

A qualitative study exploring the fear of childbirth  
experienced by parous women in the Cape Town  
public obstetric service.

by

Dr Kendall Jane O'Callaghan

Registrar in Obstetrics and Gynaecology

University of Cape Town

Supervisor: Associate Professor Silke Dyer

Department of Obstetrics and Gynaecology

Groote Schuur Hospital

Submitted to the University of Cape Town in partial fulfilment of the  
requirements for the MMED (O&G).

July 2008

The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

## Table of contents

Declaration	v
Acknowledgments	vi
Abstract	vii
List of tables	ix
<b><u>Chapter 1: Introduction</u></b>	<b>1</b>
1.1 History	1
1.2 Classification of fear of childbirth	2
1.3 Risk factors for fear of childbirth	3
1.3.1 Previous childbirth experience	3
1.3.2 Personality and socio-economic factors	4
1.3.3 Psychiatric history	5
1.3.4 Other factors	5
1.4 Negative consequences of fear of childbirth	6
1.4.1 Mode of delivery	6
1.4.2 Fetal wellbeing	6
1.4.3 Early experiences of motherhood	7
1.5 Manifestations of fear of childbirth	7
1.5.1 Post traumatic stress disorder	7
1.5.2 Non-specific complaints in pregnancy	8
1.5.3 Other manifestations	8
1.6 Treatment of fear of childbirth	9
1.7 Conclusion	10

<b>Chapter 2: <u>Patients and Methods</u></b>	<b>11</b>
2.1 Study aims and Objectives	11
2.2 Study setting and population	11
2.3 Study design	12
2.4 Patient recruitment and data collection	13
2.4.1 Patient recruitment	13
2.4.2 Data collection	14
2.5 Data Analysis	16
2.5 Pilot Study	17
2.6 Ethics	18
<b>Chapter 3: <u>Results</u></b>	<b>19</b>
3.1 Socio-demographic data	19
3.2 Past Medical history	21
3.3 Past obstetric history	22
3.4 Past childbirth experience	23
3.5 Attitude towards current pregnancy	26
3.6 Perception of fear	27
3.6.1 Perception of fear relative to other pregnant women	27
3.6.2 Perception of fear relative to first pregnancy	28
3.7 Sources of fear	29
3.7.1 Fear of pain	29
3.7.2 Fear of the unknown	31
3.7.3 Fear of injury to or death of fetus	31
3.7.4 Fear of lack of emotional support in labour	32
3.7.5 Other fears	33
3.8 Effect of fears	34
3.9 Identified stressors	36
3.10 Coping mechanisms	38

Appendix 1: Visual analogue scale for fear of childbirth	49
Appendix 2: Demographic, Socio-economic and Medical Background	50
Appendix 3: Semi-structured in-depth interview guide	51
References	52

University of Cape Town

**Declaration**

I, Kendall Jane O'Callaghan, hereby declare that the work on which this dissertation is based is my original work (except where acknowledgements indicate otherwise). I declare that this work has not been submitted of any other degree except to the college of Medicine of South Africa in partial fulfilment of the FCOG part 2.

Signature:

Signed by candidate

Date:

.....14/7/8.....

## **Acknowledgments**

I would like to thank the following people for their contributions towards the completion of this project.

Firstly, to my supervisor, Professor Silke Dyer. Thank you for sharing my enthusiasm for this project, for your patience and constant encouragement, and for your invaluable academic input.

Thank you to the Midwives at Hanover Park Midwife Obstetric Unit and Mowbray Maternity Hospital for being more than happy to accommodate me in the busy antenatal clinics.

Thank you to my friends and family for your interest in the project and encouragement.

Finally, I would like to express my gratitude to the many pregnant women in the study who were willing to share their stories, experiences and feelings with me. I am grateful for your honesty.

## **Abstract**

### **Introduction:**

The aim of this study was to explore the nature of fear experienced by a group of pregnant women utilizing the Cape Town public obstetric service who reported having severe fear of childbirth.

### **Methods:**

The study was undertaken at antenatal clinics within the Peninsula Maternal and Neonatal Service in Cape Town. The subjects included fifteen pregnant women, 21 years and older, irrespective of gestation, who had previously carried one pregnancy to at least 28 weeks gestation regardless of the pregnancy outcome and who reported severe fear of childbirth in their current pregnancy (defined for the purpose of this study as a score of 7 or more on a visual analogue scale for fear). An open-ended interview guide was designed to explore the following themes; the specific fears experienced, details of previous childbirth experience, attitudes towards current pregnancy, social support structure and coping mechanisms. Interviews were transcribed and the data was analysed using the principles of qualitative descriptive analysis.

### **Results:**

Many participants mentioned that their previous experience of labour, specifically the pain, had been worse than they had expected. of the participants who felt that the labour ward staff had been inattentive to their emotional or physical needs during labour did not have their own personal companion in labour. The most commonly reported fears were fear of pain in labour, fear of the unknown or for the unpredictability of labour and fear for neonatal well being during labour. Many participants reported seeking emotional support in order to cope with their fear. Only a few reported attempts to gather information in order to prepare for labour or were

focussing on their previous successful labour and known personal strengths in order to cope with the fear they were experiencing. In contrast, several participants were denying their fear or were concealing it.

### **Conclusion:**

This study has provided insight into women's experiences and expectations of labour in a group of women who reported being very afraid of childbirth. The fear appeared to be rooted in a previous negative experience of labour, which was often as a result of being poorly prepared for the pain or process of labour, or not receiving satisfactory emotional support during labour. Many women lacked effective coping mechanisms in order to deal with their fear. Antenatal education needs to appropriately prepare women for the process of labour and for the nature and intensity of labour pain. Emotional and informational support in labour should be improved. Patients who have had a traumatic delivery should be identified and offered post partum counselling. Early detection of fear of childbirth in the subsequent pregnancy should also be encouraged. Larger studies are needed in order to determine the prevalence of fear of childbirth in our setting.

**List of Tables:**

1.	Socio-demographic details	21
2.	Past obstetric history	23
3.	Perception of support received form labour ward staff in accompanied and unaccompanied women	25
4.	Reasons for perceived increased fear relative to first pregnancy	29
5.	Sources of fear	34
6.	Effect of fear	36
7.	Coping mechanisms	41

University of Cape Town

## **Chapter 1 Introduction**

### **1.1 History**

The fear of childbirth has been described as early as 1853 by Marse, "If they are primiparous, the expectation of unknown pain preoccupies them beyond all measure and throws them into a state of inexpressible anxiety. If they are already mothers, they are terrified of the memory of the past and the prospect of the future" (Hofberg and Brockington, 2000).

The Swedish Obstetrician, Areskog, conducted the first studies on fear of childbirth about 25 years ago (Areskog et al., 1987). She interviewed 139 low risk women during their third trimester of pregnancy and divided them into 3 groups depending on the amount of fear expressed and the impact it had on their daily functioning and well being (severe, moderate and no fear). These women then completed a 19-item questionnaire called the Fear-of-Childbirth questionnaire. Each item could be answered in the affirmative or negative. According to the results, the prevalence of moderate fear of childbirth was 17% and severe fear of childbirth was 6% (Areskog et al., 1987).

About 10 years ago, Wijma, a Swedish Obstetrician, and his research team developed the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) (Wijma et al., 1998). The W-DEQ consists of version A that measures prepartum fear of childbirth, and version B that measures postpartum fear of childbirth. The W-DEQ version A has 33 items rated on a 0-5 likert-type scale, ranging from 'not at all' to 'extremely' with a minimum score of 0 and a maximum score of 165 (Ryding et al., 1998; Wijma et al, 1998; Alehagen et al., 2006). A score of greater than 84 is considered to indicate severe fear of childbirth. A study of 1981 Swedish women at 32 weeks gestation found that 10% of the participants scored more than 84 on the

W-DEQ and were therefore considered to be suffering from severe fear of childbirth (Ryding et al, 1998).

## **1.2 Classification of fear of childbirth**

Although it has been shown to be a common clinical problem, no uniform definition for fear of childbirth has been agreed on. In general, fear of childbirth can be seen as an anxiety disorder or as a phobic fear (Saisto and Halmesmaki, 2003). When this specific anxiety or fear of death during parturition precedes pregnancy and is so intense that tokos (childbirth) is avoided whenever possible, it is a phobic state called 'tocophobia'. Tocophobia was classified in the medical literature for the first time in 2000. It was classified as primary tocophobia, secondary tocophobia or tocophobia as a symptom of depression in the prenatal period (Hofberg and Brockington, 2000).

Primary tocophobia implies that the fear of childbirth precedes the first pregnancy. The fear often starts in adolescence and although sexual relations may be normal, contraception use is often scrupulous (Hofberg and Brockington, 2000). Pregnancy is avoided to prevent childbirth. In some cases, a woman is so terrified of childbirth she will terminate a wanted pregnancy rather than go through childbirth. Some women will actively seek out an obstetrician who will perform an elective caesarean section before becoming pregnant for the first time. Some women never overcome their fear of childbirth and remain childless or adopt (Hofberg and Brockington, 2000).

Secondary Tocophobia occurs most commonly after a traumatic delivery, but can also occur after a miscarriage, a stillbirth, a termination of pregnancy or an obstetrically normal delivery (Hofberg and Brockington, 2000; Hofberg and Ward, 2004).

The fear of childbirth experienced by a woman may be a composite of several distinct concerns or an overwhelming concern for one specific aspect of childbirth. Reported conscious reasons for anxiety about childbirth include fear of own

incompetence or failure, fear of death of self or infant, fear of injury to self or infant, lack of trust in obstetric staff and fear of intolerable pain or loss of control (Ryding, 1993; Sjorgren, 1997; Melander, 2002; Saisto and Halmesmaki, 2003). The object of the fear will have its roots in the woman's psychosocial and obstetric history, with demographic and personality factors also coming into play.

### **1.3 Risk factors for fear of childbirth**

Several predisposing factors have been identified which put women at risk of developing a generalised or specific fear of childbirth.

#### **1.3.1 Previous childbirth experiences**

A previous negative experience of pregnancy and childbirth contributed most to the fear of future childbirth in parous women (Saisto et al., 1999; Melander, 2002; Waldenstrom et al., 2006). A Finnish study involving 100 women who suffered from severe fear of childbirth in their second pregnancy reported that deliveries ending in a caesarean section or vacuum extraction were the most important causes of subsequent fear of delivery (Saisto et al., 1999). Similar findings were derived from in Norwegian study, which found that the mean W-DEQ score was higher if the first child was delivered by vacuum or emergency Caesarean section (Heimstad et al., 2006). Similarly, a Swedish study found that women with very negative feelings about their pending labour had a significantly higher incidence of having had a previous emergency caesarean section when compared to women without very negative feelings about labour (Waldenstrom et al., 2006). Fear of death during childbirth is expressed by up to 41% of women with a previous experience of a complicated delivery (Sjorgen, 1997). Secondary fear can take months or even years to grow, or it may be delayed until the subsequent pregnancy (Ryding et al., 1997).

### **1.3.2 Personality and socio-economic factors**

Complicated deliveries do not always seem to result in long-standing severe reactions (Ryding et al, 1997). It may therefore be assumed that the fear experienced by women with a previous complicated delivery has some additional psychosocial determinants. The finding that a great proportion of parous women with fear of childbirth had already been anxious during the first pregnancy supports this assumption (Ryding, 1993).

The State-Trait Anxiety Inventory (STAI) is a widely used tool to measure general anxiety. State anxiety is considered to be a transitory psychological state whereas trait anxiety is seen as a relatively stable disposition of personality (Heimstad et al., 2006). A positive correlation between the W-DEQ and the STAI was found, which indicates that personal characteristics are important in the development of fear of childbirth (Heimstad et al., 2006). There has been shown to be a strong association between fear of childbirth and certain personal characteristics and socio-economic factors. A Finnish study of 268 women in their 30<sup>th</sup> week of pregnancy showed that the more general anxiety, neuroticism, vulnerability, depression, low self-esteem, dissatisfaction with the partnership and lack of social support the women reported, the more they showed fear of vaginal delivery. The partner's dissatisfaction with the partnership contributed to the woman's fear of vaginal delivery (Saisto et al., 2001). Similarly, in a Swedish study of 2662 pregnant women, a larger proportion of the women who reported very negative feelings about labour and childbirth in their pregnancy had little or no support from their partner, had more 'worries' and more antenatal depressive symptoms (Waldenstrom et al., 2006).

The authors also found that women who were unemployed, on sick leave, smokers or had expressed the timing of the pregnancy as inconvenient, were more likely to express very negative feelings about their pending labour and childbirth (Waldenstrom et al., 2006). It has also been suggested that fear of childbirth occurs

more often in women living without a partner compared to those married or cohabiting (Melander, 2002), but this was not confirmed by other studies (Sjogren and Thomassen, 1997; Heimstad et al., 2006; Waldenstrom et al., 2006).

### **1.3.3 Psychiatric history**

In study comparing 100 women with fear of childbirth with 100 matched controls, it was found that previous psychiatric problems (depressive and panic disorders, psychotic episodes) were more frequent in women who had fear of childbirth (Sjorgen and Thomassen, 1997). This finding was confirmed in a study of 2662 pregnant women, which compared women with very negative feelings about labour and birth to women without very negative feelings. The women with very negative feelings about labour scored above 14 more often antenatally on the Edinburgh Postnatal Depression Score statistically, where a score above 15 suggests major depression, and had a statistically higher sum of scores on the Swedish version of the Cambridge Worry Scale (Waldenstrom et al., 2006). (Edinburgh Postnatal Depression Score has been validated for antenatal use in the UK)

### **1.3.4 Other factors**

Physical or sexual abuse in childhood is a further risk factor for fear of childbirth (Heimstad et al., 2006). This could be secondary to a lack of basic trust that is extended towards the obstetric team or a fear that the experience of childbirth may revisit the distress and helplessness of the abuse (Sjorgren, 1997; Hofberg and Ward, 2004).

According to one study younger, less educated women were more likely to be anxious about pregnancy and childbirth (Standley et al., 1979). Other studies, however, showed that when comparing women with fear of childbirth to controls

without fear of childbirth, age and educational level was not statistically different (Areskog, et al., 1987; Sjogren and Thomassen, 1997; Waldenstrom et al., 2006).

## **1.4 Negative consequences of fear of childbirth**

### **1.4.1 Mode of delivery**

It is important to recognise fear of childbirth in pregnancy because it has been reported to be associated with negative pregnancy outcomes. A Swedish study found that women who had a severe fear of childbirth were three times more likely to deliver by emergency caesarean section and the indication for the caesarean section was imminent foetal distress in 69% of the women (compared to 39% of the controls). The same study found that if all the cases of severe fear of labour could be eliminated the number of emergency caesarean sections at their hospital could possibly be reduced by 16.7% (Ryding et al, 1998). In an Italian study of 810 pregnant women, those who subsequently delivered by Caesarean section or operative vaginal delivery had a statistically higher percentage of affirmative responses to questions antenatally regarding nightmares about delivery, fear of delivery and concern for infant's safety during delivery (Di Renzo et al., 1984). Other studies have not found that fear of childbirth is associated with mode of delivery (spontaneous vertex, instrumental vaginal or emergency Caesarean section) (Johnson and Slade, 2002; Heimstad, et al., 2006; Waldenstrom et al., 2006). This discrepancy, however, may be related to the definition of fear of childbirth and the lack of statistical power due to small numbers (Heimstadt et al., 2006; Waldenstrom et al., 2006).

### **1.4.2 Fetal wellbeing**

A statistically significant association has been found between increased uterine artery resistance index and increased scores for both Spielberger State and Trait anxiety. A stronger association was found in women with high state anxiety scores

than trait anxiety scores. However, further work is needed to determine whether overall anxiety in pregnancy, originating even before or at conception (trait anxiety), might affect uterine artery flow, or instead whether the association is only with the current emotional state (state anxiety) (Teixeira et al., 1999).

Intrauterine growth restriction and birth asphyxia have been shown to be particularly common fetal outcomes in anxious women (Wadhwa et al., 1993; Paarberg et al., 1999). Several other studies have, however, not found a correlation between fear of childbirth and birth weight, premature labour or the occurrence of asphyxia (Burstein et al., 1974; Standley et al., 1979; Heimstad, et al., 2006).

### **1.4.3 Early experiences of motherhood**

Women with severe fear of childbirth are more likely to experience dissatisfaction with their delivery experience (Areskog et al., 1983; Waldenstrom et al., 2006) and suffer from severe emotional imbalance postnatally, which could have potential negative implications for bonding between mother and child (Areskog et al., 1984; Saisto et al., 2001).

## **1.5 Manifestations of fear of childbirth**

### **1.5.1 Post traumatic stress disorder**

Childbirth can cause post-traumatic stress disorder (PTSD) or intrusive stress reactions, mainly resulting from intolerable pain during labour or an unanticipated complication such as an emergency caesarean section. In patients with secondary tocophobia the incidence of post-traumatic stress disorder is high (Hofberg and Brockington, 2000). A retrospective Swedish study showed that the prevalence of PTSD was 1.7% of all deliveries and 5.7% of deliveries by emergency caesarean section (Ryding et al., 1997; Wijma et al., 1997).

Post-traumatic stress disorder may follow deliveries that appear normal from the clinician's perspective (Goldberg-Wood, 1996). In a prospective British study, which excluded women who had features of PTSD and depression before pregnancy, almost 3% of women with an objectively normal childbirth fulfilled the criteria for post-traumatic stress disorder at 6 weeks postpartum. At 6 months postpartum 1.5% were still suffering from post-traumatic stress disorder (Ayers and Pickering, 2001).

Factors predisposing to post-traumatic stress disorder were previous psychological problems or negative experiences as a patient, primiparity, feelings of insecurity and threat during childbirth, poor relationship with their partner and difficulties in the acceptance of the pregnancy (Ryding et al., 1997; Ryding et al., 1998).

### **1.5.2 Non-specific complaints in pregnancy**

Fear of childbirth has been reported to manifest during the course of the pregnancy in many ways, but may remain unidentified throughout the pregnancy. Non specific abdominal pain, increased need for sick leave, frequent visits to the maternity hospital for minor complaints, nightmares and difficulty in concentrating on work or family activities could be manifestations of fear of childbirth (Saisti and Halmesmaki, 2003). A Norwegian study, however found no difference in hospitalisation for false premature contractions between women with or without fear of childbirth (Heimstad et al., 2006).

### **1.5.3 Other**

Fear of childbirth can also manifest as stress symptoms (restlessness, nervousness, sleeplessness, crying a lot, thinking and talking a lot about fears) or by influencing the patients everyday life (counting fetal movements unnecessarily, changing daily activities) (Melander, 2002).

The wish to avoid the current pregnancy, by having postponed the pregnancy or having thought about having an abortion could also be a manifestation of fear of childbirth (Melander, 2002). Fear of childbirth is often expressed indirectly by the request for an elective caesarean section (Sjorgen, 1998; Saisto and Halmesmaki, 2003; Hofberg and Ward, 2004; Waldenstrom et al., 2006).

## **1.6 Treatment for fear of childbirth**

To reduce the psychological consequences of fear of childbirth, as well as the morbidity both of women and infants due to obstetric complications and unnecessary caesarean sections, treatment options need to be explored. Several treatment strategies have been evaluated for the treatment of fear of childbirth. As already mentioned, one of the most common causes of secondary fear of childbirth is a previous delivery by emergency caesarean section or instrumental vaginal delivery (Saisto et al., 1999; Heimstad et al., 2006; Waldenstrom et al., 2006). A randomised controlled trial was done in the United Kingdom to determine whether two debriefing sessions post-operative delivery could reduce a woman's fear of future childbirth. The results showed that in the short term there was no significant difference in fear scores between women receiving debriefing and those who did not, but a trend towards lower scores in the debriefing group was documented (Kershaw et al., 2005).

Because fear of childbirth can reportedly often be expressed by the request for an elective caesarean section, several studies have used the retraction of that request as a positive outcome when assessing the treatment of fear of childbirth (Sjorgren, 1998; Ryding, 1993; Saisto et al., 2001;). A Swedish study was done in which either counselling or short-term psychotherapy was offered to pregnant women who had requested a caesarean section that the obstetrician thought was not obstetrically indicated. At term half of the women who were attending therapy chose to have a vaginal delivery (Ryding, 1993). Sjogren and Thomassen (1997) investigated 100

women with severe anxiety about childbirth of which 68% had initially requested elective caesarean section. They were offered psychotherapy or extra obstetric support after which 50% of the women initially requesting caesarean section agreed to deliver vaginally. The women who had initially requested an elective caesarean section but during the course of the therapy accepted a vaginal delivery were as satisfied with the delivery experience as those who had originally chosen to deliver vaginally. (Sjogren and Thomassen, 1997; Sjogren, 1998).

Studies on the treatment of fear of childbirth are scanty and no consensus exists on how, where and by whom the possible treatment should be given (Bewley and Cockburn, 2002).

## **1.7 Conclusion**

Studies looking at the various aspects of fear of childbirth have predominantly been done in developed countries, mostly Scandinavia but also in the United Kingdom, Europe and the United States of America. No study has explored the fear of childbirth amongst pregnant women in South Africa, a developing country.

The occurrence of recognised risk factors, especially unemployment, are high among women utilizing our public obstetric health care service. Also, due to staffing and financial constraints in the public health service there is limited access to analgesia in labour, which could potentially result in a negative experience of childbirth. There may be other psychosocial and demographic risk factors unique to our population that have not been previously described in developed countries. This suggests that the prevalence of fear of childbirth in South Africa may be significant, possibly even higher than in developed countries.

## **Chapter 2 Patient and Methods**

### **2.1 Study aim and objectives**

The primary aim of this study was to explore the nature of the fear of childbirth experienced in a group of pregnant women utilizing the Cape Town public obstetric service who reported having a high level of fear for childbirth. The secondary aim was to identify risk factors for the development of fear of childbirth.

The objectives were to determine, through semi structured in-depth interviews, the specific fears experienced by the participants for their pending labour and delivery, details of their previous labour and delivery, the participants attitudes towards their pregnancy and the nature of their social support structure.

### **2.2 Study setting and population**

The Peninsula Maternal and Neonatal Service (PNMS) provides the public obstetric services for the areas of Cape Town that lie within the University of Cape Town drainage area. These areas are very diverse, ranging from informal squatter settlements to middle-class housing areas. Cape Town is a multi cultural society, which also includes many immigrants from other African countries.

The PMNS includes six primary care units run by midwives (Midwife Obstetric Units), two secondary level hospitals (New Somerset Hospital and Mowbray Maternity Hospital) and a tertiary referral hospital (the Maternity Centre at Groot Schuur Hospital). In the past year over 34000 deliveries of infants weighing more than 1000g have been managed by the PMNS, with 15544 deliveries at primary level, 13826 deliveries at secondary level and 4744 deliveries at tertiary level. The PMNS has well-structured protocols and an established referral system which ensures that patients are managed at the appropriate level.

Midwife Obstetric Units (MOUs) are primary care units and patients who are regarded as low risk deliver within this service. Midwives primarily manage patients attending the MOUs. In addition some women who will ultimately need delivery in a hospital are often managed during their antenatal course at a MOU by visiting obstetricians and are referred for hospital care at 36 weeks gestation.

The two secondary level hospitals within our service are New Somerset Hospital and Mowbray Maternity Hospital. Patients are referred to this service from primary care if they have complications in pregnancy or in labour. Some low risk patients attend antenatal clinics and deliver at these hospitals because they live in the hospital's drainage area. Both these hospitals have good theatre facilities and neonatal support services.

The tertiary referral unit for our service is the Maternity Centre at Groote Schuur Hospital. Women who require inter-disciplinary care, have medical problems in pregnancy or have major obstetric complications are referred to this unit.

Doctors manage patients attending any of the three hospitals. Obstetric consultants, registrars and medical officers manage patients in the antenatal clinics. An obstetric registrar manages the labour ward with input from the obstetric consultant on-call.

Women attending antenatal clinics at Hanover Park MOU and Mowbray Maternity Hospital were recruited for the study.

### **2.3 Study design**

The study comprised two stages: the screening stage and the interview stage. The purpose of the screening stage was to identify potential participants from the study population who reported severe fear of childbirth. For the purposes of this study,

severe fear of childbirth was defined as a score of greater than or equal to seven on the screening visual analogue tool [appendix1].

The interview stage comprised two questionnaires, which were both administered by interview. The first consisted of a structured list of closed questions with the purpose of gathering information regarding the patients' demographic, socio-economic, medical and psychiatric history, see [appendix2]. The second questionnaire was semi structured and in-depth. It consisted of four open-ended guide questions; the questions were designed to explore the objects of her fear and possible predisposing factors [appendix3]. The sequence, wording and approach of the question varied according to the interview situation. Qualitative research methods were used to analyse the data obtained from the semi-structured, in-depth interviews.

## **2.4 Patient recruitment and data collection**

### **2.4.1 Patient recruitment**

The entrance criteria for the interview stage of the study were: pregnant women, 21 years or older, irrespective of gestation, who had previously carried one pregnancy to at least 28 weeks gestation regardless of the pregnancy outcome and who reported severe fear of childbirth in their current pregnancy (as defined above for the purpose of this study).

Clients attending the antenatal clinic who were 21 years or older and had previously carried one pregnancy to at least 28 weeks gestation regardless of outcome were sequentially selected by the principal investigator to be screened for participation in the study. Potential participants were individually informed about the study (screening stage and interview stage) and after verbal consent was obtained they were screened for participation. The visual analogue scale was individually explained to the potential participants, after which they were asked the screening question by the principal investigator. The clients were asked to indicate their answer on a visual

analogue scale of one to ten, one indicating no fear and ten indicating the worse imaginable fear [appendix1]. Clients scoring seven or more were invited to continue to the interview stage of the study. Purposeful, sequential sampling of consenting clients was continued in this manner until a final sample size of 15 participants was reached. A sample size of 15 participants was decided upon because at that stage repetitive themes had emerged from the data analysis and data saturation had occurred with no new themes or patterns emerging.

Sampling took place over a one-month period from 8 August 2007 to 6 September 2007. Fifty-eight clients were screened, of which 19 scored seven or above on the visual analogue scale. One of these clients was subsequently found not to meet screening criteria and therefore did not proceed to the interview stage.

#### **2.4.2 Data collection**

Clients who scored seven or more on the initial screening question and consented to continue to the interview stage of the study were assigned a study number. They were interviewed immediately after the screening in a quiet, private room within the antenatal clinic area.

The principle investigator, who is an Obstetrics and Gynaecology registrar in her fourth year of training and has experience in clinical interviewing, performed all interviews. Although she had no previous experience in qualitative research she had read the literature on the principles and methods of qualitative research. The principle investigator was supervised by an associate professor in the Department of Obstetrics and Gynaecology who has extensive experience in qualitative research.

The participants were given the option of being interviewed in English, Afrikaans or Xhosa. As the principal investigator was not fluent in Xhosa, those participants who

had Xhosa as their first language were given the option of returning at an arranged time to be interviewed by a Xhosa speaking person, or to be interviewed in English.

Data from the first questionnaire, which consisted of a structured list of closed questions, was gathered by interview and recorded on paper. This was followed immediately by the semi-structured questionnaire consisting of the open-ended questions. The semi-structured interview was voice recorded with the permission of the participant.

An interview guide for the second, semi-structured questionnaire had been developed. The guide lists the four objectives, each of which is represented by an open-ended question that was put to the participant. The investigator asked the participant the four open-ended questions, each which is intended to focus the participant's thoughts but allow freedom of expression. The order in which the questions were asked varied with the specific participant's response. Probes were used to direct the interview, including probes to elicit information about the timing and details of events, and for further explanation and clarification. Silence was used as much as possible to allow the participants full expression before probes were used. The investigator tracked topics in the interview that required probing and redirect participants to these topics only after they had finished expressing their thoughts; this served to minimise the interviewers interference with the natural flow of the participant's conversations. The sequence, wording and approach of the questions depended on the interview situation. Each question had a list of prompts, which could be used at the discretion of the interviewer in order to identify themes within the responses. Summarizing techniques and questions of clarification were used to check the interviewers understanding (Britten, 1995)

## 2.5 Data analysis

The interviews were transcribed word for word, including other utterances and nonverbal components. The principle investigator then proof read the transcripts against the voice-recorded interviews. The transcripts then became the raw data that was subject to analysis by the principles of descriptive analysis.

Basic qualitative description entails an interpretation of the data that is low-inference with researchers staying close to the surface of the words. Qualitative content analysis is a dynamic form of analysis of verbal and visual data with a view to summarize the informational content of the data. Codes that are generated from the data during the course of the study are systematically applied to the data. Qualitative research is generally characterized by the simultaneous collection and analysis of data whereby both mutually shape each other. The analysis is similarly reflective and interactive as researchers continuously modify their treatment of the data to accommodate new data and new insights about the data. Although researchers might also begin the qualitative content analysis with pre-existing coding systems, these systems are always modified in the course of the analysis to ensure the best fit to the data. (Sandelowski, 2000).

While the principle investigator conducted the dynamic process of data collection and analysis, the interview transcripts were individually read and assessed by the principle investigator's supervisor.

The interview transcripts were studied individually to ensure that the principle investigator had a thorough understanding of what the participant was expressing. Comparisons were then made across interviews. The questions in the in-depth interview guide served as an initial organising framework to break the data up into categories before assigning codes to data containing recurring concepts. Relationships between categories were then explored (Creswell, 1998).

Numerical and operationally defined verbal counting was used, implying that verbal counting is defined. In this study, 'few' referred to one to three participants. The words 'some' and 'several' were used for groups of four to eight participants, with 'some' referring to the lower numbers and 'several' referring to the higher numbers. 'Many' referred to groups of nine to eleven participants and 'most' referred to groups of twelve to fifteen participants.

## **2.6 Pilot Study**

A pilot study was performed in order to identify any problems with the screening process and to refine the questionnaire, in particular to determine whether the wording and timing of the in-depth interview questions were effective in eliciting the necessary data from the study participants.

Seven women who met the entrance criteria to the study were identified after purposeful, sequential sampling of women in the antenatal clinics. Two women were excluded from the pilot study as it became clear during the in-depth interviews that they were not able to express themselves in the language of the interview. As a result, five interviews and their corresponding transcripts were analysed in the pilot study.

It was determined that the screening and interview process could be performed with minimal interference to the antenatal clinic and with no extra demands on clinic staff. All the participants had a clear understanding of the visual analogue scale after it was explained to them individually using a standard example. During the interview process it was determined that most of the in-depth questions were clearly understood by the participants, but that some questions required further explanation or prompting.

The wording of some of the questions was revised in order to ensure that they were fully understood by the participants. The order of the questions was

changed, ensuring that the first question was most effective in initiating the participants' thought process.

## **2.7 Ethical considerations**

This study was performed under the conditions of the Helsinki declaration of 2000. Ethics approval was granted from UCT Ethic's department. The Mowbray Maternity Hospital Research committee had approved the study to be performed at Mowbray Maternity hospital and its satellite Midwife Obstetric units.

Clients were provided with an information leaflet in their preferred language (English, Afrikaans, Xhosa) that outlined the study. It was stressed that participation in the study was voluntary and that declining to participate would not influence their present and future obstetric healthcare. It was also stressed that the information would be kept anonymous and confidential. Potential participants were informed that there are possible benefits and risks from participating in the study. Firstly, discussing their fears of childbirth may have given them a better understanding of where their fears originate from and could be the first step towards alleviating the fears. Secondly, the investigator might identify significant risk factors and could, with their consent, arrange referral to the appropriate health care professional. A risk for participating in the study was that the participant may have felt uncomfortable discussing personal details and situations, in which case they were informed that they would have the right to stop the interview at any stage and withdraw from the study. Written informed consent was obtained from the participants at the interview stage.

## **Chapter 3 Results**

Eighteen clients met the entrance criteria for the interview stage, of these only one declined to be interviewed. Seventeen were interviewed and of these, fifteen transcripts were used for data analysis. One of the interviews was excluded because of technical problems with the voice recorder and another interview was excluded because it became clear to the interviewer during the course of the interview that the participant was not fluent in the language of the interview.

### **3.1 Socio-demographic data**

The socio-demographic details of the study participants are summarised in table 1.

The mean age of study participants was 28 years and six months (range 21 to 35 years). All participants were born in South Africa. Eleven participants were born in Cape Town. Three of those women had lived in Cape Town for several years and only one participant had lived in Cape Town for less than one year. Two participants were born in rural Western Cape and two were born in rural Eastern Cape.

Six of the participants spoke English as their first language, five Xhosa and four Afrikaans. Second languages spoken included English (nine participants) and Afrikaans (six participants).

One participant had primary schooling, eleven participants had secondary schooling and only two participants had received tertiary education. In addition, one participant had left formal schooling during primary school to undergo private education to become an Arabic teacher.

Five of the participants were married, three were not married but co-habiting with a stable partner, two were in a stable relationship but not co-habiting and five were either not in a relationship or in an unstable relationship. Of those married or in a

stable relationship, the duration of the relationship was one to five years in nine of the subjects, nine years in one subject and greater than ten years in three subjects. Three participants had been previously divorced, of which one was now in another stable relationship and two were not currently in a relationship.

Five participants were employed full time and four were employed part time. Six participants were unemployed, of which three had a partner who was employed.

Twelve participants were aware of their total monthly household income. One participant reported having no monthly income. She was a resident at a home for destitute expectant mothers. One participant reported a monthly income of less than R1000; two participants reported a monthly income of R1001 to R2499, while five participants had a monthly income of R2500 to R4999 and three greater than R5000.

Eleven participants lived in a brick house with water and electricity inside. One participant lived in a brick house with water in a standpipe outside and two participants lived in a shack with no water or electricity inside. One participant was living in a home for destitute expectant mothers and had previously lived in a shack with no water or electricity inside.

Seven participants had only immediate family living in the household, while seven had extended family in the household. One participant was not living with family, but in a home for destitute expectant mothers. Of those with extended family in the household, six had between three and five adults in the household and one had ten adults in the household.

**Table 1: Socio-demographics**

Age	Mean	28,5 years
	Range	21 - 35 years
Place of birth	Cape Town	11
	Rural Western Cape	2
	Rural Eastern Cape	2
First language	English	6
	Xhosa	5
	Afrikaans	4
Second language	English	9
	Afrikaans	6
Schooling	Primary schooling	1
	Secondary schooling	11
	Tertiary schooling	2
	Other	1
Marital status	Married	5
	Not married but co-habiting	3
	Stable relationship but not co-habiting	2
	Not in a relationship or unstable relationship	5
Employment	Employed full time	5
	Employed part time	4
	Unemployed	6
Total monthly household income	> R5000	3
	R2500 – R4999	5
	R1000 – R2499	2
	<R999	1
	Unsure	3
	No monthly income	1
Housing	Brick house with water and electricity indoors	11
	Brick house with electricity indoors but shared standpipe water outside	1
	Shack with no electricity or water indoors	2
	Other	1
Household occupation	Immediate family only	7
	Extended family with 3 - 5 adults	6
	Extended family > 5 adults	1
	Other	1

### **3.2 Past Medical history**

All women were asked about their past medical history. Many participants reported no medical history. One participant had been severely ill due to a cranial abscess in childhood, but had made a good recovery. One participant had vitiligo and one had well-controlled asthma. Two participants were HIV positive and had been diagnosed in the current pregnancy.

Only three participants were on chronic medication, one was on a metered dose Salbutamol inhaler for her asthma and two were on Ziduvudine for the prevention of mother to child transmission of HIV.

None of the participants had a past or current history of a psychiatric disorder.

### **3.3 Past Obstetric History**

The participants' past obstetric history is summarised in table 2.

Most of the fifteen participants had a previous vaginal delivery and only one recalled having had an episiotomy. There were no reported instrumental deliveries. Of the normal vaginal deliveries, one participant delivered in a private hospital, six delivered in a primary level obstetric facility, four delivered in a secondary level obstetric facility and only one delivered in a tertiary obstetric facility.

Three participants delivered their previous baby by emergency caesarean section and there were no previous elective caesarean sections. All of the three emergency caesarean sections were performed at a secondary level facility, one was for breech presentation in active labour and two were for fetal distress neither of which were in labour.

A total of four participants had an induction of labour; two for prolonged pregnancy, one for pre-eclampsia and one for recurrent unclassified antepartum haemorrhage. Of the four participants that were induced, one subsequently delivered by emergency caesarean section for fetal distress and three had an unassisted vaginal delivery.

Three of the participants were between 28 and 36 weeks gestation at the time of delivery. The remainder delivered at term or post term. Five participants were unsure of the gestation at the time of the delivery, but were most likely term.

Most participants reported an uncomplicated neonatal outcome. Two delivered babies who were subsequently admitted to the Neonatal unit, but all admissions were short term with good outcome. Only one baby required follow up because of a testicular hydrocoele.

**Table 2: Past obstetric history**

Onset of labour	Spontaneous	11
	Induced	4
Mode of delivery	Normal vaginal delivery	12
	Emergency caesarean section	3
	Elective caesarean section	0
Indications for caesarean sections	Fetal distress	2
	Breech presentation	1
Indications for induction of labour	Prolonged pregnancy	2
	Pre-eclampsia	1
	Antepartum haemorrhage	1
Delivery level of care	Primary	6
	Secondary	7
	Tertiary	1
	Private	1
Gestation at delivery	28 – 32 weeks	1
	32 – 36 weeks	2
	37 – 40 weeks	3
	>40 weeks	4
	Unknown (most likely term)	5
Neonatal outcome	Uncomplicated	13
	Short term admission to Neonatal unit with good outcome	2

### **3.4 Past childbirth experience**

Participants were asked to describe their previous experience in labour. Several indicated that they had been afraid during the labour process but could not define what they had been afraid of. One woman said, *“Oh, I was very scared and.. the doctor say “push” and I don’t want to push, um.. ek was scared gewees, shoo.”*

Few, however, mentioned fearing for the welfare of their fetus during the previous labour process.

Many mentioned that it was a painful process, using the adjectives: “so”, “very” or “extremely” to describe their experience of the pain. All three participants who had induced labour felt that their pain was more severe because of the induction, as

expressed by this woman, *"If I could have my own pains if they didn't give me anything.. if it was just normal.. then I think it would be better. But the pains they did give me, I think it was too heavy for me."*

Moreover, some participants indicated that their previous experience of labour and specifically the experience of pain was worse than they had expected. This is reflected in this interview extract, *"The time my Mommy brought me, and my Daddy brought me in, so my mother just told me um, "Alles van die beste". But nou dink ek, "Alles van die beste, vir wat is daai, ek gaan mos nie dood nie". And so with the first pain I got, I thought, "Yo, wat is daai?" So that's why, that made me think about the pain, she was talking about the pain. I never thought it was going to be so sore."*

A large number of these women had received their information about childbirth from other female friends and family members, while only two had obtained information from books and the public media. One woman said, *"... because people are saying this and others saying that, you see... so, you know you are getting confused, you don't know which one you should believe, you don't know exactly what is going to happen there."*

When asked about their impression of the care received from the labour ward staff during their childbirth process, many women stated that they were satisfied with the care received and found that the labour ward staff had been very supportive. A large number of these women were referring to the emotional or physical support received in labour. Only one participant mentioned being specifically satisfied with the medical treatment received.

Some women, however, had been dissatisfied with the care provided. All of these participants indicated that they felt the staff had been inattentive to their emotional or physical needs. One participant attributed the lack of emotional support from the labour ward staff as being due to being judged for her young age. She said, *"They*

*were just not nice to me. I was only 15 like I said and... they didn't even know I was, that I was married or not... they just decided, 'Okay, you are a child giving birth to a child'. I wasn't treated very nicely."*

Only five participants had a birth companion during their previous labour. This had been either their partner or a close family member. Of the many women who had been without a companion in labour, three reported that they had not been allowed to bring a companion, two had chosen not to have a companion, one felt that her partner did not accompany her because he was afraid and two were initially accompanied by their partners who later went home. The remaining two women could not give a reason for not having had a birth companion.

All of the participants who had been dissatisfied with the care received from the labour ward staff had been without a companion in labour and felt that their experience of childbirth would have been better if they had had a companion. This is illustrated in table3.

Table 3: Perception of support received form labour ward staff in accompanied and unaccompanied women.

	Total=15	Companion in labour
<u>Satisfied</u> with emotional and physical support received from labour ward staff	9	5
<u>Dissatisfied</u> with emotional and physical support received from labour ward staff	6	0

### 3.5 Attitude towards pregnancy

When asked about their feelings towards the pregnancy, several participants reported having felt positive about the pregnancy when it was initially diagnosed. They described being happy, glad or excited. In contrast, several women also reported negative feelings at the time of pregnancy diagnosis and the remaining few had mixed feelings.

Five participants had considered terminating the pregnancy. The reasons for considering termination were varied, none reportedly as a result of fear of childbirth. Three of these women had problems with their male partner and one woman felt that she had disgraced her family by falling pregnant for the second time without being married. Another woman, whose terminally ill mother was the primary caregiver of her older child, felt overwhelmed by the fact that she would now have to care for two children alone.

When asked to describe their current feelings towards the pregnancy, four of the women with previously negative or mixed feelings now reported positive attitudes. Two of these participants mentioned that they had come to accept the pregnancy because they felt it was meant to be. This was expressed by one of the women as follows, *"Me, I am accept now, because I think maybe it is a blessing."*

Another woman felt similarly, she said, *"Because maybe you have to accept it, maybe is... um, is, ah, maybe there is a reason why you are pregnant now... some kind of reason you don't know, you have to see maybe along the way."*

At the time of interview, some participants still had mixed feelings. These participants made conflicting comments, which suggested that they were still coming to terms with how they felt about the pregnancy. They also all made comments suggesting that they felt they needed to cope with the pregnancy, as expressed by this woman who said, *"So, there was a lot of confusion but now I'm fine with it, um, I suppose I*

*just need to be positive about it.” “Ja, in a way. I am happy, not that happy... just... we have to deal with it. Ja.”*

Only one participant reported ongoing negative feelings towards the pregnancy. She said, *“Um, to be honest, the excitement is still not there ... I can’t say, it is just not there.”*

Most of the women thought that their partners were happy about the pregnancy, however, some were unsure of how their partner felt. Only a few participants reported that their partners had negative feelings towards the pregnancy. All of these women felt positive about their pregnancy although initially they had been negative or unsure. In addition, one participant reported that her partner was ambivalent towards the pregnancy, denying paternity until after a paternity test.

### **3.6 Perception of fear**

#### **3.6.1 Perception of fear relative to other pregnant women**

All participants were asked how they perceived their fear relative to other pregnant women. Only a few of the women felt that they were more afraid than their peers in the clinic. One woman based this on her observation that other women did not look afraid. *“They don’t look afraid, but I look afraid.” she said.* Another woman felt that, although everyone was afraid, she was more afraid than they were.

One woman felt that every woman experienced different fears, which could not be compared. She said, *“Uh, I wouldn’t know... because [every] fear is different. Maybe you fear because you are not ready to be a mother, or maybe it is just the pains.”*

Another woman who was unsure of the answer made a similar comment: *“Oh, I don’t know. I didn’t notice someone is afraid to go to labour, I didn’t notice... everyone is happy.”*

In contrast, the remaining women felt that their fear was equivalent to the fear experienced by other women in the antenatal clinic. *"No, I think we are all afraid."* one of them said.

### **3.6.2 Perception of fear relative to first pregnancy**

Many women felt that the fear they were experiencing currently was greater than the fear they had experienced during their first pregnancy.

Four of these women attributed this to the knowledge they had gained from their previous experience in labour. A large number of them were referring specifically to their prior experience of pain, while one woman was referring to the labour process in general. One of them said, *"Yes, I am very afraid because I know the pain now. I feel that pain. Oh, I am very scared."* Another one explained, *"I think I am more afraid now, because I know what to expect, that time I was just shocked, "Yo, what is this now?" But now I am more afraid, because you know mos what to expect, so... Ja, I am more afraid."*

Two women attributed their greater fear in the index pregnancy to the unpredictability of labour. They both felt that a woman's experience in childbirth was different with each child and that their first experience could not fully prepare them for the current one. Although both of these women had previously had "uncomplicated" vaginal deliveries, one of them had delivered without any assistance from the labour ward staff.

Another cause of increased fear in the current pregnancy was an expected lack of support or companionship in labour. Both of the women who felt this way were either having problems in their relationship with their male partner, or had become estranged from their partner. One of them expressed how she felt in the following

way, *"I am more afraid now, because there is no... I don't have that support, you see."*

One woman reported being more afraid in this pregnancy because two family members had delivered stillborn infants in the past.

**Table 4: Reasons for perceived increased fear relative to first pregnancy**

	Total=15
Knowledge gained about pain and process of labour through previous experience	4
Unpredictability of labour	2
Expected lack of companionship in labour	2
Knowledge of someone with recent perinatal death	1
No increased fear perceived	6

### **3.7 Sources of fear**

All the participants were asked to identify what they were afraid of when they thought about going into labour. The following specific fears were identified. They have been summarized in table 5.

#### **3.7.1 Fear of pain**

Many of the participants said that they were afraid of the expected pain at the time of childbirth. This included the three participants who had previously delivered by emergency caesarean section. One participant recalled the pain she had experienced with her previous caesarean section and expressed fear for that pain, but still preferred to deliver by caesarean section as she felt it guaranteed a better neonatal outcome. She said, *"I heard, I heard eh, sometimes the people say if you've got a baby with a natural [birth] it is fine, because you have a stitches. Stitches takes*

*3 days. But a Caesar, maybe it take a week. So, the Caesar, it is not good, but...*

*(sighs)... I want a Caesar, but I know the pain of the Caesar."*

The other two participants, however, were afraid that the pain of vaginal birth would be more severe than the pain they had experienced after caesarean section. This is what one of them said, *"I am so afraid because I used to see the pictures, like to read magazines and I see on TV like how they give birth through the vagina. So for me, when I look at that I feel so scared like ...its like more pains than the one that I did before."*

In contrast, the other eight participants who feared the pain of labour had delivered vaginally in their last pregnancy. One of these women explained, *"The pain, that pain I'm thinking of. I used to say to my mom, "Oh, I am so scared because I don't forget that pain, it comes each and every time I think about it, I think oh, there's those pains". I can't explain how painful is it, but its very, very, very, very strong."*

Another woman said, *"It is the pains. When I am feeling the pains I wish to die. I don't like the pains."* None of these women could recall being offered or given any analgesia during their previous labour and vaginal delivery, as expressed by this woman, *"No. I didn't have a clue that I must ask for something."* When asked about options for pain relief, it was evident that these women had poor knowledge. Two women denied any knowledge of options for analgesia, while one woman mentioned that a "band on your tummy" could be used to ease the pain. Another woman mentioned having read about analgesia in magazines, but could not recall details. Two women suggested that one could take "pills", while another woman mentioned that she thought a "drip" would help with the pain.

Some women felt that, although they were afraid of the pain, pain was a normal and essential part of childbirth and that it was natural for a woman to experience pain in childbirth. These women felt that the pain was necessary to facilitate delivery and to aid in bonding between mother and baby. One woman expressed her feelings in the

following way, *“That’s a women’s thing, you have to go through that. I think that you have to go through that if you wanna have a child...”*

### **3.7.2 Fear of the unknown**

Many women mentioned that they were afraid because they did not know what to expect during the labour process. Three of these women had previously delivered by emergency caesarean section and were unsure of the planned mode of delivery in the index pregnancy. One woman said, *“Um, I think you always have fear for the unknown. I haven’t experienced it yet, I don’t know what to expect . . .”* Another woman said, *“I know I am going to [have] the Caesar. I, I, I want to try to myself... I don’t know... I, I, I am scared even to [give] natural birth, I am scared even [to have] the Caesar. Do you know what I mean? I don’t know the pain [of natural birth] if it is better than the Caesar. I don’t know.”*

The other six women who expressed fear of the unknown had previously delivered vaginally. Although they had mostly had uncomplicated deliveries with good outcomes, they felt that the process and outcome of labour in general was unpredictable, as expressed by this woman, *“Anything can mos happen when you are giving birth. It is a 50/50 chance, mos, you and the baby.”* This woman expressed similar feelings, she said, *“I can say, you are mostly afraid because you don’t know... you can’t see what is here inside, can’t see what is um, um, what kind of baby it is going to be, and all that you see.”*

### **3.7.3 Fear of injury to or death of fetus**

For many participants neonatal outcome was a prominent concern. Two of these women had previously had emergency caesarean sections. Both women subsequently lost those children, one due to pneumonia and one due to a motor vehicle accident. One woman expressed her fear in the following way, *“And, I’m*

*afraid like, um, I don't want to be afraid but uh (sighs), I feel like I am going to be afraid because I want to see this one alive... this baby."*

Two women had close family member who had recently delivered a stillborn infant at term. *"Who wants to carry a baby for 9 months and give birth to a dead baby? You are excited to have the baby in your arms, but when you get the baby the baby is dead."* said one of them.

Another woman had presented to her clinic at twenty weeks gestation with decreased fetal movements. After much difficulty locating the fetal heart, she recalls being told that the baby's heartbeat was too weak. She was afraid for her baby's well being because she believed he still had a weak heart.

One woman was HIV positive and was afraid of transmitting the virus to her fetus. She was taking antiretroviral drugs for the prevention of mother to child transmission of HIV and understood that they reduced the risk of transmission.

She said, *"Yes, because I'm HIV + I am so scared that I can, my baby can be also infected with it."*

A further three women indicated that they were afraid of neonatal complications after probing. Their concern for neonatal well being appeared to be included in their general fear of the unknown and the unpredictability of labour, as expressed by this woman, *"I know what to expect during a caesarean and, you know, most likely the baby and me will also be fine. With a natural birth I don't know if I will be fine and also if the baby will be fine, I'm not sure."*

#### **3.7.4 Fear of lack of emotional support in labour**

A few women reported being afraid of the labour process because they were expecting no support from their partner in labour. All of these women had a recent

relationship failure with their partner, the reasons for which included divorce, leaving the male partner after finding out he was married and being abandoned by the male partner due to disappointment regarding the sex of the fetus. One woman said, *"I am afraid to go to the labour. I want somebody to give me a support, a lot of support. What I need, I need somebody can give me a support."*

Two of these women had a family member or friend who was willing to accompany them in labour, however one woman could not identify anyone who could accompany her. She said, *"And uh, I am just afraid because there is no one, no one is going to stand by me. He is not going to be there, I lost my mother... no one is going to stand by me through childbirth. Ja. That is, because I have no one. My father lives in Stellenbosch, my sister doesn't care, my boyfriend left and I am um, all alone. I live alone in this world."*

### **3.7.5 Other fears**

The above factors were feared by many women and were common themes in the study. In addition, causes of fear emerged that were mentioned by one or two participants only.

Two women reported that they were afraid of having a complicated delivery. They had both had an induction of labour in their previous pregnancy and were hoping to have spontaneous onset of labour in this pregnancy. One of them said, *"Um, I just want a normal birth..."* The other woman had been told by the doctors in the current pregnancy that they might need to deliver the baby at 38 weeks. She interpreted this to mean that she would have an induction of labour again. *"Which means to me is that, I feel it is not going to be normal birth again, so now I have got that, you know, afraidness now again."* she said.

A woman who had vitiligo reported being afraid of labour because she was self conscious and felt that the labour ward staff would stare at her perineum and talk about her vitiligo amongst themselves. She recalled an incident in her first pregnancy when several nurses were called to look at her skin to assist in the diagnosis. Since then her vitiligo had progressed and she felt ashamed of it. She said, *“The one sister called the other one and the other one called the other one, you see, that is where my fear started.”*

Another woman mentioned that the area in which she lived was very dangerous at night and the thought of driving to the clinic after dark added to her fear of labour.

Surprisingly, only one woman expressed a fear for her own well being, this was due to high blood pressure although she had no documented hypertension and was not being treated for hypertension in the pregnancy.

Table 5: Sources of fear

	Total=15	
Anticipated pain	11	
The unknown	9	
Injury to or death of fetus	10	
Anticipated lack of emotional support in labour	3	
Other	Anticipated complicated delivery	2
	Ashamed about appearance	1
	Dangerous living area	1
	Own wellbeing	1

\* several women identifying more than one fear

### **3.8 Effect of fear**

Participants were asked whether they thought that their fear of childbirth affected them in any way. Several women were either unsure or did not feel that their fear

affected them, however, eight women felt that their fear was impacting on their lives. Three women reported symptoms of depression, including depressed mood, crying a lot, difficulty sleeping and loss of appetite. They attributed these symptoms of depression to their fear for the pending childbirth. This is how one woman expressed herself, *“Every time I am crying, every time I am crying... but I am trying to stop now because I want to be strong for my baby.”*

One woman felt that her fear was causing marital strife. She did not want to share her fear with her husband because she felt that it would take the joy of the pregnancy away from him. As a result he was feeling isolated. She said, *“Yes, um, since I have been pregnant now I have actually cut my husband off like... he [husband] feels isolated and I have picked it up. He has told me about this before, but for me it is like he is a person who is very sensitive and anything that affects me affects him and it is his first child and I feel I don't wanna take that away from him by telling him how scared I am and things like that, so ja. I think that is the main reason why I am keeping it away from him.”*

Five women reported wanting to deliver by caesarean section because of their fear of vaginal childbirth. Three of these women had delivered their first baby by emergency caesarean section. All three women had different reasons for choosing a repeat caesarean section. One woman was afraid of the anticipated pain of a vaginal delivery. One felt that there was a better chance of a good neonatal outcome with a caesarean section. The third woman was planning to request a caesarean section under general anaesthetic. She had been divorced earlier in the pregnancy and did not want to experience the delivery without the support of her husband. *“Now if I should have a choice I'll tell them to put me out of it completely, not even to be awake during a caesarean, just put me out and wake me up when it is all over, because I don't want to, it is too emotional, you know.”* she said.

The other two women who requested a delivery by caesarean section in the current pregnancy had previously had a vaginal delivery. One woman, as previously mentioned, had vitiligo. She was requesting a caesarean section because she felt that would draw less attention to the vitiligo. The other woman was afraid of the pain of vaginal childbirth and felt that she would experience less pain with a caesarean delivery. She recalled a conversation with her mother, *“You know what, I used to say to my mom, “Ah, I’m so scared to have a baby with the vagina; I wish I could have a baby with a Caesar. Maybe it’s a little better than to have a baby with the vagina”*

Another consequence of the fear of childbirth was delaying conception. Two women reported this. One of them explained, *“ No, because I was so scared to have another. Although I did want to have another one, but I was so scared...little bit scared, so I just stay for two years again. I was so afraid, I say no, I am not planning to have another one for these two years.”*

Three women felt that their fear as affecting their lives in more than one way.

**Table 6: Effect of fear**

	Total=15
Symptoms of depression	3
Marital strife	1
Request for caesarean section	5
Delayed conception	2
No effect of fear perceived	7

\* 3 women identifying more than one effect of the fear on their lives

### **3.9 Identified stressors**

Participants were asked if they could identify any stressors in their lives. Many could identify at least one significant stressor. A few women identified stress due to financial concerns, while several were experiencing stress in their partnership. One

of these women was concerned about her husband's recreational drug abuse, while the other one felt that her husband was choosing to spend his time with his friends and had become distant from her. The other women all had a recent relationship failure with their partner, the reasons for which (as mentioned before) included divorce, leaving the partner after finding out he was married and disappointment by the male partner with respect to the sex of the fetus. One of these women said, "So, *there is a baby now... and there is no father. So what is the point?*"

A wide range of stressors were reported by the other five women, with a number of them reporting more than one stressor. One of these women felt that her home environment was very hostile. She was currently living with her sister and looking after her sister's children. She felt that her sister was unappreciative and unfriendly. She said, "*She is very big, like, she is very big, like when she comes from work then she is cross, or she takes everything out on me. Her children is washed, the food is made, the house is clean... what does she more want?*"

Similarly, another woman was experiencing a lot of tension within her family, and especially with her father. She conceived with a married man who was currently not acknowledging the pregnancy. This was preventing her family from performing the cultural traditions associated with pregnancy and childbirth. She explained, "*My father was so cross... very, very cross. You know Xhosa there is a tradition to take a baby to meet, eh, family to do something, but my baby can't go there because the man is married. So that is why my father is so cross. My culture is, is very sensitive. He [partner] is supposed to pay me, supposed to pay me because I am pregnant. But he can't pay me because he is married. So my father is cross.*"

One woman had been disowned by her family and told to leave the farm where they worked. She was currently living in a home for destitute expectant mothers. She felt that her family had disowned her because the father of her expectant child was of a

different culture. Her younger child, from a different partner, was still living with her family on the farm. She reported being torn between wanting to be with her elder child and not wanting to return to the farm where her parents lived.

Finally, one woman had recently lost her mother who had been the primary caregiver of her first child. This woman was feeling overwhelmed by the thought of having to care for her older child while being pregnant with her second one, and felt that she could not give her older child the attention that she deserved. *"I've got stress, too much sometimes, if my baby wants this, I can't give her.... Now if she wants maybe she wants to play, I feel tired, but I, I, I become very sad because of I think, tsch, if I wasn't having this [pregnancy] I would go and play with my daughter, now its very difficult for me to do everything that she wants."* she said.

### **3.10 Coping Mechanisms**

Although coping mechanisms were not extensively explored in the study, some cognitive and behavioural efforts to reduce or alter fear were either directly reported or became evident from the interviews. These are summarized in table 7.

Many women reported seeking out emotional support. Two of these women reported seeking spiritual support, indicating that they felt better after having prayed to God.

One woman said, *"And I, I, I pray to God every night, 'Please, please, please God, you know I am afraid to go to the labour, please, please, let me stop to [be] afraid."*

Five women had disclosed their fear of childbirth to a family member or friend and all except one had found support. One woman who found her mother particularly supportive said, *"I don't know, the only person that I can really lean on, really lean on is my mother... you see, she was there for me with the first child so she knows."*

Only four women, however, reported having disclosed their fear of childbirth to their partners. A large number of them had found their partners to be understanding and

emotionally supportive, as expressed by this woman, *"He [husband] is always like... I mustn't worry and he will be here and "Everything is going to be better this time"."*

Other women looked for support from someone other than their partner, family or friends. One woman was living in a home for destitute expectant mothers. She had disclosed her fear to the staff at the home. Only two women had disclosed their fear of childbirth to someone within the health care service. The first woman had spoken to a nursing sister who was performing voluntary counselling and testing for HIV at her antenatal clinic. She felt that the nursing sister had been very supportive and said, *"The time we talk, we talk, I become relaxed, so I see there is lots of support here for the mother who is going to have a baby."* The other woman had been referred to a support group at the Groote Schuur Hospital after she reported her fear of childbirth to a nursing sister at the day hospital. She reported an initial decrease in her fear, however, as her due date approached, she could feel her fear returning. She said, *"Slowly, slowly I'm coming down but as my time is getting closer I can feel the tension."*

A few women reported having gathered information from the media and antenatal clinic staff regarding what to expect in labour and how to prepare for labour in order to ensure a successful delivery. They all found that the information helped to alleviate some of the fear that they were experiencing, as expressed by this woman, *"Yes, because I am reading the books and magazines, like the baby magazines. Every time when I get the magazines I read about what will happen there and what I must do, exercise and what, what. When I read those books, after that I feel okay."*

A few others tried to focus on positive aspects of their previous labour experience in an attempt to deal with their fear and develop a more positive attitude towards their pending childbirth. One of them explained, *"Mm, I just think of something nice, or I look at my first one [child]. He is alive and healthy, so... that's all I think about."*

Several women were, however, concealing their fear or had chosen not to disclose their fear to anyone. A number of these women gave reasons for their lack of disclosure. One woman did not want to speak to her husband about her fear, because, although she expected him to be supportive, she did not want him to worry about her. She wanted him to feel positive and excited about the pregnancy. She said, *"I need him to be the strong one, to think that he is the strong one. If I tell him he will get upset. For the sake of the baby we can't have two parents who are upset like this."* Another woman, who had become estranged from her partner, had disclosed her fear to an older female friend, as she had no family members that she felt she could confide in. The friend, however, was not willing to offer emotional support. *"So who can I talk to and who can I trust? The people is just for themselves and uh, they are very busy. Their mouth isn't good and that's why I just keep everything for myself."*

One woman had chosen not to disclose her fear to her partner or her family as she felt that her fear was not greater than any other women's fear and therefore did not need to be discussed. Similarly, one woman had not disclosed her fear of childbirth to her husband as she felt that he would not understand her reasons for being afraid. She said, *"I don't speak to him a lot about this. I'm the person I keep everything to myself. Even if I tell him, he will tell me "You are stupid man, why are you worried about that?"*

Avoiding thinking about their fear or distancing themselves from their fear was another mechanism that several women were using to cope with the fear. They were either avoiding thoughts about their pending childbirth or refusing to acknowledge that they would have to go through the childbirth process. One woman said, *"Just put me out, just wake me up when you know, when it's all over. You know, its something that I don't even want to experience."* Similarly, another woman said, *"I'm, at the moment I am not thinking even about the birth time. I told my, my, my sister-in-law, 'I*

*am just going to wait until it is that time, I am not going to think now about it, because I am very scared.”*

Table 7: Coping mechanisms

	Total=15
Emotional support seeking	11
Problem solving/Information gathering	3
Cognitive restructuring	3
Isolation/nondisclosure	8
Escape/Avoidance	6

\* most women reporting more than one coping mechanism

University of Cape Town

## **Chapter 4 Discussion**

This study explored the fear experienced by parous pregnant women utilizing the Cape Town public obstetric service who reported having a high level of fear for childbirth. It is the first study addressing the subject of fear of childbirth in South Africa or any other developing country and has offered relevant insight into women's experiences and expectations of labour in this setting.

A number of key findings were identified in the study. Firstly, although the participants in the study were identified from the study population as having a high fear of childbirth, only a few participants felt that their fear was greater than that of other pregnant women attending their antenatal clinic. This suggests that women in our setting who fear childbirth feel that their fear is normal.

Another key finding was the identification of the most common sources of fear. In our study population, women mostly feared the pain of labour, the unpredictability of labour, harm to the unborn fetus or neonate. Fear of pain and fear for the welfare of the fetus have been previously described in the literature (Ryding, 1993; Sjorgren, 1997; Melander, 2002; Saisto and Halmesmaki, 2003). This literature also described fear of own incompetence, fear of injury to self, fear of loss of control and lack of trust in obstetric staff. These findings did not feature strongly in our study population. In contrast, fear of the unpredictability of labour or of the unknown was a prominent source of fear among our informants and has not been previously described.

In keeping with findings from developed countries, our study documented that women's fear for the pending labour appears to be rooted in her previous negative experience of labour (Heimstad et al., 2006; Melander, 2002; Saisto et al., 1999; Waldenstrom et al., 2006).

The key factors leading to the negative experience of labour in our study group were poor preparation for labour and consequently an unexpected degree of pain. In addition, the lack of adequate analgesia and supportive companionship in labour further confounded the negative experience. We found that women in our study population had had a previous negative experience in labour despite the fact that the majority resulted in obstetrically uncomplicated vaginal deliveries with good neonatal outcomes. This finding is supported by a previous study done among primigravid women attending a level one facility in the obstetric public health system in Cape Town. The study, which evaluated pain in labour, found that primigravid women in our setting had limited knowledge regarding the process and pain of labour, received little antenatal education in this regard and commonly underestimated the intensity of labour pain (Ibach et al., 2007)

In our study, many informants mentioned that their previous labour had been a very painful process and that their previous experience of labour, and specifically the pain, had been worse than they had expected. These women felt that the fear they were currently experiencing was more than the fear they had experienced during their first pregnancy, some acknowledging that it was as a result of the knowledge they had gained about labour and the pain of labour from their prior experience. This is in keeping with the finding that the knowledge and expectation of pain in labour has been shown to influence the delivery experience in many studies done in developed countries. The expectation of a low degree of pain has specifically been reported to be associated with worse labour experiences (Hallgren et al., 1995; Capogna et al., 1996).

An understanding of the normal process of labour including the possible complications, and a reasonable expectation of the pain of labour are essential in preparing a woman for labour. This highlights the importance of appropriate antenatal education.

Lack of supportive birth companionship, as mentioned above, was another key factor resulting in a negative experience of labour. Many of our study participants were without a companion in labour, for several different reasons. Some participants were also dissatisfied with the care received by the labour ward staff, finding them inattentive to their emotional or physical needs. Although the role of the birth companion was not explored in depth in this study, all of the women who had been dissatisfied with the care received by the labour ward staff had been without any other companion in labour and all felt that their experience of childbirth would have been better if they had had a supportive birth companion.

This finding is supported by Abushaikha and Sheil (2006) who found a significant negative correlation between labour stress and nursing support. The authors measured labour stress using the WDEQ. Stress was defined as the level of psychological stress, representing a combination of fear and pain, which is experienced by women in labour. Nursing support during labour was measured using the Bryanton Adaptation of the Nursing Support in Labour Questionnaire (BANSILQ) and categorised nursing support into three categories: emotional, tangible or physical and informational. The results showed that nursing behaviours which were reported as being most helpful were: treating the woman with respect, making the woman feel cared about as an individual, answering questions truthfully, appearing calm and confident, giving praise, keeping the woman informed about her progress, carrying out the woman's wishes, providing a sense of security, recognising when the woman was anxious and explaining hospital routines. The study also found that 63% of the women reported that the most helpful person during labour was the partner, while

18% found the nurse to be the most helpful (Abushaikha and Sheil, 2006). In our setting where the presence of a birth companion is not a routine experience, the importance of emotionally supportive labour ward staff needs to be emphasised.

The above findings collectively suggest that women had negative experiences of labour because they are poorly prepared for the process and pain of labour with limited access to analgesia and to alleviate the pain. The lack of emotional and informational support during labour also contributed to that negative experience. A negative experience of childbirth can subsequently result in fear of childbirth during the following pregnancy, more specifically, fear of pain in labour or fear of the unpredictability of labour.

It cannot be assumed that all women who have a negative experience of labour will develop a fear of childbirth. Several authors have explored risk factors for the development of fear of childbirth. Unemployment and a low level of education, which have previously been found to be associated with an increased risk of having fear of childbirth (Standley et al., 1979; Waldenstrom et al., 2006), were also prevalent in our study participants.

Similarly, it has been suggested that women who lack social support, have more “worries”, are dissatisfied with their partnership or have partners who are dissatisfied with the partnership are more likely to develop fear of childbirth (Saisto et al., 2001; Waldenstrom et al., 2006). Our findings agree with these reports, with many of our study participants identifying at least one significant stressor. Several women identified stress related to their partnership. Although the nature of the relationship problems differed, all of these women found their partners to be unsupportive to their emotional needs and most were no longer in the relationship. Some identified other stressors in their lives, all of which had resulted in them losing an important part of their previous social support structure.

Another key finding in our study was the fact that the most common mechanism used in an attempt to cope with the fear of childbirth was emotional support seeking. Because of the breakdown in relationships or the loss of an important member of their support structure, some women were reaching out to people outside of their original support system often reporting difficulty in full disclosure due to issues of trust. A large number of women in our study displayed ineffective methods of coping with their fear. These included concealing their fear or distancing themselves from their fear by avoiding thinking about it. Only a few women appeared to be seeking information from the media and antenatal clinic staff in order to prepare for labour and alleviate some of their fears. Similarly, only a few women reported using cognitive restructuring or problem-solving techniques (Penley and Tamaka, 2002; Skinner and Edge, 2003).

The long term implications of a negative childbirth experience and subsequent fear of childbirth was not covered in our study. Other authors have, however, found the incidence of Post Traumatic Stress Disorder (PTSD) to be high in patients with secondary tophobia (fear of childbirth). Intolerable pain during labour or an unanticipated complication such as an emergency caesarean section has been shown to cause PTSD (Hofberg and Brockington, 2000). Two of the factors thought to predispose to the development of PTSD following delivery, namely: poor relationship with their partner and difficulties in the acceptance of the pregnancy were highly prevalent in our study participants (Ryding et al., 1997; Ryding et al., 1998). This suggests that the women in our study population could be at risk of developing PTSD.

Larger studies need to be done in order to quantitatively determine the prevalence of fear of childbirth in our setting. This could possibly be done using a modified version of the WDEQ, translated into the participants' first language. This would however be

a challenge as the WDEQ consists of many descriptive adjectives, the meaning of which may be lost in the translation.

Cape Town is a multi cultural society within a country that has eleven official languages. Many immigrants from other African countries also live in Cape Town and utilise the public health care system. Women were only offered interviews in the three official languages more commonly spoken in Cape Town. This fact could bias the results by excluding women who would possibly experience worse isolation. The limitation of our study is, therefore, that the results cannot be extrapolated to pregnant women in general or to any subgroup of pregnant women that does not conform to the same demographic description as the women in our study. The results do, however, point out many opportunities where obstetric health care providers in our setting can implement interventions to prevent the development of fear of childbirth.

Firstly, antenatal education needs to be improved. Patients, especially primigravid women, need to have a clear understanding of the process of labour and the nature and intensity of labour pain. Patients should also be educated about the options for analgesia and empowered to request analgesia in labour if it is not offered to them. In our antenatal clinics, which are very busy, the obstetric and medical care of the patient is prioritised by the medical staff who seldom have time to counsel patients individually. Lay volunteers from the community could be recruited and trained to provide antenatal education.

In addition, the degree of emotional and informational support given to patients in labour needs to be addressed. Patients should be encouraged to bring a supportive companion when they present in labour. Because the ratio of midwives to patients in our labour wards is usually not high enough to offer the required support, doulas

need to be recruited and trained to provide additional emotional support, information and encouragement to women in labour.

Patients who have had an obstetrically traumatic delivery, for example, emergency Caesarean section, instrumental vaginal delivery or poor neonatal outcome should be offered post partum counselling with the option to continue counselling if necessary. The majority of these women would have delivered in a secondary or tertiary hospital with access to social work services.

Finally, early detection and treatment of fear of childbirth in the subsequent pregnancy should also be encouraged. The first step in this process would be to create awareness amongst obstetric health care providers. Because no tool for the detection of fear of childbirth in our setting has been developed yet, midwives and doctors need to be encouraged to ask all patients about their fears and to address those fears within the time constraints of the clinic, referring patients for further professional counselling when necessary.

## Appendix 2: Demographic, Socio-economic and Medical Background

<u>Age</u>	<20 20-25 25-29 30-34 > 35			
<u>Country of birth</u>	South Africa Other :specify			
<u>First language</u>	English Afrikaans Xhosa Other :specify			
<u>Schooling</u>	none < 5years 5-9 years Matric Tertiary			
<u>Marital status</u>	Married and cohabiting Married but not cohabiting Never married but cohabiting Never married and not cohabiting Divorced			
<u>Employment</u>	unemployed Informally employed Formally employed part-time Formally employed full-time			
<u>Residence</u>	Brick house with running water and electricity inside Brick house with stand pipe water outside Shack with no running water or electricity inside			
<u>Medical background</u>	Chronic Medical illnesses Chronic Medication Currently diagnosed with Psychiatric disorder Previously diagnosed with Psychiatric disorder	No Yes: specify Nil Yes: specify No Yes: specify No Yes: specify		Treated medically No Yes: spec
<u>HIV status</u>	Untested Declined to answer Negative Positive : diagnosed			in current pregnancy < 6 months ago 6 - 12 months ago > 1 year ago

**Appendix 1: Visual analogue scale for fear of childbirth**

How fearful are you when you think about labour and giving birth?



University of Cape Town

### **Appendix3: Semi-structured in-depth interview guide**

1. Could you tell me about your last childbirth experience?
2. How do you feel about being pregnant?
3. What frightens you when you think about going into labour and delivering your baby?
4. Is there anything that helps you to deal with those fears?

University of Cape Town

## **References**

1. Abushaikha L, Sheil EP. (2006) Labour stress and nursing support: How do they relate? *Journal of International Women's Studies*, **7**, 198-208.
2. Alehagen S, Wijma B, Wijma K. (2006) Fear of childbirth before, during and after childbirth. *Acta Obstetrica and Gynaecology*, **85**, 56-62.
3. Areskog B, Uddenburg N, Kjessler B. (1981) Fear of Childbirth in late pregnancy. *Gynaecology and Obstetric Investigation*, **12**, 262-266.
4. Areskog B, Uddenberg N, Kjessler B. (1983) Experience of delivery in women with and without antenatal fear. *Gynaecology and Obstetric Investigations*, **16**, 1-12.
5. Areskog B, Uddenberg N, Kjessler B. (1984) Postnatal emotional imbalance in women with and with out antenatal fear. *Journal of Psychosomatic Obstetrics and Gynaecology*, **3**, 213-220.
6. Ayers S, Pickering A. (2001) Do women get post-traumatic stress disorder as a result of childbirth? A prospective study of Incidence. *Birth*, **28**, 111-118.
7. Bewley S, Cockburn J. (2002) Responding to fear of childbirth. *Lancet*, **359**, 2128-2128.
8. Britten N. (1995) Qualitative interviews in Medical Research. *British Medical Journal*, **311**, 251-253.

9. Burstein I, Konch R, Stern L. (1974) Anxiety, pregnancy, labour and the neonate. *American Journal of Obstetrics and Gynaecology*, **118**, 195-199.
10. Capogna G, Alahuhtat S, Celleno D, et al. (1996) Maternal expectations and experiences of labour pain and analgesia: a multicentre study of nulliparous women. *International Journal of Anaesthesia*, **5**, 229-235.
11. Creswell, J.W. (1998) *Qualitative Inquiry and Research Design: Choosing among five traditions*. Sage Publications, Inc.
12. Di Renzo G, Polito A, Volpe A, Anceschi M. (1984) A Multicentric Study on Fear of Childbirth in Pregnant Women at Term. *Journal of Psychosomatic Obstetrics and Gynaecology*, **3**, 155-163.
13. Goldberg-Wood S. (1996) Post-traumatic stress disorder may follow childbirth. *British Medical Journal*, **313**, 774.
14. Hallgren A, Kihlgren M, Norberg A, Forslin L. (1995) Women's perceptions of childbirth and childbirth education before and after education and birth. *Midwifery*, **11**, 130-137.
15. Heimstad R, Dahloe R, Loache I, Skogvoll E, Schei B. (2006) Fear of childbirth and history of abuse : implications for pregnancy. *Acta Obstetrica and Gynaecology*, **85**, 435-440.
16. Hofberg K, Brockington I. (2000) Tokophobia: an unreasoning fear of childbirth. *British Journal of Psychiatry*, **176**, 83-85.

17. Hofberg K, Ward M. (2004) Fear of Childbirth, Tocophobia and Mental Health in Mothers : The Obstetric and Psychiatric interface. *Clinical Obstetrics and Gynaecology*, **47**, 527-534.
18. Ibach F, Dyer RA, Fawcus S, Dyer SJ. (2007) Knowledge and expectations of labour among primigravid women in the public health sector. *South African Medical Journal*, **97**, 461-464.
19. Johnson R, Slade P. (2002) Does fear of childbirth during pregnancy predict emergency caesarean section? *British Journal of Obstetrics and Gynaecology*, **109**, 1213-1221.
20. Kershaw K, Jolly J, Bhabra K, Ford J. (2005) Randomised controlled trial of community debriefing following operative delivery. *British Journal of Obstetrics and Gynaecology*, **112**, 1504-1509.
21. Melander H. (2002) Experiences of fears associated with pregnancy and childbirth : a study of 329 pregnant women. *Birth*, **29**, 101-111.
22. Paarberg K, Vingerhoets j, Passchier J, Dekker G, Heinen A, van Geijn H. (1999) Psychosocial predictors of low birth weight: a prospective study. *British Journal of Obstetrics and Gynaecology*, **106**, 834-841.
23. Penley J, Tamaka J. (2002) The association of coping to physical and psychological health outcomes: a meta-analytic review. *Journal of Behavioural Medicine*, **25**, 598-599.

24. Ryding E. (1993) Investigation of 33 women who demanded a caesarean section for personal reasons. *Acta Obstetrica and Gynaecology*, **72**, 280-285.
25. Ryding E, Wijma B, Wijma K. (1997) Post traumatic stress disorder after emergency caesarean section. *Acta Obstetrica and Gynaecology*, **76**, 856-861.
26. Ryding E, Wijma K, Wijma B. (1998) Predisposing psychological factors for Post-traumatic stress disorder after emergency caesarean section. *Acta Obstetrica and Gynaecology Scandinavia*, **77**, 351-362.
27. Ryding E, Wijma B, Wijma K, Rydhstrom H. (1998) Fear of childbirth during pregnancy may increase the risk of emergency caesarean section. *Acta Obstetrica and Gynaecology*, **77**, 542-547.
28. Saisto T, Ylikarkala O, Hamesmaki E. (1999) Factors associated with fear of delivery in second pregnancies. *Obstetrics and Gynaecology*, **94**, 679-682.
29. Saisto T, Salmela-Aro K, Nurmi J-E. (2001) Psychosocial predictors of disappointment with delivery and puerperal depression: A longitudinal study. *Acta Obstetrica and Gynaecology Scandinavia*, **80**, 39-45.
30. Saisto T, Salmela-Aro K, Nurmi J, Halmesmaki E. (2001) Psychosocial characteristics of women and their partners fearing vaginal childbirth. *British Journal of Obstetrics and Gynaecology*, **108**, 492-498.

31. Saisto T, Salmela-Aro K, Nurmi J, Kononen T, Halmesmaki E. (2001) A randomised controlled trial of intervention in fear of childbirth. *Obstetrics and Gynaecology*, **98**, 820-826.
32. Saisto T, Halmesmaki E. (2003) Fear of childbirth: a neglected dilemma. *Acta Obstetrica and Gynaecology*, **82**, 201-208.
33. Sandelowski M, Holditch Davis D, Glenn Harris B. (1989) Artful design: Writing the proposal for research in the Naturalist Paradigm. *Research in Nursing and Health*, **12**, 77-84.
34. Sandelowski M. (1995) Qualitative Analysis: What it is and how to begin. *Research in Nursing and Health*, **18**, 371-375.
35. Sandelowski, M. (2000) Whatever happened to qualitative description? *Research in Nursing and Health*, **23**, 334-340.
36. Sjogren B, Thomassen P. (1997) Obstetric outcome in 100 women with severe anxiety over childbirth. *Acta Obstetrica and Gynaecology*, **76**, 948-952.
37. Sjogren B. (1997) Reasons for anxiety about childbirth in 100 pregnant women. *Journal of Psychosomatic Obstetrics and Gynaecology*, **18**, 266-272.
38. Sjogren B. (1998) Fear of childbirth and psychosomatic support. *Acta Obstetrica and Gynaecology*, **77**, 819-825.

39. Skinner E, Edge K. (2003) Searching for the structure of coping: a review of category systems for classifying ways of coping. *Psychological Bulletin*, **129**, 216-269.
40. Standley K, Soule B, Capans S. (1979) Dimensions of prenatal anxiety and their influence on pregnancy outcome. *American Journal of Obstetrics and Gynaecology*, **135**, 22-26.
41. Teixeira JMA, Fisk NM, Glover V. (1999) Association between maternal anxiety in pregnancy and increased uterine artery resistance index : cohort based study. *British Medical Journal*, **318**, 153-157.
42. Wadhwa P, Sandman C, Porto M. (1993) The association between prenatal stress and infant birth weight and gestational age at birth : a prospective investigation. *American Journal of Obstetrics and Gynaecology*, **169**, 858-865.
43. Waldenstrom U, Hildingsson I, Ryding E. (2006) Antenatal fear of childbirth and its association with subsequent caesarean section and experience of childbirth. *British Journal of Obstetrics and Gynaecology*, **113**, 638-646.
44. Wijma K, Sonderquist J, Wijma B. (1997) Post traumatic stress disorder after childbirth : a cross sectional study. *Journal of Anxiety disorders*, **11**, 587-597.
45. Wijma K, Wijma B, Zar M. (1998) Psychometric aspects of the W-DEQ – a new questionnaire for the measurement of fear of childbirth. *Journal of Psychosomatic Obstetrics and Gynaecology*, **19**, 84-97.

46. World Medical Association Declaration of Helsinki – Ethical principles for research involving human subjects. Adopted by the 18<sup>th</sup> WMH general assembly, Helsinki, Finland, June 1964, and amended by the 52<sup>nd</sup> WMH general assembly, Edinburgh, Scotland, October 2000.

University of Cape Town