AN INVESTIGATION INTO THE FACTORS AFFECTING UNDERUTILISATION OF THE PHELANDABA CLINIC LABOUR WARD BY LOW RISK PREGNANT WOMEN IN MAPUTALAND, NORTHERN KWAZULU-NATAL

BY

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Dissertation submitted in full compliance with the requirements for the Masters Degree of Technology: Nursing, Department of Postgraduate Nursing Studies, Durban Institute of Technology.

I, Nozipho Celia Henrietta Mathenjwa, declare that this is my own work and has never previously been submitted for a degree elsewhere.

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DEDICATION

I dedicate this project to my family especially my sister Lindiwe Sithole, my beloved kids Zuko, Nandi and Nokuthula and my nephew Lungile who supported me throughout my years of study.

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ABSTRACT

An exploratory descriptive research design was used for this study which investigated the underutilisation of a rural clinic's labour ward by low risk pregnant women (LRPW). The study took place in Maputaland, Northern KwaZulu-Natal. Rosenstock's health belief model (HBM) modified by Becker et al, in 1977 was adapted as a framework for this study.

A two phased approach was used. Phase I consisted of 60 LRPW who came from the clinic's catchment area and were designated to deliver in the clinic. They were selected postnatally and were categorised according to their place of delivery namely hospital, ekhaya (home) or clinic. Twenty participants were selected for each category in order for comparisons to be made. A comprehensive semi-structured interview schedule was developed and used for this phase of the research and after coding the statistical package of SPSS was used for data entry and analysis. Phase II of the study consisted of focus group discussions among three separate groups of health care workers (HCW) who all had contact with LRPW from the clinic catchment area. The groups were community health workers, nurses from the fixed and mobile clinics and hospital labour ward registered midwives. A focal group guide was developed mainly from an analysis of the findings of phase I of the study. The qualitative data obtained were analysed and comparisons were made between the three focus groups as well as between the perceptions of LRPW and the HCWs.

Although 48 (80%) of the 60 LRPW wanted to deliver in the clinic only 20 (33.3%) were able to do so. This was probably due to the many barriers to delivering in the clinic perceived by both LRPW and the HCWs. In contrast few benefits were identified by either of these two groups. In addition the HCWs, unlike the LRPW, perceived a number of threats to clinic delivery which may have negatively influenced LRPW regarding clinic delivery.

Based on the findings of this study, recommendations were made, which, if implemented, could enable more LRPW to deliver in the clinic labour ward.

APPENDIX ONE: MAP OF MAPUTALAND

APPENDIX TWO: THE JOZINI HEALTH DISTRICT

(from Gandhi (ed.) 1999:4

APPENDIX THREE: MAP OF MANGUZI HEALTH WARD INDICATING THE POSITION OF MANGUZI HOSPITAL, PHELANDABA CLINIC AND ITS CATCHMENT AREA

CHAPTER ONE

THE PROBLEM AND ITS SETTING

1.1 INTRODUCTION

1.1.1 Maputaland

This study was undertaken in Maputaland which is in a deep rural area in Northern KwaZulu-Natal. Its neighbouring states are Mozambique to the north and Swaziland to the west. It is bounded by the Indian Ocean to the east and Ubombo mountain range to the south west (Appendix One). Before the 2000 municipal demarcation, when this research study was initiated, this area fell into the Jozini Health District (DC27) which had four health wards associated with four level one provincial hospitals, namely Manguzi, Mosvold, Mseleni and Bethesda (Appendix Two). In 2001 Hlabisa Hospital was incorporated into DC27 and the health district has since been renamed Umkhanyakude District.

1.1.2 Manguzi Health Ward

The main focus of this study was in the Manguzi Health Ward which is situated in the Kwangwanase tribal area under the Umhlabuyalingana municipality / KZ271 (Appendix Three). The population of this area is predominantly Zulu speaking and the population figures have been difficult to estimate partly because of immigrants from Mozambique. The population figures vary between 73 303 to 88 000 (Zondi, 2002:2). The majority of people in this health ward are of low socio-economic status, being not only poor, but largely unemployed and many, particularly women, are illiterate.

The Manguzi Health Ward is served by Manguzi Hospital which, amongst its many services, offers maternity care to relatively high risk clients throughout pregnancy, labour and the puerperium. This hospital is responsible for nine fixed clinics, five of which are residential clinics (Appendix Three). These five clinics

offer a 24 hour, 7 day a week comprehensive health service including a maternity service, incorporating delivery for low risk pregnant women. The remaining four fixed clinics offer a comprehensive service on weekdays only. They have no delivery service but give antenatal and postnatal care as do the three mobile clinics which rotate through the many mobile clinic points (Appendix Three).

1.1.3 Phelandaba Clinic

The focus of the research was Phelandaba Clinic, one of the five residential clinics in the Manguzi health ward in the Kwangwanase tribal area. This clinic's catchment area involves ten tribal wards called "Izigodi", all falling under one "Inkosi" or Chief and a senior "Induna" or Headman. The clinic is located near the main bus route, which is tarred and is 22 kilometres from Manguzi Hospital.
The clinic, its infrastructure, its staffing and the care given will be described in some detail to provide an understanding of the setting for this research on underutilisation of the clinic labour ward, which caters for low risk pregnant women.

The clinic consists of a day time clerking area on the verandah and an out patients room for all clients, including antenatal and postnatal clients. There is one examination room for all, one treatment room, a small dispensary, a store room and a kitchen. There is a large room which acts as a labour and delivery room and this is separated by a curtain for women and their babies in the early postnatal period. There are also toilets, a bath / shower room, a sluice room and an outside incinerator used for example to incinerate placentae. Behind the clinic building is a waiting hut for pregnant women near term called the "isihambi" hut. There are two nurses' residences within the clinic grounds which are used by the two professional and two enrolled nurses, one of each always being on call at night. For security the clinic grounds are fenced and access is controlled by the security guards. At night the gates are locked and one security guard is on night duty, to inform the professional nurse of any client wanting to access the clinic. There is no direct contact from the gate to the professional nurse on call.

Most of the roads to the clinic are sandy and of poor quality, especially in the rainy season – heavy rains making the clinic relatively inaccessible. This is worsened by the scarcity and cost of transport, particularly at night, within the Phelandaba Clinic catchment area. No provincial vehicle or ambulance is based at the clinic which compounds this situation. Furthermore, the ambulance services fall under the emergency medical rescue services (EMRS). Although they are sited at Manguzi Hospital, they are not always able to respond rapidly to emergencies at the clinic, because of other priorities. Although the clinic has a fax machine, a telephone and radiophone, communication with the base hospital is, at times, problematic when these are temporarily out of order. Repairs may be delayed in this remote area. The electricity, despite being from 'Eskom', is somewhat unreliable, particularly at night when it is most needed for delivery. Medicine stocks are sometimes insufficient and this may lead to problems in patient care.

The staff at the clinic are two professional nurses – registered in general nursing, midwifery and primary health care, two enrolled nurses, one auxiliary nurse, two general assistants, four security guards and one gardener. The auxiliary nurse and gardener work weekdays from 07:00 – 16:00. In order to supply a 24 hour a day, seven days a week service a team of one professional nurse and one enrolled nurse work from 07:00 – 18:00 on Sunday, Monday, Tuesday and Wednesday, the other team working the same hours on Wednesday, Thursday, Friday and Saturday. When on duty they are also on call from 18:00 to 07:00 to attend to women in labour and for other health matters such as emergencies. Each of the two general assistants work with one of the two nursing teams during the day only. The clinic is always covered by one of the four security guards, one always allocated for night duty. A doctor visits the clinic on a weekly basis.
Inclusive of midwifery care, the nursing staff in the clinic provide comprehensive primary health care such as treatment of minor ailments, maternal and child care, management of tuberculosis and of sexually transmitted infections, mental health

care and initiation of emergency care. In regard to midwifery care, it is only the two professional nurses whose scope of practice enables them to effectively screen women for risk factors antenatally, monitor and deliver women in labour and initiate early postnatal and newborn care such as resuscitation of the newborn. Bearing in mind that apart from Wednesdays, only one professional nurse is on day duty for 11 hours each day for four days and then on call for 13 hours each night for four nights, it appears that she may have difficulty in allocating her time and expertise between midwifery and all other aspects of comprehensive primary health care. This dilemma may well impact on the care given in the clinic labour ward.

1.1.4 Mobile Clinic services

There are three mobile teams operating within the Phelandaba Clinic catchment area. They are each staffed by two professional nurses registered in general nursing, midwifery and primary health care, two enrolled nurses and one auxiliary nurse. They rotate through the mobile clinic points in the catchment area (Appendix Three). They complement the work of the residential clinic by providing selected aspects of primary health care including antenatal and postnatal care.

1.1.5 Community health workers (CHWs)

There are five community health workers called “onompilo” who live and work within the Phelandaba Clinic catchment area. These CHWs have been trained in basic health care and, currently, are being paid by the Provincial Health Department. Their first contact with pregnant women is at the clinic and mobile clinic points and they follow them up with health education at home. Once these women have delivered they assist them with postnatal and newborn care. They are supervised and responsible to their health facilitator, the clinic sister and the community matron. These CHWs form a link between these women and their families in the community and the health facilities.

1.1.6 Traditional birth attendants (TBAs)

As no TBAs had been identified in the clinic catchment area and as they are not recognised by the health services in the Manguzi Health Ward, their role was unknown in the community prior to this research.

1.2 PROBLEM STATEMENT

The Medical Superintendent and Maternity Matron at Manguzi Hospital were concerned that the labour ward at Phelandaba Clinic was underutilised by low risk pregnant women. In terms of the national and provincial health policies of the Department of Health (Nyasulu, 1999), low risk pregnant women should deliver at the 24-hour or residential clinics. The hospital labour wards should be reserved for high risk deliveries. Therefore, midwives at the clinic are only allowed to deliver low risk pregnant women and those who are high risk are referred to the hospital for delivery.

In order to verify these concerns a preliminary survey of maternity records was undertaken. According to the clinic, community health worker and hospital records, the statistics obtained revealed that of 780 low risk pregnant women from the Phelandaba Clinic catchment area who delivered in 1996 and 1997, only 202 (25,9%) delivered in the clinic labour ward, the majority 430 (55.1%) delivered in the Manguzi Hospital labour ward, which is designated for the delivery of high risk pregnant women. Lastly, 148 (19%) delivered at home. (clinic, CHW and hospital register, 1996 & 1997.)

As a means of identifying whether or not the maternity services at Phelendaba Clinic were acceptable to the community in the catchment area, further preliminary research was undertaken for the same period i.e. January 1996 to December 1997. Using clinic antenatal records, it was found that 821 low risk pregnant women from the Phelandaba Clinic catchment area attended Phelandaba antenatal clinic for their first visit. This was slightly more, 47, than delivered during the same period and over four times the 202 clinic deliveries for

that period. This indicated that the clinic staff and antenatal services were acceptable to the community unlike the facilities and services for labour and delivery, which were undertaken by the same staff. This general acceptance of antenatal care by Phelandaba Clinic was further evidenced by 3409 antenatal clinic visits by low risk pregnant women from January 1996 to December 1997. (Phelandaba antenatal clinic records, 1996 and 1997.) The access to the clinic of this poor community was made easier by the introduction of free maternal and child services (ANC, 1994:45) which could also have positively influenced these attendance figures.

1.3 THE AIM OF THE STUDY

The aim of this study is to determine why a relatively small proportion of low risk pregnant women receiving antenatal care at Phelandaba Clinic, deliver at the clinic.

1.4 MOTIVATION FOR THE STUDY

The extent of underutilisation of health services for delivery has been well documented both in the international literature (Kwast, 1993:116 and 117; Chowdhury, 1998:104; Gennaro, Kamwendo, Mbweza and Kershbaumer, 1998:192) and in the literature relating to Maputaland (Jepson and MacDonald, 1998:117; Buchman, Kritzinger, Tembe and Berry, 1989:29.) In regard to the health services this literature did not differentiate between hospital and clinic deliveries. More recent research in Kwazulu-Natal has indicated better use of health services but underutilisation of rural clinic services for labour and delivery (Jinabhai, Naidoo and de Pinho, 1994:10-11). In Maputaland only 16% of health service deliveries took place in the residential clinics although slightly more, 20.4%, took place in the residential clinics in the Manguzi Health Ward (Gandhi, 1999:10).

This underutilisation of clinic labour wards in terms of provincial policy was demonstrated in the preliminary survey described in the problem statement (1.2)

where only 28.9% of low risk pregnant women delivered in the designated place of delivery, the clinic labour ward, and 55.1% delivered in the hospital labour ward which has been designated for and staffed for higher risk patients. This finding together with concerns raised by hospital management in this regard, were the main motivation for this study.

A second important motivating factor guiding this research was that no previous in-depth research was identified in regard to the factors affecting low risk pregnant women's underutilisation of the residential clinic's labour wards in Maputaland or in Kwazulu-Natal.

A further concern voiced by hospital management was the overloading of the hospital labour ward with low risk women consequent to the underutilisation of the clinic labour ward. The policy of delivering low-risk pregnant women in the clinic was intended to prevent overuse of the hospital labour ward. The hospital management felt that the overloading could lead to substandard care and this in turn might affect the most frequently used measure of the quality of obstetric care, namely the perinatal mortality rate (PMR). Although the PMR at Manguzi Hospital was 32.5/1000 (Gandhi, 1999:11) and despite this being slightly higher than the national PMR of 26.7/1000 in 'rural groupings' (Saving Babies 2002, 2002:5), no evidence has been ascertained that this has been due to the influx of low risk women delivering. Furthermore, the PMR in the Manguzi Health Ward clinics was 29.6/1000 (Gandhi, 1999:11), this being unexpectedly high for low risk deliveries. The factors causing these relatively high PMRs are not being investigated in this research, but knowledge of the high PMR assisted in guiding the recommendations made in the final chapter of this study.

1.5 OBJECTIVES OF THIS STUDY

These are:

1.5.1 To compare low risk pregnant women from the Phelandaba Clinic catchment area who delivered normally at Manguzi Hospital, with those

who delivered at home and with those who delivered at Phelandaba Clinic, in order to determine the influence of variables related to:

- socio-demographic factors;
- socio-cultural factors;
- structural aspects;
- cues to action;
- perceived threat;
- perceived benefits; and
- perceived barriers,

on their decision on the place of delivery.

1.5.2 To compare and contrast the perspectives of the nursing staff at Phelandaba Clinic and its associated mobile teams, the midwives working in the Manguzi Hospital labour ward and the community health workers serving in the Phelandaba Clinic catchment area, as to the reason for the underutilisation of the clinic labour ward.

1.5.3 To broadly compare and contrast the perspectives of low risk pregnant women to those of health workers.

1.5.4 To establish who conducts home deliveries in the Phelandaba catchment area.

1.6 ASSUMPTIONS

It is assumed that:

- the clinic is the optimum place for low risk pregnant women to deliver;
- the data collected adequately reflects the perceptions of recently delivered low risk pregnant women and those of the health staff who have attended them; and
- improvement in the clinic services based on the research findings will increase the compliance of low risk pregnant women.

1.7 OPERATIONAL DEFINITIONS OF THIS STUDY

These are the operational definitions which were used during the study.

- **Normal delivery** – this is a spontaneous, uncomplicated vaginal delivery of a baby and placenta.
- **Low risk pregnant women** are women who are assessed as having only a small risk of problems in pregnancy and labour. They are suitable for antenatal care by the midwives and for clinic delivery (Theron, 1993:3).
- **High risk pregnant women** are women who are assessed as having one or more high risk factors which should be managed at hospital antenatal care clinic under the supervision of a medical practitioner. They should also deliver in a hospital labour ward (Theron, 1993:3).
- **A community health worker or "onompilo"** is a member of the health team who assist the individual and his/her family towards the attainment of better health. They receive basic training in health care as well as receiving financial support from the Department of Health.
- **A traditional birth attendant** is a traditional midwife who has learned her skills by experience or/and from other traditional midwives and works in the community (adapted from Klein, 1996:1).

1.8 CONCEPTUAL FRAMEWORK FOR STUDY

1.8.1 Introduction

The Health Belief Model (HBM) was initially developed in the 1950s by Rosenstock and others such as Hochbaum, Kegeles and Leventhal (Mikhail, 1981:65). However, Becker, et al (1977) modified Rosenstock's Health Belief Model to help to identify and explain why people failed to utilise the formal health services. Hubley (1993:39) called this non-usage "utilization behaviour". The Health Belief Model also assisted in explaining why there was a high non-compliance rate with preventive health recommendations made by health professionals. This model helped identify factors which inhibited or stopped these recommended preventive health actions from being carried out which

resulted in this non-compliant behaviour. The model is essentially concerned with the personal orientation or subjective state of the individual than with history or experience. (Salazar 1991:129). Owing to its phenomenological orientation, it assumes that the subjective world of the perceiver determines behaviour rather than the objective environment (Mikhail 1981:65).

As this study was dealing with underutilisation of a clinic labour ward by many low risk pregnant women, it appeared that Rosenstock's health belief model as modified by Becker would be appropriate in helping to explain this behaviour which was non-compliant with the advice given by the nurses to these women.

1.8.2 Rosenstock's Health Belief Model as modified by Becker

Becker's modification of the Health Belief Model is presented in Figher 1.1 (Becker, et al., 1974:205 – 216 in Rogers, 1994:294). This model focuses on the variables and relationships which helps to explain health related behaviour.

According to Becker, et al. (1977:29) this model hypothesizes that "…persons will generally not seek preventive care or health screening unless they possess minimal levels of relevant health motivation and knowledge…"

As can be seen in Figure 1.1 the three foundational components of the Health Belief Model (HBM) are individual perceptions, modifying factors and factors influencing the likelihood of individuals undertaking the recommended preventive health action. Recently, self efficacy has been added but this was not included for this study (Salazar 1991:130).

Figure 1.1 Rosenstock's Health Belief Model (Becker M.D. et al., 1977)

1.8.2.1 Individual perceptions

According to Figure 1.1 these perceptions include an individual's perception of his or her likelihood to be susceptible to a particular illness and the probable seriousness if one contracts the disease. This leads to an individual's perception of the threat of the disease. This can be modified by various factors (Becker et al. 1977:29).

1.8.2.2 Modifying factors

The factors which modify the perceived threat include demographic, sociopsychological and structural variables as well as cues to action from various sources, as illustrated in Figure 1.1. It is important to realise that these factors will influence the individual's health motivations and perceptions, but not be the direct cause of health actions (Becker et al. 1977:30)

1.8.2.3 Likelihood of action

An individual's evaluation of the recommended health behaviour in terms of its perceived benefits in reducing susceptibility to and the severity of the disease are weighed against the perceived costs or barriers which may inhibit the preventive action advocated by health workers. These barriers refer to the individual's perceptions or physical, psychological, financial barriers involved in carrying out the proposed action (Becker et al. 1977:30).

1.8.3 Adaptation of Rosenstocks Health Belief Model (HBM) modified by Becker

In order to assist in explaining why many low risk pregnant women did not comply with the advocated policy of delivering in the clinic labour ward, this model described above and in Figure 1.1 was adapted by the researcher (Figure 1.2). The literature reviewed in Chapter Two assisted in this adaptation although no literature was found which used the HBM in the area of the study.

Figure 1.2 Adaptation of Rosenstock's Health Belief Model (Becker et al., 1997 and Salazar 1991)

Under **individual's perceptions,** the adapted model focussed on low risk women's perceptions of their susceptibility to developing problems (risk factors) relating to themselves or their baby during the child birth process, as shown in Figure 1.2.

The modifying factors in Figure 1.2 were similar to those in Becker et al.'s modification of the HBM, but where relevant were specifically related to child birth. For example, demographic variables included gravida and parity. Sociopsychological variables were changed to incorporate the sociocultural variables important in rural Zulu society, for example educational level and peer and family pressure.

Furthermore structural variables incorporated previous child birth experiences, which could be an important modifying factor. Under "cues to action' it was identified that 'knowledge of childbirth experiences of others' could also influence perception and the likelihood of action.

The likelihood of action of individuals was largely unchanged except that it pfocused on clinic delivery rather than 'recommended preventive health action'. This adapted HBM was used as a foundation for the literature review which is undertaken in the following chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This review of the literature was undertaken to gain information on the underutilisation of a clinic labour ward in rural areas by low risk pregnant women, and also to find the contributory factors influencing low risk pregnant women in not using the clinic labour ward in rural areas. This study focuses on the health beliefs influencing low risk pregnant women's perceptions, the factors modifying their perceptions and the likelihood of their action in regard to complying with health policy of delivering in the clinic. The Health Belief Model was chosen, and it was adapted and used as a frame work for this study as described in Chapter One, It was based on Becker et al.'s (1977) adaptation of Rosenstock's (1974) model which was further modified and presented by Salazar (1991) in her review article.

2.2 THE EXTENT OF UNDERUTILISATION OF CLINIC LABOUR WARDS BY LOW RISK PREGNANT WOMEN IN RURAL AREAS

2.2.1 General

Clinics are generally accepted as having an important role to play in the delivering of maternal health services in rural areas in the developing world. From the studies accessed by the researcher it appears that underutilisation of clinic labour wards in these rural areas is a common problem internationally, nationally and provincially. Unlike rural women in South Africa, a high proportion of women from rural areas in the developing world were found to have delivered outside the clinic or hospital. The perceptions of women and the factors inhibiting clinic usage will be discussed later in this chapter.

2.2.2 The extent of underutilisation of health services labour wards by low risk pregnant women outside South Africa

Kwast (1995:S73) reported that 80% to 90% of births in rural Indonesia took place at home, a number of factors contributing to the low utilisation of health services. She further demonstrated that in SubSaharan Africa over 60% of women delivered outside the formal health services (Kwast, 1993:116). The position in Pakistan was similar to that in Indonesia, where over 80% of women were delivered without the help of doctors and midwives (Kwast, 1993:116). The position in Latin America was more encouraging as less than 40% of women delivered outside the health facility (Kwast, 1993:117). More recent studies undertaken in rural Bangladesh reflected similar figures to those reported by Kwast for Pakistan, with most deliveries being undertaken by traditional birth attendants (Ahmed, et al., 1997:61; Chowdhury, 1998:104). Gennaro, et al.'s (1998:192) report on Lule and Ssembayata's findings in Malawi reflects Kwast's 1993 data for SubSaharan Africa in that, in rural areas only 25% of women delivered in a health centre. However, throughout Malawi, 44% of all births, urban and rural, occurred at home. In rural Zimbabwe according to Mutambirwa (1985:275) "…the majority of women are cared for and delivered by traditional birth attendants…". However, this is rather an old study and the situation may have altered. Chipfakacha (1994:30) reported that 81.6% of rural women in a desert region of Botswana preferred to give birth at home. Although the majority of pregnant women in Nigeria are delivered in the health services, a significant proportion in rural areas are delivered at home, in some instances to avoid clinics with inadequate resources in the form of staff, essential medication and functioning equipment (Fajelmiheni, 1991:17). Therefore, it appears that delivery outside of health facilities is a widespread occurrence in many developing countries outside of South Africa.

2.2.3 The extent of clinic labour ward underutilisation in South Africa with particular reference to KwaZulu-Natal and the Jozini/Umkhanyakude Health District

Unlike most of the findings reported on for the rest of the developing world, the most recent research in South Africa and particularly in the province of KwaZulu-Natal indicated that most women delivered in health institutions and not at home. This was usually found to be the case, even in the deepest rural areas. However, as will be demonstrated by findings of the research reviewed, most women selected hospital over clinic deliveries. Many factors are involved in this choice such as the women's personal preference (Larsen, 1978:828), and because of clinic limitations in terms of staff numbers (Mabote, 1996:6). As indicated the factors involved in poor utilisation of clinic labour wards will be focussed on later in this chapter. In Jinabhai, et al.'s (1994) foundational research, it was reported that 95% of both urban and rural women attended antenatal clinic in the formal health services. In rural areas the majority, 59,7% gained antenatal care in the provincial clinics and only 31,1% in hospitals, the remaining 4,2% obtained care in the private sector (Jinabhai, et al., 1994:10). In contrast to this pattern, the majority of rural women, 71,2% delivered in provincial hospitals with the minority, 10,1% delivering in the clinic labour ward. As 14,9% of rural women delivered at home, more women delivered there than in the clinic (Jinabhai, et al., 1994:11). These findings differed in informal urban settings where more women delivered in clinics, namely 21, 9% with 17,6% delivering at home. Thus the greater preference for hospital over clinic delivery was reflected in all settings – urban and rural. The major reason given in this study for rural women choosing to deliver in hospital and not in the clinic was "…a desire to be delivered by doctor …" (Jinabhai, et al., 1994:13). This section of this review is dealing, however, with the extent of clinic underutilisation for delivery and will thus not focus on the factors involved.

Usage of health services for delivery appears to have greatly improved in KwaZulu-Natal since the 1980s. Larsen reported that 90% of deliveries in the

community of Umphambunyoni Valley, a deep rural community in southern KwaZulu-Natal, were conducted traditionally (Larsen, et al, 1983(b):545). Two studies in the Jozini Health District also reflected a relatively high proportion of home deliveries. In a study undertaken in the Mseleni area, it was found that 60% of births took place at home (Jepson and MacDonald, 1988:177). In a 1989 study in the Mosvold area 46% of women interviewed, gave birth at home (Buchman et al., 1989:29). Wilkinson, describing the Hlabisa District obstetric services, this district recently being incorporated into the Jozini Health District, reported that about 60% of deliveries took place in the provincial health services, whereas about 40% must have taken place at home. Of the deliveries in the health service 35% took place in the clinic labour ward and the remaining 65% in the hospital (Wilkinson, 1995:21). This figure indicated that the clinics were accepted by the community as appropriate centres for delivering low risk pregnant women.

More recent research in the Jozini Health District focused only on deliveries in the provincial health services and not on home deliveries (Gandhi, 1999). Gandhi identified that 16% of the 5728 deliveries in the district were delivered in the clinics, whereas 84% of the deliveries took place in the labour ward of the four (4) hospitals involved (Gandhi, 1999:10). Although the usage of the clinic labour ward was slightly higher than that reported in Jinabhai, et al.'s (1994) study, Gandhi's findings reflected an underutilisation of clinic labour wards in the Jozini Health District. The remainder of this chapter will largely deal with the factors involved in the underutilisation of the clinics for delivery and the adapted Health Belief Model (Figure Two) will be used as a framework to guide this literature review.

2.3 PERCEPTIONS OF WOMEN WHICH INFLUENCE THEIR CHOICE OF PLACE OF DELIVERY

As the adapted Health Belief Model (Figure Two), described in Chapter One, is being used as a framework for this literature review, it is important to explore the

perception that low risk pregnant woman may have in regard to her or her neonate's susceptibility in the birthing process, the perception of the severity of these problems which she may then perceive as a threat to the childbirth process. In turn this will influence whether or not she will comply with the health policy that she should deliver in the clinic. Although no literature was identified which directly addressed this, a number of studies indicated that pregnant women, irrespective of risk status, preferred to deliver in hospital because it was seen to be physically safer for both the mother and the baby. Brindley (1985:102) reported that most women wanted to deliver in hospitals because of this physical safety aspect. This was supported by Jinabhai, et al.'s (1994:13) findings where the emphasis was on the presence of the doctor. Larsen (1978:827-828) reported that consumers preferred hospital to clinic delivery as the midwives were always present and because doctors were readily available should they be needed. It is evident that some women, whom circumstances force to deliver at home, feel threatened by the childbirth process. This was clearly demonstrated in Brindley's (1985:98) study where women delivering at home feared complications including neonatal death and future infertility. In a study undertaken outside South Africa, midwives were expected to be skilled and to be able to run the clinic well with minimum risks. These factors could influence women to utilise the clinic labour ward and to have trust in the midwives (Bluff and Holloway, 1994:159). The focus was on the midwife being a safe practitioner. Some pregnant women also chose to deliver in hospitals for spiritual safety. According to Brindley (1985:102) women chose to deliver there because they were protected from sorcery. Although hospital delivery may be considered to be safer, some low risk pregnant women in the rural setting are influenced by their cultural beliefs to perceive home delivery to be the safest place rather than the hospital (Chalmers, 1990:89, Chowdhury, 1998:10 and Winnard, 1995:127). Some women do not perceive that they are susceptible to any risks. They believed that they could deal with any problem arising during labour, thus they do not perceive labour as a threat (Coakes and Kelly, 1997:27). It is also stated in Jaffre and Prual (1994:107) and WHO (World Health day – Safe Motherhood,

1998:WHD 98.7-2) that health care workers perceived to be unkind to the labouring woman, may have a negative influence on the low risk pregnant woman using these health facilities.

2.4 FACTORS WHICH MODIFY PERCEPTIONS OF WOMEN IN REGARD TO THE THREAT OF THE CHILD BIRTH PROCESS

2.4.1 Introduction

According to the next phase of the adapted Health Belief Model, the factors which may assist in modifying women's perception and influence the likelihood of their complying with the advice of health professionals include demographic, socio-cultural and structural variables as well as the cues to action from a variety of sources (Figure Two). These factors will be discussed in this section of the literature review.

2.4.2 Demographic variables

2.4.2.1 Age

Age is not commonly identified as being a factor modifying women's perceptions. However, Jinabhai, et al. (1994:11) indicated that 23.2% of women who delivered at home were under 20 years of age. Fonn, et al. (1998:697) demonstrated the perspectives of one teenager in the following words "I chose to give birth at home because at the hospital or clinic we teenagers are treated very badly". The age differential in Jinabhai's later study was not reflected in Larsen's (1983(b):543) study where the minority of women who delivered at home (5,9%) were under 20 year of age. Nearly 50% were over 30 years old. In Jinabhai, et al.'s (1994:35) study, it was reported that these young mothers were "poor users" of maternal health facilities.

2.4.2.2 Marital status

This was found to be a significant factor in regard to antenatal clinic attendance. It was indicated in Jinabhai, et al.'s (1994:9) study that married women were better in attending antenatal clinic than single mothers. However, these

researchers did not indicate any relationship between marital status and place of delivery. In Larsen's (1983(b):543) study, over 60% of women who delivered at home were married, but this probably reflected the demography of the community rather than of being any significant influence.

2.4.2.3 Parity

The parity of women who delivered at home varied in studies. Only 12,5% of all women who delivered at home in Jinabhai et al.'s, (1994:11) study were primiparous. According to Buchmann, et al., (1989:2) the mean parity of women who delivered at home was 3.5 with multiparous patients being significantly more likely to deliver at home than primiparous women. Fifty percent of grande multiparous clients delivered at home, despite the health services having identified them as high risk. However, they did not see themselves in a high risk category.

2.4.2.4 Socio-Economic Status and Educational level

Low socio-economic status tends to be common especially in women who are uneducated, unemployed and very poor. This often resulted in poor utilisation of maternal health services (Larsen, 1992:49). According to Forgey, et al. (1999:112) the illiteracy rate in 1996 for KwaZulu-Natal was 41%, with nearly 60% of these being women. It is probable that the illiteracy rate in a deep rural area, such as the area under study, might be greater. A number of authors, such as Williams, et al. (1994:85), indicate that illiteracy tends to make women dependent, male dominated and powerless within their communities as well as depriving them of essential knowledge contributing to unsafe maternal health practices. Education has also been identified by Gennaro, et al. (1998:195) to be important in a woman's life, because it will equip the woman with knowledge and influence her to obtain more information regarding the childbirth process. World Health Day Safe Motherhood (1998:WHD98.7-4) indicates that "…lack of economic power and lack of education constrain women's ability to seek and receive maternal health care throughout the cycle of pregnancy and birth". Cost

of transport has been identified as one of the contributory factors of low socio-economic status women in preventing them from utilising the maternal health services (World Health Day – Safe Motherhood, 1998.WHD98.7-2). This finding was supported by Buchmann, et al., (1989:30) and Kwast (1993:113) where they highlighted that transport was expensive, especially at night. That is why, in Jinabhai, et al.'s, (1994:12) study financial constraints were identified to be one of the major contributory factors in poor utilisation of maternal health services. The literature reviewed also stated that women with a college education and with a higher socio-economic background were given better care (Ahmed, et al., 1997:61) as compared to the poorer women with no formal education who were often treated badly by health professionals (World Health Day – Safe Motherhood, 1998(WHD 98.8)2). This influenced the poorer woman not to use the health service appropriately. It has been highlighted in Fajemilhenin (1995:15) that the majority of women (89,6%) who were illiterate and of low socio-economic status preferred home delivery because they could not afford to pay the money for transport and the service supplied. In Sudan, a study indicated that the majority of women would not use the maternal health facilities as they were ashamed of being poorly dressed and of being ridiculed, because they were uneducated, by the health workers who were generally from a higher socio-economic status class. Fonn, et al., (1998:701) stated that "Women of low economic status do not have the force to demand services, and do not have the monetary capability to attract alternative providers". Free maternal and child health services were introduced in South Africa in 1994 (ANC, 1994:45). This resulted in increased antenatal attendance at Phelandaba clinic (clinic records) but there was no concomitant increase in clinic deliveries.

2.4.3 Socio-cultural variables

Kwast (1995:S71) in her review mentioned that "all health facilities are underutilised due to economic and socio-cultural factors and, in part, to the justified belief that services are not equipped to deal with the problems".

2.4.3.1 Religion

Apart from traditional beliefs and practices which may influence women to deliver at home and not use the clinic labour ward (Chalmers, 1990:89), the specific influence of Christian beliefs including Zionism were not identified in the literature accessed. According to Brindley (1985:609) the spiritual support of the ancestors was needed for the labouring woman. A grandmother's hut was used for this purpose as it was believed that the ancestors were in that hut and they would protect the child.

2.4.3.2 Cultural tradition

It is important to observe beneficial or harmless traditional practices (Williams, et al., 1994:39-41) when attempting to make health facility deliveries more acceptable to rural women (Larsen, et al., 1983(a):542). Traditionally a herbal mixture known as "isihlambezo" is given to women during pregnancy to help hasten labour and to prevent complications throughout the delivery process (Chalmers, 1990:17-18; Gumede, 1978:823; Jepson and McDonald, 1998:177). A strong dose of "isihlambezo" may be potentially harmful and should be used circumspectly (Larsen, et al., 1983(a):542) or avoided (Larsen, et al., 1983(b):544).

As already mentioned, the place of delivery which was considered to be 'safest' in African culture is the grandmother's hut as this is 'pure', as the grandmother is no longer menstruating, and also the residence of the protecting ancestors (Chalmers, 1990:22). It is the ancestors who protect the newborn child (Brindley, 1985:609).

Close social support is traditionally given to a woman in labour by women kinsfolk such as the grandmother and mother or mother-in-law (Chalmers, 1990:22). A woman is not left alone while in labour. Companionship in labour has been shown to be beneficial to women in labour and women may choose home delivery because of traditional care and companionship (Fajemilhenin,

1991:15). The position for delivery in traditional Zulu society is the 'squatting' position (Gumede, 1978:824 and Larsen, 1983(a):541). Apart from the upright position widening the pelvis and being the optimal position for delivery it is believed by traditional women that this squatting position prevents the newborn from swallowing and inhaling amniotic fluids (Jaffré and Prual, 1994:1070). It is further thought to prevent perineal tears (Gennaro, et al., 19998:194).

Burying of the placenta, cord and blood lost during labour must be done by trusted family members such as the mother or mother-in-law. These birth products should be buried secretly, usually in the birthing hut (Chalmers, 1990:20, Setiloane, 1988:43). The reason for burial is the prevention of sorcery.
The baby is normally born into a warm environment by a fire being made in the birthing hut (Larsen, et al., 1983(a):541). Amongst other traditional practices the newborn will be "smoked" by being passed through the smoke created by burning medicinal herbs – "impepho" and fat (Brindley, 1985:609; Gumede, 1978:825 and Chalmers, 1992(b):92). The 'smoking' – ukuthunqisela ngenyamazana – is thought to protect the newborn against the evil forces of the new environment into which the baby has been born. Cultural beliefs and practices may influence women as to the place of delivery particularly in more traditional rural areas. Furthermore, in Zulu traditional areas a woman often cannot make her own decisions as to the place of delivery. These decisions are most commonly made by the mother-in-law or by the head of the household (Gennaro, et al., 1998:192, Nyasulu, 1999: telephonic communication). This may negatively influence women in regard to making use of the clinic labour ward for delivery.

2.4.3.3 Traditional birth attendants

2.4.3.3.1 Traditional birth attendants defined

Traditional birth attendants (TBAs) may also be described as traditional midwives and they form an integral part of traditional rural society in the developing world (Traditional medicine and primary health care, 1988:7). Williams, et al.,

(1994:35) wrote that "…the term TBA is used to describe a wide variety of women assisting with childbirth, from the very experienced to untrained women who help out occasionally". The latter are sometimes described as "incidental birth attendants" and will not be the focus of this review.

2.4.3.3.2 The position and training of TBAs

Some countries incorporate TBAs in the formal health services such as in Northern Brazil (Royston and Armstrong, 1983 cited in Fleming, 1994:145). Other countries ensure that there is a national training programme in place and implemented even when TBAs are not fully incorporated into the health services. This for example, is the case in India (WHO, 1982 cited in Fleming, 1994:144). In South Africa attempts have been made to identify and train TBAs at a local level (Larsen, et al., 1983(b): 543-555). However, no national training programmes nor integration of TBAs into the health services has been identified in South Africa.

2.4.3.3.3 TBAs in the Jozini Health District

In the Jozini Health District, where the planned research took place, three studies have been identified regarding TBAs. However, none have been identified in the Manguzi catchment area. In research undertaken in the Mseleni area of Kwazulu-Natal, thirty-six women identified themselves as TBAs and fourteen of these were interviewed over time (Jepson and MacDonald, 1988:177). Most of these traditional midwives were of the 'Zionist' faith, which is a form of Christianity, and thus may not have been truly 'traditional' in practice. These TBAs were only called on to deliver if there was a problem with home deliveries, the uncomplicated deliveries being managed by senior women in the homestead. They also assisted in antenatal care and education, helped manage the newborn, but gave little postnatal care. They were neither trained by nor integrated into the Mseleni health services. They were, however, trained by local experienced TBAs including their own mothers. Wilkinson (1995:19-20) identified the presence of TBAs in the Hlabisa health area and found that they

undertook some home deliveries. They were not integrated into the Hlabisa health services. In the Mosvold Health Ward nearly half of the home deliveries and about a quarter of all deliveries were undertaken by TBAs (Buchmann, et al., 1989:30). The TBAs were not communicated with by the midwifery / obstetric team and were thus neither trained by nor integrated into the health team.

2.4.3.3.4 The role TBAs could play in South Africa

Most of the South African literature indicates the need for TBAs to become the community arm of the health services in deep rural areas (Larsen, et al., 1983(b):545). As the TBAs are community-based and able to visit women in their own homes they could provide continuity of care from the antenatal period, through to the postnatal period continuing until the weaning process is well-established (Chalmers, 1990:51). Chalmers further indicated as did Larsen, et al., that helpful cultural practices could be fostered by TBAs whereas potentially harmful practices could be discouraged. Larsen, et al., (1983(b);545) recommended training of and working with TBAs in rural areas. There appears to be an acceptance of both Western medicine and traditional practices being used in tandem by traditional Zulu women (Craig and Albino, 1983 cited in Chalmers, 1990:76). There does not appear to be any desire in rural women to be delivered by TBAs in the health care setting (Chalmers, 1987(c) cited in Chalmers, 1990:46).

Finally, if the health services work with trained TBAs to the benefit of their communities, it is recommended that some form of regular payment be organised through the community or health authorities in order to make the services of TBAs sustainable (Larsen, et al., 1983(b):545) and thus limit the threats to pregnant women throughout the childbirth process.

2.4.3.4 Peer and family pressure

As previously indicated, many women, especially in rural areas, are unable to reach for the help they need when it is available either because their mothers-in-

law or husbands will not permit them to go to the clinic or hospital for delivery, (Thompson, 1996:160). Pressure from the family may force women to deliver in a place selected by the family which may not be the first choice of women in labour. Family pressure is also described by Nolte (1998(b):72), who writes "…pressure from a partner or peers, social expectations or cultural norms can persuade a person to risk pregnancy when she is not ready for it…" Though the above paragraph does not relate to labour and the birth process, it demonstrates that women could be pressurised by their family or by peer groups with regard to choosing the place of delivery. It is also well documented that adolescents in particular, often succumb to peer group pressure in regard to decision making and behaviour which may influence where they deliver.

2.4.4 Structural variables

2.4.4.1 Previous child birth experiences

The only structural variable identified by the researcher was the influence of previous childbirth experiences. Good or bad obstetric experience may influence the mother into her choice of the place of delivery for the next pregnancy. Poor handling and bad staff attitudes in previous deliveries will prevent further clinic delivery (Fonn, et al., 1998:69). According to Nolte (1998(b):115) "…previous experience during labour, can have a significant effect on the parent's attitude and views…..", she further stated that if the experience was bad, it is very unlikely for a woman to choose the same place for the next delivery, whereas if experience was good, clients would probably return to utilise the same place for delivery. Walker, et al, (1995:128) identified examples of pleasant experiences in labour including support in labour, positive communication and keeping women informed about their progress in labour. Walker, et al, (1995:123) also identified examples of unpleasant experiences such as being left alone in labour. Other examples included newly delivered mothers remaining hungry after delivery (Mabote, 1996:6), and staff being unwelcoming to clients on admission in labour (Winnard, 1995:S8).

Potentially threatening birthing experiences at home with traditional birthing practices could influence women to deliver in a health service. These include unsuccessful management of obstructed labour and retained placenta. According to Stanley (1997:83), one of the women in his study confessed that she took “an African muti” for obstructed labour and he further explained that complications such as retained placenta were managed by inducing vomiting. Larsen, et al., (1983(a):541) mentioned that if the placenta is retained, the traditional birth attendant would try and remove it manually. This could be a threat to those mothers who deliver at home, where there is no emergency medical assistance. Losing a child after delivery could influence women not to choose the same place of delivery. Sparks (1990:157), in her study, mentioned that if a baby dies immediately after delivery, the woman is given a “muti” to cleanse herself, so that this does not happen with subsequent pregnancies. Mutambirwa (185:275) also support the above statement by mentioning that after a woman has delivered a stillborn infant, she is given a “muti” to purify her breast milk.

2.4.5 Cues to action

2.4.5.1 Information from clinic staff

It is universally accepted that health workers should provide information to low risk pregnant women on the childbirth process as the levels of knowledge of rural women in the developing world regarding this is often inadequate (Chalmers, 1992(b):96; Nolte, 1998(b):114). The information should be given in the antenatal period and empower women to make informed choices regarding the place of delivery, the timing of their admission to labour ward and their means of accessing the place of delivery (Nolte (b), 1998:115). If women, who live far from the selected place of delivery, identify that they would not be able to access the clinic in time when in labour, they should be informed by the clinic staff about the waiting area – called the “isihambi hut” (Wilkinson, 1995:19). Information should also be given to mothers about the danger signs in pregnancy and when and where to go should these arise. Danger signs such as vaginal bleeding could

harm both the mother and the fetus whereas cord prolapse following rupture of membranes would harm the fetus (Bennet and Brown, 1999:299). There is little evidence that knowledge alone will influence a pregnant woman's behaviour, (Hubley, 1993:44). However, the relatively recent introduction of the Better Birth Initiative in Kwazulu-Natal, where a pregnant woman is supported by a significant other, may positively influence a low risk pregnant woman's behaviour in complying with the clinic staff's advice to select the clinic as the most appropriate place of delivery.

2.4.5.2 Knowledge of childbirth experiences of others

Childbirth experiences of other family members, friends and the community in general may influence a low risk pregnant women's choice as to the place of delivery. Larsen (1978:827-828), found that community members preferred hospital to clinic delivery as they had experienced the constant presence of midwives in the hospital labour ward, unlike the clinic, and the ready availability of a doctor when needed. These community opinions and experiences could have had a negative influence on low risk pregnant women complying with the clinic staffs' instructions to deliver in the clinic. Furthermore, if health workers in a clinic were known by the community to have poor attitudes and to be unkind to women in labour this could influence women to deliver elsewhere (Jaffré and Pruel, 1994:107; Jinabhai, et al., 1994:13 and 34; Winnard, 1995:58; Fonn, et al., 1998:697). If women from the household or the community were left to labour alone (Walker, et al., 1995:123) or if the staff were young, inexperienced and incompetent (Jaffré and Prual, 1994:1069) in the clinic, this knowledge could influence pregnant women to deliver outside the clinic such as in the hospital. No literature was accessed regarding the effect on women if they had experienced matured competent staff with positive attitudes and kind supportive behaviour in the labour ward of the clinic. This experience may or may not influence them in selecting the clinic for their next delivery.

2.4.5.3 Advice from others

Apart from information / advice given by clinic staff as to the optimum place of delivery, as discussed previously (2.4.5.1), advice may be given by others such as family members, peers and other community members. Some of the factors influencing the advice given by others includes their experiences of childbirth (2.4.5.2) and socio-cultural variables (2.4.3). In regard to the last, advice given to Zulu traditional women in rural areas regarding the place of their delivery by the mothers-in-law, or / and, if 'married', by the husbands is almost mandatory, leaving the pregnant woman little or no choice, (Gennaro, et al., 1998:192; Williams, et al., 1996:32; World Health Day – Safe motherhood, 1998:WHD98.3-1). This advice from others may have a significant influence as to where low risk pregnant women deliver and this may not be the place of their own choice.

2.4.5.4 Media

In rural areas, because of the high proportion of illiterate women (Forgery, et al., 1999:112) the use of print media alone is less effective than the use of other types of media to help influence women in utilising appropriate health facilities for delivery. The use of the media has been comprehensively analysed by Hubley (1993:145-167). He highlights the need for planning, implementing and reviewing media production for it to be effectively used. The most available media in rural areas, according to Chalmers (1990:37), is radio which she suggests should be used for childbirth education. The other form of audio-media is audio-cassettes. Audio-visual media include video-cassettes and television, the latter also being accessible in some rural areas. Print media includes posters, pamphlets, picture story books, newspapers, magazines and books. Illustrated information pamphlets in the predominant language of a community on the childbirth process should be given to literate pregnant women to increase their knowledge (Chalmers, 1990:92, Gennaro, et al., 1998:1993 191 - 196). This information encourages a woman to change her behaviour towards utilization of health facilities (Koblinsky, 1995:52). Nolte (1998(b):75) also recommends pamphlets be given to literate women in pregnancy and they should be encouraged to share the knowledge gained with women who are unable to

read to assist in the dissemination of information on childbirth. An organisation which has made user friendly health media available in the form of posters, picture booklets and video material is the Soul City Institute and packs could be developed for the childbirth process and other aspects of childbirth education.

2.5 PERCEPTIONS OF WOMEN REGARDING THE THREATS OF CLINIC DELIVERY

2.5.1 Lack of emergency transport

The availability of emergency transport has been viewed as being of importance as lack of such transport at the clinic site for transfer of pregnant women to hospital, when needed, may motivate women to choose the hospital as the safest delivery site. This is because a pregnant woman may perceive the lack of emergency transport at the clinic as a threat to her own and to her baby's life (Brindley, 1985:102). A number of other authors have described the delay and difficulty in accessing transport as a problem and a threat. Sparks (1990:153) wrote that "…organizing transport to a clinic for a woman with labour complications was a lengthy and occasionally an impossible situation". Fawcus et al., (1997:160) had similar findings in that women had difficulty in accessing health facilities during an emergency due to lack of transport and delay in the ambulances which could then lead to maternal death. Furthermore, these authors indicated maternal concern with lack of an on-site ambulance at the clinic site. Mthembu (1997:172) also found, in his study in Manguzi health ward, that transport was a problem. A person, for example, was compelled to hire a car to take her to the clinic or to the hospital as ambulances were not easily available when needed. Women were not in favour of utilising the clinic for delivery, because of the non-availability of ambulances at the clinic site. Mabote (1996:6) indicated that delivery at the clinic was thus perceived as a threat to both mother and baby.

2.5.2 Unreliable Communication system

According to Fonn et al., (1998:700) many clinics have unreliable communication systems with the base hospital and the ambulance services. These unreliable verbal communication systems in the form of telephones or radiophones may prevent the clinic from dealing adequately with obstetrical emergencies. Lack of adequate verbal communication systems is compounded by lack of on-site ambulance services. These communication problems may be viewed as a potential threat by women in labour who may therefore select the base hospital as the safest place for delivery. Fawcus et al., (1997:159) also identified verbal communication systems as a problem in the clinics. These authors indicated that in some clinics telephones and radiophones were lacking altogether, compounding the problem further.

2.5.3 Inexperienced young staff

Women determine their place of delivery by knowing the skills and experience of the midwives attending to them in labour ward. If the midwives in the clinic labour ward are young and thus inexperienced, women may perceive that they may not cope should problems arise. Labouring women may not cooperate with these midwives because of these perceptions (Jaffre and Prual, 1994:1069). Women may thus perceive young midwives as a threat and thus decide not to use the clinic for delivery. These young midwives may also not have borne children themselves, unlike traditional birth attendants, and could thus be seen as being culturally unacceptable (Chalmers, 1990:47). According to Winnard, (1995:S16) clinic midwives often remain isolated at the clinic and are not updated in their practice. Because of this, they may be viewed by pregnant women as lacking in skills and in being a potential threat to them and their babies during labour. This may again discourage women from utilising the clinic for delivery.

2.5.4 Unavailability of doctors at the clinic

The majority of women prefer hospital to clinic delivery as they feel safe and secure as there are doctors available at the hospital to deal with emergencies

should they arise (Larsen, et al., 1978:827). Mabote (1996:6) also found that many women chose not to use the clinic for delivery because of the absence of doctors. This lack of doctors in the clinic was perceived as a threat by women in labour. This finding was further reinforced by Jinabhai, et al., (1994:13) where rural women were found to want "…to be delivered by a doctor…" for safety reasons.

2.5.5 Lack of life-saving equipment and medication

Clinics in rural areas were often not well-enough equipped to handle obstetric complications (Winnard, 1995:S16). She also indicated that drugs and supplies were not always available at the clinic. This lack of essential equipment and medication at the clinic was another factor contributing to women choosing not to deliver there as they felt unsafe. Mabote (1996:6) supported Winnard's findings writing that "many times there is not medication as stocks are inadequate". Lack of essential medications such as Oxytocin and Pethidine were also identified in many clinics in the North-West province and Limpopo province (Fonn, et al., 1998:690). These researchers also found that equipment and supplies were inadequate. Although this section has focussed on 'perceived threats' to the woman in labour and to her baby, these factors could also be viewed as 'perceived barriers' which are to be discussed in the next section.

2.6 PERCEPTIONS OF WOMEN OF BARRIERS TO CLINIC DELIVERY

The two main barriers identified in the literature were inaccessibility of the clinic and unacceptability of the clinic. These perceived barriers could negatively influence low risk pregnant women against delivering in the clinic.

2.6.1 Inaccessibility of clinic

The most common access barriers were inaccessibility due transport problems, state of the roads and distance from the clinic as well as lack of accessibility at the clinic itself.

2.6.1.1 Transport problems, poor state of the roads and distance to the clinic as access barriers

Scarce and costly transport to the clinic, poor road conditions and distance from homesteads to the clinic have been identified in most rural areas in the developing world (Gennaro, et al., 1998:192; Kwast, 1995:S71; World Health Day – Safe Motherhood, 1998: WHD 98.7:1). Scarcity or lack of transport have been identified as problem in all three publications. The cost of transport has also been identified as a problem (World Health Day 1998: Safe Motherhood, 1998:7). In studies undertaken in the Jozini health districts in Northern Kwazulu-Natal lack of transport was identified as a problem by Gandhi (1999:14). In the Mosvold Health ward in the Jozini Health District Buchmann, et al. (1995: 29-30) found that most mothers who delivered at home had transport problems including a poor 'transport network' and the high cost of transport, particularly at night. Mthembu's 1997 (172-173) study of the Manguzi Health Ward in the Jozini health district identified that 'lack of money to pay for transport' and no transport, in some instances, contributed to inaccessibility of health care facilities.

Poor road conditions were also found to cause a barrier to accessing clinic services. According to World Health Day – Safe Motherhood (1998: WHD98.7:1) pregnant women found it difficult to walk on rough roads in rural areas. Kwast (1995:S71) described the inaccessibility of clinics on rough footpaths which were the only means of access to clinics in rural Bolivia. Similar findings were made by Gennaro et al., (1995:192) in rural Malawi. Gandhi (1999:5) reported that most roads in the Jozini Health District were dirt roads. The researcher concurs with Gandhi et al.'s findings in that all roads to the clinics were untarred, where roads to the hospital in the Manguzi Health Ward were tarred. Heavy rains can make the roads to the clinics impassible.

Lastly, distance from homesteads to the clinics was a problem, worsened by transport problems, poor and sometimes impassable roads. From a world-wide perspective about one third of women live more than 5 kilometres from a clinic.

(World Health Day – Safe Motherhood, 1998: WHD 98.7:1). In Mthembu's (1997:172) research in the Manguzi Health Ward it was found that over 75% of women lived more than 5 kilometres away from the nearest residential clinic.

2.6.1.2 Barrier of accessibility at the clinic itself

The barriers at rural comprehensive clinics with a 24 hour childbirth service are mainly evident at night. This is because the Jozini Health District's policy is to lock both the pedestrian and vehicle access gates at night for staff and clinic security. Access is totally dependent on the availability and cooperation of the security guards to unlock the gates as pregnant women in labour have no direct access to the professional nurse 'on call'. Security guards may create problems of clinic access (Abdool Karim et al. 1992:357). According to Mabote (1996:8) it may happen that a 24 hour clinic is closed at night, and a pregnant woman is forced to choose another place to deliver.

Furthermore, because of the comprehensive nature of the clinic with a 24 hour childbirth service, a limited number of nurses have to cover all their clients differing needs (Winnard, 1995:S16). Fonn et al. (1998:698) highlights the exhausting nature of the work that nurses have to undertake in a comprehensive clinic. This may contribute to clinic nurses feeling too tired to cope with women in labour at night. These factors may contribute to inaccessibility of the clinic at night and pregnant woman may thus be forced to choose another more accessible place for delivery (Mabote, 1996:6).

2.6.2 Unacceptability of the clinic

This barrier was the most widely covered in the literature reviewed. It included problems related to the nursing staff, most importantly poor staff attitudes and unprofessional behaviour of the staff. Insufficient nursing staff and lack of medical doctors at the clinic were further staff problems. Other problems making the clinic unacceptable were poor staff support in labour and labouring alone, lack of information during labour, inadequate resources in the clinic and

unacceptability of the “isihambi” hut (waiting area accommodation) leading to non usage of this area.

2.6.2.1 Poor staff attitudes and unprofessional behaviour of staff

Poor staff attitudes as well as unprofessional behaviour have been identified by several researchers as being important barriers in making health services unacceptable to consumers. In World Health Day - Safe Motherhood (1998:WHD 98.7:2) a study conducted in Tanzania revealed that 21% of women chose to deliver at home because of the bad attitude displayed by nurses at a health centre. This finding was also reflected in Gennaro et al.’s (1998:192) study in Malawi. South African research also identified similar findings. According to Mabote (1996:6) clients did not like the way they were treated by the staff, as they were very unkind and rude. These finds were further supported by Fonn et al. (1998:700) where health workers described themselves “…as rude, uncaring, insensitive…” This perception was congruent with the mothers perceptions who said “Nurses instigate each other to scold and insult you”. The unprofessional behaviour of nurses was further reflected in this statement “Mothers deliver without assistance, they leave us alone and go to sleep” (Fonn et al. 1998:687).

These findings of poor staff attitudes were also reflected in Jinabhai et al.’s (1994: 13 and 34) study. Some clients were so affected by the poor attitudes and unprofessional behaviour of nurses that they chose to deliver in a friendlier environment as reflected in the following quotation from Fonn et al. (1998:697) “…they hit us and insult us so it is better at home because my mother won’t scold me.”

2.6.2.2 Insufficient nursing staff

Insufficient nursing staff to cope with the workload in comprehensive clinics, particularly when they are on 24 hour call, may be a barrier to women choosing to deliver in the clinic as well as a potential threat to a mother and her newborn

infant. The lack of sufficient nursing staff in rural clinics has long been identified (How well do our rural clinics function? 1986:4; Ntoane, 1988:22). More recently, Fonn et al. (1998:670) identified lack of staff at primary health care clinics as a problem. Some of the implications are identified by rural women in Mabote's (1996:6) article where these women stated that "…sometimes nurses on duty are overworked and tired, so much that they do not provide proper service to clients". Thus, as has been discussed, shortage of nursing staff may contribute to poor staff attitudes and unprofessional behaviour, lack of staff support and presence in labour and delivery and insufficient information during labour.

2.6.2.3 Lack of medical doctors

This has been discussed previously as a perceived threat, but it may also be viewed as a barrier to clinic delivery. This was particularly so in Jinabhai et al.'s (1994:13) study where most rural consumers wanted a doctor to be present at their delivery. Lack of medical doctors at the clinic could thus be perceived as a barrier. However, not all research identified lack of a doctor as a barrier. Leach et al. (1998:48) found that low risk pregnant women preferred to be delivered by midwives.

2.6.2.4 Inadequate staff support in labour and labouring alone

As already indicated, clinics were often required to offer a comprehensive service and yet were also poorly staffed. This makes it impossible for the midwife to render good care to the labouring woman. Nurses often were unable to stay with women in labour because they were tired (Mabote, 1996:8). Most of the time the woman is left to labour alone (Fajemilhenin, 1991:17). According to Chalmers (1992:72) "Social support during birth is greatly needed by a woman who is labouring". This is supported by the Better Birth Initiative. She further stated that labouring alone discourages women to use the clinic labour ward and they prefer home delivery as they would have their mothers with them during a delivery at home.

2.6.2.5 Lack of information during labour

Mothers who were not updated with progress of labour, became dissatisfied (Ross, 1978:826). It is of vital importance for the woman to be informed about the progress of labour, and to allay her anxiety in order to participate fully during the birthing process (Walker, et al.,1995:124). According to Fleissig (1993:70) if the woman is kept informed she will feel that the birthing process has been a fulfilling experience. Furthermore, Bennett and Brown (1999:299) recommended that danger signs should be explained to the pregnant woman such as prolapse of the umbilical cord following rupture of the membranes, as this could be life threatening to the newborn and this alerts her to calling for help in these circumstances.

2.6.2.6 Inadequate clinic resources

This has earlier been described as a perceived threat, but it may also be identified as a barrier to clinics delivery. According to Fonn et al. (1998:699) "A significant number of clinic basic infrastructure does not meet acceptable standards". Pregnant woman are aware that lack of necessary equipment and medication for inexperienced staff to handle a problem arising during a delivery may have a detrimental effect and may lead to women finding the clinic unacceptable (Winnard, 1995: 516). Fajemilhim (1991:117) found that women were not keen on using the clinic labour ward for delivery as the clinic often ran out of essential supplies.

2.6.2.7 Non-usage of "isihambi hut"

A waiting area for low risk pregnant women, known as an "isihambi hut" has been built at some clinics which have a 24 hour 7 days a week delivery service. According to Wilkinson (1995:19) this area allows women, without easy access to transport, to wait for delivery. Buchmann et al. (1989:30) confirmed the benefit of such a waiting area where women from 38 weeks of pregnancy could ensure a safe, supervised clinic delivery. However, Larsen (1978:826) indicated that, although women were in favour of waiting area they did not use it as it was not

adequately furnished and mothers had to bring their own food and bedding. Hence a potential benefit to clinic delivery became a potential barrier as the mothers did not perceive the “isihambi hut” as user friendly.

The few perceived benefits of clinic delivery are now described

2.7 PERCEPTIONS OF WOMEN REGARDING THE BENEFITS OF CLINIC DELIVERY

There were few benefits of delivery in the clinic identified in the literature accessed. These benefits were accessibility, relative physical safety and trust in and competence of midwives in managing low risk clients in labour including delivery.

2.7.1 Accessibility

Since 1994, the South African national health policy has been to prioritise primary health care services which incorporate free maternal (including deliveries) and child health care services (The Reconstruction and Development Programme, 1994:42-47). In 1996 the Bill of Human Rights as part of the South African Constitution was passed and emphasised the right to have access to health services (making women’s rights real, 1999:90). These two aspects reflected the 1978 Alma Ata declaration in which primary health care was meant to be accessible to all (Wood, et al. 1997: 16-18). District health services, with their emphasis on the development of comprehensive clinic and primary health care centres, were established to make primary health care more accessible. However, no mobile and few fixed clinics offer 24 hour delivery services. Hence delivery services in clinics may be relatively inaccessible as was previously discussed under barriers to clinic delivery. This finding is not congruent with the policy of ‘accessibility’. However, for some women, delivery services in the clinics are more accessible than those in the hospital.

2.7.2 Relative physical safety of clinics

According to Chalmers (1992 (b): 96) the majority of rural women in South Africa are changing their traditional way of giving birth at home for the physical safety of a clinic or hospital delivery. The clinic is generally perceived as being physically safer than the homestead, but, as already discussed, the hospital is usually seen as being safer than the clinic for delivery.

2.7.3 Trust in and competency of midwives

Walker et al. (1995:22) showed that women in labour felt safe in a 'midwife-led-unit', indicating a level of trust in the midwives. In another study in the developed world, Bluff and Holloway (1994: 157-159) found that clients trusted in the knowledge and skills of their clinic midwives and in their competence to manage low risk women during labour and delivery, even when problems arose. Wilkinson and Biyela (1994:35), writing about rural South Africa, indicated that midwives were the appropriate health care professionals to manage low risk women in labour and that they were also competent to intervene appropriately should problems arise. Ntoane (1988:22) in her study on traditional birth attendants in Bophuthatswana (part of present day South Africa) reflected the benefits they perceived of women delivering in health centres as follows: "…midwives are more experienced and their training allows them to deal with labour complications". Despite these findings, much of the literature reviewed earlier indicated that rural women felt safest with medical practitioners.

2.8 LIKELIHOOD OF LOW RISK PREGNANT WOMEN COMPLYING WITH THE POLICY OF DELIVERING IN THE CLINIC

2.8.1 Introduction

According to the adaptation of the Health Belief Model for this study, as described in the previous chapter, the likelihood of low risk pregnant women complying with the policy of accessing the clinic labour ward for delivery is dependent on the following: the 'perceived threat' of the childbirth process as well as on the 'perceived benefits' minus the 'perceived barriers' to delivery in the clinic. According to the literature reviewed in this chapter it is unlikely that most

women will comply with the policy as the 'costs' (Gcaba & Brookes, 1992:44) – threats and barriers – largely outweigh the benefits of clinic delivery. However, despite this, if nurses have positive attitudes and good relationships with their clients, the latter will be more likely to be compliant with policy (World Health Day – Safe Motherhood, 1998: WHD 98, 8-2).

2.8.2 Perceived threats of delivery in the clinic

As already demonstrated in this literature review, the perceived threats of delivering in the clinic include lack of emergency transport, unreliable communication systems, young and inexperienced nursing staff, unavailability of doctors and the lack of life-saving equipment and medications. For these reasons the perceived threats might motivate low risk pregnant women to deliver in the hospital which was largely perceived as the safest place for delivery (Jinabhai et al. 1994:11). In contrast a difficult childbirth witnessed or experienced at home could motivate a woman to deliver in a different and safer environment such as the clinic (Nolte, 1998 (b): 115; Stanley, 1997:83). Some women do not perceive labour as a threat (Coakes & Kelly, 1997:27) and may thus be satisfied to be delivered at the clinic where no doctor is available.

2.8.3 Perceived benefits of delivering in the clinic

There were few benefits identified in the literature and these included accessibility, relative safety and trust in and competency of midwives.

2.8.4 Perceived barriers to delivery in the clinic

There were many barriers identified in the literature, the two main barriers being 'inaccessibility' including transport problems, poor roads and distance from the clinic and 'unacceptability' due to poor staff attitudes, insufficient nursing staff, no medical doctors, labouring alone, lack of information in labour, inadequate clinic resources and unacceptability of the waiting area. In some instances these barriers appeared insurmountable and from the literature reviewed in this chapter

it appeared that many women would choose to deliver in hospital rather than in the clinic.

2.9 CONCLUSION

This Chapter has reviewed the literature related to the place of delivery of low risk pregnant women, using the adapted Health Belief Model as an organising framework. The literature guided the development of the data collection tools described in the next chapter and the interpretation of the findings in Chapter Four.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

An exploratory descriptive design (Polit and Hungler, 1997: 168, 456 – 457) was undertaken as no previous in depth study of the underutilisation of clinic labour wards by low risk pregnant women in rural KwaZulu-Natal had been identified. The framework for the research was a modified Health Belief Model (1977) (Figure 1.1) described in Chapter One of this study. It was adapted by the researcher (Figure 1.2) from Rosenstock's Health Belief Model as modified by Becker, et al (1977:) and Salazar (1991:) as represented in Figure 1.1. There were two phases in the research. **The first phase** was focused on the perceptions of low risk pregnant women regarding clinic delivery. A semi-structured interview schedule (Appendix Four) which yielded both quantitative and qualitative data was used. As the researcher believed there could be differences in perceptions of low risk women who delivered in the clinic, according to formal health policy (Nyasulu, 1999), as compared to those who delivered in hospital or at home she drew her sample from all three populations. A comparative study was thus incorporated into the research design.

The second phase of the research developed after preliminary analysis of the data from the first phase. These preliminary findings helped in the development of a focus group guide (Appendix Five). This second phase was used to investigate health worker perceptions as to why low risk pregnant women underutilized Phelandaba Clinic's labour ward. Three focus group discussions were undertaken, each group representing health workers involved in the care of these low risk women at home, in the clinic and at mobile points and in the hospital labour ward. Qualitative data were obtained and analysed, and this also allowed for inter focus group comparison. The focus group data helped to

validate the findings from the first phase and also to identify similarities and differences between the perceptions of low risk women and the associated health workers. As the findings of this study should have an impact on health policy and practice, it can also be described as health systems research (Katzellenbogen, Joubert and Abdool Karim 1997:148.)

3.2 PHASE ONE: PERSPECTIVES OF LOW RISK PREGNANT WOMEN

3.2.1 Target population

The identified population were low risk pregnant women who were conversant in Zulu and who attended Phelandaba Clinic and the mobile antenatal clinics in the clinic catchment area for two or more visits and who gave normal vaginal birth at home, in the referral hospital or in the clinic thus not fully utilizing the available labour and delivery facilities at Phelandaba Clinic. They were selected and interviewed during their six to eight weeks post natal period.

3.2.2 Sampling strategy

3.2.2.1 Sampling technique

The population from which the sample was drawn was not fully identifiable as low risk pregnant women from the Phelandaba Clinic catchment area chose to deliver not only at clinic but also at the referral hospital and at home. Thus, as the population could not be identified in advance, it was impossible to draw a random sample from a fixed and known population. The researcher thus used convenience sampling for accessing women who fitted the criteria of the sample (Appendix Four) and who had delivered in one of three areas – namely clinic, home and hospital.

3.2.2.2 Sampling size

The sample consisted of a total of sixty consenting women who fulfilled the selection criteria. The first twenty women who had delivered at home, in the clinic and in the hospital respectively were identified. The data collection points

were at Phelandaba Clinic or its associated mobile points when the women come for postnatal checkups and to the well baby clinic. These points will be discussed under 3.2.3.4.

3.2.2.3 Selection criteria

As already described a checklist (Appendix Four) was developed to ensure that the women selected fitted the criteria of the sample. The criteria and the justification for their inclusion are as follows:

- the participants should be Zulu-speaking as this would enable the researcher to undertake in-depth interviews,
- they should live in the Phelandaba catchment area in order to be eligible for delivery in the Clinic,
- they needed to have attended Antenatal clinic for a minimum of two visits at either Phelandaba Clinic itself or the associated Mobile Points. This was to enable them to receive education and advice from the clinic staff regarding place of delivery and admission guidelines when in labour,
- they needed to be interviewed relatively near to their delivery[1] to ensure good recall of events, and thus interviews would be undertaken within the first six to eight weeks after delivery,
- they should be low risk pregnant women:
    - not less than para two or more than para five at the time of the interview. This was to avoid interviewing women with no previous experience of childbirth as well as avoiding high risk primiparous and grande multiparous women,
    - there should be no high risk obstetrical or medical history necessitating hospital delivery.
- the delivery should be normal and the neonate low risk according to the following criteria:
    - the delivery should have been a normal vaginal delivery,

[1] Delaying interview to after the puerperium could affect accurate recall

- the baby should have been born at term avoiding high risk and pre and post term infants,
- the baby should have been born alive and still be alive,
- the newborn should not be low birth weight i.e. less than 2500g to avoid being at risk.

- each participant had to be informed about the research (Appendix Seven) and then give informed verbal consent prior to the interview, once she fulfilled the selection criteria. This consent was entered at the bottom of the checklist.

3.2.2.4 Delay in sample attainment

As there were heavy rains and floods during the initial eight week planned period of data collection, the sample could not be attained within this period as the planned research data collection points and thus the potential participants were unreachable. This planned period had to be extended by a further eight weeks and the proposed data collection points had to be adjusted.

3.2.3 Data collection

Since this phase of the study was concerned with exploring and describing the perceptions of low risk pregnant woman, the data consisted of self-reports.

3.2.3.1 Instrument

3.2.3.1.1 Type of instrument

An interview schedule (Appendix Five) was planned and used as the majority of this rural population was illiterate and would have been unable to complete a questionnaire. This was a semi-structured schedule which used both closed and open-ended questions, the latter allowing for a more comprehensive data collection. Provision was also made for the tape recording of each interview in order to ensure that all data were collected.

3.2.3.1.2 Development of the instrument

The instrument was developed from the modified Health Belief Model (Figure 1.2) which was adapted to be used as a framework for this study, as well as from the extensive literature survey undertaken in the previous chapter. Furthermore, knowledge of the local community, in which the researcher lived and worked, helped to guide the development of the interview schedule as did her and her colleagues knowledge of local Zulu cultural practices. The interview schedule was translated into Zulu by a professional nurse/midwife who had had previous translation experience and who was the designated research assistant. The interview schedule was reviewed by five experts in both research and in maternal care in rural conditions. Three of these were Zulu speaking which allowed them to check the translation for clarity and accuracy. A few minor adjustments were suggested and made. On page eight of the interview schedule (Appendix Five) which was originally "no doctor" was changed to "availability of doctors" and "no ambulance at clinic" was added as it was not originally mentioned in the interview schedule. On page ten, rewording of the question i.e. "would a birthing companion of your choice…" was replaced by "would the presence of a relative or friend during labour…" (Appendix Five). This was because the concept of a birthing companion was not clearly understood. The interview schedule was pretested and a pilot study was undertaken. Both these processes will be discussed later in this chapter.

3.2.3.2 <u>The interviewers</u>

The researcher and the research assistant were both senior nurses at the referral hospital and in the community services respectively. To reduce bias they undertook interviews out of uniform, but in clothes acceptable to their community. The research assistant was selected because of her professional knowledge, her academic background, her acceptance by the community and her ability to converse in Isithonga, one of the languages of the area which is near the Mozambique border. Although all participants were conversant in Zulu a few expressed themselves more freely in Isithonga and these were directed to the

research assistant. Both the researcher and the research assistant were fluent in Zulu and in English.

3.2.3.3 Interviews

3.2.3.3.1 Interviewing and recording techniques

The researcher and the research assistant introduced themselves to the potential participants at the clinic or at the mobile points. They then explained the purpose of the research, the measures to ensure confidentiality of the participants and the approximate length of time of the interview. Volunteers were then called for and came forward to participate. A checklist (Appendix Four) was then completed to ensure participants were eligible for participation in the research. A further explanation about the study was then given to the potential participants who fitted the criteria for selection. Verbal consent from women to be interviewed and the use of tape recording of the interview was then obtained and recorded on the checklist before commencing the interview. None of the sixty selected participants refused to participate in the research, or to be tape-recorded and none withdrew before or during the interview. The researcher and the research assistant sat comfortably next to the seated "mother" in a quiet venue. The interview was conducted in a relaxed non-threatening manner in Zulu and was recorded on the interview schedule and on tape. Each cassette was numbered i.e. one to sixty and the place of delivery identified. All this was done in order to maintain confidentiality.

3.2.3.3.2 The place of the interview

The venues selected were relatively quiet, private for confidentiality and well-ventilated for comfort. In the clinic, the labour/postnatal ward was used, provided no-one was in labour. Otherwise the kitchen was used. At the mobile points a small hall next to the mobile clinic was used.

3.2.3.3.3 Proposed and actual data collection points

There were ten proposed mobile points around Phelandaba catchment area planned for data collection, they were Ndlondlweni, Egagasini, Sicabazini, Mpophomeni, Manqakulana, Phohlo, Velabusha, Kwa-Zibi, Mqobela, Kwa-Makhanya and Phelandaba Clinic (Appendix Three). Originally it was expected that four participants from each of the ten clinics, which makes forty participants, would be interviewed, and from Phelandaba Clinic we expected to interview twenty participants. Due to heavy rains, all roads were flooded and damaged. It was not easy to access the clinic and mobile points. This resulted in a delay in data collection. The actual points the researcher and her assistant managed to reach were five namely Ndondlweni, Egagasini, Sicabazinii, Kwa-Makhanya, Manqakulana and also Phelandaba residential Clinic. The rest of the mobile points were still inaccessible. The expected number of participants at each of the mobile points varied from between four and six. The remaining participants were interviewed at Phelandaba Clinic.

3.2.4 The pilot study

3.2.4.1 Pre-pilot study

In order for the researcher and the research assistant to use the schedule similarly, they worked through the schedule together to ensure a common understanding and to check for clarity and lack of ambiguity in the questions. The interview schedule was then tried out by the researcher and the research assistant on two nursing auxiliaries, who had had experience in a post natal ward as well as of giving birth and they were used to simulate mothers in the puerperium. This tested the clarity of the questions as well as the best method of recording. The interviews took just over one hour each.

3.2.4.2 Pilot study

A clinic similar to and serving an equivalent population to that served by Phelandaba Clinic was used. The sister-in-charge was approached for her permission and co-operation to do a pilot study. When the researchers arrived,

the sister welcomed them and helped them to select a relatively quiet private place for interviewing. The researcher and research assistant were not in uniform so that they could more easily communicate with participants. Despite this, some of the clients recognised them as senior nurses from the health services, but this appeared not to inhibit their communication. The researcher and research assistant had explained why they had come to the clinic. The check list (Appendix Four) was used to select the six participants, the process was explained in Zulu and verbal consent was then obtained from each of them. The six participants were post delivered mothers from the Phelandaba Clinic catchment area who were still in their post natal period; two having delivered at home, two at Manguzi Hospital and two at Phelandaba Clinic labour ward. They fulfilled the criteria for sample selection (Appendix Four). The first participant was interviewed by the researcher in Zulu while both the researcher and the research assistant recorded the information. The second participant was interviewed by the research assistant and she and the researcher both recorded the responses. A tape recorder was used to record the information. This process continued until all six were interviewed. After each interview the researcher and the research assistant checked to see that they had recorded similar data. Small differences were discussed and clarified and by the end of the pilot study both recorded the same information. Although interrator reliability was not statistically tested for, the researcher was confident that both researchers would record reliable data, as there was, at face value, interrator reliability. The interview took about an hour for each participant. One of the participants was very shy and unable to talk freely. She was encouraged to speak by asking probing questions. As all the questions were clearly understood by the participants no changes had to be made to the interview schedule.

3.2.5 Reliability and validity

3.2.5.1 Reliability

According to Polit and Hungler (1997:295) “the reliability of an instrument measures the attribute consistently”. As both the researcher and the research

assistant were involved in collecting data the pilot study, as already explained, assisted in ensuring that both interpreted the questions and recorded the responses similarly (Cormack 1996:18). This occurred in the last two interviews where no differences were identified and thus the possibility of bias was reduced. However, interrator reliability (Polit and Hungler, 1997:298) of the semi – structured interview schedule was not tested statistically.

3.2.5.2 Validity

This "refers to the degree to which an instrument measures what it is supposed to be measuring" (Polit and Hungler, 1997:313). The instrument was based on an extensive literature survey, local knowledge of the community and their customs and it was then examined by experts in the field of research. In their 'subjective judgement' (Polit and Hungler 1997:301) the content of the interview schedule was found to be valid.

3.2.6 Data analysis

3.2.6.1 Analysis of data from interview schedules

3.2.6.1.1 Preliminary analysis

An initial rapid hand analysis of the sixty interview schedules was undertaken to guide the formulation of the focus group guide.

3.2.6.1.2 Coding prior to data entry and analysis

As there were a number of open-ended and complex questions each interview schedule had to be coded prior to data entry and analysis. Data quality checks were carried out.

3.2.6.1.3 Data analysis

An analysis of the three groups of mothers (those who delivered at the hospital, at the clinic and at home) was undertaken using descriptive and inferential statistics, with respect to the variables of study. Population mean (averages) were also constructed, frequencies and percentages, the range and the standard

error of the mean were obtained for each variable of study. Barcharts were constructed to give a visual summary of the analytical results in the study. The latter included the Kruskal Wallis test for the three independent groups, and chi-square test. The statistical package SPSS was used for data entry and analysis.

3.2.7 Ethical aspects

3.2.7.1 General ethical aspects for both the interviews and the focus group discussions

Written permission to conduct the study was obtained from the Regional Director of the Jozini District (Appendix Eight), from the Induna overseeing the Phelandaba Clinic catchment area (Appendix Three), from the medical superintendent of the referral hospital (Appendix Nine) from the community matron (Appendix Eleven), and from the sister-in-charge of Phelandaba Clinic (Appendix Twelve) and from the hospital maternity matron (Appendix Thirteen). Feedback will be given to the health services, the relevant nursing staff and to the community once the research study has been completed.

3.2.7.2 Ethical aspects related to the interviews

In this first phase of the study prospective participants at each data collection point were informed in Zulu by the researcher about the study. Volunteers were called for and came forward. Each volunteer was interviewed in private and a checklist (Appendix Four) was completed to identify if the volunteer was eligible to be a participant or not. They were duly informed of their position and selected participants were more fully informed about the study in Zulu. This information included the following:

- the interviews would last about one hour
- the interviews would be undertaken in privacy
- the interviews would be undertaken in Zulu
- names would not be recorded to maintain confidentiality
- if agreeable, a tape-recording of the interview would be made
- they could withdraw prior to or during the interview

- feedback would be given at the residential clinic and mobile clinic points once the research was completed by the researchers.

An informed verbal or written consent was then obtained from each participant for the interview and the tape-recording and noted on the consent form (Appendix Seven). Verbal consent was obtained from the majority of participants because of the low levels of literacy. No participants refused to give consent or withdrew prior to or during the interviews.

3.3 PHASE TWO: HEALTH WORKERS' PERCEPTIONS

3.3.1 Introduction

This second phase of the research was undertaken through focus group discussions among the three groups of health workers who would have contact with low risk pregnant women delivering in the clinic, at home and in the hospital labour ward. These three groups consisted of community health workers from the Phelandaba Clinic catchment area, nurses from Phelandaba Clinic and its associated mobile clinics and the final group consisted of registered midwives from the hospital labour ward. The focus group guide was developed from the preliminary analysis of phase one of the research.

The second phase of the research enabled the researchers to:

- explore and identify health workers' perceptions as to the factors involved in low risk pregnant women underutilising Phelandaba Clinic's labour ward.
- compare and contrast the perceptions of health workers working in the community, at the clinic and in the hospital labour ward.
- broadly compare and contrast the perceptions of low risk pregnant women, which were identified in phase one of the research, to those of the health workers.

This last objective was made possible as the focus group guide was largely developed from the preliminary analysis of the data accessed in phase one of the research.

3.3.2 Target population

This population consisted of three different groups namely community health workers attending to low risk women in the community, nurses working in the clinic and the mobile points in the Phelandaba Clinic catchment area and registered midwives from the referral hospital's labour ward. All the health workers who were selected for participation had worked in the area for a minimum of one year. All were closely linked to the research topic as they all had had previous experiences with low risk pregnant women (Holloway and Wheeler, 1996:145). The community health workers or "onompilo" were community members trained in basic nursing, including maternal and child care, which is recognized by the Department of Health. They receive a monthly salary and visit pregnant women and post natal women in their homes as well as assisting at the mobile points. They are under the supervision of the clinic sisters and form a link between the community and the health services. The clinic nurses, residential and mobile, all had contact with the low risk pregnant women antenatally and post natally and the nurses from the fixed clinic also had contact in labour. The registered midwives from the referral hospital's labour ward had least contact with low risk pregnant women, this being during labour in their labour ward.

3.3.3 Sampling strategy

3.3.3.1 Sample size

The research complied with various authors guidelines in regard to the size of focus groups (Nyamathi and Shuler, 1990:1285). The researcher planned and achieved a sample size in the three focus groups of between five to eleven participants. This relatively small size enabled full group participation.

3.3.3.2 Sample technique

The sampling technique was purposive, in that the researcher approached and selected the group participants all of whom consented once the research was explained. All the groups were relatively homogeneous and groups one and three were of similar status. Although group two consisted of both registered and enrolled nurses, reflecting a differing status in the nursing hierarchy, this did not appear to affect their participation in the group.

3.3.3.3 Sample selection criteria of focal group participants

- **Focus group one** consisted of all five (100%) community health workers (CHW) working in the Phelandaba Clinic catchment area. These CHW are directly involved with low risk pregnant women from Phelandaba Clinic catchment area, both at home, antenatally and post natally, and at the mobile points in their geographical area of practice.
- **Focus group two** consisted of eleven participants from the fixed and mobile clinics who were also directly involved with low risk pregnant women antenatally and post natally within the Phelandaba Clinic catchment area. There were to be six registered nurses / midwives from the three mobile teams who participated. This was all, 100%, of the registered nurses in these teams. The researcher further planned that all five nurses (100%) namely three registered nurses and two enrolled nurses working at Phelandaba Clinic, take part in the research. On the day of the focus group discussion, the clinic charge sister was unable to attend as she was sick. The researcher replaced her with a senior enrolled nurse from mobile clinic two as she had previously worked in the clinic.
- **Focus group three** consisted of seven of the twelve (58.3%) hospital labour ward registered midwives who were on duty on the day of the focus group discussion. Only one of these had previous esperience at Phelandaba Clinic. No newly appointed staff in the hospital labour ward were involved during the focus group discussion.

All focal group participants were informed about the research prior to the discussions and all agreed to participate. Individual informed consent to participate was obtained immediately prior to each of the three focal group discussions. There were no withdrawals prior to or during the discussions.

3.3.4 Instrument development

A focus group guide (Appendix Six) was developed as this was phase two of this research, the guide was largely based on a preliminary analysis of the data obtained from the interviews in phase one of the research. The perceptions of the low risk pregnant women were thus "...the primary reference points for discussion" (Reed and Payton, 1997:767). The guide was also grounded in the Adapted Health Belief Model (Figure 1.2), discussed in the Chapter One and used for this study. This guide was translated into Zulu so that the moderator of the focus groups could facilitate group interaction more easily.

3.3.5 The moderator and assistant moderator

The moderator and assistant moderator were the researcher and the research assistant who were familiar with the perceptions of low risk pregnant women. However, neither had previously participated in focus group discussions and the researcher prepared herself by focused reading and by discussions with the supervisor. She then briefed the research assistant. They also took the opportunity to use the pilot study as a practice session. The moderator facilitated group discussion, using the guide to direct probing questions. The research assistant acted as the scribe, recording the main points from the discussion and identifying each participant by the allocated number. She also controlled the tape recorder, recording each group. As the moderator and the assistant moderator were senior nurses they chose not to wear uniform so that they could be viewed as non-threatening researchers. Their professional positions appeared not to have impeded the focus group discussions.

3.3.6 The pilot study

This was used to both test the clarity of the interview guide and to help empower the researcher and the research assistant with the required skills. The group consisted of five nurses, three registered and two enrolled who had had previous clinic experience in the area. However, they had moved to school health or TB or AIDS teams and thus were not part of the main study. From this pilot study it was found that the group discussion lasted just over one and a half hours and that the questions in the interview guide were clear. The discussion was tape recorded as well as the main points being transcribed by the assistant moderator. The tape recordings were found to be clear. The transcribed notes were adequate and the tape recordings were found to be clear. The transcribed notes were then translated into English. The moderator facilitated full participation of all five members of the groups without allowing dominance. The pilot study revealed that there was no need to review the focus group guide prior to the main study.

3.3.7 Venues and times of focus group discussions

The focus group discussions were held on Wednesdays which were relatively quiet days. To facilitate discussions and to enable tape recordings to be made the venues used were relatively spacious, quiet and well ventilated (Clarke, 1999:396.) The small community health worker group met in the clinic lounge at 07h30. The larger group of nurses from the clinic and mobiles had to meet in the postnatal/labour ward at 07h30. Fortunately no one was admitted in labour when the discussions took place. Finally the labour ward registered midwife group took place in the midwifery matron's office in the hospital at 14h00. The seating arrangements were prepared beforehand and were semi-circular in order to facilitate discussion in a relaxed atmosphere. The group discussions never lasted longer than two hours averaging just over one and a half hours.

3.3.8 Focus group discussions including data collection

The discussion was conducted in the preferred language of the participants. In Focus group one Zulu was used. After the moderator had welcomed the participants, she numbered them to ensure confidentiality and seated them comfortably. She then explained the research and her role and that of the assistant moderator. She also asked for permission to tape record the discussions which was granted by all participants. The moderator/researcher further explained that a participant could withdraw at anytime during the discussion, none did so. The moderator facilitated the discussions following the focus group guide (Appendix Six). She ensured maximum participation and avoided dominance of the group by any one participant. The assistant moderator transcribed the main points and tape recorded each session. The moderator closed the discussion by reviewing these points to ensure that the viewpoint of each focus group was recorded. She then thanked the participants for their contribution and assured them that feedback would be given to them on completion of the study. As already mentioned no focus group lasted longer than two hours, which enabled the participants to return to their work. After the participants left the moderator and assistant moderator labeled tapes according to the discussion group and in the correct sequence of discussion.

3.3.9 Validity and reliability

3.3.9.1 Validity

According to Nyamathi and Shuler (1990:1284) "...focus groups have high face validity, due to the credibility of comments from the participants…" As the moderator probed for the most honest answers validity was enhanced. This was evident by participants from the clinic focus group recognising some of their own shortcomings. The discussions were seen as credible when assessed by the supervisor who had expert knowledge in the field of study. Translating from Zulu to English was checked by the research assistant who had previous experience in this field.

3.2.9.2 Reliability

As this was qualitative research and as the focus group guide was developed from the preliminary analysis of the interviews undertaken in a specific community the instrument could not be described as being 'reliable' if used in another community. However, the research process and analysis has been clearly described and can be followed in similar research.

3.3.10 Ethical aspects

3.3.10.1 General ethical aspects

These were discussed in phase one of the research and hold good for this phase.

3.3.10.2 Ethical aspects related to the Focus Group Discussions

One of the reasons for this research to be undertaken was the concern voiced by the Medical Superintendent of Manguzi Hospital at the number of low risk pregnant women delivering in the hospital labour ward instead of the associated residential clinics. Thus consent was readily given for this research by the Medical Superintendent (Appendix Nine) after a letter of request was sent to him (Appendix Ten). Information letters requesting the release of health workers to participate in the focal group discussions (Appendix Fourteen) were sent as follows to:

- the community matron for the community health worker group (group one)
- the community matron and the clinic charge sister for the mobile and clinic nurses focus group (group two)
- the midwifery matron and the maternity charge sister for the hospital labour ward midwives focus group (group three)

Permission was also granted for their release. Arrangements were made and permission was also obtained from the clinic charge sister to use the clinic as a venue for focus groups one and two and from the midwifery matron for the venue for focus group three to be in her office. Each health worker selected to

participate in the three focus groups was contacted and briefed prior to the focal group discussions and all agreed to participate. At the site each individual participant was briefed more fully regarding the focal group discussion (Appendices 13, 14, 15) and each gave their informed verbal consent to participate as well as to their discussions being tape recorded. After the discussions the researcher informed the participants that she would give verbal feedback to each focal group one the research had been completed.

3.3.11 Data analysis

The assistant moderator / scribe took detailed notes during the focal group discussions. This was to supplement the tape recordings and both were used for data analysis. Despite the tape recordings from the pilot study being clear, those from the main study were less clear and the researcher and her assistant struggled to transcribe them. Some material may have been lost due to lack of clarity but the written notes helped to alleviate this. The language of the focal groups varied, focal group one being totally in Zulu. The transcript had to be translated into English prior to analysis. This translation was checked for accuracy by the research assistant who had previous experience in Zulu-English translation. Emerging themes were elicited from the data as were coding categories and subcategories which were developed and the data was coded accordingly. The major points were then presented and the most noteworthy quotes were used to illustrate the findings. (Krueger, 1994:149.)

3.4 LIMITATIONS OF THE STUDY

The area of research was limited to only one site namely the Phelandaba Clinic catchment area, a deep rural area in the Manguzi Health Ward of the Jozini health District in Northern KwaZulu-Natal. Further, the sample of low risk women in the post natal period could not be randomly selected. Both these factors mean that this research cannot be generalized to other health wards or districts even in rural KwaZulu-Natal or in rural South Africa. However, trends could be identified and these could be used as a basis for further research. The tape recordings

from the focal group discussions were not always clear enough to be fully transcribed, but the notes taken during the discussions helped to overcome this problem. The researcher and her research assistant were both senior members of the nursing hierarchy and, although this could have impeded open discussion, this appeared not to be the case either with the interviews or with the focal group discussion.

3.5 CONCLUSION

The research methodology of the study has been described in this chapter. In general, the study was implemented in accordance with the original research proposal.

CHAPTER FOUR

RESULTS

4.1 INTRODUCTION

As explained in Chapter Three, an exploratory descriptive design was used for the purpose of this comparative study. Both qualitative and quantitative data was collected and analysis of this data follows.

4.2 PERCEPTIONS OF THE THREE GROUPS OF LOW RISK PREGNANT WOMEN

4.2.1 Introduction

The Objective 1.5.1 of the study was to compare the influence of socio-demographic factors, socio-cultural factors, structural aspects, cues to action, perceived threat, perceived benefits and perceived barriers on the decision on the place of delivery. This section of the results examines these variables with respect to the sample of low-risk pregnant women. The data from most of the questions is presented in tabular form. In these tables, N represents the number of women in the sample and the percentage is indicated by '%'.

4.2.2 Socio-demographic factors

Socio-demographic variables could have positive or negative influences on the pregnant woman with regard to utilisation of the clinic labour ward.

4.2.2.1 Age

Table 4.1 shows the distribution of participants' ages in categories of five-year intervals, in relation to the place of delivery. The ages of the participants ranged between 17 and 42 years. Three participants did not know their ages. The mean age of the whole sample was 26.42 years. The greatest number of women in the whole sample fell into the category 27 – 31 years (22 or 38.6%). Of these, seven

(35%) delivered in hospital, seven (35%) delivered at home and eight (44.4%) delivered in the clinic. Most of the women (50 or 83.33%) of the whole sample were aged between 22 – 41 years. The ages of the women were similar across the three categories.

Table 4.1: Frequency distribution of the ages of the participants in the three groups

Age in years	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
17 – 21	1	5	-	-	2	11.1	3	5.3
22 – 26	8	40	5	26.3	5	27.8	18	31.6
27 – 31	7	35	7	36.8	8	44.4	22	38.6
32 – 36	3	15	5	26.3	2	11.1	10	17.5
37 – 41	-	-	-	-	1	5.6	1	1.8
42 – 46	1	5	2	10	-	-	3	5.3
Age unknown	-	-	1	5.6	2	11.1	3	5.3
TOTAL	20	100	19	100	18	100	57	100

4.2.2.2 Marital status

Three groups with different marital status were identified from the sample, namely single, ganile and married women. Table 4.2 indicates that single women constituted a small proportion (15.0%) of the sample and that 78.3% of the whole sample was ‘ganile’. In Zulu culture, a woman who stays in one kraal with the family of her husband, irrespective of whether lobola is paid or not is said to be ‘uganile’ in that family. Legally she is regarded as a common law wife and so this is a form of traditional marriage. The high proportion of such women in this study is to be expected as it took place in a rural area where traditional Zulu culture predominates.

Chalmers (1992:89) stated that a woman who still believed in her traditional culture would prefer to deliver at home. In line with this, Nyasulu (1999)

indicated that a woman who is ganile is likely to be influenced by her mother-in-law regarding where to deliver her baby. She also stated that a mother-in-law who subscribes to traditional Zulu culture, will want the baby to be born at home. Furthermore, traditional Zulu women are likely to want to follow cultural practices at home during labour and childbirth. Therefore, it is not surprising that the majority of women who delivered at home in this study were ganile. However, there was actually little difference in the marital status of the hospital, home and clinic delivery groups. The fact that the vast majority of the whole sample was ganile, could have accounted for this.

Table 4.2: Frequency distribution of the marital status of the participants in the three groups

Marital status	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Single	4	20	2	10	3	15	9	15
Ganile	14	70	16	80	17	85	47	78.3
Married	2	10	2	10	-	-	4	6.7
TOTAL	20	100	20	100	20	100	60	100

4.2.2.3 Gravida

The women in the sample ranged from gravida 2 to gravida 5, with only six (10%) falling into the latter category. Women from this category did not use the clinic for delivery, but delivered in hospital or at home. Apart from this, the groups appeared similar.

Table 4.3 Frequency distribution showing the Gravida status of the participants in the three groups

Gravida	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
2	8	40	5	25	8	40	21	35
3	7	35	7	35	5	25	19	31.7
4	2	10	5	25	7	35	14	23.3
5	3	15	3	15	-	-	6	10
TOTAL	20	100	20	100	20	100	60	100

4.2.2.4 Parity

The women in the whole sample had delivered between one and five live infants. This meant that all of them were considered to be low risk pregnant women. Table 4.4 shows that most (21 or 35 %) of the whole sample was para 2. Of the women who were para 3, most (8 or 40%) delivered at home. This accords with other studies that show that multips rather than primips deliver at home (see 2.4.2.3).

Table 4.4 Frequency distribution for parity of the participants in the three groups

Parity	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
1	-	-	-	-	1	5	1	1.7
2	9	45	5	25	7	35	21	35
3	6	30	8	40	5	25	19	31.7
4	2	10	4	20	7	35	13	21.7
5	3	15	3	15	-	-	6	10
TOTAL	20	100	20	100	20	100	60	100

4.2.3 Socio-cultural factors

Socio-cultural factors can act as modifiers and have an impact in women's choice of place of delivery.

4.2.3.1 Level of education

The participants in the whole sample were categorised into five levels of education. None had post secondary or tertiary education. In fact, 71.6% had grade 5 or less education. Table 4.5 shows that 23 (38.3%) of the whole sample had no formal education from school, and only 14 (23.3 %) had Grade 5 or less. According to Larsen, (1992:49) women who are uneducated are not likely to be employed, they become poor and they tend not to use the health facility as expected, due to a lack of money for transport. In Gennaro et al.'s, (1998:195) study, education is regarded as essential in a woman's life, because an educated person becomes knowledgeable and has insight especially with regard to the childbirth process. A World Health Day Report (1998:WHD 98:2) noted that poorer women with no formal education were often treated badly by health professionals. This contributed to them not utilising the health facilities. It could be possible that the ten (50%) women who delivered at home did so for the above reasons. However, most of the women in the sample had poor education, which is typical of a remote area. Ahmed, et al, (1997:61) stated that women with better college or tertiary education and a higher socio-economic background tended to be attended to very well by health professionals. In Table 4.5 it is indicated that all seven of the women with Grade 8 and above used the maternal health facilities. Although it can be noted that twelve (60%) of the women who delivered in hospital and eleven (55%) who delivered at home, had completed some formal school education (Grade 1 – 12).

Table 4.5 Frequency distribution of the level of education of the participants in the three groups

Level of education	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No education	5	25	10	50	8	40	23	38.3
Adult literacy	3	15	2	10	1	5	6	10
Grade 1- 5	4	20	4	20	6	30	14	23.3
Grade 6 – 7	3	15	4	20	3	15	10	16.7
Grade 8 – 12	5	25	-	-	2	10	7	11.7
TOTAL	20	100	20	100	20	100	60	100

4.2.3.2 Religion

The women in the study belonged to a variety of religious groups. The majority (32 or 53.3%) of women from the whole sample were Zionist. Fifteen (75%) of the women who delivered in hospital were Zionist. It is known that the Zionists use traditional medicines like ‘isiwasho’ as well as the health facilities (Khoza, 2004). Twelve of the whole sample were Apostolic, which was the second largest religious group of the study. Only one woman in the sample stated that her religious beliefs were traditional.

Table 4.6 Frequency distribution of the religion of the participants in the three groups

Religion	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Apostolic	1	5	6	30	5	25	12	20
Zionist	15	75	8	40	9	45	32	53.3
Catholic	1	5	-	-	-	-	1	1.7
Pentecostal	2	10	3	15	2	10	7	11.7
Traditional	-	-	1	5	-	-	1	1.7
Other	1	5	2	10	4	20	7	11.7
TOTAL	20	100	20	100	20	100	60	100

4.2.3.3 Influence of religious life on choice of place of delivery

In this study, religion had no influence in woman's choice regarding the place of delivery for 55 (91.7%) of the women according to their responses. One woman who delivered in the clinic stated that she was unsure whether it her religion had influenced her choice. The remaining four participants responded that they were influenced by their church ministers to choose maternal health facilities for delivery, as these facilities were believed to be the safest and best place for them and their babies. Two belonged to the Pentecostal churches and they delivered at the clinic, and two were Zionists (both of whom delivered at home).

4.2.3.4 Culture and cultural practices relating to labour carried out at home

As mentioned earlier, the study was conducted in a rural area where the population still follow their traditional cultural practices. The participants who delivered at home were asked to describe the cultural practices carried out shortly before or during labour and childbirth. Thirteen (65 %) of them said that they had carried out such practices. Only three (15 %) believed that these cultural practices were not helpful. The rest felt that they had been helpful as they had not experienced any problems. Jepson and MacDonald (1998:77) also found that some women felt this way (see Section 2.4.3.2). The relevant

participants were then asked how these practices were helpful. They responded in the following way. Five stated that they had used 'isihlambezo', which is a herbal mixture given to the pregnant woman to purify her blood and also given during labour to hasten its progress. Gumede (1978:823), Larsen (1978:827) and Jepson and MacDonald (1998:77) have also reported this practice amongst women, who delivered at home. Three participants used "Holy water and Vaseline". They believed that it protected against evil spirits and ensured that the health of the child was good. One woman said her child was "smoked" ('ukushunqisela nenyamazana') with herbs, 'impepho' and animal fat. Brindley (1985:609), Setiloane (1988:44) and Chalmers (1992:92) also mention this practice.

Another participant explained that her child was smeared with Vaseline mixed with herbs and "black stuff" or 'insizi', to protect the child from evil spirits. Larsen et al. (1982:541) reported that Vaseline was smeared over the baby's body after a bath and the environment was kept warm having a fire burning in the hut., to prevent hypothermia.

Two said that their placentas were buried in the hut where the delivery was conducted. This hut belonged to the grandmother. Brindley (1985:609) notes that this is regarded as the safest place because the ancestors are always present there, to protect the mother and child from bad spirits and sorcery. Burying of the placenta in a hut was useful for them as it is believed that it would prevent the pregnant woman from having 'ipuleti' with subsequent pregnancies. 'Ipuleti' is regarded as an abnormal condition during pregnancy, for example placenta praevia. Chalmers (1992:192), Setiloane (1988:43) and Gennaro, et al. (1998:194) also explained that the placenta was buried in the hut where the delivery was conducted. This needed to be done secretly, by a person who is honest, faithful to the delivered woman. This was all done to prevent sorcery.

One woman responded that she was given a big stone to carry (termed 'ukubeletha itshe') and also instructed to squat during the birthing process. The

reason stated was that these practices would help the head to descend quickly. However, she said that she did not regard them as helpful.

Section 2.4.3.2 describes many of these cultural traditions.

4.2.3.5 Cultural practices desirable when delivering in a health institution

The participants who delivered at the clinic and hospital were asked whether there were any cultural practices, which they wanted to be carried out during labour and childbirth at the health institution. This question was not applicable to those women who had delivered at home. Of the remaining 40 women, 37 (92.5%) indicated that there were no cultural practices that they wished to have carried out in the maternal health services. Only three (7.5%) answered positively. The three women were then asked what cultural practices they would like to have carried out during labour and childbirth. Two said that they would like to be allowed to take their placenta home with them, as they needed to dispose of it in the culturally appropriate manner by burying it in a place which is known to them. This practice has been described in 2.4.3.2 and 4.2.3.4. The third participant stated that she would like to have been allowed to expose her child to smoke by burning a mixture of herbs, in order to protect the child from evil spirits. This cultural practice has been described in the previous section (4.2.3.4) and in Chapter 2 (Subsection 2.4.3.2).

4.2.3.6 Community women's opinion regarding clinic delivery

Women were asked what other women in the community felt about delivering in the clinic. Twenty-eight (46.7%) of the women from the whole sample responded that the community women were positive about delivering in the clinic. The reason for this was that they believed that women were treated well and there was no cost for using the clinic. However, 23 (38.3%) stated that community women were negative about a clinic delivery. The negative response from nine (45%) women who delivered at the clinic indicates that women in the community were not satisfied with clinic delivery. The women who did not give a response

said that this was because they did not discuss such issues with other women from the community. No evidence for a relationship between the community women's opinion and the place of delivery was evident. It must be noted that the opinion of community women about clinic delivery could also be regarded as a cue to action, in terms of the Health Belief Model.

Table 4.7 Community women's opinion regarding clinic delivery

Community women's opinion regarding clinic delivery	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Positive response	7	35	10	50	11	55	28	46.7
Negative response	5	25	9	45	9	45	23	38.3
None stated	8	40	1	5	-	-	9	15
TOTAL	20	100	20	100	20	100	60	100

4.2.3.7 Place of delivery for the majority of women in your homestead

The participants were asked where the majority of the women in their homestead had delivered. Most of them stated that they had used the hospital or clinic. Only two (3.3%) said that the women in their homestead had only delivered at home. However, there were variations in the place of delivery with respect to women from the same households. For example some delivered at the clinic and some at home. Responses for this question were cross-tabulated with those for the person who had the final say in the place of delivery and the place of this delivery. Of particular interest were the women whose husbands or parents-in-law had the final say. However, no relationship was found.

Table 4.8 Place of delivery for the majority of women in the homestead

Place of delivery for the majority of women in the homestead	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Hospital	2	10	3	15	4	20	9	15
Home	-	-	2	10	-	-	2	3.3
Clinic	3	15	2	10	7	35	12	20
Clinic and home	13	65	4	20	4	20	21	35
Hospital and home	-	-	2	10	4	20	6	10
Clinic and home	1	5	6	30	1	5	8	13.3
Unknown	1	5	1	5	-	-	2	3.3
TOTAL	20	100	20	100	20	100	60	100

4.2.3.8 Part family member played in choice of place of delivery

Participants were asked what part their family member played in the choice of the place of delivery. The majority said that they made their own choice. Some of the participants mentioned that family members did not have any say regarding the choice of place of delivery because they were staying alone in a nuclear family. The rest of the participants said that their husbands and to a lesser extent, their mothers-in-law, made the decision. Others said that because their husbands were not at home as they were migrant labourers, they had to make their own decisions. The next question yielded similar information and actual figures for the responses have been given there.

4.2.3.9 Person who had the final say in the choice of the place of delivery

The participants were asked who had the final say in the choice of the place of delivery. Forty-three (71.7%) of the whole sample said that they had the final say. This was the case for eighteen (90%) of the hospital deliveries, twelve (60%) of the home deliveries and thirteen (65%) of the clinic deliveries. It is interesting to note that proportionately more of the women in the hospital group than those in the other groups had made the final decision.

Eleven (18.3%) and five (8.3%) of the whole sample said that their husbands and mothers-in-law respectively had the final say. This finding is similar to that of the study done by Nolte (1998(b):72) who noted that in areas with more traditional cultural practices a woman cannot decide on her own where she would like to deliver her child. The person who is influential regarding the choice of place of delivery is the mother-in-law. Thompson (1996:160) noted that mother-in-laws or husbands may not enable their wives to go to the clinic or hospital for delivery, because they are the ones who are responsible for paying the transport fees.

4.2.4 Socio-structural factors

Previous child birth experience can have an influence on the mother's selection of the place of delivery, (Nolte, 1998(b):115). Therefore, participants were asked about their previous experiences.

4.2.4.1 Previous miscarriage, stillbirth or neonatal death

In this study, very few (8 or 13.3%) of participants had experienced a stillbirth, neonatal death or miscarriage. Of the eight (13.3%) who had experienced such problems, most were from the hospital and home delivery group (3 and 4 respectively). It is possible that the women in the hospital group selected that place for their recent delivery as they believed that it would be safer for their babies. However, none of them stated that they had selected the place of delivery for reasons of safety. The four home delivery women had all had unintended home deliveries. This could be in line with the literature as they all stated that they would have preferred a clinic or hospital delivery.

Table 4.9 Previous miscarriage, stillbirth or neonatal death

Previous miscarriage. Stillbirth or neonatal death	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	17	85	16	80	19	95	54	86.7
Yes	3	15	4	20	1	5	8	13.3
TOTAL	20	100	20	100	20	100	60	100

4.2.4.2 Number of times the women had experienced a miscarriage, stillbirth or neonatal death

There was little difference between the hospital and home groups in terms of the number of times that they had experienced the above problems. Of the three women who delivered in hospital, two had experienced a stillbirth and one had a neonatal death. Amongst the women who delivered at home, two had experienced stillbirths and two had neonatal deaths. The participant who had delivered at the clinic had previously had a miscarriage.

4.2.4.3 Previous maternal or neonatal complications (excluding fetal or neonatal losses)

Most 55 (91.7%) of the whole sample had not experienced a maternal or neonatal complication (besides fetal or neonatal losses) related to their previous deliveries. Three (5%) women from the whole sample had maternal bleeding after delivery. The two who delivered in a health facility stated that this was well managed by the midwives, with no further complications. It must be noted that when the researcher checked their delivery records to confirm that maternal bleeding had occurred, it was found that they had merely had normal bleeding after delivery, which was easily controlled without further complications. One woman in the home delivery group had a history of maternal bleeding with her previous deliveries. It is possible that she may not have perceived this as abnormal and therefore a reason to consider delivery at a health facility, as it is common practice amongst women who deliver at home to allow a moderate blood loss after delivery, in order to reduce the risk of after pains (Jepson & McDonald, 1998:178). Similarly, Larsen et al. (1983(a):541) found that excessive bleeding after childbirth was regarded as “having to much blood”. The majority of women who delivered at home (19 or 95%) had no history of maternal or neonatal complications after delivery. This might have been a reason for not feeling that they should deliver in a health facility. The support for this conclusion comes from Fajemilhenin’s (1991:17) finding that women thought that it was not necessary to utilise health facilities for delivery unless they had complications.

Two (10%) of the women, who delivered in hospital, had previously experienced neonatal complications. Their babies were asphyxiated after birth, but this was successfully corrected. This may have contributed to their decision to deliver at the hospital.

Table 4.10 Frequency table for previous maternal or neonatal complications (excluding fetal or neonatal losses)

Previous maternal / neonatal complications (excluding fetal or neonatal loss)	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
None	17	85	19	95	19	95	55	91.7
Maternal bleeding	1	5	1	5	1	5	3	5
Neonatal asphyxia	2	10	-	-	-	-	2	3.3
TOTAL	20	100	20	100	20	100	60	100

4.2.4.4 Staff neglect / behavioural / attitudinal problems with past deliveries

Fifty-seven (95%) of women from the whole sample responded that they were not ill treated during their past deliveries (see Table 4.11). It has been highlighted in Chapter 2, section 2.4.4.1 that poor staff attitudes and staff neglect towards the labouring woman would discourage the woman from using clinic labour ward. This could have been the case in respect of two (10%) of the women, who had delivered at home. It is possible that they preferred not to go to the clinic for delivery, because of the poor treatment that they received during their previous delivery.

Table 4.11 Staff neglect / behavioural / attitudinal problems with past deliveries.

Staff neglect /behavioural /attitudinal problems with past deliveries	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
None	20	100	18	90	19	95	57	95
Yes	-	-	2	10	1	5	3	5
Total	20	100	20	100	20	100	60	100

4.2.4.5 Delivery immediately previous to the present born in the same place

In Table 4.12 it is shown that 35 (58.3%) women from the whole sample stated that they did not deliver the present baby in the same place as their previous babies. In the literature review it was explained that poor treatment during the birthing process and inadequate infrastructure could influence the woman not to use the clinic labour ward (Fonn et al., 1998:698; Kwast, et al., 1995:S71; and Jinabhai et al., 1994:12). It is noted that 18 (90%) of the women who delivered at home had previously delivered at either a clinic or hospital. The reason for the change could be a negative experience that they had during their previous birthing process. The vast majority of women who delivered in hospital (14 or 70%) had previously delivered in hospital. It is possible that this was because women preferred to deliver in hospital for the safety of their health and that of their babies (see Section 2.3). Of the clinic delivery women who had not previously delivered at the clinic, 10 delivered at hospital and one at home.

Table 4.12 Delivery immediately previous to the present born in the same place

Delivery immediately previous to the present born in same place	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	14	70	2	10	9	45	25	41.7
No	6	30	18	90	11	55	35	58.3
TOTAL	20	100	20	100	20	100	60	100

4.2.5 CUES TO ACTION

This section focuses on the Information given to the pregnant woman during pregnancy regarding the use of health facilities in order to prevent complications.

4.2.5.1 Advice from clinic / mobile staff regarding place of delivery for this baby

The majority of the women (45 or 75%) from the whole sample were advised by the fixed clinic or mobile clinic staff to deliver at the clinic. However, only 15 (33.3%) actually used the clinic. Ten (16.7%) women from the whole sample stated that they were told to go to hospital for delivery, despite the fact that they were low risk. It does not appear that the time of delivery influenced this advice as half of them delivered during the day and half at night.

It is important to note that 16 (80%) women who delivered at home stated that they were advised to deliver at the clinic (Table 4.13), but due to perceived threat and barriers in clinic delivery, they could not access the clinic labour ward for delivery of this baby. Three of these women had not been able to access the clinic due to impassable roads as a result of floods in the area. Thirteen of them had transport problems. There is ample evidence in the literature that women do not choose to deliver at the clinic due to perceived threats and barriers, such as poor staffing (Fajemilehin, 1991:17; Kwast, 1995:S71), shortages of equipment (Kwast, 1995:S71), and poor transport (Buchmann et al., 1989:30).

Table 4.13 Advice from clinic / mobile staff regarding place of delivery for this baby

Advice regarding place of delivery for this baby	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Hospital	4	20	3	15	3	15	10	16.7
Clinic	14	70	16	80	15	75	45	75
No advice given	2	10	1	5	2	10	5	8.3
TOTAL	20	100	20	100	20	100	60	100

4.2.5.2 Clinic delivery discouraged by staff

The participants were asked if the clinic nurses had ever discouraged them from delivering in the clinic. The majority of women forty-nine (81.7 %) responded that this had not happened to them. It is interesting to note that none of the women who delivered in the clinic had been discouraged from doing so. This differs from the hospital deliveries and ekhaya deliveries, of whom six (30%) and five (25%) respectively stated that they were discouraged by the nurses from using the clinic labour ward.

Reasons for the discouragement of the six hospital delivery women were as follows: three were told to go to the hospital as it was during the night and the nurses could not help them; one said that she was told to go to the hospital because she was in labour and already had ruptured membranes; one was told to go to hospital for delivery, as she had had a previous abortion and gave a history of bleeding during a previous pregnancy; and two said they were turned away from the clinic and sent to the hospital, as the clinic had run out of drugs.

The reasons given for the discouragement of the women from the home delivery sample were: three were told not to come to clinic if they go into labour during the night; one wanted to have a tubal ligation; and one was having her third child. These findings indicate that discouragement from nurses is a strong factor in influencing women not to deliver at the clinic. This conclusion was further supported when the responses for this question were cross-tabulated with those

for the question about whether the nurses discouraging them was a barrier that prevented a desired clinic delivery. Only three of the eleven participants who were discouraged by the clinic staff actually felt that this had been a barrier to a desired clinic delivery. Of these, two delivered at hospital and one at home.

Table 4.14 Discouraged by clinic staff

Discouraged by clinic staff	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	14	70	15	75	20	100	49	81.7
Yes	6	30	5	25	-	-	11	18.3
TOTAL	20	100	20	100	20	100	60	100

4.2.5.3 Nursing staff information regarding preparing for clinic delivery

Participants were asked what arrangements the nursing staff had told them to make when they went into labour. It was intended to provide information about advice given in preparation for clinic delivery. However, the question did not elicit useful information, possibly because it was misunderstood and should have been better worded.

The majority of women (30 or 50%) responded that they were informed to bring the baby's clothes or layette with them. Six (10%) women mentioned that they were told to bring enough money to pay for transport to return home after delivery. Only four (15%) women stated that they were told to bring their ante-natal clinic card with them, as this would assist the midwife when assessing the woman.

4.2.5.4 Nursing staff information regarding timing of labour ward admission – show

Nolte (1998(b):115) stated that women should be given more information during their antenatal visits regarding the timing of their admission to the labour ward, which would encourage them to deliver in the appropriate place. In this study,

only 35 (58.3%) participants responded that they had been told to come for admission to the clinic labour ward when they had a show. There was little difference between the groups in terms of the numbers of people who had been informed about the show as a reason for admission.

Table 4.15 Nursing staff information re timing of labour ward admission – show

Nursing information re timing of labour ward admission – show	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	11	55	12	60	12	60	35	58.3
No	9	45	8	40	8	40	25	41.7
TOTAL	20	100	20	100	20	100	60	100

4.2.5.5 Nursing staff information regarding timing of labour ward admission – strong contractions

Only just over half (34 or 56.7%) of women from the whole sample stated that they were given information regarding the strength and frequency of contractions and the need to go to the labour ward for admission. As already noted in the literature review and above, Nolte (1998(b):115) advises that pregnant women be given such information to ensure appropriate timing for admission. This is illustrated by the fact that one of the participants who delivered at home, said that she left it too late before summoning transport as she was unsure whether she was in labour. Once again, there was little difference between the groups.

Table 4.16 Nursing staff information regarding timing of labour ward admission – strong contractions

Nursing information re timing of labour ward admission – strong contractions	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	9	45	12	60	13	65	34	56.7
No	11	55	8	40	7	35	26	43.3
TOTAL	20	100	20	100	20	100	60	100

4.2.5.6 Nursing staff information regarding timing of labour ward admission – waters broken

It is a concern that most (47 or 78.3%) of the whole sample had not received information about the need to come to the labour ward for admission after their waters had broken (see Table 4.17). This is of concern as a lack of such information could endanger mother and fetus. Bennet and Brown (1999:299) noted the importance of informing women about the danger signs during pregnancy and the need to report rupture of membranes. Failure to do this could be fatal to the fetus, especially in the event of cord prolapse. The clinic sample seem to have been marginally better informed than the other groups (35% were given the information).

Table 4.17 Nursing staff information regarding timing of labour ward admission – waters broken

Nursing information re timing of labour ward admission – waters broken	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	4	20	2	10	7	35	13	21.7
No	16	80	8	90	13	65	47	78.3
TOTAL	20	100	20	100	20	100	60	100

4.2.5.7 Nursing staff information regarding timing of labour ward admission – other

Only two participants received information regarding the timing of labour ward admission, other than what has been mentioned in the previous sections. One was a hospital delivery and the other delivered at home. Both were told to come to the clinic as soon as they experienced constant back pain and frequent passing of urine.

The status of the participants with respect to the number of previous pregnancies did not appear to influence the amount of information given by nurses. Furthermore, the groups did not appear to differ with respect to the amount of information that they received. For example, four hospital, three ekhaya and three clinic participants each received two pieces of information, such as show and strong contractions.

4.2.5.8 Non-usage of 'isihambi' hut

Like most rural clinics which operate for 24 hours, the clinic in the study had an 'isihambi' hut. This is a building on the clinic site that is for low risk pregnant women to come from 38 weeks of pregnancy to await the onset of labour. The reason for such a facility is indicated by two studies. Gennaro, et al., (1998:192) in their study in Malawi, stated that the establishment of a waiting area for

pregnant women within the health institution would improve the access to the clinic for women who live far from it. This is also supported by Wilkinson, (1995:19) who notes that as it was not easy for most women from Hlabisa to obtain transport in time, a 'waiting mother' area was to be built, to accommodate them just prior to delivery. They were requested to pay a small amount for this accommodation.

The participants were asked what information they received from the staff regarding the use of the 'isihambi' hut prior to delivery. Thirty seven (61.5%) of the 60 participants responded that they were not properly informed about the facility. However, 23 (38.5%) were given information about the "isihambi" hut by the clinic and mobile staff. Further information was sought from those who were advised to use the hut as to what stopped them from using it.

Ten (16.5%) explained that they were afraid to use it as nobody else was using it. Four (7%) said that there was no nobody to support or to look after her children when they were away from home staying in the 'isihambi' hut. Seven (11.5%) had no money to buy extra groceries. This related to the fact that mothers were required to provide themselves with equipment such as linen, eating utensils, pots and dishes, as well as food. It has been shown that the 'isihambi' hut is needed, especially in the rural clinics as it provides accommodation for those pregnant women staying very far from the clinic, who have poor access to transport. However, this study has found that it was markedly under-utilised.

4.2.5.9 Conclusion

It appears that the majority of the women were well informed with regard to clinic delivery. However, a few showed a lack of knowledge regarding the danger signs during labour. It is important for the midwife to keep the expecting mother well informed with relevant knowledge regarding proper timing of labour, danger signs during pregnancy and use of the clinic labour ward. In terms of the HBM, since information can act as a trigger to stimulate individuals to carry out a recommended health behaviour (see Section 1.8.2.2).

4.2.6 Perceived threat

4.2.6.1 Perceived threat of delivery to maternal – neonatal health

The participants in this study were asked whether they felt that their most recent labour and delivery could have endangered them and their baby's health. The majority of them (54 or 90%) responded that they did not believe this, to have been so. Three of the six women who felt that there had been a threat, had delivered at the clinic. Their reasons for believing this were related to being delivered by young, inexperienced midwives, who would not have been capable of coping with complications. One of these mothers was afraid of having 'ipuleti' (placenta previa) and them not being able to cope with this. Mabote (1996:6) also found that an inadequate supply of human resources at the clinic could influence a woman to perceive a clinic delivery as a threat to the safety of herself and her baby. The two women who delivered at home stated that these had been unintended and were due to the roads being flooded. They felt that their own health and that of their baby could have been endangered if an emergency or complications had occurred as they would not have been able to cope with it.

Table 4.18 Perceived threat of delivery to maternal – neonatal health

Perceived threat of delivery to maternal-neonatal health	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	20	100	17	85	17	85	54	90
Yes	-	-	3	15	3	15	6	10
TOTAL	20	100	20	100	20	100	60	100

4.2.6.2 Influence of perceived threat on place of delivery

In only four cases (two each from clinic and home delivery samples) was the choice of place of delivery influenced by perceptions that their most recent labour and delivery could have endangered their own or their baby's health.

Table 4.19 Influence of perceived threat on place of delivery

Influence of perceived threat on place of delivery	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	-	-	1	5	1	5	2	3.3
Yes	-	-	2	10	2	10	5	6.7
Not applicable	20	100	17	85	17	85	54	90
TOTAL	20	100	20	100	20	100	60	100

4.2.7 Perceived benefits influencing choice of place of delivery

The participants were asked what factors or benefits had made them select the hospital, home or clinic for the delivery of this baby. It is important to note that this was an open-ended question and the women identified the factors themselves. These have been categorised into five factors and are presented separately below, in terms of whether or not they were mentioned. In some cases, the factor was not applicable to all women.

4.2.7.1 Benefits influencing choice of place of delivery – Nursing care

In Chapter Two, Section 2.6.2.3, it was explained that women want to be cared for during labour, and not to be neglected. They need to be respected and kept informed about the progress of labour (Walker, et al. 1995:124). Table 4.20 illustrates that 25 (41.7%) of women of the whole sample selected the place of delivery based on the nursing care that they would receive. However, the 45% of those for whom it was a factor were women who had delivered at the clinic. Similarly, within the clinic sample, 55% were not influenced to select it because of the nursing care they would be given. Obviously, the women who had delivered at home had not done so because of nursing care and they fell into the 'not applicable' category.

Table 4.20 Benefits influencing choice of place of delivery – Nursing care

Nursing care	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Mentioned - Yes	6	30	-	-	9	45	15	25
Mentioned - No	14	70			11	55	25	41.7
Not applicable	-	-	20	100	-	-	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.7.2. Free service

Table 4.21 shows that only eight (13.3%) of the women from the whole sample had perceived the free service as a factor that influenced their selection of the place of delivery. Since this was a large portion of the clinic deliveries group (40%) it can be assumed that the free services were regarded as an important benefit in this group. As could be expected, all of these were women who delivered at the clinic. Obviously, this was not applicable to the home delivery women as they did not receive a service. It was also not applicable to hospital deliveries as women do pay at least a nominal amount for the service.

Table 4.21 Benefits influencing choice of place of delivery – free services

Free services	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Mentioned – Yes	-	-	-	-	8	40	8	13.3
Mentioned - No	-	-	-	-	12	60	12	20
Not applicable	20	100	20	100	-	-	40	66.7
TOTAL	20	100	20	100	20	100	60	100

4.2.7.3 Benefits influencing choice of place of delivery – safety

Studies reviewed in Chapter Two, Section 2.3 have indicated that most women prefer the safest place for delivery (Larsen, 1978:827 and Brindley, 1985:102). In contrast, the results for this study show that only sixteen (26.7%) of the women from the whole sample had been influenced by safety in their selection of the

place of delivery (Table 4.22). However, the situation is quite different amongst the sample of women who delivered in hospital. The majority of these (70%) mentioned safety for themselves and their babies as a benefit that had influenced them to select the hospital for delivery. Possible reasons for the hospital being perceived as safer come from Brindley (1985:102), who noted that women preferred them as they would be free from sorcery and it would be safe for the baby.

Most (90 %) of the women who delivered at the clinic did not mention safety as a benefit. In the literature review it has been mentioned that Mazibuko, et al. (1989: 39) found that clinic patients were sometimes left alone during labour, there were often inadequate medical supplies at the clinics, a lack of doctor, no emergency transport to take the client to the referral hospital and if the ambulance was summoned, it was sometimes delayed. A perception of the existence of such problems might account for the fact that so few of them mentioned safety as a benefit of clinic delivery.

None of the women who delivered at home mentioned safety as a benefit that influenced them to deliver at home.

Table 4.22 Benefits influencing choice of place of delivery – safety

Safety of mother and baby	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Mentioned – Yes	14	70	-	-	2	10	16	26.7
Mentioned – No	6	30	20	100	18	90	44	73.3
TOTAL	20	100	20	100	20	100	60	100

The responses of these participants were cross-tabulated with their responses to other questions in order to check for consistency and further understanding (see Table 4.23). There was a high level of consistency in responses with respect to the lack of medicines and equipment at the clinic, delay in ambulance, no ambulance and the unavailability of doctors at the clinic.

Table 4.23 Cross-tabulation of responses of the 44 participants who did not regard safety as a benefit of clinic delivery with other safety-related variables

Other safety-related variables	Hospital		Ekhaya		Clinic		Total	
	N	% of 6	N	% of 20	N	% of 18	N	% of 44
Staffing inadequate	2	33.3	7	35	9	50	18	40.9
Labouring alone	4	66.7	7	35	12	66.7	23	52.3
Staff inexperience	-	-	8	40	8	44.4	16	36.4
Lack of medicines and equipment	6	100	20	100	18	100	44	100
Delay in ambulance	3	50	14	70	13	72.2	30	68.2
No ambulance	6	100	20	100	18	100	44	100
Unavailability of doctors	6	100	16	80	17	94.4	39	88.6

(% = Percentage of the participants who did not feel that safety was a benefit)

4.2.7.4 Clinic nearer home

Of the participants who delivered at the clinic, thirteen (65%) stated that the fact that it was nearer to their home than the hospital had been a benefit made them select it for their delivery. Ten of these participants also cited the proximity to home in the question regarding the reason they chose to deliver at the clinic (see Section 4.24). Presumably, the three who did not give it as a reason to deliver at the clinic but saw it as a benefit, had been influenced by other factors. All 13 stated that they had delivered at the clinic by preference.

Table 4.24 Benefits influencing choice of place of delivery – clinic nearer home.

Clinic nearer home	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Mentioned - Yes	-	-	-	-	13	65	13	21.7
Mentioned - No	20	100	-	-	7	35	27	45
Not applicable	-	-	20	100	-	-	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.7.5 Stayed with the children

This factor was only relevant for the women who delivered at home. Nine (45%) of them cited the ability to stay with the children as a factor that had influenced their choice in the place of delivery. Problems relating to finding suitable caretakers would have accounted for this.

Table 4.25 Benefits influencing choice of place of delivery – stayed with the children

Stayed with children	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Mentioned – Yes	-	-	9	45	-	-	9	15
Mentioned – No	20	100	11	55	-	-	31	51.67
Not applicable	-	-	-	-	20	100	40	66.7
TOTAL	20	100	20	100	20	100	60	100

4.2.7.6 Benefits influencing choice of place of delivery – Other factors

Other benefits besides the preceding five were mentioned by 20 (33.3%) of the women. Four (20%) of the women who delivered at home selected that place to deliver as they were able to continue with their cultural practices and receive traditional care. Four (20%) of the hospital deliveries stated that a benefit was that you stayed in hospital longer than in the clinic, where you were discharged

only 24 hours after delivery. Therefore, care was the factor, but not specifically nursing care, hence the reason for not including these responses into 4.2.7.1.

Table 4.26 Benefits influencing choice of place of delivery – other factors

Stayed with children	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Mentioned - Yes	4	20	4	20	12	60	20	33.3
Mentioned – No	16	80	16	80	8	40	60	66.7
TOTAL	20	100	20	100	20	100	60	100

The 12 (60%) the women who delivered at the clinic gave a variety of responses concerning the factors which they regarded as a benefit that influenced their choice of place of delivery. Four stated that they were given professional care during their delivery; three said that the baby was examined after delivery for any abnormality and this allowed any problems that were identified to be dealt with; two mentioned that their relatives were given access to the labour ward thereby allowing their mothers to be with them for moral support throughout labour; one said that a benefit was that the nurses taught her how to care for her baby; another cited the nurses' support during labour; and one stated that the delivery at the clinic was not expensive.

4.2.8 Barriers

4.2.8.1 Barriers hindering access to the health services for the birth of the present baby

4.2.8.1.1 Means of accessing transport

According to Nolte (1998(b):28) public transport is very scarce especially in rural areas and this results in difficulties for women reaching the health facilities. Similar findings have been found in this study. One of the problems that occurred was related to the means of accessing transport. Table 4.27 shows that 19 (31.7%) women of the whole sample accessed transport by means of sending a messenger. Eleven (18.3%) of the sample obtained transport by

waiting at the bus stop. One unfortunate participant, who delivered at home, had sent for a car to take her to the clinic. However, it was delayed and the woman delivered at home (indicated in the table with an '*'). One woman who delivered in the hospital had a telephone, and three (15%) who delivered in hospital had their own transport, but they did not go to the clinic for delivery. It is interesting to note that the women who had their own transport or telephone, which presumably improved their access to transport, all chose to deliver at the hospital. There did not seem to be any relationship to the whether the delivery was in the day or at night. The women who walked all delivered at the clinic.

Table 4.27 Means of accessing transport

Means	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Telephone	1	5	-	-	-	-	1	1.66
Message	5	25	1*	5	13	65	19	31.66
Hitch hiked	2	10	-	-	1	5	3	5
Bus stop	9	45	-	-	2	10	11	18.3
Own transport	3	15	-	-	-	-	3	5
Walked	-	-	-	-	4	20	4	6.66
Not applicable	-	-	19	95	-	-	19	31.66
TOTAL	20	100	20	100	20	100	60	100

4.2.8.1.2 Transport used for delivering this baby

The women used a variety of types of transport to reach the health services for delivery (Table 4.28). Most women (20 or 33.3%) from the whole sample were transported by means of a private car, and the second largest group (16 or 26.7%) used a taxi for transport. Only one (5%) participant was taken by an ambulance to the hospital for delivery purposes. As explained in the previous section, one (5%) woman who delivered at home waited for the car that she had summoned to take her to the clinic for delivery. However, it took so long to arrive that she delivered at home. Despite this, she was made to pay for the car (see

Table 4.27). This illustrates the findings of other studies mentioned in Chapter Two regarding women's concerns about transport delays resulting in unintended home deliveries (Section 2.5.1).

Table 4.28 Transport used for delivering of this baby

Transport used for delivery of this baby	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Taxi	7	35	-	-	9	45	16	26.7
Ambulance	1	5	-	-	-	-	1	1.7
Car	12	60	1*	5	7	35	20	33.3
Walked	-	-	-	-	4	20	4	6.7
Not applicable	-	-	19	95	-	-	19	31.7
TOTAL	20	100	20	100	20	100	60	100

4.2.8.1.3 Cost of transport

Of the whole sample, twenty nine (48.4%) did not pay for transport as they walked, hitchhiked, got a lift, used an ambulance, had their own transport or delivered at home without incurring a transport cost (Table 4.29). However, ten (16.67%) of the whole sample paid R50 or more to get to a health facility, which is expensive for rural mothers of low socio-economic status as these were. As noted in Chapter Two, Section 2.4.2.4, under-utilisation of maternal health facilities can be due to the high cost of transport (World Health Day, 1998:4.3; Buchmann, et al, 1998:30 and Kwast 1993:113). It is possible that the cost of transport was a factor that influenced some of the women in this study to deliver at home. As has been explained in the previous two sections, one woman from the ekhaya sample had an unintended home delivery due delayed transport, yet she was still required to pay R10 as the car did travel to her home. The fact that 3 (42.9%) from the hospital group and 4 (57.1%) of the clinic group had to pay R100 or more for the transport indicates their determination to deliver at a health facility.

No relationship was found between the cost of transport and the time of delivery. The cost did not appear to be higher for those who delivered at night. However, it is likely that some of these women travelled to the place of delivery during the day and only delivered at night.

Table 4.29 Frequency distribution with respect to cost of transport

Cost of transport	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Free (walked/own transport)	5	25	-	-	5	25	10	16.6
R4.00	-	-	-	-	2	10	2	3.3
R6.00	3	15	-	-	-	-	3	5
R7.00	4	20	-	-	1	5	5	8.3
R8.00	4	20	-	-	4	20	8	13.3
R10.00	-	-	1	5	-	-	1	1.7
R14.00	-	-	-	-	1	5	1	1.7
R19.00	1	5	-	-	-	-	1	1.7
R50.00	-	-	-	-	2	10	2	3.3
R80.00	-	-	-	-	1	5	1	1.7
R100.00 or more	3	15	-	-	4	20	7	11.7
Not applicable	-	-	19	95	-	-	19	31.7
TOTAL	20	100	20	100	20	100	60	100

4.2.8.1.4 Persons paying for transport

In view of the fact that studies have shown that the cost of transport often presents a problem for accessing health services (Section 2.4.2.4) and that the majority of participants in this study were unemployed, the participants were asked who had paid the costs of their transport to the place of delivery. The appropriateness of this was supported by the finding that only one woman had paid for herself. The husbands had paid for nineteen (31.7%) of the participants from the whole sample, whilst the mother-in-law had paid the costs for five

(8.3%) of the whole sample (see Table 4.30). One of the latter group had delivered at home, due to a transport delay, but was still required to pay for the car when it arrived. It is interesting to note that husbands and mothers-in-law constituted 40% of the 53.3% of people in the sample who had paid for the transport. This is in contrast to the findings reported in Section 2 that women in the rural areas are often unable to reach the health facilities because their mothers-in-law or husbands will not permit them to go the clinic or hospital for delivery (Thompson, 1996:160). There was little difference between the hospital and clinic delivery samples, with respect to who paid the costs.

There were 29 people who did not pay. Four clinic delivery women walked to the health facilities, 3 hospital delivery women used their own private cars, one hospital delivery women obtained a lift from the pastor, one hospital delivery woman was transported by ambulance, one clinic delivery woman hitchhiked and 19 women delivered at home.

Table 4.30 Persons who paid for transport

Persons who paid for transport	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Free	1	5	-	-	-	-	1	1.7
Husband	9	45	-	-	10	50	19	31.7
Boyfriend	3	15	-	-	1	5	4	6.7
Mother-in-law	1	5	1	5	3	15	5	8.3
Other relatives	1	5	-	-	1	5	2	3.3
Self	1	5	-	-	-	-	1	1.7
Not applicable	4	20	19	95	5	25	28	46.7
TOTAL	20	100	20	100	20	100	60	100

4.2.8.1.5 Waiting time for transport

Studies have shown that transport problems, such as time delays, are a major barrier to clinic delivery (Section 2.4.2.4). Six women (10%) in this study also

experienced this difficulty, having waited for over an hour for their transport to arrive, which could cause anxiety for a multiparous woman who may have a short labour (Table 4.31). However, most of the women (27 or 45%) had to wait for less than an hour. There was little difference between the hospital and clinic delivery women with respect to the waiting period. Four (6.7%) of the whole sample were unable to remember how long they had waited for their transport, and 24 (40%) had to walk to the clinic or they delivered at home.

Table 4.31 Waiting time for transport

Waiting time for transport	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Less than one hour (short)	16	80	-	-	11	55	27	45
One hour or more (long)	2	10	2	10	3	15	6	10
Unknown	2	10	-	-	2	10	4	6.7
Not applicable	-	-	18	90	4	20	23	38.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.1.6 Length of time to get to hospital/ clinic

It is illustrated in Table 4.32 that the majority of women 28 (46.7%) from the whole sample took less than an hour to reach the hospital or clinic, indicating that they were a short to reasonable distance from the health facility. However, 6 (10%) of all the women took one or more hours to reach the hospital or clinic, showing that they were a long distance from it and therefore at risk of delivering during the trip. Of these six women, two hospital and two clinic delivery participants had also waited one or more hours for transport. This could have increased the risk of a delivery during the trip to the health facility. Six of the women (10% of whole sample) were unsure about how long it took to reach the hospital or clinic. Although this question is categorised as ‘not applicable’ for the 20 ekhaya women, it is possible that a delay in transport contributed to their delivering at home.

Table 4.32 Length of time to get to hospital / clinic

Length of time to get to hospital / clinic	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Less than one hour	14	70	-	-	14	70	28	46.7
One hour or more	3	15	-	-	3	15	6	10
Unknown	3	15	-	-	3	15	6	10
Not applicable	-	-	20	100	-	-	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.1.7 Time of delivery of this baby

Table 4.33 shows that the majority of the deliveries were conducted during the day and that there was little difference between the groups.

Table 4.33 Time of delivery

Time of delivery	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Day	13	65	12	60	14	70	39	65
Night	7	35	8	40	6	30	21	35
TOTAL	20	100	20	100	20	100	60	100

According to the literature, a number of factors can contribute to women not delivering in the clinic at night. Mabote (1996:6) stated that women in labour often could not access the clinic labour ward due to the clinic gates being locked at night by the security guards, thereby making it impossible for the labouring women to reach the midwives. Women are sometimes instructed by the midwives do not to come to the clinic for delivery, if labour starts at night according to Abdool Karim, et al. (1992:357). The evidence for this being a factor amongst women in this study is mixed. The ten who said that they were told to go to hospital for delivery (see 4.2.5.1.) were not given this as a reason to go to the hospital. However, three of the participants who delivered in hospital

said that they had been discouraged from delivering at the clinic if they went into labour at night (see 4.2.5.2).

4.2.8.2 Barriers in general

4.2.8.2.1 Transport problems

The literature review indicated that women were often not able to access health facilities due to their low socio-economic status, as they could not afford to pay the transport fees, especially at night when transport was very scarce and expensive (Buchmann et al. 1989:30; Fajemilhenin 1991:15; Kwast 1993:113; and Jinabhai et al. 1994:10). Studies conducted by Mthembu (1997:172) and Chalmers (1992:29) have shown that health facilities often could not easily be reached, especially in rural areas where there is insufficient transport. (See section 2.4.2.4). In this study, (Table 4.34) a lack of transport was considered a barrier to delivering in the clinic by 35 (58.3%) of the women from the whole sample. Of these, nineteen (95%) who delivered at home indicated great concern with regard to transport problems, which meant that they had not been able to access the health facilities in good time. The majority of the other participants who had delivered at either the hospital (11 or 55%) or who had delivered at the clinic (11 or 55%) did not regard the lack of transport as a barrier. This question was regarded as not applicable by two of the hospital delivery participants. One of these delivered at the hospital because she went into labour while she was visiting a friend there. The other one was given a lift by an ambulance.

Table 4.34 Transport problem a barrier to clinic delivery

Transport problem a barrier to clinic delivery	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	11	55	1	5	11	55	23	38.3
Yes		35	19	95	9	45	35	58.3
Not applicable	2	10	-	-	-	-	2	3.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.2 Transport scarce at night

Scarcity of transport and the high cost of transport at night have been identified as problems in the rural areas (Buchmann et al. 1995:29–30). Given that the women in this study were likely to be of low socio-economic status, it is surprising that only two participants (one from the hospital and one from the ekhaya samples) had found the need for night transport a barrier to delivering at the clinic, where they would have preferred to deliver. The question was not applicable to women who had delivered at the clinic.

Table 4.35 Barrier preventing desired clinic delivery – transport scarce at night

Barrier preventing desired clinic delivery – transport scarce at night	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	19	95	19	95	-	-	38	63.3
No	1	5	1	5	-	-	2	3.3
Not applicable	-	-	-	-	20	100	20	33.3
TOTAL	20	100	20	100	20	100	60	100

This is borne out to some extent in the results of a cross-tabulation of responses for transport being a barrier and the time of delivery. Nineteen women who said that transport had been a barrier to clinic delivery, delivered in the day and seven at night. These subgroups of women both represent a third of the day and night deliveries respectively. Therefore, there was no difference in relation to the time of delivery. However, it would be incorrect to attach much meaning to this finding as some of these women are likely to have required transport some hours before delivery.

4.2.8.2.3 Delay in transport

Participants were asked if a delay in transport was a barrier that prevented a desired clinic delivery. Most (27 or 45%) of the women said that this had not been the case. However, it is notable that 9 (45%) of the ekhaya sample reported that a delay in transport had prevented them from delivering at the clinic as they had wished to do. This finding is in line with the study by Buchman et al. (1989:3) who found that poor transport networks resulted in unintended home delivery and by Fawcus et al. (1997:160) that a lack of transport and delay in ambulances arriving could be a threat to a labouring woman. This threat could take the form of a home delivery. (The question was obviously not applicable to women who had delivered at the clinic).

Table 4.36 Barrier preventing desired clinic delivery – transport delay

Barrier preventing desired clinic delivery – transport delay	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	19	95	9	45	-	-	28	46.7
No	1	5	19	55	-	-	12	20
Not applicable	-	-	-	-	-	-	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.4 No money for transport

The findings of Jinabhai et al. (1994:12), show that financial constraints are regarded as one of the major contributory factors in the under-utilisation of maternal services. In this study, the problem of not having money to pay for the service was not regarded as a barrier to desired clinic delivery for 38 (53.3) of women from the whole study. However, the lack of money appears more important with respect to the ekhaya group, 35% of whom had found it a problem. It is possible that they did not have enough money for the transport, as the services are free. Of these, eight had no money for transport and yet none of

them stated that they perceived the free service at the clinic as a benefit. The question was not applicable for the women delivered at the clinic.

Table 4.37 Barrier preventing desired clinic delivery – no money for transport

Barrier preventing desired clinic delivery – no money for transport	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	19	95	13	65	-	-	38	53.3
Yes	1	5	7	35	-	-	8	13.3
Not applicable	-	-	-	-	-	-	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.5 Floods as a barrier to clinic delivery

During the course of the study, floods occurred in the area. Three (15%) of the women who had delivered at home stated that the roads were flooded and damaged and this had prevented them from reaching the clinic.

Table 4.38 Barriers to clinic delivery – floods

Floods as a barrier to clinic delivery	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	-	-	3	15	-	-	3	5
No	20	100	17	85	-	-	37	61.7
Not applicable	-	-	-	-	20	100	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.6 Influence of important family member

Participants who wanted to deliver at the clinic but did not do so, were asked whether they had been influenced by a family member to not use the clinic. Nolte (1998(b): 72) found that family members sometimes pressure women to deliver at the place they desire rather than where the women wishes to deliver.

In this study, only one participant experienced such pressure and she delivered at hospital.

4.2.8.2.7 Advice by nursing staff - Discouraged delivery in clinic

Ten of the participants, who had wished to deliver at the clinic but did not do so, said that the clinic staff had discouraged them. The reasons that the nurses discouraged the women from the hospital group from delivering at the clinic were that their membranes had ruptured or that they were unsure of the fetal position. Some were not given any reason. The two participants from the ekhaya group were discouraged because they were told that the child was not presenting by head and yet they delivered normally.

Table 4.39 Barriers preventing desired clinic delivery – nurses discouraged

Barrier preventing desired clinic delivery - nurses discouraged	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	12	60	18	90	-	-	30	50
Yes	8	40	2	10	-	-	10	16.7
Not applicable	-	-	-	-	20	100	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.8 Advice by nursing staff - Encouraged hospital delivery

In terms of policy, a registered midwife should deliver the low risk pregnant woman at the clinic. However, when asked what barriers influenced them to not use the clinic for delivery, ten (16.7%) said that they had been advised by the clinic nursing staff to deliver in hospital. The majority of these (9) actually did deliver at the hospital, whilst one delivered at home. It is not known why they were advised in this way. The literature suggests that the reasons include inexperience on the part of the midwife and instances where the clinic is inadequately equipped (Buchmann, et al, 1989:29).

Table 4.40 Barriers to clinic delivery – advice by nursing staff to deliver in hospital

Advice by nursing staff to deliver in hospital	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	11	55	19	95	-	-	30	50
Yes	9	45	1	5	-	-	10	16.7
Not applicable	-	-	-	-	20	100	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.9 Safest or best care received in hospital

Seven (35%) of the women who delivered in hospital stated that they decided to deliver in hospital and not the clinic as they believed that it was safer to deliver there and that they would receive the best care in hospital. Therefore, lack of safety was regarded as a barrier to clinic delivery amongst this group.

Table 4.41 Barriers to clinic delivery – safer / best care in hospital

Safer and best care in hospital	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	13	65	-	-	-	-	13	21.7
Yes	7	35	-	-	-	-	7	11.7
Not applicable	-	-	20	100	20	100	40	66.6
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.10 Person delivering this baby

The majority of the sample (40 or 66.7%) were delivered by registered midwives. This was appropriate in terms of policy. In addition, many women are satisfied with the services of a midwife. Bluff and Holloway (1994: 157) found that women in labour tended to trust in the knowledge and skills of their midwives and their competencies to manage them in labour. However, not all women believe this. Some prefer to follow traditional practices and it is possible that this might have been the reason for 3 (5%) of the women being delivered by traditional birth

attendants (TBA) rather than going to the clinic. However, it is likely that this was not the reason for the majority of home deliveries (15 or 25%), as they were delivered by incidental birth attendants. The latter are usually community members who have assisted the women in the absence of a TBA or midwife. None of the women was delivered by a doctor, which is to be expected as they had normal deliveries. Doctors are usually only involved when complications occur that the midwives are unable to manage.

Table 4.42 Person delivering this baby

Person delivering this baby	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Registered midwife	20	100	-	-	20	100	40	66.7
TBA	-	-	2	10	-	-	2	3.3
IBA	-	-	15	75	-	-	15	25
Self			3	15	-	-	3	5
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.11 Other barriers preventing desired clinic delivery/ poor state of clothing

Eighteen (30%) of the participants mentioned that there were other barriers apart from the ones specifically mentioned above, that prevented them from having their desired clinic delivery. Of these, twelve (60%) who delivered in hospital, said that they did not have attractive clothes and would be ridiculed for this.

Table 4.43 Barrier preventing desired clinic delivery – poor state of clothing

Barrier preventing desired clinic delivery – other	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	12	60	6	30	-	-	18	30
No	8	40	14	70	-	-	22	36.7
Not applicable	-	-	-	-	20	100	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.12. Clinic staff inexperience and coping abilities

As has been mentioned earlier in this chapter, some women will not allow a young, inexperienced midwife to deliver them. Seventeen (28.3%) of the women felt that the inexperience of the staff was not a concern for them in regard to delivering at the clinic. All of these women delivered at the hospital. However, seventeen (28.3%) felt concerned about staff inexperience.

Table 4.44 Concern regarding clinic delivery – staff inexperience

Staff inexperience	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	-	-	9	45	8	40	17	28.3
No	17	85	9	45	12	60	38	63.3
Do not know	3	15	2	10	-	-	5	8.3
TOTAL	20	100	20	100	20	100	60	100

All participants were asked whether they believed that the clinic staff could cope if things went wrong during labour and delivery. The majority, forty nine (67%) of the whole sample responded that they trusted that the clinic staff could cope with any complication that may arise during labour or childbirth.

However, eleven (18.3%) did not know whether the midwives have adequate skills for conducting deliveries. Eight (13.3%) stated that they have no experience or skills to conduct a delivery. Of the women who delivered at home,

one (5%) stated that the midwives at the clinic were very young and inexperienced, and she therefore did not believe that they could deal complications that may arise during labour or delivery. This could be a threat to the labouring woman.

4.2.8.2.13 Poor attitude of staff

In Chapter 2, Section 2.6.2.1, it is stated that poor staff attitude is one of the contributory factors to the clinic being unacceptable for delivery purposes. It is notable that 32 (53.3%) of the whole sample cited the poor attitudes of staff as a concern in regard to delivery at the clinic (see Table 4.45). Fourteen (70%) of women who had actually delivered at the clinic stated that they had been concerned about this poor attitude of nurses. Presumably, other factors had had a stronger influence on their decision to deliver there.

Table 4.45 Concern regarding clinic delivery – poor attitude of staff

Poor attitude of staff	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	8	40	10	50	14	70	32	53.3
No	12	60	9	45	6	30	27	45
Do not know	-	-	1	5	-	-	1	1.7
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.14 Inadequate staff support in labour

Thirty-eight (38.8%) of the participants said that the inadequate staff support at the clinic was a concern to them regarding delivery at the clinic. This is a large proportion of the sample and is unacceptable considering that social support is greatly needed during labour (Chalmers, 1992:72).

Table 4.46 Concern regarding clinic delivery – inadequate nursing staff support

Discouraged by clinic staff	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	7	35	9	45	10	50	26	43.3
Yes	6	30	7	35	10	50	23	38.3
Do not know	7	35	4	20	-	-	11	18.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.15 Labouring alone

As mentioned in Chapter 2 (Section 2.6.2.3), women in labour do not tolerate being left alone. Hence, they may prefer to deliver at home because they will be more likely to have their relatives with them during labour and delivery (Chalmers, 1992:72). In this study, nearly half (29 or 48.3%) of the women in the whole sample stated that the possibility of labouring alone was a concern to them regarding delivery at the clinic. This concern was well founded, as evidenced by the fact that thirteen (65%) women who delivered at the clinic expressed concern about having laboured alone (see Table 4.47).

Table 4.47 Concern regarding clinic delivery – labouring alone

Concern regarding clinic delivery – labouring alone	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	4	20	6	30	7	35	17	28.3
Yes	9	45	7	35	13	65	29	48.3
Do not know	7	35	7	35	-	-	14	23.3
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.16 Availability/non-availability of clinic staff during delivery

The participants were asked whether the clinic staff were always available during delivery. Twenty-six (43.3%) believed that they were not always available to attend to the labouring woman. The largest number of these was participants who delivered at the hospital. It is possible that this was a factor that stopped

them from selecting the clinic as the place for delivery. However, there were seven from the ekhaya and clinic groups who also felt that the staff were not always available to help women in labour. As has been stated, this could be perceived as a threat to a labouring woman and her neonate, and could influence the pregnant women to choose other places for delivery, where she would have social support (see Chapter 2)

Table 4.48 Availability of staff at the clinic during delivery

Availability of staff at the clinic during delivery	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	8	40	12	60	13	65	33	55
No	12	60	7	35	7	35	26	43.3
Don't know	-	-	1	5	-	-	1	1.7
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.17 Time of non-availability of staff in labour ward

The participants who said that the clinic staff members were not always available were then asked when they were not available. Six of them stated that women were left to labour alone at all times and were told to only call the midwife when they were about to push. Twenty said that they were left alone during the night. ('Not applicable' refers to those who did not answer "no" in the previous question.) A large proportion (9 or 45%) of the hospital sample women said that they were not available at night. This might have been perceived as barrier to clinic delivery, resulting in the women going to the hospital where they knew that staff was always available.

Table 4.49 Time of non-availability of staff

Time of non-availability	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Always	3	15	2	10	1	5	6	10
Nights	9	45	5	25	6	30	20	33.3
Not applicable	8	4	13	65	13	65	34	56.7
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.18 Lack of information during labour

In Table 4.50 it can be seen that the majority of women (36 or 60%) in the whole sample confirmed that the lack of information about what was happening during the labouring and birthing process was a concern regarding clinic delivery. Even more notable is the fact that nearly all of women who delivered at the clinic (95%) expressed this concern. Given that labouring women need to be informed about labour and birthing process in order to comply with the behaviour expected and have a safe delivery (Walker, 1995:124), this is a point of concern regarding the quality of clinic services.

Table 4.50 Concern regarding clinic delivery – lack of information

Lack of information	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	8	40	9	45	19	95	36	60
No	2	10	3	15	1	5	6	10
Do not know	10	50	8	40	-	-	18	30
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.19 Non-availability of doctors

The majority of women, (54 or 90%) of the whole sample were concerned with the lack of doctors at the clinic. Only one participant who delivered at the clinic and four, who delivered at home, said they were not concerned with non-availability of doctors in the clinic. The woman from the clinic said she was

unconcerned because she trusted that the midwives would attend to her and her baby, and also attend to any complications, which might arise. The non-availability of doctors at the clinic could make the woman feel threatened by delivering in the clinic, as there would be nobody to render medical assistance in an emergency. This has been confirmed by Mabote (1996:6), who found that women were not willing to use the clinic for delivery as there were no doctors available for medical assistance.

Table 4.51 Concern regarding clinic delivery - non-availability of doctors

Non-availability of doctors	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	19	95	16	80	19	95	54	90
No	-	-	4	20	1	5	5	8.3
Do not know	1	5	-	-	-	-	1	1.7
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.20 Inadequate supply of medicines or equipment

In 1995, Winnard found that clinics in rural areas were often not well equipped and essential drugs were not available, resulting in women not using the clinic for delivery. This is clearly still a problem in the area in which this study was conducted, as evidenced by the fact that insufficient medicines and equipment were a concern for all the women in relation to clinic delivery. This could have been a contributory factor to participants not using the clinic, but even the clinic sample expressed this worry. It is important to note the universal concern of women in this study.

4.2.8.2.21 No ambulance on clinic site

All the women in the study expressed a concern regarding clinic delivery because there was no ambulance on site to take them to hospital, if there was an emergency during the birthing process or after delivery. No ambulances at the clinic or delay of ambulances from hospital when summoned could be a

perceived as a threat to a labouring woman and her neonate. A survey conducted at Manguzi health ward (Kwangwanase) by Mthembu (1997:173) showed that women were completely unhappy with regard to delivering in the clinic labour ward due to the lack of ambulance services from the hospital to the clinic. This resulted in women choosing other places for delivery. This corresponds with Wilkinson's findings (1995:20) that a reliable ambulance service for emergency transfers, especially from the clinic, is essential.

4.2.8.2.22 Delay in ambulance

Brindley (1985:102) found that the absence of emergency transport for referral of a mother and her child could be perceived as a threat and discourage use of the clinic. This was a widespread concern amongst the participants in the whole sample (40 or 66.7%) and within all the groups of participants. However, there were obviously other factors that exerted a stronger influence on the clinic sample, or they would not have delivered there.

Table 4.52 Concern regarding clinic delivery – delay in ambulance

Concern regarding clinic delivery – delay in ambulance	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	-	-	1	5	3	15	4	6.7
Yes	10	50	15	75	15	75	40	66.7
Do not know	10	50	4	20	2	10	16	26.7
TOTAL	20	100	20	100	20	100	60	100

4.2.8.2.23 Other barriers

Six women in the study had concerns apart from the barriers that have already been described above. Some felt that the lack of privacy at the clinic was a concern related to delivering there. This accords with Mabote's (1996:6) finding that clinics are small, crowded and lack privacy.

Other women stated that security guards were sometimes found drunk, and they are to wait for a long time before the gate is opened. Women who delivered at the clinic said nothing. The other barrier mentioned was the short stay at the clinic post delivery, as opposed to the hospital. At hospital, the nurse cares for the mother and baby for longer than at the clinic, where a woman is discharged within 48 hours.

4.2.9 Likelihood of complying with recommended action of delivering in the clinic

Perceived threat of childbirth process

Perceived benefits

minus

Perceived barriers to clinic delivery

In terms of the Health Belief Model, the likelihood of complying with recommendation of delivering in the clinic regarding perceived threat, perceived barriers could happen.

4.2.9.1 Reasons for place of present birth

Participants were asked to give the reasons for where their recent delivery took place. Many of them gave more than one reason, and therefore each of these has been described separately.

4.2.9.1.1 Reasons for place of present birth - transport problem

Participants were asked whether transport problems had been a reason for the place of delivery. It is of concern that fifteen (25%) of the whole sample stated that this had been the reason. Thirteen of these women delivered at home. This finding is similar to Chalmers (1992:29) study. She found that insufficient transport is a barrier to delivery at rural health facilities. In a number of sections in this chapter, transport problems have been identified as an important barrier to women delivering in the clinic labour ward, thereby resulting in non-compliance

with policy. In transport as a barrier to clinic delivery (see 4.2.8.2.1, Table 4.34) it was noted that thirty five (58.3%) of all the participants confirmed that that transport had prevented them from delivering at the clinic. Of these, 19 (95%) delivered at home as they could not get transport in time or there was no transport available. It was also shown in Table 4.36 that transport delay prevented some women from having a clinic delivery. Nine (45%) of these said that this delay had prevented a clinic delivery.

Table 4.53 Reasons for place of present birth – transport problem

Reasons for place of present birth – transport problem	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	19	95	7	35	19	95	45	75
Yes	1	5	13	65	-	1	15	25
TOTAL	20	100	20	100	20	100	60	100

4.2.9.1.2 Reasons for place of present birth - staff caring

The participants were asked if staff caring was the reason for choosing the place of the present birth. All of them, with the exception of two (10%) women who delivered at the clinic, responded positively.

Table 4.54 Reasons for place of present birth – staff caring

Reasons for place of present birth – staff caring	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	20	100	-	-	18	90	38	63.3
No	-	-	-	-	2	10	2	3.3
Not applicable	-	-	20	100	-	-	20	33.3
TOTAL	20	100	20	100	20	100	60	100

Not applicable to home deliveries as they are cared for by their relatives.

4.2.9.1.3 Reasons for place of present birth - personal preference

As shown in Table 4.55, twenty eight (46.7%) of participants stated that the place of delivery had not been their personal preference.

Nineteen had a transport problem as a barrier to clinic delivery and seventeen of these said that they had not delivered where they liked to.

This finding is consistent with the responses for transport problems as a barrier to clinic delivery.

Table 4.55 Reasons for place of present birth – personal preference

Reasons for place of present birth – personal preference	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	11	55	2	10	19	95	32	53.3
No	9	45	18	90	1	5	28	46.7
TOTAL	20	100	20	100	20	100	60	100

4.2.9.1.4 Reasons for place of present birth - safety

The majority of women from the hospital and clinic delivery sample stated that safety was not regarded as a reason for choosing the place of the present birth. However, it is interesting to note that for four (20%) of the hospital delivery group safety had been the reason for selecting that place for delivery. Safety is an important factor that influences the selection of the place of delivery (Larsen 1978:827). It is also notable that none of the clinic delivery women considered safety as the reason for using the clinic labour ward. This may be due to a similar situation to Fajemilhenin's findings (1991:117) that women were not keen to use the clinic as it is inadequately supplied with resources for most of the time. Jinabhai et al. (1994:13) also found that the majority of rural women preferred hospital delivery where the doctor is available all the time and where they believe they will be safer.

Table 4.56 Reasons for place of present birth – safety

Reasons for place of present birth – safety	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	4	20	-	-	-	-	4	6.7
No	16	80	-	-	20	100	36	60
Not applicable	-	-	20	200	-	-	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.9.1.5. Reasons for place of present birth – nearer home

As shown in Table 4.57, twenty nine (48.3%) of participants had not selected the place of the present birth based on it being nearer home. However, it was a factor for 10 (50%) of the clinic women and for one hospital delivery woman. This reason was obviously not applicable for the women who delivered at home.

Table 4.57 Reasons for place of present birth – nearer home

Reasons for place of present birth – nearer home	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	1	5	-	-	10	50	11	18.3
No	19	95	-	-	10	50	29	48.3
Not applicable	-	-	20	100	-	-	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.9.1.6 Reasons for place of present birth - staff instruction

As can be seen from Table 4.58, 55% of the hospital delivery participants stated that the reason they delivered at the hospital was that they were instructed by the staff to go to hospital for delivery. Furthermore, 15% of participants delivered at home as a consequence of staff instructions. This was because they were turned away from the clinic as they were not in established labour and were instructed to return when the contractions became strong.

Table 4.58 Reasons for place of present birth – staff instruction

Reason for place of present birth – staff instruction	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
No	8	40	2	10	6	30	16	26.7
Yes	11	55	3	15	14	70	28	46.7
Not mentioned	1	5	15	75	-	-	16	26.7
TOTAL	20	100	20	100	20	100	60	100

4.2.9.1.7 Reasons for place of present birth – other

Twenty five (41.7%) of the participants gave other reasons besides those mentioned above. Ten of the hospital delivery group stated that they delivered there because of the availability of doctors at the health facility. One of the women, who was gravida five was afraid to go to the clinic because she knew that the staff were going to tell her to have a tubal ligation. She did not want to have the procedure performed, as she still wanted to have a baby boy.

Table 4.59 Reasons for place of present birth – other

Reasons for place of present birth – other	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	10	50	14	70	1	5	25	41.7
No	10	50	6	30	19	95	35	58.3
TOTAL	20	100	20	100	20	100	60	100

4.2.9.2 <u>Place of delivery</u>

4.2.9.2.1 Preferred place of delivery

Women were asked where they really wanted to deliver this last baby. The majority of participants (48 or 80%) said that they would have preferred to deliver at the clinic. All the clinic delivery women stated they had really wanted to have the baby at the clinic. Therefore, there were no unintended clinic deliveries in this group. The majority of women in the hospital group and the home delivery group (70% in both cases) really wanted to deliver at the clinic. It is reasonable

to conclude that other factors prevented them from doing so. Of the 11 (18.3%) who wanted to deliver at the hospital, six (30%) and five (25%) were from the hospital and home delivery group respectively. Both are quite a large proportion of the each of their groups. This shows that many of the women did not really want to comply with the dictates of the policy that low-risk pregnant women deliver at the clinic. Midwives would need to identify such women and attempt to address the reasons for their non-clinic delivery preference. The comment also applies to the one woman from the ekhaya group wanted to deliver at home.

Table 4.60 Preferred place of delivery

Preferred place of delivery	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Hospital	6	30	5	25	-	-	11	18.3
Home	-	-	1	5	-	-	1	1.7
Clinic	14	70	14	70	20	100	48	80
TOTAL	20	100	20	100	20	100	60	100

4.2.9.2.2 Maternal choice regarding place of this delivery

In the literature review Chapter Two, it is stated that low risk pregnant women from rural environments have problems with regard to making their own choice about the place of delivery. Although thirty two (53.3%) of women in this study were able to make their own choice, an almost equal number (28 or 46.7%) were not able to do so. Of these, nineteen were women who delivered at home, which was 95% of that group. It is possible that they either could not access the health facility due to the distance from the clinic and scarce transport.

Thompson (1996:159-164) mentioned that families pressurise women not to use health facilities when they are in labour.

Table 4.61 Maternal choice regarding place of this delivery

Maternal choice regarding place of this delivery	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Own choice	12	60	1	5	19	95	32	53.3
Not own choice	8	40	19	95	1	5	28	46.7
TOTAL	20	100	20	100	20	100	60	100

4.2.9.2.3 Preference of non-clinic deliveries to deliver in clinic

The women who delivered in either the hospital or at home were asked if they would have preferred to deliver at the clinic. It can be seen from Table 4.62 that twenty nine (72.5% of the 40 women) would have preferred clinic delivery; whereas eleven (27.5%) would not have preferred the clinic. It is noted that fourteen (70%) of women who delivered in hospital, wanted to deliver in the clinic. Both the hospital and ekhaya group answered similarly.

Table 4.62 Preference of non-clinic delivery women to deliver in clinic

Preference of non-clinic delivery women to deliver in clinic	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	14	70	15	75	-	-	29	48.4
No	6	30	5	25	-	-	11	18.3
Not applicable	-	-	-	-	20	100	20	33.3
TOTAL	20	100	20	100	20	100	60	100

4.2.9.2.4. Reasons for preferring to deliver in clinic

The participants were then requested to explain the reasons for the clinic preference. Once again, this question was not applicable to clinic deliveries. Of the twenty nine non-clinic delivered women who said the preferred to deliver at the clinic, twenty four of them also answered that they really preferred to deliver at clinic, therefore most were consistent in their answers.

4.2.9.3 Traditional birth attendants

Objective 1.5.4 of the study was to establish who conducts home deliveries in the Phelandaba catchment area. This was determined by asking the participants whether they knew of TBAs in the area and what their views were about them.

4.2.9.3.1 Traditional birth attendants (TBAs) known in area

There was no evidence in the literature that TBAs existed in the area. The only literature that was found was the study by Jepson and MacDonald (1998:77), who found that there were traditional birth attendants in the Mseleni area. This is fairly close to Manguzi Health Ward. However, in this study twenty two (36.7%) of the whole sample knew of TBAs in the area (see Table 4.63). This confirmed what the researcher had heard prior to the study, namely that there were TBAs in the area, although none of them were registered with the Health Department.

Table 4.63 Traditional birth attendants known to participant

TBAs known	Hospital		Ekhaya		Clinic		Total	
	N	%	N	%	N	%	N	%
Yes	10	50	12	60	-	-	22	36.7
No	10	50	8	40	20	100	38	63.3
TOTAL	20	100	20	100	20	100	60	100

Of the women who said that they knew of TBAs, the hospital delivery group knew between one and three TBAs and the ekhaya group knew of one to four (except for one woman who knew of ten – she had had an unintended home delivery, so it cannot be assumed that this knowledge of so many TBAs was related to being more influenced by traditional practices).

4.2.9.3.2 Views about TBA's conducting deliveries in the community

The views of the participants with regard to traditional birth attendants conducting deliveries in the community ranged from negative, indifferent to positive. A total of thirty nine (65%) participants responded negatively. Eleven of them

responded that they did not want to be touched by a TBA during labour, and felt that they should be stopped from conducting deliveries. Eight stated that they did not trust the traditional birth attendants, and that they were concerned about their cleanliness during the birthing process. This view was supported by their observations that TBAs do not follow hygienic practices in their own homes, which do not even appear to be clean. Seven (12%) of the women from the whole sample raised a concern about the skills the TBAs needed to have, and felt that they should be trained in order for them to conduct deliveries in the community as they cannot cope with problems during birthing process. Four of the participants who delivered at the clinic and hospital (10% out of 40) mentioned that the TBAs were still using old methods when conducting a delivery.

In contrast, fifteen (25%) of the whole sample were positive about TBAs conducting deliveries at home. Thirteen of these said that they had no problem with TBAs as they were doing a great deal of work in the community. One woman, who delivered in hospital stated that the Government should recognise them, and that they must be registered as people available for delivering women in the community. Such feelings are reflected in the literature, where it has been reported that TBAs are well regarded because they understand the woman's cultural practices and they do not leave her alone during the labouring and birthing process (Chalmers, 1992:92; Larsen, et al. 1983).

Six (10%) women from the whole sample said that they had no views regarding the TBAs. One woman who delivered at home and who was ambivalent in her response, was supportive of the idea of allowing the TBAs to conduct deliveries but at the same time she had doubts about them.

4.2.9.3.3 Conclusion

As already discussed in Table 4.63, incidental birth attendants delivered the babies of fifteen of the women in this study. Only two were delivered by TBAs. Therefore, it can be concluded that although there was ample evidence of the existence of TBAs in the area and that 25% of the sample were positive about the use of them, very few of the women in this study had used them. This finding is markedly different from that of Buchmann, et al. (1989:30) who stated that most of the home deliveries were conducted by TBAs.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The aim of this chapter is to give an overview of the most important findings of this study in relation to the research objectives. Recommendations arising from the findings of this study will be made which, if implemented, could contribute to improved usage of the clinic labour ward by low risk pregnant women (LRPW).

5.2 OVERVIEW OF IMPORTANT FINDINGS

5.2.1 Review of the two phases of the study

As explained in Chapter Three of the study, a two phased approach for the collection of data was followed. Phase one consisted of interviews with a sample of 60 low risk pregnant women (LRPW), all of whom came from the Phelandaba Clinic catchment area and were, according to policy, meant to deliver in the clinic. There were three groups of 20 categorised according to the place of delivery, namely the hospital, home (ekhaya) and clinic. Phase two consisted of focus group discussions with three groups of health care workers (HCW) who had contact with the LRPW. These were the clinic nursing staff (CNS), the community health workers (CHW) and the hospital labour ward sisters (HLWS).

5.2.2 Findings from Phase one of the study and comparison with findings from Phase two

5.2.2.1 Modifying factors

These were on the whole not of major importance. There appeared to be some influence of educational status as most women who delivered in hospital had a higher educational status and the LRPW who delivered in hospital were also more autonomous in decision making. Of the LRPW who knew of the 'isihambi' hut/waiting area, all were aware of its deficiencies as were the community health

workers (CHWs) and clinic nursing staff (CNS) focus groups. As the sample were low risk they did not perceive the **threat** of the childbirth process as being important unlike the three health care worker (HCW) focal groups who identified eleven perceived threats to delivering in the clinic.

5.2.2.2 Benefits

Only seven benefits to delivery in the clinic were identified by LRPW. The most important for women delivering in hospital was safety, for women delivering in the clinic was nearness to home and for women delivering at home was being able to stay with their children. The HCWs identified six benefits, all differing from those raised by the LRPW.

5.2.2.3 Barriers

Twenty-eight barriers to clinic delivery were raised by LRPW compared to sixteen raised by HCWs.

Transport problems were the most important barriers, particularly for LRPW delivering at home. Seven transport problems were perceived as barriers for the birth of the present baby. Delay of transport and the high cost of transport for the poor were important transport barriers. The HCW focus groups all identified transport as a problem, particularly at night. Some of the most important barriers identified by 90% to 100% of LRPW were lack of information given during labour, non-availability of doctors, insufficient medicines and equipment and no ambulance sited at the clinic. The first three findings were only congruent with the views of the hospital labour ward sisters (HLWS) focus group and the last with the views of the CHW focus group.

Over half the LRPW viewed the following as barriers, namely poor attitudes of staff (70% of clinic LRPW), labouring and delivering alone and delay in the arrival of the ambulance. All of these were perceived as a barriers by all three focus groups. Another barriers viewed as important by LRPW, particularly those delivering in the clinic (60%), were young and inexperienced sisters. This was perceived as a threat by all three focus groups.

5.2.3 Important findings from Phase two of the study

5.2.3.1 Modifying factors

The most important of the modifying factors were perceived threats to delivering in the clinic. The other modifying factors perceived as being of importance were socio-cultural variables. All three focal groups identified that it was culturally unacceptable to be delivered by young inexperienced sisters. This was not raised by LRPW. Both the CHW and CNS focal groups identified that it was taboo for women to leave their children with unrelated neighbours – again not raised by LRPW. As already mentioned the CHW and CNS focal groups recognised the deficiencies of the 'Isihambi hut'.

The HCWS identified eleven perceived **threats.** Common to all three focal groups were the perceived threat of young inexperienced sisters and the delay in the arrival of the ambulance at the clinic. Both of these were congruent with the views of LRPW who perceived them as barriers. Two focus groups perceived unresponsive security guards contributing to the threat of inaccessibility of the clinic at night which was not raised by LRPW.

5.2.3.2 Perceived benefits

None of the hospital labour ward sisters (HLWS) perceived any benefit of delivering in the clinic. The CHW and CNS focus groups only identified six benefits between them. The only two benefits identified by both groups were that LRPW could choose their delivery position and that supportive companions were allowed throughout labour. These benefits were not identified by LRPW.

5.2.3.3 Perceived barriers

There were sixteen perceived barriers to clinic delivery. Barriers identified by all three focal groups were inexperienced nursing staff, poor staff attitudes and labouring and delivering alone. These were all congruent with the majority of the LRPW. Transport problems at night and distance to the clinic were also raised by all three focal groups but not by the LRPW. Only the HLWs had congruent

views with the LRPW in regard to lack of information during labour, non-availability of doctors and insufficient medicines and equipment. The CHW focus group were the only focal group who identified the lack of an on site ambulance and their perception was similar to the view of LRPW that this was a barrier.

5.3 LIKELIHOOD OF COMPLIANCE WITH POLICY THAT LRPW SHOULD DELIVER IN THE CLINIC LABOUR WARD

Although 48 LRPW, 80% of the sample of 60, wanted to deliver in the clinic, only 20 (33.3%) did so. Thus 28 LRPW, 46.7% of the sample, were unable to do so. This may have been because of the many perceived barriers to delivering in the clinic. The high ratio of barriers to benefits perceived by both the LRPW as well as the HCWs probably negatively influenced the likelihood of compliance with the policy that LRPW should deliver in the clinic labour ward. In addition the HCWs may not have supported this policy fully because of the number of threats to clinic delivery that they perceived.

5.4 COMMENTS ON THE FINDINGS IN RELATION TO THE HBM

A comprehensive review of studies that used the HBM was conducted in 1984 (Janz 1984 in Salazar 1991:130). It showed that perceived barriers were the most powerful dimension of the model and perceived susceptibility was the second strongest in determining whether a health behaviour was carried out. This has also shown that the perceived barriers were probably the strongest influence for a women not delivering at the clinic. Janz also reported that perceived severity was of low significance. The same finding occurred in this study.

As a result of using the HBM for this study, it is suggested that the model be adapted further to explain its findings. Firstly, an arrow should be included from cues to action to the box containing benefits and barriers. This is because the cues to action appear to modify these factors. Secondly, an arrow should be drawn from the cues to action to individual perceptions, since they also seem to

have an influence on the individual's perceptions of susceptibility and severity. Lastly, an additional component – reasons impacting on the place of present birth – should be linked to the likelihood of compliance. Figure 1.2 (p.13) depicts these adaptations.

5.5 RECOMMENDATIONS

5.5.1 Introduction

The recommendations will be based mainly on the analysis of the findings from both phases of the study as well as on the recommendations made by the health care workers. These recommendations need to be implemented not only by the health services but by other sectors and by the community itself. The recommendations are mainly to modify or removed perceived threats of or barriers to clinic delivery, which if implemented may increase the compliance of low risk pregnant women (LRPW) from the Phelandaba catchment area with the policy of delivering in the Phelandaba Clinic. The cost and effectiveness of the implementation of these recommendations must be assessed and modified as needed.

5.5.2 Recommendations needing intersectoral and/or community involvement

An 'imbizo' needs to be called with the necessary stakeholders to operationalise these recommendations. They are outlined hereafter.

5.5.2.1 Roads, transport and communication

Roads should be upgraded to the clinic with safe bridges and good drainage to facilitate transport in heavy rains and flooding. The cost of transport and scarcity of transport at night as well as difficulty in accessing transport and delay in transport needs to be discussed with the local taxi association and possibly with the government department of transport. Perhaps this department could supplement fares to the clinic for mothers and their childbirth companions. Another solution may be to tender for reasonable private transport to be sited at

the clinic and to be accessed by women for antenatal clinic attendance and for childbirth. This would also involve an 'unbreakable' affordable emergency telephonic service by Telkom or other service provider from the community to the clinic or hospital or to the emergency medical rescue services (EMRS). LRPW also need to be empowered to plan and arrange their means of transport prior to going into labour.

5.5.2.2 Empowerment of women in the community

Most women in the community studied, are poor and need skills development and sustainable community projects to help empower them as they overcome their poverty. They could be assisted to develop skills in agriculture, crafts and ecotourism among many possible money-making activities to help LRPW pay for essential services such as transport and to be able to make or buy layettes for their babies. The Departments of Agriculture, Trade and Industry and Culture and Tourism amongst others, as well as non-governmental organisations such as the Women's Institute could facilitate the skills development and equipment needed to help make these women more autonomous. Community radio stations could be used to help educate women about their reproductive health and the role of the clinic and the hospital in this regard. Illiterate women in their reproductive years need both literacy and numeracy education to facilitate better use of the health services. This could be done through the KwaZulu-Natal Department of Education.

5.5.3 Recommendations regarding modification of the health services with particular reference to the Clinic services.

5.5.3.1 Creative cost-effective staffing of the clinic with particular reference to labour ward

As described in Chapter One, nursing staff have to supply a comprehensive 24 hour a day, 7 day a week service by one professional and one enrolled nurse working an eleven hour day and then being on call for the remaining 13 hours for four days at a time. Alternative models of staffing as well as financial incentives

need to be introduced and evaluated to prevent the problems which could arise from the present model of staffing. For example, an extra nurse, category to be decided, could be allocated to the clinic to enable the “on call” nurse to gain some sleep when called out at night. The Better Births Initiative with the introduction of birthing companions should become the norm as these companions could assist in supporting LRPW antenatally, in labour, at delivery and postnatally. Professional nurse-midwives should preferably not be young and inexperienced, as there is little possibility of mentoring in the clinic. If an advanced midwife is not available to work in the clinic, an advanced midwife should be allocated by the hospital or district to upgrade the clinic nursing staff in midwifery skills and practices through in-service education and quality assurance.

These recommendations, if implemented, could help overcome the following perceived barriers or threats to delivering in the clinic:

- labouring and delivering alone;
- lack of information to clients when in labour;
- night-time barriers at the clinic;
- poor staff attitudes;
- resistance to young and inexperienced ‘sisters’;
- acceptance of lack of a doctor at the clinic because of staff competence.

5.5.3.2 Guidelines to LRPW on admission to the clinic in labour and diagnosis of established labour

LRPW and their birthing companions should be given clear instructions as well as pamphlets of illustrated guidelines in isiZulu as to when to leave home for admission to the clinic labour ward and to make prior arrangements regarding transport to the clinic. Sufficient time should be allocated to diagnosis as to whether or not a LRPW is in established labour to prevent discharging her in early labour. Women, from a distance, should be kept in for longer if thought to be in false labour.

5.5.3.3 Communication with and emergency transport to base hospital

As landline communication systems are not always reliable, a dedicated cell phone to communicate only with the hospital labour ward, the emergency medical rescue services (EMRS) and any other essential services should be made available at each clinic.

As at present there is no on-site ambulance at the clinic, the EMRS, the base hospital and the clinic should institute a more workable system for emergency client transport including the use of a helicopter service for the 22 kilometre trip to the hospital.

5.5.3.4 Sufficient essential medication and immediate replacement of essential equipment when needed

As these were identified as problems, an investigation should be launched into the possible lack of essential medication with a view to overcoming the problem if present. A hospital or district store of essential working equipment should be established to temporarily replace any essential equipment needing repair.

5.5.3.5 Overcoming clinic inaccessibility at night

As already mentioned in 5.4.3.1, improved staffing norms should assist nurses to be more welcoming to labouring LRPWs at night. Better control of the security guard on night duty should also improve clinic accessibility as would some form of direct contact with the nurse on call by the LRPW outside the locked clinic gate.

5.5.3.6 Upgrading of the 'Isihambi' Hut, the Clinic and the Nurses Residence

In consultation with the community, the 'Isihambi' hut should be upgraded sufficiently to be acceptable to the community, particularly LRPWs living some distance from the clinic. The clinic should be upgraded to allow for more comfortable antenatal screening services and to more easily accommodate

birthing companions in labour ward and in the postnatal area. Improvements in the nurses residence may enhance staff morale and improve staff attitudes.

5.5.3.7 Identification of and liaison with traditional birth attendants (TBAs)

The TBAs should be identified as they could be part of the health services community outreach. Liaison with and skills training of TBAs should be explored.

5.5.4 Recommendations for further research

The following are areas recommended for further research:

- Initiate, implement and evaluate different staffing patterns in 24 hour clinic services in regard to cost-effectiveness of LRPW delivering in the clinic labour ward.
- Implement the Better Births Initiative with particular regard to birthing companions (Smith, et al, 2000:20) at Phelandaba Clinic and evaluate the outcomes.
- Undertake focussed large scale research in rural southern Africa to identify compliance rates of LRPWs delivering at 24 hour clinics and to ascertain the most important factors regarding compliance or lack thereof.

4.4 COMPARISON OF THE PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW) WITH THOSE OF THE HEALTH CARE WORKERS (HCW) REGARDING THE PLACE OF DELIVERY

4.4.1 Introduction

A comprehensive table (table 4.68) presents a comparative summary of the views of LRPW with those of the HCWs. This comparison is somewhat tentative despite the focus group guide being developed from a rapid appraisal of the findings from the main sample of 60 LRPW. This is because the research methods for both groups differed. Although the interview schedule used for the 60 LRPW had a number of open-ended questions, these were later categorised so that statistical analysis was possible. This was unlike the focus group guide which yielded qualitative data only.

4.4.2 Modifying factors

These were generally not comparable particularly with regard to socio-demographic and to a lesser extent socio-cultural variables. The LRPW did not raise the issue of cultural unacceptability of young inexperienced clinic sisters for delivery, an issue raised by all three of the focal groups of HCWs, structural variables did not appear to have an important impact for either LRPW or HCWs. Under cues to action the majority of LRPW as well as the Community Health Worker (CHW) and Clinic Nursing Staff (CNS) focus groups identified that LRPW were instructed to deliver in the clinic. The modifying factor **perceived threat** could, according to the adapted health belief model presented in chapter one, also have a direct impact on the likelihood of LRPW delivering in the clinic according to health policy. As the main sample were all low risk, perceived threat was not a problem for most of these LRPW. However, it was of more importance to the HCWs who identified 11 factors which threaten the childbirth process in the clinic. Seven of these eleven were identified as barriers by LRPW indicating some congruence. There appeared to be some similarities between perceived threats and perceived barriers.

4.4.3 Perceived benefits of clinic delivery

Benefits of delivering in the clinic were not perceived to be of real importance to either the LRPW, some of whom identified seven benefits, or to the HCWs who between the CHW and CNS focus groups only identified six benefits. The hospital labour ward sisters (HLWS) focal groups did not identify a single benefit.

4.4.4 Perceived barriers to clinic delivery

The LRPW identified 28 barriers between them and the HCWs 16 barriers. Barriers were of far greater importance to both these groups than benefits. Despite both groups perceiving many more barriers than benefits, there was no congruence in some areas e.g. the HCW group unlike some of the LRPW did not perceive the impact of poverty contributing to barriers to delivery such as the cost of transport and the embarrassment created by only being able to wear old clothes. Barriers common to both LRPW and HCWs included transport problems, young inexperienced nursing staff in the clinic, poor staff attitudes, labouring and delivering in and the clinic and the delay in the arrival of ambulances at the clinic. Most of the LRPW and only the HLWs focal group identified the following barriers: lack of information during labour, non-availability of medical staff at the clinic and insufficient medicines and equipment at the clinic. Many barriers raised by the LRPW were not raised by the HCWs and vica versa. However, there was congruence in the overall emphasis on barriers and on some important barriers e.g. poor staff attitudes.

4.4.5 The likelihood of LRPW complying with the policy of delivering in the clinic.

As this is clearly and concisely presented in the comparison table, this does not warrant further discussion except that fewer LRPW will be likely to comply with the policy than will disregard it.

4.3 COMPARATIVE ANALYSIS OF THE FINDINGS FROM INTERVIEWS WITH THE THREE FOCUS GROUPS OF HEALTH CARE WORKERS

4.3.1 Introduction

As described in the previous chapter there were three focus groups interviewed namely focus group one consisting of community health workers (CHWs) from Phelandaba catchment area, focus group two consisting of nurses from Phelandaba clinic and its associated mobile clinics and focus group three consisting of labour ward 'sisters' (registered midwives) from Manguzi Hospital. As it would have been repetitive to present an analysis of the findings of each focus group separately as well as a comparative analysis of the findings, the researcher chose to only do the latter. The term health care workers (HCW) was used in this study to describe a combination of the participants in all three groups.

4.3.2 Themes

The adapted Health Belief Model (HBM), as described in Chapter One, as well as the focus group interviews assisted in identifying the four main themes namely factors which could modify decisions made in regard to the place of delivery, perceived threats of delivering in the clinic, perceived benefits of clinic delivery and perceived barriers to clinic delivery. The CHW group and the clinic group identified all four themes. The relative congruence between these two groups was probably because they interacted closely with the low risk women who delivered in the clinic. However, the labour ward 'sisters' from Manguzi Hospital only strongly identified two of these themes namely perceived threats of clinic delivery and perceived barriers to delivering in the clinic. The differences in perceptions may have been influenced by the views of low risk pregnant women who chose to deliver in the hospital labour ward and not the clinic and the fact the only one of the sisters had previous experience of the clinic. Thus the theme 'perceived benefits of clinic delivery' was not identified by the hospital sisters nor the 'modifying factors' except for one negative cue to action which focused on the benefit of hospital delivery rather than the benefit of delivering in the clinic.

Categories and subcategories were developed from the themes and the findings are illustrated in four comparative tables.

4.3.2.1 Theme one: Modifying factors

4.3.2.1.1 Introduction

These factors could, according to the adapted Health Belief Model (HBM), modify the perceived threat of the childbirth process as well as the perceived benefits of and barriers to clinic delivery. The two categories identified were the structural variable of previous experience of childbirth and cues to action. Both of these were identified by the CHWs and to a lesser extent by the clinic nursing staff. The hospital labour ward sisters (HLWS) only peripherally recognised one subcategory in the cues to action. The categories and subcategories and the focus group responses are identified in table 4.64.

4.3.2.1.2 Category: Previous experience of childbirth

There were four subcategories in this category:

- Previous negative experience of clinic delivery

When women had a previous negative experience during labour and delivery in the clinic, such as being left alone, this had a negative impact on using the clinic labour ward again for clinic delivery. This aspect was only identified by the CHWs.

- Previous negative experience of home delivery

When a pregnant women had a previous negative experience when delivering at home, this experience, according to the CHW group, helped to encourage clinic delivery with the next pregnancy.

- Previous negative experience of delivering outside the locked clinic gates

According to the CHWs, this experience had a negative impact on the mothers in regard to clinic delivery and usually resulted in hospital delivery as the hospital was more accessible, particularly at night.

- Previous uncomplicated institutional delivery

According to one of the clinic nurses “multiparous women in the area, often did not want to deliver in the clinic as they had previous deliveries without any complications. They thus preferred to deliver at home and furthermore, were well versed with the labour process”. This could have a negative impact on clinic deliveries as some of these women chose to deliver at home.

4.3.2.1.3 Category: Cues to action

There were three subcategories in this category. These were:

- Positive advice from fixed and mobile clinics

Both the CHW and the clinic focus groups identified that when the clinic staff encouraged and educated women to deliver in the clinic, this had a positive impact.

- Negative advice from clinic sisters regarding clinic delivery at night

Not surprisingly only the CHW focus group reported that some clinic sisters discouraged clinic deliveries, particularly those women who went into labour at night. They indicated that these sisters advised pregnant women who went into labour at night to go directly to the hospital for delivery. This had a negative influence on clinic deliveries.

- Advice from others

Only the HLWS identified this subcategory as they believe that most of the community thought that hospital delivery was the best and that peer / community pressure influenced most low risk women to deliver in hospital.

4.3.2.2 Theme two: Perceived threat of delivering in the clinic

4.3.2.2.1 Overview

According to the adapted Health Belief Model, the perceived threat could be a modifying factor as well as having a direct impact on the likelihood of low risk pregnant women complying with the policy of clinic delivery. Three categories and eleven subcategories were identified and are recorded in Table 4.65. Of the eleven categories, the most, six were identified by the hospital sisters, five by the CHWS and three by the clinic nurses. As the focus was on low risk pregnant

women, it is hardly surprising that clinic nurses did not perceive clients as being endangered by delivering in the clinic unlike the hospital sisters who identified double the number of subcategories.

Common to all three groups, under the category staff deficits, was the subcategory of young and inexperienced sisters. Further, in the category delays in accessing ambulances all three focus groups identified the subcategory 'delay in arrival of ambulances'. These were the only two subcategories to be identified by all three focus groups and these and the other subcategories will briefly be analysed in the text which follows. All the categories and many of the subcategories were supported by the literature reviewed in Chapter Two.

4.3.2.2.2 Category: Staff deficits

Three subcategories were identified as follows:

- Absence of the professional nurse presence during labour

Only the CHWs identified this as a potential threat to both the mother and baby as there was no one to identify or manage problems when they arose.

- Young and inexperienced sisters

As already mentioned all three focus groups identified this as a potential threat to women in labour and delivery as they believed that young sisters could not cope adequately should problems arise. Both a clinic nurse and a labour ward sister said "angeke ngibelethiswe zingane mina" meaning that a woman will not allow herself to be delivered by a young sister. Young sisters are also seen as a socio-cultural barrier to delivery as will be discussed later.

- Lack of medical assistance at the clinic

Only the hospital labour ward sisters (HLWS) identified this problem as they intimated that clients felt threatened by the lack of immediately available medical help, unlike the situation in the hospital labour ward.

4.3.2.2.3 Category: Resource deficits

Three subcategories were identified. These were:

- No on site ambulance

Only the CHWs identified this subcategory and said that women in the community were aware that no ambulance was sited at Phelandaba clinic. The CHWs further perceived that women believed that delays in accessing an ambulance and consequent delays in reaching medical help at the hospital were a potential threat when “things went wrong”.

- Lack of essential medications and equipment

Only the HLWS identified this subcategory as a threat and they indicated that clients realised that the clinic often lacked essential medicines and equipment, these being available in the hospital.

- Unreliable communication system

Again only the HLWS recognised this subcategory. They pointed out that the breakdown of radio and telephonic communication between Phelandaba clinic and Manguzi Hospital was perceived as threat for women in labour.

4.3.2.2.4 Category: Inaccessibility of clinic at night.

The CHWs were aware of all three subcategories identified unlike the HLWS who were unaware of any of these and the clinic staff who blamed the security guards for clinic inaccessibility at night. The three subcategories were:

- Lack of transport

Transport was identified as being scarce and expensive at night and thus pregnant women had difficulty in accessing the clinic at night which left them feeling vulnerable.

- Security guards unresponsive

Although security guards were on duty at night, they sometimes failed to unlock the clinic gates in response to women in labour as they were either sleeping or had overindulged in drinking alcohol. Women felt threatened by this lack of response in their time of need. This subcategory was identified by both clinic nurses and CHWs.

- Clinic gates locked

Unlike the hospital which was open 24 hours a day, the clinic gates were locked at night and access was dependent on security guard or clinic sister response.

This was linked to the previous subcategory and was only identified as a potential threat by the CHWs.

4.3.2.2.5 Category: Delays in accessing ambulances

There were two subcategories:

- Delay in arrival of ambulance

All focus groups identified the threat involved in the delay in arrival of an ambulance when a woman or/and her baby need to be transported to the hospital for medical management of a problem. The community believed that this could be life-endagering.

- Communication break down with main hospital

The HLWS identified that the community realised the hazards of the communication system with the hospital breaking down. This could lead to inaccessibility of emergency help in the form of ambulances or medical advise for management of problems.

4.3.2.3 Theme three: Benefits of clinic delivery

4.3.2.3.1 Introduction

Unlike the next theme, barriers to clinic delivery, this theme was not much supported by the literature accessed. This theme, as was the theme modifying factors, was limited in regard to the number of categories and subcategories. As previously discussed the hospital labour ward sisters (HLWS) did not identify a single benefit of clinic delivery. Both the CHWs and the clinic nurses identified two of the three categories and of interest was the fact that CHWS identified five of the six subcategories, whereas the clinic nurses only identified three of the six subcategories (Table 4.66). The three categories are discussed below.

4.3.2.3.2 Category: Accessibility of the clinic

Only the CHWS identified this category and it was subdivided into only one subcategory namely:

- Easy ‘day’ access to the clinic

According to the CHWs 'day' access for many women living near the clinic was easy as it was often within walking distance and no transport was thus required. This was in contrast to the barriers of the night and also for women living further away, who did not always have funds for transport.

4.3.2.3.3 Category: Acceptability of the clinic

This had four subcategories which are:

- Staff known and experienced

The CHWs found that where clinic sisters were known, accepted and on-duty low risk women often chose to deliver at Phelandaba Clinic. In contrast they indicated that the hospital sisters were often unknown to the community.

- Delivery position of choice

Both the CHWs and the clinic nurses identified this subcategory. One of the clinic sisters reflected this finding in the following quote – "the client is allowed to adopt any position during delivery provided it is comfortable to her and this includes squatting". As pregnant women could deliver in their preferred position at the clinic, they were positively influenced to come to the clinic for delivery and to experience this perceived benefit.

- Supportive companion allowed

Both the CHWs and the clinic nurses identified this subcategory. They believed that some low risk women preferred delivering in the clinic, as, unlike the hospital, a family member of their choice was allowed to stay with them during labour and delivery. One of the clinic sisters stated that "…at the clinic husbands, boyfriends or parents-in-law are allowed to be in labour room if the client wishes that". This was a perceived benefit of clinic delivery.

- Short clinic stay

According to the CHW focus group some women wanted to return home as soon as possible after delivery. For these women the short clinic stay was seen as a benefit compared to the longer stay in hospital.

4.3.2.3.4 Category: Socio-cultural benefits

This category had only one subcategory and was only recognised by the clinic nurses.

- Cultural practices implemented if not harmful

The clinic nurses identified that the staff at Phelandaba Clinic recognised some local cultural practices and allowed women to follow these if not harmful to the mother or her baby. One practice that was mentioned was that women were allowed to take the placenta home for ritual burial within the homestead. This understanding of cultural practices was one of the perceived benefits of delivering in the clinic.

4.3.2.4 Theme four: Barriers to clinic delivery

4.2.2.4.1 Introduction

The three categories identified by all three focus groups within this theme were inaccessibility of the clinic, unacceptability of the clinic and socio-cultural barriers. There was a total of sixteen subcategories, the most identified for any of the four themes, indicating that perceived barriers outweighed perceived benefits of clinic delivery. Relative congruence between community health workers and clinic nurses was indicated in that both focus groups identified 12 of the 16 subcategories. The hospital labour ward sisters however, only identified 8 of the 16 subcategories. A summary of the findings is reflected in table 4.67. All three focus groups identified five subcategories namely distance to the clinic, transport problems – mainly at night, poor staff attitudes, labouring and delivering alone and the cultural unacceptability of young sisters.

The literature reviewed supports many of the findings but some subcategories were not found in the literature accessed including most of the socio-cultural barriers. Some barriers overlapped with the theme ‘perceived threats of clinic delivery’.

4.3.2.4.2 Category: Inaccessibility of the clinic

The four subcategories identified were:

- Distance to the clinic

As the hospital was closer than the clinic for some women living in the Phelandaba Clinic catchment area, these women sometimes chose hospital delivery as reflected in the words of one of the community health workers "…women chose hospital delivery as the hospital was nearer their homestead than the clinic." Both the clinic nurses and the hospital labour ward sisters reported that clients sometimes had to walk 8 kilometres to the clinic from the homestead when in labour. It is not surprising that participants in both the clinic and the hospital labour ward groups indicated that "women sometimes deliver on their way to the clinic." In some areas such as Mvelabusha, the CHWs reported that transport to the hospital was more accessible than to the clinic, influencing hospital rather than clinic deliveries. As can be noted all three focus groups perceived distance to the clinic from the homestead being an important barrier to clinic delivery.

- Impassable roads

The CHW and HLWS focus groups identified this barrier. Mainly because of the 2000 floods, the sandy roads from the homesteads to the clinic were often impassable to local transport. As the road to the hospital was tarred it was more accessible than the clinic, the impassable dirt roads forming a physical barrier to the clinic for women in labour.

- Transport problems mainly at night

The CHW and clinic nurses focus groups both identified this as a barrier to clinic delivery. Transport was both scarce and expensive at night and women who were in labour at night were sometimes forced by these problems to deliver at home. This aspect was supported by the findings of Buchmann, et al., (1989:30.) Furthermore, where telephones were available, ambulance transport could only be accessed to the hospital and not to the clinic. This made delivery in hospital more accessible.

- Night-time obstacles at the clinic

All three focus groups identified this barrier which was also seen as a threat to delivering at the clinic. The clinic gates were locked at night and the focus groups indicated that clients could frequently not gain access to the clinic at night as the locked gate was manned by a security guard who was not always accessible as he was sometimes asleep or drunk. There was also no direct communication with the on-call clinic 'sister', who was sleeping if no-one else was in labour. The labouring women had no choice in these circumstances, but to go to the hospital labour ward which was open 24 hours a day.

4.3.2.4.3 Category: Unacceptability of the clinic

There were eight subcategories in this category which are analysed below:

- Poor staff attitudes

This has commonly been identified in the literature (Fonn, et al, 1998: 696; Gennaro, et al., 1998: 192) and was identified by all three focus group as contributing to the clinic being unacceptable. The CHW group members were most graphic in their description as they indicated that staff were often seen as harsh to women in labour as they reprimanded them and at times physically abused patients by, for example, pinching them. The CHWs indicated that women perceived these attitudes and behaviour as arising from staff shortages and staff fatigue. The HLWS also said that clinic staff in labour ward were often harsh and abrupt. The community attributed this to clinic sisters being involved with all patients at the clinic during the day and being called out at night from their sleeping quarters. The hospital labour ward staff were not seen to be under the same stress. The clinic nurses indicated that the attitude of some clinic nurses frightened women in labour and influenced women to deliver in hospital or at home.

- Labouring and delivering alone

This was a subcategory identified by all three focus groups. They identified that the clinic sisters often left women to labour and sometimes to deliver alone in the clinic. This was a frightening experience and influenced women to deliver in

hospital, where there was always a midwife present, or at home where support is available. All three groups acknowledged that pregnant women knew that clinic sisters had many duties outside labour ward during the day. This is reflected in the words of one of the CHWs "sister had many duties at the clinic and patients are sometimes left alone in labour, and they only shout when they are about to push". All three groups also identified that working during the day and being on call for labour ward at night is very fatiguing and indicated problems best voiced by the CHWs "the sister sleeps away from the labour ward and the security guard has to call the sister when a women in labour is about to push". This, together with the problems already mentioned, trigger some women to decide to deliver at home or in hospital where they get more support.

- Shortage of staff

This was explicitly identified as a barrier by the clinic nurses and alluded to by the CHW focus group when they discussed labouring and delivering alone. The clinic nurse focus group indicated that the clinics are always full of patients and busy and thus the clients stand in a queue while waiting for service. One clinic sister said that "clients reported there is one sister during the day and she will be on call again during the night". Low risk pregnant women often chose to deliver in hospital because there were both midwives and doctors available in the labour ward. Both Jinabhai, et al., (1994:12) and Fonn, et al., (1998:698) identified staff shortages as an important problem.

- Non-availability of essential medications

This subcategory was only commented by the clinic nurses focus group who indicated that clients were at times referred to hospital as essential medications including oxygen were not available in the clinic.

- Labouring in the 'dark'

This problem was only identified by the HLWS who reported that clients had complained to them that clinic staff often did not explain to them how their labour was progressing which left them ignorant, frightened and in the 'dark'. This was again seen as contributing to the clinic being unacceptable.

- Client modesty

The fixed and mobile clinic nurses focus group identified this as a problem when a young 'sister' was on duty. One sister explained that "clients are shy to expose their private parts to young nurses". The clients indicated that they preferred hospital delivery as there were more experienced midwives who could attend to them.

- Unmet nutritional needs

This was discussed by the CHW focus group who said that women had reported that nourishing fluids and food were often not available at night and soon after delivery. One CHW said "some women are told to go and buy something from the tuckshop" by the general assistant, whereas other women known to them get a meal. As some women had no money to buy food they went home hungry. This was compared unfavourably with the hospital where all women who delivered received adequate free nourishment.

- Deficiencies with 'isihambi' hut

The 'isihambi' hut is a waiting mothers area. Both the CHW and the clinic nurses focus group mentioned that this hut was not used as pregnant women had to provide their own food and bed linen. One of the clinic sisters said that "some of our clients cannot afford to provide for themselves here and at home". Women far from the clinic, did not use the 'isihambi' hut because of this and this could contribute to home or hospital deliveries and born before arrival (BBA) babies.

4.3.2.4.4 Category: Socio-cultural barriers

The following four subcategories contribute to socio-cultural barriers in the community:

- Taboo to leave children with neighbours

Both the CHW and the clinic nurses focus groups identified this barrier. Women in the Phelandaba catchment area community do not customarily leave their children alone with 'strangers' such as neighbours but only leave them with family members. If the latter are not available a woman may choose to deliver at

home rather than leave them unattended or with ‘strangers’. No similar findings have been reported in the accessed literature.

- Customary to leave for clinic in strong labour

Both the CHW and clinic nurses focal groups identified this subcategory. The CHWs indicated that it had become customary for women to leave only in strong well-established labour. They thus sometimes failed to reach the clinic in good time.

- Language barriers in clinic

This subcategory was identified by the CHW and HLWS focus groups. They both identified that language barriers were important among some Tonga speaking women (Bomakweshu). Zulu was sometimes the third language after Tonga and Portuguese. Some members of the two focus groups perceived that a few Tonga speaking clients did not understand the instruction to low risk pregnant women to deliver in the clinic. The language barrier also impeded communication in labour and delivery motivating women to deliver in hospital as they were more likely to have someone in labour ward with whom they could communicate more readily.

- Young and inexperienced sisters

All three focus groups indicated that it was culturally unacceptable for a young sisters to monitor and deliver a woman in labour. This subcategory has been addressed previously in this theme under the category – unacceptability of the clinic and the subcategory of client modesty. It was discussed under the theme of perceived threat of deliveries in the clinic under the category staff deficits. Women who felt strongly about this tended to deliver in hospital where more mature midwives were more readily available.

4.3.3 Summary of cross-focus group analysis

It appears that as the perceived barriers to clinic delivery far outweigh the perceived benefits of clinic delivery in these three focus groups that **the likelihood of low risk pregnant women delivering in the clinic** is somewhat limited and that more women will tend to deliver in the hospital labour ward. Also

the three focus groups perceived a number of threats to delivering in the clinic which could have a negative impact on clinic delivery. The findings from these focus group interviews will briefly be compared with the findings from the postpartum interviews of the sixty low risk pregnant women analysed in the first part of this chapter.

4.3.4 Knowledge of traditional birth attendants (TBAs) in the Phelandaba Clinic catchment area by health care workers (HCW)

Although the community health worker focus groups knew of TBAs practising in the catchment area, they could not identify any or describe their functions. Both the clinic nursing staff and the hospital labour ward sister focus groups did not know of any TBAs in the area.

4.3.5 Recommendations by HCWs to improve the utilization of the clinic labour ward

Recommendations made by the participants in the focus group discussions were as follows:

- The clinic should have an ambulance on site to transport at risk clients without delay.
- That the clinic staff establishment be reviewed to include at least one advanced midwife to upgrade midwifery practice, orientate new staff to midwifery practice in the clinic and to assist should problems arise as no doctor is based at the clinic. Alternatively an advanced midwife should visit the clinic regularly for in-service education and quality control.
- To further review and expand the staff establishment so that a professional nurse can be released for night duty and thus stop the on-call system.
- That the clinic facilities be upgraded and renovated e.g., by separating the labour ward and postnatal section for patients privacy and by renovating the reception area and by upgrading the nurse's residence.
- Staff attitudes, particularly to women in labour, should be improved.

- That regular and sufficient medical supplies be made available timeously.
- That night access be made more easily available by improved behaviour and control of security guards.

TABLE 4.64 Comparison of the perceptions of the three focus groups to the theme of modifying factors

CATEGORIES	SUBCATEGORIES AND IMPACT	FOCUS GROUP 1 CHW	FOCUS GROUP 2 CLINIC NURSING STAFF	FOCUS GROUP 3 HOSPITAL LABOUR WARD SISTERS
PREVIOUS EXPERIENCE OF CHILDBIRTH	• Previous negative experience of clinic delivery – -ve impact	I	NI	NI
	• Previous negative experience of home delivery – +ve impact	I	NI	NI
	• Previous negative experience of delivery outside locked clinic gates – -ve impact	I	NI	NI
	• Previous uncomplicated institutional delivery - +ve impact	NI	I	NI
CUES TO ACTION	• Positive advice from clinics fixed and mobile - + ve impact	I	I	NI
	• Negative advice from clinic sisters re clinic delivery at night - -ve impact	I	NI	NI
	• Advice from others	NI	NI	I

Key: -ve = Negative
+ve = Positive
I = Identified
NI = Not Identified
CHW = community health worker

TABLE 4.65 Comparison of the perceptions of the three focus groups to the theme perceived threat of delivering in the clinic

CATEGORIES	SUBCATEGORIES	FOCUS GROUP 1 CHW	FOCUS GROUP 2 CLINIC NURSING STAFF	FOCUS GROUP 3 HOSPITAL LABOUR WARD SISTERS
STAFF DEFICITS	• Absence of professional nurses during labour	I	NI	NI
	• Young in-experienced sisters	I	I	I
	• Lack of medical assistance at clinic	NI	NI	I
RESOURCE DEFICITS	• No onsite ambulance	I	NI	NI
	• Lack of essential medication and equipment	NI	NI	I
	• Unreliable communication system	NI	NI	I
INACCESIBILITY OF CLINIC AT NIGHT	• Lack of transport	I	NI	NI
	• Security guards unresponsive	I	I	NI
	• Clinic gates locked	I	NI	NI
DELAYS IN ACCESSING AMBULANCES	• Delay in arrival of ambulance	I	I	I
	• Communication breakdown with main hospital	NI	NI	I

Key: I = Identified
NI = Not Identified
CHW = community health worker

TABLE 4.66 Comparison of the perceptions of the three focus groups to the theme perceived benefits of clinic delivery

CATEGORIES	**SUBCATEGORIES**	**FOCUS GROUP 1 CHW**	**FOCUS GROUP 2 CLINIC NURSING STAFF**	**FOCUS GROUP 3 HOSPITAL LABOUR WARD SISTERS**
ACCESSIBILITY OF CLINC	• Easy 'day' access	I	NI	NI
ACCEPTABILITY OF CLINIC	• Staff known and experienced	I	NI	NI
	• Delivery position of choice	I	I	NI
	• Supportive companion allowed	I	I	NI
	• Short clinic stay	I	NI	NI
SOCIO-CULTURAL BENEFITS	• Cultural practices implemented if not harmful	NI	I	NI

Key: I = Identified
NI = Not Identified
CHW = community health workers

TABLE 4.67 Comparison of the perceptions of the three focus groups to the theme barriers to clinical delivery

CATEGORIES	SUBCATEGORIES	FOCUS GROUP 1 CHW	FOCUS GROUP 2 CLINIC NURSING STAFF	FOCUS GROUP 3 HOSPITAL LABOUR WARD SISTERS
INACCESSIBILITY OF CLINIC	• Distance to clinic	I	I	I
	• Impassable roads (floods)	I	I	NI
	• Transport problems – mainly at night	I	I	I
	• Night-time obstacles at clinic	I	I	I
UNACCEPTABILITY OF CLINIC	• Poor staff attitudes	I	I	I
	• Labouring and delivering alone	I	I	I
	• Shortage of staff	NI	I	NI
	• Non-availability of essential medication	NI	I	NI
	• Labouring in the 'dark' (no info.)	NI	NI	I
	• Client modesty	NI	I	NI
	• Unmet nutritional needs	I	NI	NI
	• Deficiencies with 'isihambi' hut	I	I	NI
SOCIO-CULTURAL BARRIERS	• Taboo to leave children with neighbours	I	I	NI
	• Customary to leave for clinic in strong labour	I	I	NI
	• Language barriers in clinic	I	NI	I
	• Young sisters culturally unacceptable	I	I	I

Key: I = Identified
NI = Not Identified
CHW = community health workers

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Table 4.68 Comparison of the perceptions of low risk pregnant women with perceptions of health care workers

MODIFYING FACTORS	**PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)**	**PERCEPTIONS OF HEALTHCARE WORKERS (HCW)**
SOCIO-DEMOGRAPHIC VARIABLES	There appeared to be no marked difference between the H, E and C deliveries in regard to age, marital status, gravida and parity. These variables did not influence the place of delivery to any extent.	These variables were not raised in the focal group discussions and thus cannot be compared.
SOCIO-CULTURAL VARIABLES - Educational level	Uneducated women mainly delivered at home or in the clinic of those who attended high school most delivered in hospital, less in the clinic and none at home. Upper and lower educational extremes appeared to have some influence on the place of delivery.	As education was not raised in the focal groups no comparison can be made.
- Religion and its influence	This did not appear to influence the choice of place of delivery.	Again this topic was not discussed in the focal groups and no comparison is possible.
- Cultural practices	65 % of women who delivered at home carried out various traditional cultural practices e.g. use of isihlambezo and these practices were perceived as helpful. Only 3 of the 40 women (7.5 %) who delivered in the clinic and in the hospital indicated a desire for traditional cultural practices to be carried out in the health services during child birth.	The HLWS did not talk about cultural practices in their discussion whereas both the CHW and the CNS indicated that some cultural practices were allowed in the clinic to the benefit of women in childbirth.

Key: H = women who delivered in hospital
E = women who delivered at home
C = women who delivered at clinic

Key: CHW = Community health workers
CNS = Clinic nursing staff
HLWS = Hospital labour ward sisters

MODIFYING FACTORS	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
- Taboo to leave children with unrelated neighbours	The participants did not verbalise that it was taboo to leave children with neighbours who were not relatives.	The CHW and CNS focal groups identified that it was taboo for women to leave their children with unrelated neighbours
- Problems of communication with women who spoke Isithongo	None of the LRPW indicated that women who spoke Isithongo preferred hospital for better communication. No comparison possible.	The CHW and CNS focal groups identified that delivering in the clinic could create communication problems for Isithongo speaking women, less problematic in hospital.
- Cultural unacceptability of being delivered by young sisters	This was not identified by any of the 60 women and thus no real comparison possible.	All 3 focus groups identified that it was culturally unacceptable to be delivered by young sisters – a problem in the clinic because of no alternative staff.
- Peer/community pressure	Less, 35% of the hospital sample perceived that the community were positive about the clinic delivery, unlike the ekhaya (50%) and the clinic (55%) sample. Community opinion could influence women not to deliver in the clinic.	This was not raised in the focal group discussions and cannot be compared.
- Family pressure	As the greatest proportion of women in the homesteads appeared to deliver in the clinic followed by the hospital this should have a positive influence on clinic delivery. Decision making regarding place of delivery was mainly made by the participants. This was particularly the case in the hospital sample (90%) followed by clinic (60%) and home (55%). 'Husbands' and to a lesser extent 'in-laws' selected where the remaining participants delivered.	This was not raised in the focal group and no comparison was possible.

MODIFYING FACTORS	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
STRUCTURAL VARIABLES: PREVIOUS EXPERIENCES OF CHILD BIRTH		
- Previous fetal/neonatal deaths	Most women (90%), being low risk had no previous losses. Of the remaining 6 who had previous loss 3 delivered in hospital, 2 at home and 1 in the clinic indicating that this negative experience had no major impact on place of delivery.	In relation to all negative experience of childbirth, only the CHW focus group indicated that a previous negative experience in the clinic could have a negative impact at the clinic. This could be, to some extent, congruent with the E participants who did not return to the health services for delivery. The CHW focus group also indicated that a negative home delivery experience could motivate women to deliver in the health services e.g. clinic with their next baby.
- Previous maternal / neonatal complications	Only 2 had previous neonatal problems, namely asphyxia, and both chose hospital delivery. All 3 women with previous bleeding problems were equally divided between the three places of delivery. The numbers were too small to come to any conclusions.	
- Staff neglect / poor staff attitudes with past deliveries	Only 3 of the 60 women indicated that this was a problem, 2 of these delivering at home – a very tentative contributory factor to non-usage of the clinic.	
- Delivery immediately prior to present born in same place	Most (90%) of E participants did not deliver in same place having previously delivered in hospital or in the clinic and this could indicate dissatisfaction with health services. 70 % of H sample delivered there previously, possible indicating satisfaction. Just under half of C sample delivered there again but those who were delivering their 2nd baby, had to have delivered their first in hospital.	Only the CNS groups identified that a previous positive uncomplicated childbirth experience could encourage women to return to the same place of delivery. This could explain why women returned to hospital for their next delivery.

MODIFYING FACTORS	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
CUES TO ACTION - Information from clinic staff	The majority of low risk pregnant women, 45 (75%) of the whole sample, confirmed that they were advised by CNS and mobile sisters to utilise the clinic labour ward for delivery.	This was identified by the CHWs and CNS, and it was found to be congruent with the perceptions of the LRPW, unlike that of the HLWS.
- Clinic delivery discouraged by staff	None of the clinic sample were discouraged by the clinic staff, and very few of the hospital and home sample identified that they were discouraged from delivering in the clinic.	The CHW focus group identified that delivery in the clinic at night was sometimes discouraged unlike the other two focus groups.
- Nursing information re-timing of labour: show, strong contractions, "waters breaking"	Low risk pregnant women were informed about signs of established labour i.e. about 58.3 % of the whole sample stated that show was a sign for established labour, 56.7% of the sample mentioned strong contractions. However, only 21.7% of the whole sample were informed about "waters breaking" which could lead to delivery before arrival at the clinic.	This question was not discussed in the focus group discussion. No comparison could be thus made.
- Non-usage of "isihambi" hut	The "isihambi" hut was not used by the whole group of LRPW. 61.5% of the sample had no information in regard to the usage of isihambi hut. Although 38.5% of the sample were informed about this waiting area, they did not utilise it as it was inadequately equipped with necessary material resources. This could contribute to poor utilisation of the clinic labour ward.	Deficiencies with the 'isihambi' hut were identified by both the CHW and CNS focal groups under barriers to clinic delivery. The recognition of deficiencies was congruent with 38.5% of LRPW who were informed about the hut but perceived it as inadequate.

MODIFYING FACTORS	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
- PERCEIVED THREAT OF CHILDBIRTH ON MATERNAL AND NEONATAL HEALTH	There appeared to be some overlap of perceived threat, as identified by the HCWs and some perceived barriers as identified by the LRPW. These overlaps will be briefly presented.	The three HCW groups focussed on aspects in the clinic which could lead to a perceived threat of delivering there and which could influence women to deliver elsewhere e.g. hospital.
- Maternal and neonatal health	Only five of this sample of low risk women indicated that they perceived childbirth as a threat namely two from the Ekhaya group and three of the clinic participants. A different response could be anticipated from higher risk women.	The HCWs did not indicate whether or not LRPW perceived childbirth as a threat.
- Influence of perceived threat on place of delivery -	Only 5 of the sample, 1H, 2E and 2C indicated that they were influenced by a perceived threat in choosing their place of delivery. This is not an important factor in influencing LRPWs selection of the place of delivery. However, 15 (75%) of the 20 women who delivered in hospital chose to do so as they perceived the hospital labour ward to be the safest place of delivery. This need for safety could indicate their implicit belief that childbirth is a potential threat.	The HCWs identified 11 aspects in the clinic which they perceived could create a threat to the childbirth process and influence LRPWs choice of place of delivery. These eleven subcategories were categorised under four categories namely: Staff deficits (3) - client labouring alone (1 group) - young inexperienced sisters (3 groups) - lack of medical assistance (1 group) Resource deficits (3) – no on site ambulance (1 group) - lack of essential medication and equipment (1 group) - unreliable communication system (1 group)

MODIFYING FACTORS	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
- Comparison between threats perceived by HCWs and barriers perceived by LRPW	All three staff deficits identified by the HCW were identified as barriers by the LRPW indicating congruence. These was congruence between the resource deficits of no on site ambulance and lack of essential medication and equipment unlike unreliable communication. There was only congruence regarding scarce transport at night in the category 'inaccessibility of clinic at night'. Under delay in accessing ambulance at night the only congruence was delay in arrivals of the ambulance. Although the LRPW identified the HCW subcategories of threats as barriers, there was relative congruence for 7 of the 11 subcategories.	Inaccessibility of clinic at night (3) - scarce transport (1 group) - unresponsive security guards (2 groups) - gates locked at night (1 group) Delays in accessing ambulances (2) - delay in arrival of ambulance (3 groups) - communication breakdown with main hospital (1 group) The CNS only identified three perceived threats in the clinic indicating their perception of the clinic being safe for delivery, unlike the CHW who identified 7 and the HLWS who identified 6.

BENEFITS INFLUENCING CHOICE OF PLACE OF DELIVERY	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
- Nursing care	Although most of the sample did not regard nursing care during labour as a benefit influencing their choice, nearly half, 45%, of those delivering at the clinic perceived nursing care as a benefit and 30% of hospital deliveries.	The HLWs did not indicate a single benefit of clinic delivery. This aspect was not raised in the focal groups and thus no comparison is possible
- Free service	This question was not applicable to women who delivered at home. Only some of the women who delivered at the clinic, 40%, indicated that the free service was of benefit to them.	No comparison possible as this was not raised.
- Safety	This largely influenced those who delivered in the hospital, where 70% perceived safety as important whereas only 10% of those delivering in the clinic saw safety as beneficial.	No comparison possible as safety was not raised.
- Clinic nearer home	This was perceived as an important benefit by 65% of the women who delivered in the clinic. Neither the E or H women perceived this as important.	Although this was not raised, the CHW focus group perceived that the clinic was easily accessible during the day. All three groups perceived distance to the clinic as a barrier in contrast to the LRPW delivering in the clinic
- Stayed with children	This was viewed as a benefit only by 45% of the women who delivered at home.	Although this was not raised, the CHW and CNS focus groups identified that it was taboo to leave children with neighbours who were not related.

BENEFITS INFLUENCING CHOICE OF PLACE OF DELIVERY	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
- Length of stay after delivery	Four of those who delivered in hospital indicated that the longer stay after delivery was beneficial.	In contrast to those 4 who delivered in hospital, the CHW focus group indicated that the short stay after delivery in the clinic was perceived as a benefit for LRPW.
- Cultural benefits	Only four of those who delivered at home indicated that the traditional care given was of benefit.	Only the CNS focus groups indicated the benefit of certain traditional cultural practice.
- Acceptability of the clinic	This was not an aspect raised by LRPW in contrast to the CHW and CNS focal groups.	The factors identified as making the clinic acceptable to LRPW were: - Staff known and experienced – CHW group - Delivery position of choice – CHW and CNS groups - Supportive companion allowed – CHW and CNS groups.

BARRRIERS TO CLINIC DELIVERY	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
BEARRIERS HINDERING ACCESS TO THE HEALTH SERVICES FOR PRESENT BABY		
- Means of accessing transport	Nineteen sent a message, eleven waited at the bus stop and three hitch hiked. Only one, who delivered in hospital, had telephonic access.	As the focus groups could not focus on barriers blocking individual woman's access to the clinic for giving birth to their present baby, no comparison was possible.
- Type of transport	None of those who delivered at home used transport. However, one accessed a car which arrived after the baby was born. Twenty LRPW used a car, three of these using their own vehicles, sixteen used taxis, one used an ambulance to deliver in hospital and none used a bus. Four walked to the institution, all of these walking to the clinic.	
- Cost of transport	Ten of the sample paid R50 or more which is a definite barrier in a poor community.	
- Persons paying for transport	Nineteen of the sample were paid for by their 'husbands', four by their boyfriends and seven by their mothers-in-law or other relatives. Only one participant paid for herself.	

BARRRIERS TO CLINIC DELIVERY	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
- Waiting time for transport	Seven waited for more than one hour, this delay resulting in one delivery at home. Twenty-six waited for under an hour. Waiting time did not, except in one instance, create a barrier for these women.	
- Length of time to get to clinic	Six LRPW took one hour or more to get to the clinic. Twenty-eight took less than an hour to get to the clinic or to the hospital. Travelling time did not appear to influence the place of delivery.	
- Time of delivery of the newborn	Of those who identified the time of delivery, double the number delivered during the day than at night.	Although there were night-time obstacles to accessing the clinic, such as scarce expensive transport at night (all three focus groups) and night time obstacles at the clinic itself, these could not be said to influence the delivery times at the hospital or at home, but could in the clinic.

BARRRIERS TO CLINIC DELIVERY	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
BARRIERS PREVENTING DESIRED CLINIC DELIVERY		
- Transport problems	This was the most important barrier for women who delivered at home as 95 % indicated this to be a problem. 45 % of those delivering in the clinic and 35 % of hospital deliveries found transport to be a problem.	Transport as a problem, particularly at night, was raised by all three focus groups and there was particularly congruence with the perceptions of LRPW delivering at home.
- Transport scarce at night	This was not identified as an important barrier as only two (3.3%) of LRPW perceived this as a barrier.	Although the HCWs focused on transport problems, mainly at night, this was not raised by the majority of LRPW.
- Transport delay	Just over half the women who delivered at home identified this as a barrier, unlike those who delivered in hospital where only one (5%) saw this as a barrier.	Not raised by HCW except in regard to ambulances which will be dealt with later.
- No money for delivery at the clinic	Seven (35%) of those who delivered at home, perceived that lack of money was a barrier to clinic delivery. Presumably this lack of money contributed to not being able to access transport as in some instances transport cost R50 or more.	Not raised by HCW thus not comparable.
- Floods	This was not perceived as an important barrier as only three (15%) of those who delivered at home identified this as a problem.	This was perceived as a problem only by the CHW focus group and only comparable with the views of the three LRPW who delivered at home

BARRRIERS TO CLINIC DELIVERY	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
BARRIERS PREVENTING DESIRED CLINIC DELIVERY		
- Influence of influential family member	This was not viewed as a barrier by the LRPW except for one who delivered in hospital	Not voiced by HCW. Both groups, the LRPW and the HCW, did not voice this as a problem and this could indicate some congruence in views between LRPW and HCW.
- Advice by clinic nursing staff to deliver in hospital	Nine (45%) of the twenty women who delivered in hospital and one who delivered at home were advised by the clinic nurses to deliver in hospital.	Not raised by theHCW.
- Nurses discouraged delivery in the clinic	Eight (40%) of the twenty women who delivered in hospital and two who delivered at home were discouraged by clinic nurses from delivering at the clinic	Only the CHW focus group indicated that delivery in the clinic at night was sometimes discouraged.
- Safer/best care in hospital	Despite 70% of LRPW delivering in hospital perceiving safety as a benefit. Only a small percent, 35%, of hospital deliveries indicated they chose hospital delivery because it was safer than delivering elsewhere.	Safety was not an issue directly raised by the HCW.
- Person delivering the baby	Thirty-eight (63.3%) of LRPW were delivered by midwives. The remainder, 30% were delivered by traditional / incidental birth attendants. Three women delivered themselves. This last indicated that women were left alone at delivery which could be viewed as a barrier.	This was not a topic brought up in the focus groups.

BARRRIERS TO CLINIC DELIVERY	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
BARRIERS PREVENTING DESIRED CLINIC DELIVERY		
- Poor state of clothes	Twelve of the LRPW who delivered in hospital said they avoided delivering in the clinic because they would be laughed at for wearing old clothes.	This was not raised by the HCW.
CONCERNS REGARDING CLINIC DELIVERY		
- Young inexperienced nursing staff	Twelve, 60%, of those delivering in the clinic and nine, 45%, of those delivering at home perceived young and inexperienced nurses as both a barrier and a threat to delivering in the clinic.	Although this was perceived as a threat rather than a barrier by all three focal groups, there was some congruence particularly with the views of the LRPW who delivered in the clinic and to a lesser extent with those who delivered at home.
- Poor attitude of staff	Over half the LRPW viewed poor attitudes of the staff as being a barrier. Of these 70% who delivered at the clinic identified this as a barrier.	This was perceived as a barrier by all three focus groups and was congruent with the perceptions of the majority of LRPW particularly with those delivering in the clinic.
- Inadequate staff support	Half the LRPW who delivered at the clinic voiced their concern, more than the 30 to 35% who voiced their concern from those delivering in hospital and at home respectively.	This was not specifically raised by the HCW although all three groups voiced their concern about labouring and delivering alone. Also the CNS raised concerns about the shortage of staff.
- Labouring alone	Thirteen, 65%, of women who delivered in the clinic voiced this as a major concern unlike hospital LRPW, 45%, and home deliveries, 35%.	All three groups viewed this as a problem and showed most congruence with those who delivered in the clinic.

BARRRIERS TO CLINIC DELIVERY	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
CONCERNS REGARDING CLINIC DELIVERY		
- Availability of staff at the clinic during delivery	Although the majority, 65%, of LRPW who delivered in the clinic indicated that they were left alone during labour, only 35% indicated that they were concerned about delivering alone, a similar response to those delivering at home. However, 60%, of LRPW who delivered in hospital saw this as a concern / barrier.	All three focus groups perceived this as a problem and their views were most congruent with the LRPW who delivered in hospital
- Time of non-availability of staff during delivery	Of the 26 LRPW who indicated that staff were not available at delivery, 20, 76.9%, indicated that staff were not available at night.	Although night-time obstacles at the clinic were identified at the clinic by all three focus groups this was not specifically related to this topic and thus no comparison is possible.
- Lack of information during labour	This was a major concerned voiced by 90% of those who delivered in the clinic but a lesser concern for the other LRPW.	This was only identified by the HLWS and thus congruence was only between their views and those of the LRPW unlike the CHW and CNS groups.
- Non-availability of doctors	This was a common concern as it was raised by 90% of the sample	Only the HLWS identified this as a threat / barrier and this was not perceived as a barrier by the CHW and CNS groups. Congruence was between the LRPW and HLWS only.
- Insufficient medicines and equipment	All 60 participants raised this concern and this could be viewed as an important barrier.	Only the HLWS saw this as a threat / barrier and only this groups perceptions were similar to the views of all the LRPW.

BARRRIERS TO CLINIC DELIVERY	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
CONCERNS REGARDING CLINIC DELIVERY		
- No ambulance sited at clinic	All the LRPW indicated that this was a concern as no ambulance was available should they need urgent transfer to hospital.	The lack of an on site ambulance was raised as a threat / barrier only by the CHW. They were the only focal group to demonstrate congruence with the views of the LRPW.
- Delay in ambulance	The majority of LRPW women, 66.7% raised this as a concern – 75% from those delivering in the clinic and at home and 50% of those delivering in the hospital.	All three groups raised delay in arrival of the ambulance at the clinic as a threat / barrier. Thus there was congruence with their views and the majority of LRPW, specially those delivering in the clinic and at home.
- Barriers raised by HCW focus groups and not by LRPW	Although these were not raised under barriers by the LRPW, one of the socio-cultural barriers – taboo to leave children with unrelated neighbours – could be the reason why 45% of the women who delivered at home perceived that staying with their other children was a benefit.	The HCWs raised the following barriers which were not identified as barriers by the LRPW. These were: - Inaccessibility of the clinic: • distance to the clinic rendering the clinic difficult to access – raised by all 3 focus groups - Unaccessibility of the clinic: • client modesty – identified by CNS only • unmet nutritional needs – identified only by CHW - Socio-cultural barriers: • taboo to leave children with unrelated neighbours raised by CHW and CNS groups • customary to leave for clinic in strong labour – raised by CHW and CNS groups • language barriers in clinic raised by CHW and HLWS groups

LIKELIHOOD OF LRPW COMPLYING WITH POLICY OF DELIVERING IN THE CLINIC	**PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)**	**PERCEPTIONS OF HEALTHCARE WORKERS (HCW)**
PERCEIVED THREAT - According to the adapted HBM this may have a direct impact on compliance	As the sample were LRPW, they revealed almost no perception of the threat of the childbirth process and thus perceived threat appeared to have no major influence on women's decisions as to the place of delivery.	The HCW focal groups identified eleven perceived threats to delivering in the clinic and this was a greater influence on the place of delivery for them than for the LRPW. All three focal groups identified two threats – namely the threat of young inexperienced clinic 'sisters' and delay in arrival of ambulances at the clinic. Although these were perceived as barriers by the LRPW, there was congruence in their views of these being important.
PERCEIVED BENEFITS OF CLINIC DELIVERY - According to the adapted HBM the perceived benefits minus the perceived barriers lead to the likelihood of LRPW women complying or not with the policy of delivering in the clinic	BENEFITS There were seven perceived benefits of delivering in the clinic identified by some of the 60 LRPW. An example was that 65% of women delivering in the clinic indicated the benefit of the clinic being near the homesteads. MINUS	BENEFITS None of the HLWS identified a single benefit of delivering in the clinic. Six benefits were identified by the other two focus groups – the CHW and CNS. Only two benefits were identified by both groups namely delivery position of choice and supportive companion allowed. MINUS

PERCEIVED BARRIERS TO DELIVERING IN THE CLINIC	BARRRIERS Six barriers relating to the birth of the present baby, all relating to transport were identified ***plus*** Twenty-two barriers, including concerns, relating in general to clinic delivery were identified. These were: - transport problems (4) – most importantly for LRPW delivering at home - floods (1) - influence of influential family member (1) - negative advice from clinic staff (2) - safest care in hospital (1) - person delivering baby (1) - poor state of personal clothing (1) - staff problems (8) - insufficient medicines and equipment (1) - problems with ambulances (2)	BARRIERS No barriers related to present birth could be raised in the HCW focus groups. Sixteen barriers relating to clinic delivery were identified. These were: - Inaccessibility of the clinic (4) including transport problems – congruent with LRPW. - Unacceptability of the clinic (8) These included staff problems where some congruence with LRPW was identified as well as insufficient medicines and equipment. - Socio-cultural barriers (4) – none of these were identified by LRPW.
LIKELIHOOD OF COMPLYING - BENEFITS MINUS BARRIERS	As there were only 7 benefits minus 28 perceived barriers there was a negative balance thus predicting a small likelihood of complying with the policy of LRPW delivering in the clinic. There was some congruence in the negative ratio of benefit: barriers in both groups indicating congruence in the balance even if not in the benefits and balances themselves.	As there were only 6 benefits minus 16 perceived barriers there was also a negative balance influencing LRPW not to select the clinic as the place of delivery.

LIKELIHOOD OF LRPW COMPLYING WITH POLICY OF DELIVERING IN THE CLINIC	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
REASONS IMPACTING ON PLACE OF PRESENT BIRTH - Transport problems - Staff caring - Personal preferences - Safety - Nearer home	Some of the participant had more than one reason for giving birth where they did. This impacted mainly on LRPW delivering at home, 65% indicating that this was an important reason. All the LRPW delivering in hospital and 90% delivering in the clinic indicated that this was one of their reasons for selecting either labour ward. Only just over half, 53.3%, of the sample delivered in their place of choice whereas the remainder delivered elsewhere because of external circumstances e.g. transport problems for home deliveries. Four, 20%, of the women who delivered in hospital for safety were the only participants who gave this reason. Fifty percent of the women delivering in the clinic gave this as an important reason for clinic delivery whereas only 1, 5%, of the hospital deliveries saw this as important.	The HCW could not identify why women delivered in either of the clinic or hospital labour ward or at home so no comparison could be made

LIKELIHOOD OF LRPW COMPLYING WITH POLICY OF DELIVERING IN THE CLINIC	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
REASONS IMPACTING ON PLACE OF PRESENT BIRTH - Staff instruction	Just under half 28, (46.7%), of the LRPW complied with staff instructions as to the place of delivery. Only 14 of those remember being instructed to deliver in hospital despite being lower risk. Three came to the clinic and were sent home in 'false' or 'early' labour and then found they had to deliver at home as labour was too advanced to return to the clinic.	
- Presence of doctors	Half the women who delivered in hospital chose to do so because of the presence of doctors and nurses in the hospital labour ward.	

LIKELIHOOD OF LRPW COMPLYING WITH POLICY OF DELIVERING IN THE CLINIC	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
PLACE OF DELIVERY	Although this aspect is not part of the adapted HBM it may have an impact on the likelihood of LRPW delivering in the clinic.	
- Preferred place of delivery	Forty-eight, 80%, of the sample, 20 of whom delivered in the clinic, wanted to deliver in the clinic. Fourteen (29.2%) of them delivered in hospital and the same number at home. Only eleven, 18.3%, wanted to deliver in the hospital, 5 of these 11 delivering at home. Only one of the LRPW delivered at home because she wanted to.	
- Maternal choice re-place of delivery	Just over half the sample, 53.3%, delivered in their place of choice.	
- Person who had final say in choice of place of delivery	The majority of the participants, 45 (75%), indicated that they were able to choose their place of delivery. Ten indicated their 'husbands' had the final choice and five their mothers-in-law.	

LIKELIHOOD OF LRPW COMPLYING WITH POLICY OF DELIVERING IN THE CLINIC	PERCEPTIONS OF LOW RISK PREGNANT WOMEN (LRPW)	PERCEPTIONS OF HEALTHCARE WORKERS (HCW)
PLACE OF DELIVERY - Preference of those not delivering in the clinic for clinic delivery	Twenty-nine, 72.5%, of the 40 women who did not deliver in the clinic wished to do so. Fourteen of these 29 were hospital deliveries and fifteen home deliveries. Only eleven, 27.5%, of these did not wish to deliver in the clinic.	
- Reasons for LRPW delivering in hospital wanting to deliver in clinic.	The main reason given was that the clinic was nearer their home. Three of the 14 indicated the benefit of the short postnatal stay in the clinic.	
- Reasons for LRPW delivering at home wanting to deliver in clinic	Most of the 15 women perceived that the clinic was safer and that the clinic nurses were more skilled than TBAs. In addition the clinic services were free.	
TBAs - TBAs known in the Phelandaba catchment area	Thirty-two, 53.3%, of the sample knew of TBAs in the area. A tentative total of 69 were identified in the area, but this figure is somewhat tentative as some LRPW may have identified the same TBAs.	No TBAs were identified by the HCW.
- Views about TBAs conducting deliveries	Although 22, 36.7%, of the sample were positive about TBAs delivering at home, concerns were voiced about their practice. The majority of the sample were negative about TBAs delivering.	Views about TBAs delivering were not ascertained from the HCW.