

THE UNIVERSITY OF ZAMBIA

***SCHOOL OF MEDICINE
DEPARTMENT OF POST-BASIC NURSING***

**FACTORS CONTRIBUTING TO THE HIGH RATE OF
PUERPERAL SEPSIS AMONG WOMEN WHO DELIVER AT
LUSAK URBAN CLINICS**

**A STUDY SUBMITTED TO THE DEPARTMENT OF POST-BASIC NURSING,
SCHOOL OF MEDICINE, UNIVERSITY OF ZAMBIA IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE BACHELOR OF
SCIENCE IN NURSING.**

BY

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**RESEARCH TOPIC: A STUDY TO DETERMINE FACTORS
CONTRIBUTING TO THE HIGH RATE OF PUERPERAL SEPSIS
AMONG WOMEN WHO DELIVER AT LUSAKA URBAN
CLINICS.**

LECTURER: MRS NDELE

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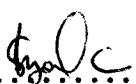
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DECLARATION

I hereby declare that the work presented in this study for the Degree of Bachelor of Science in Nursing has not been presented either wholly or in part for any other degree and is not being currently submitted for any other degree.

Signed:..........


Candidate

Signed:..........

Supervising Lecturer.

STATEMENT

I hereby certify that this study, is entirely the result of my own independent investigation. The various persons and resources to which I am indebted are clearly indicated in the references.

Signed:..........

Candidate.

DEDICATION

This study is dedicated to my parents, nieces and nephews for their support and encouragement during my years of study.

ABSTRACT

Objective - To determine factors contributing to the high rate of puerperal sepsis among women who deliver at Lusaka Urban Clinics.

Design - A descriptive explanatory non-experimental research design with a self-administered questionnaire for the nurses who work in Maternity and Maternal Child Health Department (, .C.H.) in Lusaka Urban clinics and an interview scheduled questionnaire for the women who suffered from puerperal sepsis in 1995 after delivering at the clinics.

Setting - Five (5) clinic offering maternity and M.C.H. services were randomly selected from 9 clinics in Lusaka urban.

Subjects - Twelve (12) women out of thirty (30) were interviewed with their consent. Fifteen (15) nurses from labour wards and eleven (11) nurses from M.C.H. departments completed questionnaires.

Results - 1(8.3%) women reported having sat in soaked traditional herbs soon after delivery, "in order to bring back the vagina to its original state." 1 (8.3%) women inserted traditional herbs into the vagina for the same purpose. 7(58.3%) of the women indicated that no postnatal examination was carried out on them. 3(25%) had postnatal examination at one week after delivery.

13(86.7%) of labour ward respondents stated that they perform routine episiotomied. 5(33.3%) sometimes use clean pads on mothers during labour while 6.7% sometimes use clean cotton wool. A report on how deliveries are conducted in the investigated urban clinics has been included.

Conclusion - Puerperal sepsis is a preventable condition. The health system can implement more efficient prevention and intervention strategies.

CHAPTER ONE

1.0. INTRODUCTION

1.1. BACKGROUND INFORMATION

Puerperal Sepsis is infection of the genital tract occurring at any time between the onset of rupture of membranes or labour, and the forty-second (42nd) day postpartum in which two or more of the following are present:

1. Pelvic pain
2. Abnormal vaginal discharge, usually there is presence of pus.
3. Fever i.e. oral temperature 38.5°C or higher on some occasions.
4. Abnormal vaginal foul odour of discharge.
5. Delay in the rate of reduction of the size of the uterus ($< 2\text{cm/day}$ during first 8 days)¹

In the Developing World, risk factors for puerperal sepsis include pre-existing sexually transmitted infections (and other vaginal infections; prolonged rupture of membranes; retained products of conception; diabetes mellitus; caesarian delivery; postpartum Haemorrhage;) anaemia and malnutrition; poor infection control practices.² Abortions done under unsterile conditions may lead to puerperal infection.³

Puerperal sepsis is the second most common cause of mortality in the developing world.⁴

During 1970-1972 in Britain 15 women died of Puerperal Sepsis.⁵

The overall conclusions of the W.H.O consultation on maternal infection held in Geneva 1988 was that maternal Puerperal infections are of

124 cases of Sepsis of child birth and puerperium were recorded at U.T.H. in 1995. From these, 2 deaths occurred.

Records reviewed at University Teaching Hospital Gynaecology Department for the period, January to December 1995 show that over 30 patients with puerperal sepsis were referred from 5 Lusaka urban clinics for admission. These mothers had normal deliveries conducted at the clinics. No deaths among them were recorded at U.T.H.

Lusaka Urban clinics are under Lusaka Urban District Management Team which caters to a population of 1.3 million. Women of child bearing age are therefore 286,000 (22%). Lusaka Urban Clinics offer health services to the urban population most of which occupies compounds that are more densely populated areas. Despite the upgrading exercise by the Ministry of Local Government and Housing, Ministry of Community Development and the International Donor Agencies, housing conditions and water supply is still poor in these compounds. The percentage of the population with access to safe water from 1988-90 was: urban 76%, rural 43%.¹¹ In addition the standard of living of most Zambians, especially those in the low income groups has been steadily declining since 1975.¹² There is also a high mortality rate with possible reasons being the deteriorating economy, undernutrition and HIV/ AIDS.¹³

The reason that led to the upgrading of 9 of the 22 urban clinics to provide maternity services was congestion at the Maternity Department at University Teaching Hospital. The U.T.H. planners suggested that if some urban clinics were upgraded, the maternity wing would be decongested. In 1982, Dr. Tindal and Senior Nursing Officer, Munkonge were attached to Lusaka Urban District from U.T.H. to be in a team that would give proposals on the upgrading of the clinics to the Irish Aid Assistance to Zambia. The following clinics have been upgraded, Chawama, George, Matero reference, Kanyama, chelstone, Chipata clinics. Clinics which had labour wards already built by the government had Marternal Child Health blocks built. Linen, equipment and bed supplements were also provided. The clinics which did not have labour wards were Chilenje and Mtendere. In order to ensure quality obstetric care, the Irish Aid Assistance also sponsored seminars on Midwifery Procedures for clinic midwives. Ambulances were also provided at least one for each maternity department.¹⁴ This was done in order to supplement government efforts to promote quality maternity services in the district. As decribed above, measures not only to increase delivering units in the district but to provide equipment and supplies that would provide a conducive environment for deliveries to be conducted under sterile conditions were taken. Efforts were also made to equip the midwife with skills and knowledge in order to enable her/him to execute her duties and responsibilities efficiently. By so

doing, the incidence of puerperal sepsis in our health institutions would be minimised.

1.2. STATEMENT OF THE PROBLEM

Puerperal Sepsis is a preventable condition. Improvements in Obstetrical care has reduced Puerperal Sepsis rates to insignificant levels in developed countries. In Zambia, the Ministry of health through the concept of Health reforms has empowered districts through District health management Teams to plan according to the priority of the district health problems and needs. In addition, through the Irish Aid Assistance, each clinic has a sterilizer and each Labour Ward has an Autoclave. In every clinic health education is supposed to be given starting from the antenatal period. Sexually Transmitted Disease Screening of antenatal mothers is carried out with assistance from UNICEF. If found positive, free treatment is given. Partner tracing is being carried out on clients with positive results to ensure that partners receive treatment at the same clinics.¹⁵ 2 deaths were reported nation wide of a total of 33 cases of puerperal fever in 1972.¹⁶ No deaths were reported out of 8 cases of puerperal fever in 1977.¹⁷ The 1994 Bulletin of Health Statistics reports morbidity and mortality due to disorders of pregnancy, childbirth and puerperium collectively. 45 cases of puerperal sepsis were admitted to U.T.H. in 1995 of which over 30 were referred from over 5 Lusaka urban clinics. Complications of puerperal sepsis include blocked fallopian tubes, peritonitis and septicaemia.

Extensive drug therapies have to be instituted in some cases to prevent complications like septicaemia.

Most of the mothers served by the affected clinics live in overcrowded compounds with poor housing structures and poor sanitary facilities.

These compounds began as shanty compounds or unplanned settlements.

Where as there are no facilities for a bath or shower, an adequate wash can be managed using a basin or bowl of water.¹⁸

However, this may be made complicated where there is lack of inadequate water supply. This, coupled with poor toilet facilities may lead to poor perineal care and increased susceptibility to puerperal sepsis.

Cleanliness is important because it protects against micro-organisms which may cause infection or disease.¹⁹ The aim of maintaining personal hygiene is to ensure that the postnatal mother is comfortable and free from the risk of infection. Lack or inadequate knowledge about postnatal self care will therefore predispose the mother to the risk of puerperal sepsis. One of the mothers who were admitted to U.T.H. with puerperal sepsis had an infected episiotomy. Two of the mothers had broken down episiotomies. This may be due to poor care of the episiotomy site by the mother caused by lack of knowledge or sanitary facilities and use of unsterile equipment for suturing or faulty suturing technique by the midwife.

In Britain a midwife is responsible for the care of mother and baby both in hospital and at home. Following transfer from hospital, or after a home delivery, she is required to visit daily to monitor the health of the mother and baby.²⁰ In Lusaka urban clinics, the mother should have a postnatal examination after one week and after six weeks to monitor her health. Postnatal monitoring of the mother is meant for early identification of health problems and prompt interventions to prevent any complications such as puerperal sepsis.²¹

Poor health of the mother may lead to puerperal sepsis. Three of the mothers who were admitted to U.T.H. had anaemia as well. The health status of a woman is dependent on many factors but especially on the value which she places on her health and the extent to which she can make choices on those factors which influence it.²² Among the Lunda of North-Western province in Zambia, the woman is given traditional medicine to make her strong during labour.²³ This is seen where one of the mothers who was admitted to U.T.H. with puerperal sepsis had traditional medicine in her vagina. The use of traditional medicine also causes delay in seeking care from health institutions.

The following factors can contribute to puerperal sepsis among women who deliver at Lusaka Urban Clinics:

1. **BAD OBSTETRICAL CARE**

Bad Obstetrical care may be in the form of hostile staff attitudes that may prevent mothers from attending antenatal and postnatal clinics, undue vaginal examinations, delay in commencement of antibiotic therapy in prolonged rupture of membranes, use of unsterile equipment during vaginal examination or delivery and faulty episiotomy suturing techniques leading to broken down episiotomies and high risk of infection.

2. **INADEQUATE FACILITIES IN CLINICS**

Clinics are not supplied with adequate gloves, this in turn leads to gloves being re-used in delivering and suturing of episiotomies. Needless to say, many mothers cannot afford to buy gloves.

3. **INADEQUATE KNOWLEDGE ABOUT PERSONAL HYGIENE**

Inadequate knowledge about personal hygiene by mothers after delivery could be due to the inability of midwives to give adequate health education on personal care after delivery. Poor health education on care of episiotomy sites lead to increased risk of broken down episiotomies and puerperal sepsis.

4. **POOR HOME SANITARY FACILITIES**

Irregular or inaccessible water supply in residential areas and poor toilet facilities lead to low standards of personal hygiene and increased risk of puerperal sepsis.

- 5.a. Mothers may not attend their postnatal checkup/examination after one week as required for whatever reasons. This may lead to poor monitoring of mother's health and late detection of complications.
- b. Inadequate postnatal examination of the mothers by midwives may lead to impending complications being overlooked or missed such as puerperal sepsis.
- c. Lack of home visits to monitor the health of the mother and baby may also lead to late detection of complications.

6. **POOR TRADITIONAL PRACTICES**

Insertion of herbs in the vagina after delivery may provide an environment that enhances microorganisms multiplication especially where there is faulty personal hygiene. Since illiteracy is rampant among women in Zambia in general, there may be poor interpretation and understanding of health messages as given by the midwives.

7. **EARLY SEXUAL ACTIVITY AFTER DELIVERY**

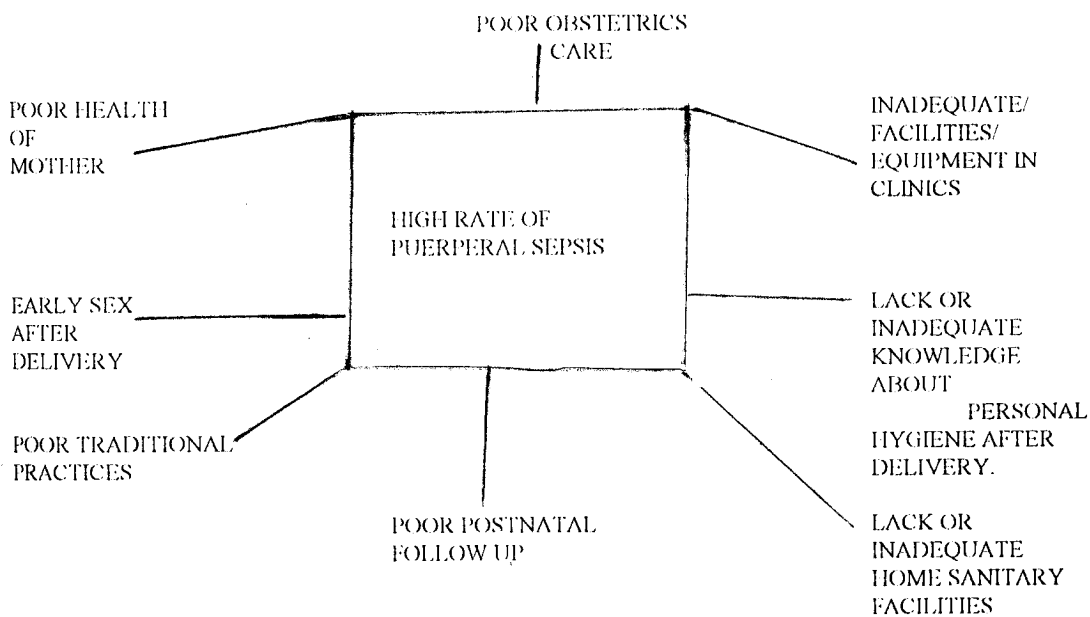
Early sexual activity after delivery promotes ascension of infection in the genital tract. Mothers are prone to mild infection of the genital tract after delivery due to sustenance of bruises and cuts that often occur during child birth. Sexual intercourse during the time of recuperation is likely to push the infection upwards in the reproductive system predisposing her to puerperal sepsis.

8. **POOR HEALTH OF THE MOTHER**

Poor health of the mother may be caused by malnutrition, conditions like anaemia which are often due to an unbalanced diet or frequent childbirths as well as chronic diseases such as HIV/AIDS.

The rate of puerperal sepsis indeed seems high in Lusaka urban despite all the efforts being made by the government and the Non-governmental Organisations to ensure quality obstetric care in Lusaka district urban clinics. Despite this, there has been no research study aimed at finding out the contributing factors leading to the high rate of puerperal sepsis among women who deliver at Luaska urban clinics. It is hoped that the findings of the study will assist in augmenting the already existing efforts by providing information to help solve the problem.

CONTRIBUTING FACTORS IN HIGH RATE OF PUERPERAL SEPSIS



1.3 **Purpose of the Study**

The purpose of the study is to establish the factors that predispose women to puerperal sepsis after delivery. The study targets the women who delivered at Lusaka Urban clinics in 1995 and were admitted to the University Teaching Hospital with puerperal sepsis. The study also aims to establish practices of nurses that may predispose to puerperal sepsis. The results of the study will be communicated to responsible health care authorities in the District so that the findings are utilised in solving the problem.

1.4. **Objectives**

1.5. **General Objectives**

To determine factors that contribute to the high rate of puerperal sepsis among women who deliver at Lusaka Urban clinics and provide information for corrective measures to be taken.

1.6. **Specific Objectives**

1.6.1. To establish the characteristics of women who deliver at Lusaka urban clinics.

1.6.2. To establish the type of health education the women receive during antenatal visits.

- 1.6.3. To identify socio-cultural factors that may predispose women to puerperal sepsis.
- 1.6.4. To determine the characteristics of nurses who work in maternity wards.
- 1.6.5. To determine the number of deliveries that are conducted in the clinics.
- 1.6.6. To determine aseptic techniques practiced in the clinics.
- 1.6.7. To assess health education practices of Maternal Child Health (M.C.H) and maternity nurses in the clinics.
- 1.6.8. To assess postnatal care practices of M.C.H. and maternity nurses in the clinics.

1.7. **Definition of Terms**

For the purpose of this study, the following terms will be defined as follows:

- 1.7.1. Puerperal Sepsis: refers to infection of the genital track occurring at anytime between the onset of rupture of membranes or labour, and the forty-second day postpartum.

1.7.2. Mother or woman: refers to a woman during the period from the first day of delivery to six weeks after delivery

1.7.3. Aseptic technique: refers to the combination of efforts made to reduce the number of microorganisms on both living surfaces (skin and tissue) and inanimate objects (e.g. surgical instruments) to a safe level in order to prevent infection.

CHAPTER TWO

2.0. LITERATURE REVIEW

A number of research studies on Puerperal Sepsis have been carried out in both developed and developing countries. Contributing factors discovered include: lack of asepsis and antisepsis techniques, a streptococcal carriage in a health care worker and poor community knowledge of Puerperal sepsis.

The researcher looks at literature review from the following perspectives:

- Historical perspective
- Incidence of Puerperal Sepsis
- Causes of Puerperal Sepsis
- Consequences of Puerperal Sepsis
- Prevention of Puerperal Sepsis.

HISTORICAL PERSPECTIVE

Maternity hospitals began to be established in the middle of the 18th Century to relieve the distress of the poor. As the number of lying-in hospitals increased, so did the cases of Puerperal Sepsis. The death rate from puerperal sepsis in Norway was high and remained so until 1934. Semmel Weis studied the maternal mortality rates in two obstetric clinics in Vienna for the years 1841-46. He declared that puerperal fever was transmitted by the doctors who taught in the

dissecting room and went straight from there into the labour wards. In 1847 he instructed all doctors or students to scrub their hands in a solution of chloride of lime before they delivered, examined or touched any patient. There was a significant drop in mortality rates in maternity hospitals after the introduction of antiseptic and aseptic techniques around 1880.

INCIDENCES OF PUERPERAL SEPSIS GLOBAL

The 1845 annual report of the maternity ward of the Amsterdam Binnengasthuis puts emphasis on puerperal fever.²⁶ During 1970-1972 in Britain 15 women died of puerperal fever.²⁷ 114/100 000 maternal deaths were reported in Miyun country China. 60% of these deaths were directly linked to obstetrical causes, postpartum infections being the second leading cause of death.²⁸ Haemorrhage and infection were the leading causes of death for the indigenous group in Guatemala.²⁹ In Canada, the rate of maternal deaths due to complications of the puerperium is 0.0%³⁰

REGIONAL

According to Guinea-Bissau maternal mortality assessment, deaths due to puerperal infection comprised 15.9% from 1989-1990.³¹ Maternal deaths due to complications of the puerperium in Mauritius in 1992 was 0.2%.³²

NATIONAL

The total notification of puerperal fever for all Zambia in 1964 was 83; 1972 was 33 and 1977 was 8.³³ 36,067 mothers suffered from disorders of pregnancy, childbirth and puerperium in 1992.³⁴ Puerperal sepsis comprised, 11% of all direct obstetric causes at University Teaching Hospital in 1993.³⁵

Out of the total deliveries conducted in health centres in Lusaka urban, 46% do not attend postnatal care. The number of women attending postnatal care is getting lower every year. Low coverage of postnatal care has led to puerperal sepsis and postnatal deaths.³⁶

CAUSES OF PUERPERAL SEPSIS

The haemolytic streptococcus was finally proved to be the cause of puerperal sepsis by Louis Pasteur in 1879.³⁷ Group B streptococcal infections came to light in the early 1930s. Group B streptococci were frequently isolated from the vagina or birth canal.³⁸ Nine postpartum infection (five bacteremia, three cases of endometritis without bacteremia, and one infected episiotomy site) caused by an m-nontypable, T-28 strain of group A streptococcus occurred during a 9-week period in 1987. Seven cases were cared for by one obstetrician who was found to be an anal carrier of the same m and T types.³⁹ The haemolytic streptococcus group A is still potentially the most dangerous organism for the postpartum woman because of its ability to invade the bloodstream.⁴⁰ Of the women who died from puerperal infections only a few had received antibiotics.⁴¹

PREVENTION OF PUERPERAL SEPSIS

Reproductive health and health in general, is predetermined by the socioeconomic conditions in the society in which people are born and in which they live. It is promoted or undermined by the individual's own lifestyle, and it is improved by health care services and information and technological advances made through health research. ⁴⁶

Prevention of infection is of great concern at all levels of health care in developing countries, as it is one of the most prominent causes of maternal mortality. Lack of asepsis and antisepsis prevail at community, health centre and hospital levels.

Education of staff in these techniques should be an on-going activity, together with an in-depth medical audit if sepsis is the cause of maternal death. ⁴⁷ At the

health centre level, the midwife should give in-service training to the health workers on methods of proper equipment sterilisation and prevention of cross-infection. Referral and timely transfer of difficult and emergency cases should be dealt with by the midwife. The midwife should suture episiotomies and perineal tears and educate the patients concerning their own health care. Prolonged and obstructed labour will be prevented by the use of partograph and by the practices of antisepsis and asepsis. ⁴⁸ Because of the extent of postpartum health

problems, participants in the workshop made a number of recommendations, including promotion of postpartum care, provision of postnatal home visits, promotion of perineal hygiene and better training, monitoring and evaluation of Traditional Birth Attendants. ⁴⁹

CHAPTER THREE

3.0 METHODOLOGY

3.1. Research Design

A descriptive explanatory non-experimental research design was used in order to identify the factors contributing to a high rate of puerperal sepsis among women who deliver at Lusaka urban clinics in the study.

The method was thought to be appropriate because it enables precise measurement and reporting of the characteristics of the groups under study and confirms or disproves that suspected factors contribute to the phenomena being studied.

3.2. Research Setting

The study was conducted in Lusaka urban which has a population of 1.3 million. Of the 22 health centres in the district, 9 offer Maternal Child health and Maternity services. 22,000-23,000 mothers deliver at these clinics per year. Most of these mothers live in densely populated compounds.

3.3. Study Population

The study population comprised all the women who delivered at Lusaka Urban clinics in 1995 and suffered from puerperal sepsis. It also comprised the nurses who work in the 9 clinics which offer Maternal Child Health and Maternal services.

3.4. Sample Selection and Approach

The target population for this study were the women who had delivered at Lusaka Urban clinics and were admitted to the University Teaching Hospital gynaecological wards in 1995 with puerperal sepsis. The sample comprised all the 30 women who had been admitted to CO1 and CO2 according to the records.

The lottery method of random sampling was used to sample the 9 clinics and the following clinics were picked: Matero reference, Kanyama, George, Chelstone and Chilenje. 50 nurses were to be selected by using simple random sampling method as follows: Firstly, 5 numbers were selected randomly from a Table of Random Numbers. Secondly, the numbers were matched against the list of nurses working in each labour ward and Maternal Child Health departments. Unfortunately, most of the names picked in labour wards were of nurses who were either attending district protocols for 3 weeks, on maternity or sick leave. In Maternal Child Health departments, the number of nurses were found to range from

1-3. Therefore, apart from those who were selected by simple random sampling and were available other nurses found on duty were included in the sample, where only 1 nurse was working in a department, only that nurse was involved.

5. **Sample Size**

All the 30 women were included in the sample to prevent having a very small sample which would be non representative. However, only 12 were interviewed because of limitations which were encountered. 26 nurses instead of 50 were incorporated in the sample because of the reasons already stated.

6. **Data Collection Technique**

Data was collected by the use of self-administered questionnaire for the nurses. This technique was considered to be more appropriate because the respondents were literates. A structured interview schedule was used in order to facilitate communication and elicit correct information from the women. another technique which was used was observation of how deliveries were being conducted in clinics.

3.7. **Ethical Considerations**

A letter requesting access to client's records at U.T.H. was written to the Hospital Administration and permission was granted. Another letter requesting access to clinics and clients was written to the district. Permission was granted both at district and provincial level.

3.8. **Pilot Study**

The pilot study was conducted to pre test the research instrument before its use, and corrections were made. Self-administered questionnaires were pre-tested on 3 nurses at Kabwata Maternal Child health department and 5 nurses at U.T.H. labour ward. 1 structured interview schedule was carried out on a client in C02.

CHAPTER 4

4.0. PRESENTATION OF FINDINGS AND ANALYSIS OF DATA

4.1. Introduction to Findings

The findings are from data that was obtained from twelve (12) of the women respondents, fifteen (15) of the labour ward respondents and eleven (11) of the M.C.H. nurses.

4.2. Data Analysis

Analysis of data consists of organising all observations into some meaningful form. This was done by counting the number of times a variable occurred.

Data collected from thirty-eight (38) respondents was analysed manually. Categorisation and counting of responses for each variable was done according to the responses that were given. Descriptive statistics using frequency distribution and percentages have been used in tabulating the data.

4.3. Presentation of Findings

Table 1 Socio-Cultural Information In Relation to Practices that May Contribute to Puerperal Sepsis

TRIBE	NUMBER OF RESPONDENTS WHO DONT USE TRADITIONAL MEDICINE	NUMBER OF RESPONDENTS WHO DRINK TRADITIONAL MEDICINE	NUMBER OF RESPONDENTS WHO SIT IN SOAKED HERBS	NUMBER OF RESPONDENTS WHO INSERT HERBS INTO VAGINA	TOTAL
Ngoni/Chewa/Tumbuka	8 (66.7%)	0 (0%)	1 (8.3%)	1 (8.3%)	10 (83.3%)
Bemba	0 (0%)	2 (16.7%)	0 (0%)	0 (0%)	2 (16.7%)
TOTAL	8 (66.7%)	2 (16.7%)	1 (8.3%)	1 (8.3%)	12 (100%)

MARITAL STATUS	NO SEXUAL INTERCOURSE SINCE DELIVERY	STAYED 2 MONTHS WITHOUT SEXUAL INTERCOURSE	STAYED MORE THAN 2 MONTHS WITHOUT SEXUAL INTERCOURSE	TOTAL
Single	3 (25%)	0 (0%)	0 (0%)	3 (25%)
Married	2 (16.7%)	2 (16.7%)	4 (33.3%)	8 (66.7%)
Widow	1 (8.3%)	0 (0%)	0 (0%)	1 (8.3%)
TOTAL	6 (50%)	2 (16.7%)	4 (33.3%)	12 (100%)

Table 1 shows that 1 (8.3%) of the respondents sit in soaked herbs to tighten vaginal muscles after delivery and another 1 (8.3%) insert herbs into the vagina. 2 (16.7%) take traditional medicine orally while 8 (66.7%) do not use traditional medicine. All the (25%) single respondents did not have sexual intercourse since delivery compared with 2(16.7%) of the married respondents while another 2 (16.7%) resumed sexual intercourse after 2 months and 4 (33%) after more than 2 months.

Table 2: Water Conditions In Relation to Problems Experienced with Personal Hygiene Soon After Delivery.

TYPE OF WATER SUPPLY	NUMBER OF	TIME	VULVA IS	CLEARED	TOTAL
	ONCE	TWICE	THREE TIMES	MORE THAN THREE TIMES	
Piped and regular	0 (0%)	1 (8.3%)	3 (25%)	0 (0%)	4 (33.3%)
Piped and constant	0 (0%)	2 (16.6%)	3 (25%)	0 (0%)	5 (41.7%)
Piped irregular and from long distance	1 (8.3%)	0 (0%)	1 (8.3%)	0 (0%)	2 (16.7%)
Bore hole at long distance	0 (0%)	0 (0%)	1 (8.3%)	0 (0%)	1 (8.3%)
TOTAL	1 (8.3%)	3 (25%)	8 (66.7%)	0 (0%)	12 (100%)

Table 2 shows that 1 (8.3%) of respondents with irregular water fetched from long distance cleaned the vulva once per day including a respondent 1 (8.3%) fetching water from a bore hole at a long distance 3 (25%) of respondents with piped and regular water supply out of 4 (33.3%) and 3 (25%) of respondents with piped and constant water supply out of (41.7%) cleaned the vulva 3 times per day and the rest more than once.

Table 3: Information on health Education (H.E.) Received By Respondents on Puerperal Sepsis During Antenatal Visits

ANY H.E. RECEIVED ON PUERPERAL SEPSIS DURING ANTENATAL VISITS	NUMBER OF RESPONDENTS WHO COULD NOT REMEMBER RECEIVING SUCH H.E.	NUMBER OF RESPONDENTS WHO RECEIVED H.E.	NUMBER OF RESPONDENTS WHO DID NOT RECEIVE H.E.	TOTAL
Yes	0 (0%)	1 (8.3%)	0 (0%)	1 (8.3%)
No	0 (0%)	0 (0%)	8 (66.7%)	8 (66.7%)
No response	3 (25%)	0 (0%)	0 (0%)	3 (25%)
Total	3 (25%)	1 (8.3%)	8 (66.7%)	12 (100%)

Table 3 shows that 1 (8.3%) of respondents received health education on puerperal sepsis during antenatal visits while 8 (66.7%) did not. 3 (25%) did not remember receiving health education on puerperal sepsis.

Table 4: Educational Level In Relation To Knowledge of Importance of Postnatal Clinic By Mothers

EDUCATION LEVEL	RESPONDENTS REASON OF IMPORTANCE OF POSTNATAL CLINIC					
	IMMUNISATION	CARE OF MOTHER AND BABY	EXAMINATION OF MOTHER	DETECTION OF HEALTH PROBLEMS	HEALTH EDUCATION	TOTAL
NONE	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0(0%)	0 (0%)
PRIMARY	1 (8.3%)	1 (8.3%)	0 (0%)	3 (5%)	0 (0%)	5 (41.7%)
SECONDARY	0 (0%)	0 (0%)	6 (50%)	0 (0%)	0 (0%)	6(50%)
COLLEGE	0 (0%)	1 (8.3%)	0 (0%)	0 (0%)	0 (0%)	1 (8.3%)
UNZA	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
TOTAL	1 (8.3%)	2 (16.7%)	6 (50%)	3 (25%)	0 (0%)	12 (100%)

Table 4 shows that 6 (50%) of the respondents who had Secondary education related the importance of postnatal clinic to mother care. 1 (8.3%) of the respondents with college education related it to the care of the mother and baby. Of those with Primary education, 1 (8.3%) related it to immunisation of the baby. 1 (8.3%) to the care of the mother and baby and 3 (25%) to the detection of health problems. 0 (0%) related it to health education.

Table 5: Number of Respondents Who Had Postnatal Examination After Delivery

ANY POSTNATAL EXAMINATION AFTER DELIVERY	NUMBER OF RESPONDENTS WHO HAD POSTNATAL EXAMINATIONS	NUMBER OF RESPONDENTS WHO DID NOT HAVE POSTNATAL EXAMINATIONS	TOTAL
Yes	5 (41.7%)	0 (0%)	5 (41.7%)
No	0 (0%)	7 (58.3%)	7 (58.3%)
Total	5 (41.7%)	7 (58.3%)	12 (100%)

Table 5 shows that the majority of the respondents 7 (58.3%) did not have postnatal examination while 5 (41.7%) had postnatal examination.

Table 6: Information On When Postnatal Examinations Were Done

WHEN POSTNATAL EXAMINATIONS WERE DONE	RESPONDENTS WHO DID NOT HAVE POSTNATAL EXAMINATION	RESPONDENTS WHO HAD POSTNATAL EXAMINATION AT ONE WEEK	RESPONDENTS WHO HAD POSTNATAL EXAMINATION AT SIX WEEKS	RESPONDENTS WHO HAD POSTNATAL EXAMINATION AT ONE AND SIX WEEKS	TOTAL
NONE	7 (58.3%)	0 (0%)	0 (0%)	0 (0%)	7 (58.3%)
AT ONE WEEK	0 (0%)	3 (25%)	0 (0%)	0 (0%)	3 (25%)
AT SIX WEEKS	0 (0%)	0 (0%)	1 (8.3%)	0 (0%)	1 (8.3%)
AT ONE AND SIX WEEKS	0 (0%)	0 (0%)	0 (0%)	1 (8.3%)	1 (8.3%)
TOTAL	7 (58.3%)	3 (25%)	1 (8.3%)	1 (8.3%)	12 (100%)

Table 6 shows that out of the 41.7% who had postnatal examination, 3 (25%) attended postnatal clinic at one week. 1 (8.3%) had the examination at six weeks and 1 (8.3%) had the examination both at one and six weeks.

Table 7: Characteristics of Nurses who Work in Clinic Labour Wards and Maternal Child health (M.C.H.) Departments

POST	NUMBER OF LABOUR WARD RESPONDENTS	TOTAL	NUMBER OF M.G.H. RESPONDENTS	TOTAL
Zambia Enrolled midwife	10 (66.7% ^a)	10 (66.7% ^a)	7 (63.6% ^a)	7 (63.6% ^a)
Zambia Registered midwife	5 (33.3% ^a)	5 (33.3% ^a)	0 (0% ^a)	0 (0% ^a)
Zambia Enrolled nurse	0 (0% ^a)	0 (0% ^a)	4 (36.4% ^a)	4 (36.4% ^a)
Total	15 (100% ^a)	15 (100% ^a)	11 (100% ^a)	11 (100% ^a)

LENGTH OF SERVICE AS A MIDWIFE	NUMBER OF LABOUR WARD RESPONDENTS	TOTAL	NUMBER OF M.C.H. RESPONDENTS	TOTAL
1-4 years	1 (6.7% ^a)	1 (6.7% ^a)	0 (0% ^a)	0 (0% ^a)
5-9 years	7 (46.7% ^a)	7 (46.7% ^a)	3 (27.2% ^a)	3 (27.2% ^a)
10-14 years	4 (26.7% ^a)	4 (26.7% ^a)	4 (36.4% ^a)	4 (36.4% ^a)
15-19 years	2 (13.3% ^a)	2 (13.3% ^a)	2 (18.2% ^a)	2 (18.2% ^a)
20-24 years	1 (6.7% ^a)	1 (6.7% ^a)	2 (18.2% ^a)	2 (18.2% ^a)
Total	15 (100% ^a)	15 (100% ^a)	11 (100% ^a)	11 (100% ^a)

WHEN LAST ATTENDED IN-SERVICE	NUMBER OF LABOUR WARD RESPONDENTS	TOTAL	NUMBER OF M.C.H. RESPONDENTS	TOTAL
None	6 (40% ^a)	6 (40% ^a)	6 (54.5% ^a)	6 (54.5% ^a)
Less than one year	2 (13.33% ^a)	2 (13.33% ^a)	5 (45.5% ^a)	5 (45.5% ^a)
1-4 years	5 (33.33% ^a)	5 (33.33% ^a)	0 (0% ^a)	0 (0% ^a)
5-9 years	0 (0% ^a)	0 (0% ^a)	0 (0% ^a)	0 (0% ^a)
10-14 years	2 (13.33% ^a)	2 (13.33% ^a)	0 (0% ^a)	0 (0% ^a)
Total	15 (100% ^a)	15 (100% ^a)	11 (100% ^a)	11 (100% ^a)

Table 7 shows that the majority of respondents who work both in labour ward and M.C.H. are ZEM that is, 10 (66.7%) work in labour ward. 7 (63.6%) at M.C.H. 5 (33.3%) ZRM work in labour wards and 0 (0%) in M.C.H. 4 (36.4%) ZEN work in M.C.H. while 0 (0%) work in labour ward.

All the respondents working in M.C.H. had served as midwives or enrolled nurses for more than 5 years. Only 1(6.7%) of the respondents working in labour ward had served as midwives for less than 4 years. (6(40%) of labour ward respondents and 6 (54.5%) of M.C.H. respondents had no in-service training. However, 2 (13.33%) from labour ward and 5 (45.5%) from M.C.H. had in-service training within the first 7 months of 1996. 2 (13.33%) of labour ward respondents had in-service training over 10 years ago.

Table 8: **Practices of Asepsis in Labour Wards**

USE OF STERILE GLOVES FOR VAGINAL EXAMINATION AND DELIVERY	NUMBER OF RESPONDENTS WHO ALWAYS USE STERILE GLOVES	NUMBER OF RESPONDENTS WHO SOMETIMES USE CLEAN GLOVES		TOTAL
Yes	11 (73.3%)	0 (0%)		11 (73.3%)
No	0 (0%)	4 (26.7%)		4 (26.7%)
Total	11 (73.3%)	4 (26.7%)		15 (100%)

USE OF STERILE MATERNITY PADS DURING LABOUR	NUMBER OF RESPONDENTS WHO ALWAYS USE STERILE MATERNITY PADS	NUMBER OF RESPONDENTS WHO SOMETIMES USE CLEAN PADS	NUMBER OF RESPONDENTS WHO SOMETIMES USE CLEAN COTTON WOOL	TOTAL
Yes	9 (60%)	0 (0%)	0 (0%)	9 (60%)
No	0 (0%)	5 (33.3%)	1 (6.7%)	6 (40%)
Total	9 (60%)	5 (33.3%)	1 (6.7%)	15 (100%)

Table 8 shows that 4 (26.7%) of respondents use clean gloves for vaginal examination and delivery in the absence of sterile gloves. 11 (73.3%) always use sterile gloves. Also 6 (40%) use clean pads or cotton wool during delivery.

Table 9: Practices By Labour Ward Nurses that May Contribute to Puerperal Sepsis

Performance of routine episiotomies	Number of respondents who perform episiotomies routinely	Number of respondents who do not perform episiotomies routinely	Total
Yes	13 (86.7%)	0(0%)	13 (86.7%)
No	0 (0%)	2 (33.3%)	2 (33.3%)
Total	13 (86.7%)	2 (33.3%)	15 (100%)

Performance of postnatal examinations	Number of respondents who carry out postnatal examinations after delivery and before discharge	Number of respondents who carry out postnatal examinations one week after delivery	Total
Yes	4 (26.7%)	11 (73.3%)	15 (100%)
No	0 (0%)	0 (0%)	0 (0%)
Total	4 (26.7%)	11 (73.3%)	15 (100%)

Table 9 shows that 13 (86.7%) perform routine episiotomies. 2 (33.3%) do not perform routine episiotomies. 11 (73.3%) carry out postnatal examinations one week after delivery and 4 (26.7%) after delivery and before discharge.

Table 10: Information on Health Education carried out during Postnatal visits in

Relation to Topics covered by M.C.H. Nurses

GIVING OF HEALTH EDUCATION	TOPICS COVERED AS INDICATED BY NUMBER OF RESPONDENTS			TOTAL
	Under five children's clinic/Family Planning	Cleaning babies and Cord Care Code	Personal hygiene after delivery	
Yes	4 (36.4%)	1 (9.1%)	6 (54.5%)	11 (100%)
No	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total	4 (36.4%)	1 (9.1%)	6 (54.5%)	11 (100%)

Table 10 shows that 6 (54.5%) of the respondents educate mothers during postnatal visits on personal hygiene after delivery. 4 (36.4%) on underfive children's clinic and family planning. 1 (9.1%) on cleaning babies and cord care.

Table 11: Home Visiting by M.C.H. Nurses to Postnatal Mothers

Is home Visiting being carried out	Number of respondents who carry out home visits	Number of respondents who do not carry out home visits	Total
Yes	0 (0%)	0 (0%)	0 (0%)
No	0 (0%)	11 (100%)	11 (100%)
Total	0 (0%)	11 (100%)	11 (100%)

Table 11 shows that all the respondents 11 (100%) do not carry out home visits.

CHAPTER FIVE

5.0. DISCUSSION OF FINDINGS AND NURSING IMPLICATIONS

5.1. Discussion of Findings

The study was conducted for the purpose of establishing reasons for the high rate of puerperal sepsis among women who deliver at Lusaka urban clinics.

Socio-Cultural Characteristics of the Women

The researcher wanted to establish whether the age and marital status of the women predisposed them to puerperal sepsis. From the findings, there was almost an even distribution for each age group and married women comprised 66.7% of all respondents. According to the information, none of the respondents had sexual intercourse before two months after delivery. However, 8.3% sat in soaked traditional herbs soon after delivery, "in order to bring back the vagina to it's original stated." 8.3% inserted traditional herbs into the vagina for the same purpose (see Table 1). Depending on the cleanliness of the utensils used in herb administration, the basins and the soaked medicine can be a source of infection especially that the vagina may have some bruises early in the puerperium which allows for easy entry of microorganisms into the bruised tissues.¹ Information shows that 75% of the women use pieces of cloth from old cotton dress or chitenge as sanitary towels. These substitutes for sanitary towels may be a source of infection especially if they are not washed

properly and ironed to destroy germs. World Health Organisation information indicates that poor infection control practices are risk factors for puerperal sepsis.²

Knowledge of Importance of Postnatal Clinic

All the respondents had at least attained primary education. This is important because illiteracy affects the level of understanding of health messages and therefore the practice of the intended message. 50% of all the women with secondary education related the importance of postnatal clinic to examination of the mother while those with primary education related it to immunisation of the baby (8.3%), care of the mother and baby (8.3%) and detection of health problems (25%). The mother who reached college education related it to the care of the mother and baby (8.3%). However, only 41.7% of all the women had postnatal examination. Reasons that were given for not having postnatal examinations were as follows,

1. the mothers are only told to take their babies to the clinic for the immunisation at two months.
2. the mothers are only asked how they feel without head to toe examination.
3. Only the babies are examined.

Lack of explanation to mothers on what postnatal visits are for and when to come for postnatal examinations led to some of the mothers to go to the clinic two months after delivery. This was done to take the babies for the first Diphtheria, Pertussis and Tetanus including Polio immunisations.

Practices that May Contribute to Puerperal Sepsis

Information in table 6 shows that 25% had postnatal examinations at one week while 8.3% had postnatal examinations at six weeks and 8.3% both at one and six weeks. 58.3% indicated that no postnatal examination was carried out on them. To some extent this information is similar to that of labour ward nurses of whom only 73.3% carry out postnatal examinations one week after the women deliver. 26.7% indicated that they carry out postnatal examinations after delivery and before discharge (see Table 9.) 100% of M.C.H. nurses indicated that they carry out postnatal examinations. 9.1% stated that they do it at one week after delivery, 36.4% at six weeks and only 54.5% at one and six weeks. Some respondents were stating that shortage of nurses was affecting their work.

Home Visiting

No home visits are carried out by M.C.H. nurses according to the information given in Table 11. This means that a close follow up care of the mother and baby during the postnatal period is not done. Such a system of postnatal care was found to contribute to a high postnatal

morbidity rate in Bangladesh and is not practiced in Britain. Barnes states that in Britain a midwife is required to visit daily to monitor the health of the mother and baby.³

It has also been stated that there is a low coverage of postnatal care in Lusaka Urban. A 54% coverage leading to puerperal sepsis and postnatal deaths was documented for 1995.⁴ There is need therefore to conduct home visits. The major obstacles to conducting home visits were said to be lack of transport and shortage of nurses.

Health Education

According to the women, only 1 (8.3%) received health education on puerperal sepsis during antenatal visits and 3 (25%) could not remember whether they did or not (see Table 3). However, 36.4% of M.C.H. nurses stated that they give health education on underfive children's clinic and family planning, 9.1% on how to clean babies and cord care and 54.5% on personal hygiene after delivery (see Table 10). 55.5% did not mention personal hygiene. However, those who indicated that they give health education on personal hygiene also mentioned children's clinic- 9.1% neither mentioned children's clinic nor personal hygiene. This shows tremendous imbalance in the type of health education being given to mothers.

Practices of Asepsis in Labour Ward and M.C.H. Department

73.3% of Labour ward nurses always use sterile gloves for vagina examination and delivery and 33.3% sometimes use clean pads on mothers during labour while 6.7% sometimes use clean cotton wool. The researcher observed deliveries being conducted on 1-8-96, 4-8-96 and 5-8-96 at four clinics.

Delivery packs contained:-

- 1 receiver
- 2 pads (at one clinic)
- 1 artery forcep
- 1 pair of scissors
- 1 piece of cloth used to wrap the pack.

General Observations:-

- No proper washing of hands
- Sterile gloves are put on ready for delivery but the same

gloves are used:

- to open drawers
- to straighten client's bed linen
- to rupture membranes
- to arrange baby clothes
- to deliver the baby

- to dress the baby
- to deliver the placenta
- to examine the vagina
- only one washed gloved hands with tap water

in between the procedures.

Other Observations:-

- Linen the client was lying on was used to press on bleeding points during vaginal examination.
- A plastic bag used to carry baby clothes from home was handled with the same gloves used to conduct the delivery.
- During episiotomy suturing the same pad which was used to clean the vulva was pushed into the vagina. Sutures material was put on the client's bottom sheet.
- the baby was left in feces and liquor until the cutting of the cord. No pad was used to put over the anus.

Prevention of infection is of great concern at all levels of health care in developing countries, as it is one of the most prominent causes of maternal mortality. Lack of asepsis and antisepsis prevail at community, health centre and hospital levels. Education of staff in these techniques should be an on-going activity, together with in-depth medical audit if sepsis is the

cause of maternal death.⁵ According to Bjoro 1993, the introduction of aseptic techniques in maternity hospitals lowered mortality rates.

Information in Table 9 indicates that 86.7% perform routine episiotomies which were said to be performed on primi gravidae. Routine episiotomies have been found to predispose to puerperal sepsis as stated in reproductive health information.⁶

Characteristics of Labour and M.C.H. Nurses

66.7% of labour ward nurses are Zambian Enrolled midwives while 33.3% are Zambian Registered midwives. 63.6% of nurses working in M.C.H. department are Zambian Enrolled midwives while 36.4% are Zambian Enrolled nurses. Only 6.7% had worked as midwives for less than four years.

5.2. **Implications for the Health System**

Most of the district health providers that the researcher came in contact with were surprised that there is a high rate of puerperal sepsis in the clinics. One exclaimed, "But there is no puerperal sepsis in the clinics, I have been working there but I never heard of even one case!" This is contradictory because one of the health problems identified in the district in 1995 was puerperal sepsis. This could mean that not much emphasis has been attached to its prevention and control and so there has been none or

little about it communicated in the district. Constant monitoring of morbidity and mortality causes should be followed by effective and efficient intervention measures.

There is need for an efficient and effective communication and surveillance system. This requirement was aluded to by one of the managers in the district health sector.

A good staffing system should be worked out to normalise the nurse/client ratio.

There should be adequate equipment and other logistics needed for provision of better Maternal and Child Health services.

CHAPTER SIX

6.0. CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

The study was done to establish factors that contribute to the high rate of puerperal sepsis among women who deliver at Lusaka Urban clinics.

The information from the research study show that some of these factors are contributed by the practices of the women, others by the practices of the nurses and others by the district Health Management such as having inadequate supplies. Poor housing and water supply is a responsibility that rests on the district council.

1. The researcher found out that the living conditions of most women do not offer convenient places to wash after delivery. Water is also fetched from long distances up to 30 minutes walk in some cases including lack of disposable sanitary wear which increase the risk of puerperal sepsis among women after delivery.
2. Some traditional practices of women such as inserting of herbs into the vagina soon after delivery predispose to infection.

3. The findings also revealed inconsistencies in postnatal examinations and health education on it's purpose.

4. From the interviews the researcher does not think that the world immunisation day influenced the women's thinking for them to show that more emphasis is placed on child care at the clinics.

6.2. **Recommendations**

1. Effective distribution of nurses in M.C.H. and labour ward departments.
2. Procurement of transport urgently in district for home visits.
3. Conduct workshops on maintenance of sterility during delivery in the light of practices that predispose to high risk of infection.
4. Always emphasise both aspects of M.C.H. since leaning towards one creates an imbalance of care.
5. Procurement of an extra ambulance to avoid instances where referral cases are delayed because the ambulance has to be in "three or more areas" at the same time.
6. The recommended question is, if the district health care providers "listen to mothers" will the mothers also advocate for the needs of their children and not only theirs?

6.3. **LIMITATIONS OF THE STUDY**

1. The sample size was smaller than intended.
2. The study involved travelling to different residential areas where some elements had given wrong addresses, others had address numbers without sections indicated and some had shifted to unknown places. Three had died.
3. The number of nurses working in labour ward and Maternal Child health departments (M.C.H.) affected the sample. In two clinics there was only one M.C.H. nurse, Maternity leave, sick leave and protocols reduced the number of nurses in labour wards. This led to the use of convenience sampling method.
4. Following up supplementary funds reached over data collection time. This meant that planned schedule of data collection was affected in that tracing up some elements to residential areas was abandoned because of limited funds.

FOOTNOTES

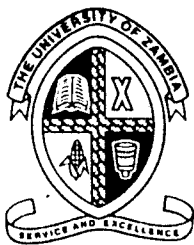
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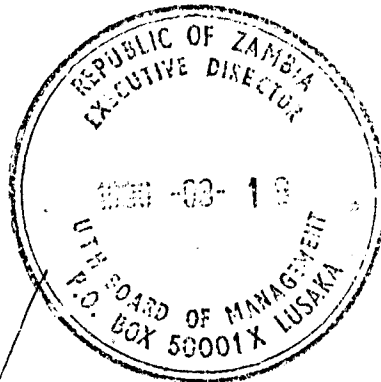
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Your Ref:
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11th March, 1996

The Director
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ATTENTION DIRECTOR OF NURSING SERVICES

I wish to introduce Lyamba Sitwala, BScN IV student in the Department of Post Basic Nursing. She is carrying out a Research study on "Factors Contributing to High Rate of Puerperal Sepsis Among Women who Deliver at Lusaka Urban Clinics."

We shall be grateful if you would kindly access her records in C-Block and Records Department and any other assistance she may require.

Yours faithfully,

P.M. Ndele (Mrs)
ACTING HEAD/RESEARCH LECTURER - PBN

MR Ahmed

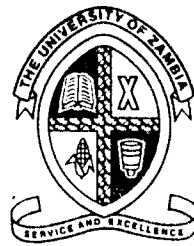
We have no objection. What is your stand?

21/3/96.

No objection as long as notes are removed from the department files

Thanks
What

In charge
let copy go ahead
reference has been provided
M.M. D. D. D.



THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF POST BASIC NURSING

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Deans Office
P.O. Box 50110
Lusaka, Zambia

Your Ref:

Our Ref:

11th March, 1996

TO WHOM IT MAY CONCERN

This is to introduce Ms Lyamba Sitwala a BSc N IV student in the Dept. of Post Basic Nursing.

Ms Sitwala is carrying out a Research Study on "Factors Contributing to High Rate of Puerperal Sepsis Among Women Who Deliver at Lusaka Urban Clinics."

I am hereby requesting for permission to access her information in form of records, observations of deliveries, interviews with staff as well as clients from the community.

On completion of the study you will have access to the results of the study.

We shall be most grateful for your support in this exercise.

Yours faithfully,

P.M. Ndele (Mrs)
ACTING HEAD/RESEARCH LECTURER - PBN

/cm

10-04-96

The D-2-71 to
authorise the conduct
of the research in the
Health Centres.


3/7/96
Authorized for the
students to conduct
the research.
AW
DDP

M. M. M. M. M.
REPUBLIC OF ZAMBIA
DISTRICT HEALTH
OFFICER
10 APR 1996
SENIOR NURSING OFFICER
P.O. BOX 50110 LUSAKA

Lyamba Sitwala
Department of PBN
School of Medicine
UNZA

29th April, 1996

The Head of Department
M. C. H.
Ministry of Health
ANCHOR HOUSE
LUSAKA.


ufs. Head of Department
PBN
LUSAKA

Dear Madam,

RE: SUPPLEMENTARY FUNDING FOR RESEARCH PROJECT

I am Lyamba Sitwala a fourth year student in the Department of Post Basic Nursing of the School of Medicine, UNZA. I am carrying out a Research Project in Partial fulfillment towards the Degree Requirement. My Research Topic is a Study to determine factors contributing to a high rate of Puerperal Sepsis among the Women who delive in Lusaka Urban Clinics".

The purpose of this letter is to kindly request for supplementary funding for my Research Project. The funding from my sponsors is not adequate to meet the entire budgetary needs.

I shall be most grateful for your kind consideration of my request.

Yours faithfully.

LYAMBA SITWALA

SELF ADMINISTERED QUESTIONS FOR CLINIC LABOUR WARD NURSES

DATE _____ QUESTIONNAIRE NUMBER _____

INSTRUCTIONS TO THE RESPONDENT

1. No name should appear on this questionnaire
2. Information given will be considered confidential
3. Indicate the answer to the question by ticking (✓) in the box provided and write your response to open-ended questions in the space provided.
4. Please answer all questions

QUESTIONS

OFFICIAL USE
ONLY

1. What is your present post?

(a) Zambia Enrolled Midwife

(b) Zambia Registered Midwife

(c) Other, specify _____

2. How long have you been working as a midwife?

3. When did you last attend in-service training?

4. How is the water supply at your clinic?

(a) Erratic

(b) Always available

5. Do you have a constant supply of disinfectants?

(a) Yes

(b) No

OFFICIAL USE ONLY

6. If no to question 5, how do you disinfect the instruments?

(a) Using plain water

(b) Boiling

(c) Drying in the sun

(d) Other, specify _____

7. How many midwives work in your labour ward per shift?

8. How many deliveries are conducted at your clinic on average per day?

9. How often do you perform vaginal examination during labour?

10. Do you always use sterile gloves for vaginal examination and delivery?

(a) Yes

(b) No

11. If no to question 10, what do you use?

(a) Clean gloves

(b) Recycled gloves

(c) Other, specify _____

OFFICIAL USE
ONLY

12. Do you always use sterile maternity pads on mothers during labour?

(a) Yes

(b) No

13. If no to question 12, what do you use?

14. How long does it take for an mother with a detected complication in labour to be transferred to the hospital?

15. Do you perform routine episiotomies?

(a) Yes

(b) No

16.

16. When do you carry out postnatal examination?

SELF ADMINISTERED QUESTIONS FOR M. C. H. NURSES

DATE _____ QUESTIONNAIRE NUMBER _____

INSTRUCTIONS TO THE RESPONDENT

1. No name should appear on this questionnaire
2. Information given will be considered confidential
3. Indicate the answer to the question by ticking () in the box provided and write your response to open-ended questions in the space provided.
4. Please answer all questions

QUESTIONS

OFFICIAL USE
ONLY

1. What is your present post?

(a) Zambia Enrolled Midwife

(b) Zambia Registered Midwife

(c) Other, specify _____

2. How long have you been working as a midwife?

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(b) Always available

5. Do you have a constant supply of disinfectants?

(a) Yes

(b) No

6. If no to question 5, how do you disinfect the instruments?

OFFICIAL
USE ONLY

(a) Using plain water _____

(b) Boiling _____

(c) Drying in the sun _____

7. Do you always use sterile gloves for vaginal examinations?

(a) Yes _____

(b) No _____

8. If no to question 7m what do you use?

(a) Clean gloves _____

(b) Recycled gloves _____

9. Do you carry out postnatal examination?

(a) Yes _____

(b) No _____

10. If yes, when do you do it?

.....

11. Do you give health education to mothers during postnatal visit?

(a) Yes _____

(b) No _____

OFFICIAL USE
ONLY

12. If yes to question 11, what topics
Do you cover?

13. Do you carry out home visits to postnatal
mothers?

STRUCTURED INTERVIEW SCHEDULE FOR MOTHERS WHO HAD PUERPERAL SEPSIS

DATE _____

CLIENT'S CLINIC NUMBER _____

QUESTIONNAIRE NUMBER _____

INSTRUCTION TO INTERVIEWER

1. No name should appear on this questionnaire
2. The information given will be considered confidential
3. Indicate the response by the respondent in the box provided by ticking (✓)
4. For open - ended, questions, write the responses in the space provided.
5. Ask all questions

QUESTIONS

OFFICIAL USE ONLY

1. What is your age? _____

2. What is your marital status?

(a) Single

(b) Married

(c) Divorced

(d) Widowed

(e) Separated

3. What is your religion?

(a) Christian

(b) Hindu

(c) Muslem

(d) Other specify _____

4. What is your tribe?

- (a) Lozi:
- (b) Ngoni
- (c) Bemba
- (d) Lunda
- (e) Kaonde
- (f) Tonga
- (g) Other, specify

OFFICIAL USE ONLY

5. What education level did you attain?

- (a) None
- (b) Primary
- (c) Secondary
- (d) College
- (e) University

6. Where do you live? _____

7. What is your source of water? _____

8. If your source of water is piped, how regular is your water supply?

- (a) Regular
- (b) Constant
- (c) Irregular

OFFICIAL USE
ONLY

9. What type of toilet do you use?

(a) Pit Latrine

(b) Flushable

(c) Other, specify _____

10. How many pregnancies have you had?

11. How many children do you have?

12. Did you suffer from any physical illness during pregnancy?

(a) Yes

(b) No

(c) No response

13. If yes to question 12, specify

14. Have you ever suffered from sexually transmitted disease during pregnancy?

(a) Yes

(b) No

(c) No response

OFFICIAL USE ONLY

15. If yes to question 14, were you treated?

(a) Yes

(b) No

(c) No response

16. Do you use any traditional medicine soon after delivery?

(a) Yes

(b) No

(c) No response

17. If yes to question 16, how do you use the medicine?

18. What type of sanitary towels do you use after delivery?

(a) Maternity pads

(b) Cotton wool

(c) Pieces of cloth

(d) Other, specify _____

19. Where do you get your sanitary towels from?

20. How often do you wash the vulva after delivery?

(a) Once a day

(b) Twice a day

(c) Three times a day

(d) More than three times a day

OFFICIAL USE ONLY

21. How many times do you have meals in a day after delivery?

22. Do you supplement main meals after delivery ?

(a) Yes

(b) No

23. If yes what do you eat?

24. How long did you abstain from sexual intercourse after delivery?

25. Did you ever receive health education at the clinic during your antenatal visits concerning puerperal sepsis ?

(a) Yes

(b) No

(c) No response

26. If yes, what were you told about puerperal sepsis?

27. Is it important for mothers to attend postnatal clinic?

(a) Yes

(b) No

(c) Dont know

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28. Explain your answer to question 27.

29. Did you have a postnatal examination after delivery?

(a) Yes

(b) No

(c) No response

30. If yes, when did you have the examinations?
