should ensure that adequate knowledge is provided to health care providers through workshops and pamphlets on these important subjects and that health workers are made to accommodate views of clients on traditional practices and give sound advice when need arises instead of rebuking those using herbs as it may lead to more people shunning hospital deliveries and hence giving rise to more home deliveries. There is also need for nursing administrators to ensure that health facilities have qualified health personnel who can provide adequate services and health education. Apart from that there is need to involve community leaders in dissemination of information to their subjects on dangers of using herbs through conducting workshops and seminars.

### **5.9.3 THE NURSING EDUCATION**

Most nurses who qualify are posted in rural areas where in most cases they have to take roles of midwives. It is in these rural areas in most cases where use of herbs to precipitate labour is common as highlighted in the Literature review and this study which was done in the rural setting. However, it is sad to note that the curriculum for nurse's especially enrolled nurses is not so extensive to prepare the nurse adequately to meet the challenges that may be encountered as far as labour and use of herbs are concerned. As such there is need to prepare nurses for such challenges through incorporating important topics and health education that can be given on these important subjects.

### **5.9.4 NURSING RESEARCH**

Adequate knowledge on labour and timely health education on labour related subjects are important components in managing antenatal mothers, preventing complications and preventing maternal and neonatal deaths. However, the disparity noted in this study on women who

accessed such knowledge and those who did not, is a source of worry as it can be seen that those who didn't access were more likely to use the herbs. On the other hand, some people despite having had attended the health talk on labour and dangers of using herbs did use the herbs. These findings have brought to light two things. The first one is that the study has exposed the existence of the problem. Secondly, it has isolated areas which need further research. For example, the study only considered a small sample due to limitations in funds and time, it will be interesting to get results of a large population on the same topic through further research and compare the findings. The other thing is that further research on other what information should be developed to carter for this problem can be of great help to both the health care providers and women in society at large.

## **5.10 RECOMMENDATIONS**

Basing on the research findings, the researcher would therefore recommend the following to relevant authorities and institutions:

### **5.10.1 The Ministry of health**

- As the policy making body, the ministry of health should develop client centered strategies and policies especially when it comes to pregnant women. There is enough evidence on the existence of the problem as far as use of herbs to precipitate labour is concerned. As such, the ministry of health should ensure that they develop policies that put into consideration the cultural and traditional beliefs of women which are not harmful so as to encourage women accessing and utilizing health facilities which in most cases are shunned due to the fact that women feel that their cultural beliefs and traditions are not considered.
- In addition to that, the ministry of health should ensure that they embark on a deliberate program to test the efficacy of some of these herbs so as to recommend some that may seem not to be toxic to the woman and her unborn child as the study has revealed that some women are willing to continue using herbs.
- The ministry of health should develop proper IEC messages that should be given to pregnant women which should be in simple and different languages especially on the

process of normal labour and dangers of using herbs so that women are able to read for themselves even in situations where a health care provider may fail to give the health education due to work overload.

- The ministry should conduct a research involving a large population and locations to determine the prevalence of use of herbs to precipitate labour and the extent to which use of herbs has contributed or may contribute to maternal morbidity and mortality.
- Lastly but not the least, the MoH should come up with ways of capturing data on the women using herbs to precipitate labour and outcomes of pregnancies of such women including complications that may arise as a result of use of herbs which is not provided for in the current HIMS records and books.

#### **5.10.2 The District Health management Team (DHMT)**

- The DHMT should ensure that health centre staffs are sensitized to be on the alert for complications associated with use of herbs to precipitate labour and encourage early referral of suspected cases before complications arises.
- The DHMT should also incorporate other stakeholders like non governmental organizations, ministry of education and church organizations which may help in disseminating health education on dangers of using herbs.
- The District should ensure that there is easy accessibility of communication systems by all health centres for easy referral and that the district should provide transport for health centres for early referral to prevent prolonged labour especially in health facilities with limited number of skilled attendants.

#### **5.10.3 Health Centres**

- The health care providers need to be re-oriented especially those who are not midwives on the process of normal labour and dangers of using herbs so as to help them give proper information to the women.
- Health care providers need to be re-trained in communication skills for them to be accurate and effective communicators. This can be done through workshops and seminars.

- There is need for health workers not to forget asking women on whether they have had taken herbs before coming to the health facility so as to prevent complications and they should also keep record of such women.
- Health workers should ensure that health education on normal labour and dangers of using herbs is given to women on every first antenatal visit to the health facility and re- enforced in subsequent visits so as to keep women updated with the information.

#### **5.10.4 The community**

- The community members especially TBA's should be given adequate on labour concerning it's duration, what may cause prolonged labour and what to do when there is prolonged/ obstructed labour and dangers of using herbs as they are in constant contact with women. Besides, community members should be educated on the importance of hospital deliveries and causes of prolonged labour.
- The community members should be helped to dispel assertions or beliefs that witchcraft and infidelity causes obstructed labour instead health workers should re-enforce health education on actual causes of prolonged/obstructed labour.

### **5.11 DISSEMINATION OF FINDINGS**

A number of copies will be printed and distributed to the following institutions and departments; the Department of Nursing Sciences of the University of Zambia; Churches Health Association of Zambia (CHAZ) who are my sponsors, Mpika District Health Office and Chilonga Mission Hospital. The researcher will also be utilizing workshops and seminars organized by the hospital and DHMT to disseminate the information to other health workers.

### **5.12 LIMITATIONS OF THE STUDY**

- Due to the fact that the sample size was small and only 5 health centres were used for data collection, the results of this study can not be generalized to the rest of the country.
- Limited time: time allocation was not adequate especially for data analysis as the study was done alongside with other courses during the academic year.



- The manual data analysis was cumbersome and hence the researcher shifted to use of SPSS which was also difficult to comprehend at first.

## 5.12 CONCLUSION

The purpose of the study was to determine factors influencing use of traditional medicine (herbs) to precipitate labour by antenatal mothers in Mpika District. A descriptive study design was used whose study unit comprised of antenatal mothers aged 15- 49 years. Data was collected using structured interview schedule. The sample consisted of 50 randomly selected respondents.

The study results yield valuable information and it is hoped that the information will be utilized by relevant authorities to improve delivery of health care to antenatal mothers in regards to educating them on the process of normal labour and dangers of using herbs to precipitate labour and hence contribute to a reduction in maternal morbidity and mortality. The most significant findings of the study were that 30% of respondents have had used herbs to precipitate labour and that 68% of respondents knew someone who have had used herbs to precipitate labour.

The study further revealed that amongst the factors influencing use of herbs by antenatal mothers were; low level of knowledge on normal labour and dangers of using herbs to precipitate labour; past experience of use of herbs, distance to the health facility; lack of access to health education on normal labour and dangers of using herbs; cultural beliefs and place of delivery.

The objectives of the study can therefore said to have been met as the study succeeded in indentifying factors that influence use of herbs to precipitate labour by antenatal mothers and it can therefore concluded that knowledge levels on normal labour and dangers of using herbs have an effect on the use of herbs by antenatal mothers in Mpika District. In this view, the researcher has failed to reject the research hypothesis.

Unless women acquire adequate knowledge on normal labour and dangers of using herbs, more women will continue using herbs to precipitate labour and this will bring about complications that may lead to maternal morbidity and mortality.

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**THE UNIVERSITY OF ZAMBIA**  
**SCHOOL OF MEDICINE**  
**DEPARTMENT OF NURSING SCIENCES**

**INTERVIEW SCHEDULE**

**TOPIC: FACTORS INFLUENCING USE OF TRADITIONAL MEDICINE TO PRECIPITATE LABOUR BY  
ANTENATAL MOTHERS IN MPIKA DISTRICT**

Date of Interview: \_\_\_\_\_

Place of Interview: \_\_\_\_\_

Name of Interviewer: \_\_\_\_\_

Serial Number of Respondent: \_\_\_\_\_

**INSTRUCTIONS TO THE INTERVIEWER**

1. Introduce yourself to the respondent
2. Explain the purpose of the interview
3. Tell the respondent how she was selected and obtain written consent to interview her
4. Assure respondent of confidentiality and anonymity
5. Do not write name of respondent on interview schedule
6. Tick in the box corresponding to the correct answer or write responses in spaces provided.

SECTION A: DEMOGRAPHIC DATA

FOR OFFICIAL USE  
ONLY

1.	Age		
	(a) 15 – 24 years	<div></div>	
	(b) 25 – 34 years	<div></div>	<div></div>
	(c) 35 -44 years	<div></div>	
	(d) 45 – 49 years	<div></div>	
2.	Marital status		
	(a) Single	<div></div>	
	(b) Married	<div></div>	
	(c) Divorced	<div></div>	<div></div>
	(d) Separated	<div></div>	
	(e) Widowed	<div></div>	
3.	Highest educational level		
	(a) Primary	<div></div>	
	(b) Secondary	<div></div>	
	(c) College	<div></div>	<div></div>
	(d) University	<div></div>	
	(e) Never been to school	<div></div>	
4.	What is your occupation?		
	(a) Self employed	<div></div>	
	(b) Formal employment	<div></div>	
	(c) Farmer	<div></div>	<div></div>
	(d) Full time housewife	<div></div>	
	(e) Other, (specify)-----		
	-----		
5.	How many pregnancies have you had?		
	(a) 1	<div></div>	
	(b) 2-5	<div></div>	<div></div>
	(c) 6 and above	<div></div>	
6.	How many children do you have?		<div></div>

- (a) 1-3
- (b) 4- 6
- (c) 7 and above
- (d) None


--

### SECTION B: KNOWLEDGE ON NORMAL LABOUR

7. How long should normal labour last?

- (a) 1- 3 hours
- (b) 4-6 hours
- (c) 7-12 hour
- (d) 12- 18 hours
- (e) 18- 24 hours


--

8. When would you say labour is prolonged

- (a) After 1 hour
- (b) After 2 hours
- (c) After 3hours
- (d) After 18 hours
- (e) Other (specify) -----


--

9. What could cause delay in labour? (Tick all correct answers)

- (a) Big baby
- (b) Mother's laziness
- (c) Infidelity
- (d) Mother's illness
- (e) Other (specify)-----


--

### SECTION C: KNOWLEDGE ON HERBS AND DANGERS OF USING THEM

10. Do you know any traditional medicine used to precipitate labour?

- (a) Yes
- (b) No


--

11. If yes, what type of traditional medicine do you know?

- (a) Roots

--

--



(b) Powdered bark


(c) Powdered leaves

(d) Other (specify) -----

12. How do the herbs work? -----

-----

-----

13. Are the herbs used dangerous?

(a) Yes


(b) No

--

14. If yes, what are the dangers? (Tick all correct answers)

(a) Can cause death of fetus


(b) Can cause rupture of uterus

--

(c) Can cause haemorrhage

(d) Can cause death of mother

(e) Other (specify) -----

15. Are there benefits in using traditional medicine to precipitate labour?

(a) Yes


(b) No

--

(c) Don't know

16. If yes, what are the benefits?

(a) Quickens labour


(b) Lessens pain

--

(c) Cleanse the birth canal

(d) Prevents complications

(e) Other (Specify) -----

17. Do you think use of traditional medicine to precipitate labour should be encouraged?

(a) Yes


(b) No

--

#### SECTION D: PAST EXPERIENCE OF LABOUR & USE OF HERBS

18. Have you ever delivered at home?
- (a) Yes ☐
- (b) No ☐
19. If you delivered at home, who assisted you in the delivery?
- (a) Trained midwife/ nurse ☐
- (b) Traditional birth attendant ☐
- (c) Relative ☐
- (d) Neighbor ☐
- (e) Unassisted ☐
20. Have you ever used traditional medicine to precipitate labour?
- (a) Yes ☐
- (b) No ☐
- (c) Not sure ☐
21. If yes to question 20, where did you deliver from?
- (a) Home ☐
- (b) At the health facility ☐
- (c) At the TBA's place ☐
- (d) On the way to the health facility ☐
- (e) Other, specify ----- ☐
22. If yes to question 20, why did you use traditional medicine?
- (a) To have a quick delivery ☐
- (b) To experience less pain ☐
- (c) To protect myself ☐
- (d) To prevent complications ☐
- (e) Because it was readily available ☐
23. If yes to 20 above, what was your experience?
- (a) Had a quick delivery ☐
- (b) Had less pain ☐
- (c) Had complications ☐
- (d) Had severe pain ☐
- (e) Other (specify) ----- ☐

24. If you ever used traditional medicine to precipitate labour, who influenced you to use the herbs?

- (a) Friend
- (b) Relative
- (c) TBA
- (d) Husband
- (e) No one


--

25. Would you like to use herbs to precipitate labour again?

- (a) Yes
- (b) No


--

26. Do you know anyone who have used traditional medicine to Precipitate labour?

- (a) Yes
- (b) No


--

27. If yes, who is she to you?

- (a) Friend
- (b) Relative
- (c) Neighbor


--

(d) Other, specify-----

#### SECTION E: SERVICE DELIVERY

28. How many hours does it take you to reach the nearest health facility when walking?

- (a) Less than 30 min
- (b) 30min to 1 hour
- (c) 1-3 hours
- (d) More than 3 hours


--

29. Are there any rules at your health facility that you think can force women not to deliver from the health facility?

- (a) Yes
- (b) No


--

30. If yes, what are they? -----

-----  
-----  
31. Would you tell a health personnel if you were asked whether you have used traditional herbs to precipitate labour?

- (a) Yes  
(b) No


--

32. If No, to question 31, why? -----  
-----  
-----

33. Have you ever attended a health discussion on progress of labour?

- (a) Yes  
(b) No


--

34. Have you ever attended a health discussion on dangers of using Traditional medicine?

- (a) Yes  
(b) No

#### SECTION F: CULTURAL FACTORS

35. According to your belief, what causes women to experience prolonged/ obstructed labour?

- (a) They are lazy  
(b) They are bewitched  
(c) They had extra marital affairs  
(d) I don't know  
(e) Other, (specify) -----


--

36. What do people in your community say is the cause of obstructed/ prolonged labour?

- (a) Laziness  
(b) Witchcraft  
(c) Infidelity  
(d) Curse


--

(e) Other, specify -----  
-----

37. Does your culture encourage use of traditional medicine  
in labour?

(a) Yes


(b) No

--

38. If the answer is yes to question 37, when are women encouraged to  
use traditional medicine?

(a) While pregnant before going in labour


(b) Immediately labour commences

(c) If there is prolonged or obstructed labour

(d) Anytime

(e) Other (specify)-----  
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--

39. What do you think can be done to discourage women from using  
traditional medicine to precipitate labour?

-----  
-----  
-----  
-----

**END OF INTERVIEW**

**THANK YOU FOR YOUR CO-OPERATION**

**INFORMED CONSENT**

Dear participant,

My name is Bwalya Pearson, I am a student enrolled in the Bachelor of Science in Nursing Programme in the Department of Nursing Sciences at the University of Zambia, School of Medicine.

I'm required to undertake a research project in partial fulfillment of my degree in Nursing; my study topic is on factors influencing use of traditional medicine to precipitate labour by antenatal mothers in Mpika District. The main objective of the study is to determine factors that influence use of traditional medicine to precipitate labour by antenatal mothers

You have been randomly selected to participate in this study and I wish to inform you that participation in this study is voluntary and therefore, you are free to withdraw at any stage of the study if you so wish. You will be asked some questions about Labour and use of traditional medicine to precipitate labour. Any information you will give me will be kept in confidence and no name will be written on the interview schedule.

You will not receive direct benefits from the study or monetary gain. The information that you give will give me will help in develop better understanding of the problem of the factors that influence antenatal mothers to use traditional medicine to precipitate labour and such information will be used by health planners and other organizations in finding ways of helping these women not to suffer from complications that may arise as a result of use of the herbs.

I ..... hereby called the participant understands the guidelines of this study and I am willing to participate in the study.

Dated this .....day of .....2009

Signature/ thumb print of respondent.....

Signature of interviewer.....

# CHILONGA MISSION HOSPITAL

Our Lady's Hospital P. O. BOX 450-030 MPIKA ZAMBIA  
Cell Phone: 096 - 645548 / 099 742838 E-mail: chilongahospital@diompika.org

---

12<sup>th</sup> October 2009

Mr. Pearson Bwalya  
University of Zambia  
School of Medicine  
Department of Nursing Sciences  
P.O Box 50110  
LUSAKA

Dear Mr. Bwalya,

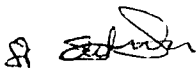
RE : PERMISSION TO UNDERTAKE RESEARCH STUDY AT CHILONGA  
MISSION HOSPITAL

Reference is made to the above captioned subject.

On behalf of management, I wish to inform you that permission has been granted for you to conduct a research study at Chilonga Mission Hospital MCH department between 5<sup>th</sup> and 10<sup>th</sup> October 2009.

You are therefore reminded to submit a copy of your findings at the end of the research.

Sincerely yours,



Sr. Mutamba Elizabeth  
MANAGER ADMINISTRATION  
For/MEDICAL SUPERINTENDENT



THE UNIVERSITY OF ZAMBIA  
SCHOOL OF MEDICINE  
DEPARTMENT OF NURSING SCIENCES

Telephone: 252453  
Telegrams: UNZA, Lusaka  
UNALULA 44370  
Fax: + 260-1-250753  
E-mail: [pbn@coppernet.zm](mailto:pbn@coppernet.zm)

PERMISSION  
GRANTED  
05.10.2009  
D.M.O

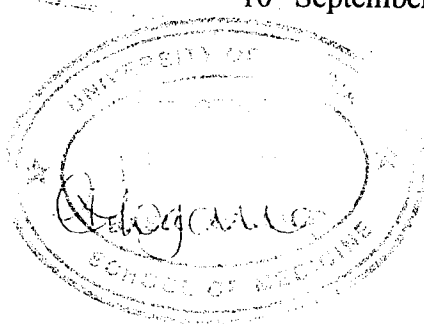
P.O. Box 50110  
Lusaka

10<sup>th</sup> September, 2009

The District Director of Health,  
Mpika District Health Management Team,  
**MPIKA**

UFS: The Head, Department of Nursing Sciences

Dear Sir / Madam,



**RE: REQUEST FOR PERMISSION TO UNDERTAKE A RESEARCH STUDY IN  
MPIKA DISTRICT**

I am a fourth year student pursuing a Bachelor of Science Degree in Nursing. In partial fulfillment for the award of this Degree, I am required to carry out a research project. My study topic is "**Factors influencing use of traditional medicine to precipitate labour by antenatal mothers in Mpika District**".

The purpose of this research is to determine the factors that influence use of traditional medicine to precipitate labour by antenatal mothers. It is hoped that the results of this study will help health care providers institute measures that will improve the delivery of maternal health services and prevent complications that may arise as a result of use of herbs by mothers.

I am therefore requesting for permission to conduct my study in the District at 5 Health centres which were randomly selected. I intend to interview 50 pregnant women who live within the selected Health centers' catchment areas at the antenatal clinic. I hope to conduct my data collection between 14<sup>th</sup> October and 7<sup>th</sup> November, 2009.

Your favourable consideration of this request will be highly appreciated.  
Thanking you in advance.

Yours faithfully,

  
Bwalya Pearson



**PROPOSED BUDGET**

No.	ITEM	UNIT COST (ZMK)	QUANTITY	TOTAL (ZMK)
1	<b>STATIONARY</b>			
	Ream of paper	30, 000	3 Reams	90, 000
	Ball pens	15 00	5	7500
	Pencils	500	5	2, 500
	Tippex	30, 000	1 Packet	30, 000
	Note books	5, 000	2	10, 000
	Stapler	20, 000	1	20, 000
	Staples	15, 000	1 Box	15, 000
	Scientific calculator	100, 000	1	100, 000
	Perforator	30, 000	1	30, 000
	Spiral binders	3000	5	15, 000
	Front and back hard covers	15, 000	5	75, 000
	Flip chart	30, 000	1	30, 000
	Markers	5,000	4	20, 000
	<b>Subtotal</b>			<b>445, 000</b>
2	<b>SECRETARIAL SERVICES</b>			
	Typing research proposal	3, 000	50	150, 000
	Typing research questionnaire	3, 000	8 pages	24, 000
	Typing draft report	3, 000	80 pages	240, 000
	Typing final report	3, 000	80 pages	240, 000
	Binding final report	30, 000	5 copies	150, 000
	<b>Subtotal</b>			<b>804, 000</b>
3	<b>PERSONNEL</b>			
	Research bags	1	150, 000	150, 000
	Snacks	10, 000	30 days	300, 000
	Researcher	50, 000	20 days	1, 000, 000
	<b>Subtotal</b>			<b>1,450,000</b>
	<b>TOTAL</b>			<b>2,699,000</b>
	<b>Contingency fund 10%</b>			<b>269, 900</b>
	<b>GRAND TOTAL</b>			<b>K 2968,900</b>

### RESEARCH WORK SCHEDULE

	TASK TO BE PERFORMED	DATES	WEEKS	PERSONNEL	DAYS REQUIRED
1.	Literature review	Continuous		Researcher	
2.	Finalize research proposal	22 <sup>nd</sup> June, 2009 8 <sup>th</sup> Aug, 2009	2 – 9	Researcher	56 days
3.	Data collection tool	10 Aug, 2009- 15 August, 2009	9 – 10	Researcher	7days
4	Submit first draft copy of proposal to supervisor	17 <sup>th</sup> Aug, 2009 – 24 <sup>th</sup> Aug, 2009	10-11	Researcher	7 days
5	Clearance from relevant authorities	24th August to 31 <sup>st</sup> August , 2009	11 -12	Researcher, Nursing science department, Supervisor, Lusaka DHMT, Chilenge clinic	7 days
6.	Pilot study	31 <sup>st</sup> August to 7 <sup>th</sup> September, 2009	13th	Researcher	7 days
7.	Data collection	5 <sup>th</sup> October to 2 <sup>nd</sup> November, 2009	14 -18th	Researcher and research assistant	31days
8.	Data analysis	9 <sup>th</sup> November to 24 December, 2009	19-21	Researcher	15 days
9.	Report writing	26 <sup>th</sup> December to 8 <sup>th</sup> January, 2010	22 -25	Researcher	21 days
10.	Submission of draft copy of research report to supervisor	11 <sup>th</sup> January to 01 February, 2010	26-29	Researcher	21 days
11.	Finalizing research report and binding	11 <sup>th</sup> February, 2010 25 <sup>th</sup> February, 2010	29 -31	Researcher	14 days
12.	Deposition of final research report	16 <sup>th</sup> April, 2010- 05 May 2010	32 <sup>nd</sup>	Researcher	21 days
13.	Monitoring and evaluation	Continuous		Researcher	

# GANTT CHART

THE GANTT CHART SHOWING VARIOUS TASKS TO BE UNDERTAKEN AND THE TIME REQUIRED FOR EACH TASK TO BE PERFORMED FROM JUNE 2009 TO MARCH, 2010

