“Labelled High-Risk”

Exploring perception of risk during childbirth in women with a BMI>35kg/m^2

Gail Norris

A thesis submitted in partial fulfilment of the requirements of Edinburgh Napier University, for the award of Doctor of Philosophy

July 2019

Declaration

This thesis is the result of my own independent work. The material contained in the thesis has not been presented, nor is currently being presented, either wholly or in part for any other degree or qualification.

Gail Norris

Acknowledgements

Special thanks must go to my supervisors, Professor Caroline Hollins Martin, Doctor Zoe Chouilara and Doctor Adele Dickson for their continuous support and encouragement during this study. Your comments and suggestions while writing this thesis have taken me far beyond my comfort level, and far beyond what I ever believed I could be capable of achieving. Sheena Moffat, thank you for your patience with my endless questions around Endnote.

A very special thank you also to my partner Alex, for your patience and support for a time consuming five years, and last of all to my gym friend's Emma and Gillian, whose running sessions I have dearly missed. Promise I am ready now to start again. I thought running a marathon was my greatest accomplishment, but this at times felt so much longer.

Abstract

This thesis reports on a qualitative exploration of the lived experience of seven pregnant women, medically classified as severely obese, and subsequently labelled as a high-risk pregnancy.

Aims:

- To explore perception of risk during childbirth in women with an increased BMI> 35kg/m^2.
- To explore how their childbirth experience and birth outcome impacts on risk perception over the pregnancy continuum.

Background: The concept of "maternal obesity" and "risk" is particularly pertinent to midwifery care today. It has been well documented that maternal obesity represents an increased risk of mortality and morbidity to both mother and baby, and as a result is classified as a "*high–risk*" pregnancy. This thesis draws on the influence of the French philosopher Foucault's work on governmentality, which encourages health care systems to introduce guidelines and interventions to regulate the obese pregnant body. Adjacent to this is an expectation that the "*good mother*" will conform to such guidelines, which recommend monitoring, regulation and disciplining of the body. In relation to this, the thesis focuses on the joint guideline: *CMACE/RCOG (2010) Management of Women with Obesity in Pregnancy,* and the *high-risk* pregnancy journey of seven pregnant obese women.

Methods: This is the only existing longitudinal qualitative study, using a hermeneutic phenomenological approach (IPA) has provided an in-depth exploration of the obese pregnant women's perception of their own risks. Seven pregnant women were recruited using purposive sampling, with data collected using semi-structured interviews conducted at 18 – 22 weeks, 34 – 36 week's gestation and 10 – 15 days postnatal. Datum was analysed using an Interpretative Phenomenological approach (IPA).

Findings: Analysis was performed, with four superordinate themes emerging from the results of this study. These included 1) *Choice, continuity and control,* where some of the participants expressed the need to feel in control of their birth experience, but once they started to experience complications they were more ready to relinquish responsibility to health care professionals. 2) *Me and my body,* where the participants own body image was not congruent with that of the obese body. Consequently, they rejected the obesity label. 3) *No risky talk,* which uncovered that despite being categorized as a "high-risk" pregnancy, the women were very aware that health professionals avoided any risk communication. 4) *Risk or no risk,* with this final theme concluding that in light of their own experience and what participants had observed in friends and family, that they were no more at risk of complications than women with a normal BMI. This thesis proposes a conceptual framework named "*my risky self*", which was developed from the four themes identified in this study. Current literature, which included cognitive heuristics, the psychometric model of risk perception and Cooley's (1902) looking glass theory, were applied as a new way of understanding risk perception in obese pregnant women.

Conclusion: The findings highlight the need for specific training for health professionals, and midwives in particular, which focuses upon developing knowledge around obesity related risks, support services available and weight management during pregnancy. Midwives also require more training in communication skills to support them to approach this sensitive subject more effectively and affectively

Contents

Table of Contents

Tables

Figures

Appendices

Glossary of Terms

Caesarean section: An operation whereby the fetus is extracted from the uterus through an incision made in the abdominal wall and uterine walls.

Diabetes mellitus: Insufficient secretion of insulin from the islets of the pancreatic cells. Symptoms include polyuria, weight loss, and thirst. Treatment is by administration of Insulin.

Fetal Macrosomia: Large baby >4kg.

Hypertension: Abnormally high blood pressure. A rise in blood pressure from a previously normal level.

Hypoglycaemia: An abnormally low blood sugar.

Instrumental delivery: Birth using forceps or vacuum extraction.

Large for gestational age: A baby who is larger or heavier than expected for its gestational age.

Multigravida: A woman that is or has been pregnant for at least a second time

Nulliparous: A woman who has never borne a child.

Parity: Refers to number of borne viable off spring.

Perinatal death: A perinatal death is a fetal death (stillbirth) or an early neonatal death.

Pre-eclampsia: A syndrome with three physical signs, which occurs only in pregnancy. Includes an elevated blood pressure, odema and proteinuria.

Preterm birth: Fetus born before 37th completed week.

Primigravida: A woman who is pregnant for the first time.

Postpartum haemorrhage: Haemorrhage from the genital tract, which measures 500ml or more, occurring within the first 24 hours following giving birth.

Thromboembolism: Formation of a clot that blocks a blood vessel.

Chapter One: Introduction

1.1 Introduction

"Fatter than the norm" (Parker, 2017, p. 25).

This study is concerned with the issue of obesity during pregnancy and the intrauterine and post-partum risks it poses to both mother and baby. The aim was to develop an understanding of the lived experience of women, medically classified as obese, and subsequently being labelled as a "*high–risk*" pregnancy. The longitudinal nature of this study has also presented a unique opportunity to explore the impact of the birth outcome on each woman's perception of risk. The qualitative approach taken, Interpretative Phenomenological Analysis, has afforded the opportunity to view the perception and impact of what *high-risk*, means through the lens of the women involved in this study.

This chapter provides a discussion of the ontology of the obese pregnant body, constructed through risk discourse, public health and risk strategies. The focus and background of this longitudinal study explores and analyses the present day context of the experiences of obese women within maternity services in Scotland and the UK. I will also provide an overview of my own prior assumptions and ontological position for consideration at the beginning of this study. This chapter will set the scene for the literature review, which follows in the next chapter.

1.2 My ontological position as a researcher

"Exploring myself"

I trained as a Registered Nurse between 1987 and 1990 and then worked briefly as a staff nurse before training to be a midwife between 1991 and 1993. My first training commenced when I was aged seventeen years and

six months. I never really wanted to be a nurse, but this was the only route in Scotland to become a midwife. Hence, by the age of twenty-one years I was a dual trained health professional which includes being both a registered nurse and midwife. Upon reflection, I never at this early age questioned the professional responsibility I had for mother and baby. This was just something that I had been trained to accept. At the age of twenty-one, I gained employment as a staff midwife within a district hospital in central Scotland. I remained employed within this hospital for the next ten years as a midwife, and within this period I worked for a two-year period in a Special Baby Care Unit. The last five years of my clinical practice, I was based within a Team Midwifery Model, which was essentially a team of seven midwives who were responsible for all pregnant women within a geographical area who booked to give birth at the local maternity unit. Our team provided 24-hour hospital and community cover, which meant that we provided all the antenatal, intrapartum and postnatal care to these women. This provided an excellent opportunity to develop a close trusting relationship with these women and their families throughout their pregnancies. As a midwife, this experience of holistic care provided me with great personal satisfaction. To be part of this special time is a very privileged position to hold.

Not all pregnancy outcomes within the team environment were positive, but the relationship that developed made caring for women who had experienced a poor pregnancy outcome, such as a stillbirth, neonatal death or a traumatic birth experience more manageable. In many ways, because I had become immersed in this very intimate pregnancy experience, I felt that I was almost sharing the embodied experience with the woman. Most of the women I attended did in subsequent pregnancies have a good pregnancy outcome. The subsequent pregnancy post stillbirth could however be a very fraught experience for those mothers who were re-living the experience of their first pregnancy. These women lived nine months with the risks that overshadowed their first pregnancy.

Obesity during my clinical experience as a midwife was evident, but not to the extent of the rising figures seen today. Pregnant obese women are required to live with the risks of poorer maternal or neonatal outcomes compared with those with a BMI within normal range. My concerns revolved around the way by which these women were made aware of the obstetric risk factors associated with their obesity and how they perceive their own personal risk. In my own experience most women with high-risk pregnancies appear to accept medical advice and seldom question their risk status or care pathways. Upon reflection and on very few occasions did I stop to think about how these women perceived their risk status. This reflection has brought me to the point of this study. That is, how do women with obesity live with the experience of being labelled high - risk? As an academic within the field of midwifery education, I am in a fortunate position given that this PhD thesis afforded me the opportunity to explore this embodied high-risk phenomenon.

1.3 Overview of obesity

This first section provides an overview of obesity and its associated medical conditions, before presenting an account of maternal obesity.

The term obesity is used to define an accumulation of excess fat (Butland et al., 2007). It is a complex problem attributed to an individual's biological susceptibility, and a changing environment that includes more sedentary lifestyles and increased dietary abundance (Butland et al., 2007).The term obese comes from the Latin word "*obdere*" "to *eat up" " to devour*". The term itself is recognized by Gard and Wright (2005) as morally laden, as it implies that overweight people over indulge in calorie intake. Consequently, to be labelled as obese brings weight stigma, precisely because this term is often used as a judgment of behaviour and physical appearance (Butland et al., 2007). Hence, I use the term *obese* tentatively throughout this thesis to reflect medical/scientific discourse, and not to place a value judgment or to describe physical appearance.

The UK currently classifies obesity using the World Health Organization (WHO) (2018) body mass index (BMI). The BMI devised by Quetelet over 150 years ago is calculated as weight (kilograms) divided by the square height (metres):

Body Mass index (BMI) = weight (kilograms) ÷ height^2 (metres) = kg/m^2

The BMI classifications from the WHO (2018) can be viewed in the following (Table 1):

BMI Classifications	
Normal	18.5 - 24.9
Overweight	25 - 29.9
Obese	30 - 34.9
Severely Obese	35 - 39.9
Morbid Obese	40+

Table 1.World Health Organization BMI classifications (WHO, 2018)

In the UK, an additional BMI category is often used (BMI>50), which is defined as “super morbidly obese” or “extreme obesity” (Heslehurst, 2011, p. 2).

It is worth noting, that prior to 1999 a BMI of 29kg/m^2 was considered overweight, but now a BMI above 25kg/m^2 is deemed indicative of an adult being overweight. According to Lupton (2013), this definition was based on an arbitrary decision, which has resulted in many more people being designated as obese. Consequently, individuals deemed overweight or obese become subject to public health efforts to lose weight and become normal weight (Gard & Wright, 2005). In this respect, Lupton (2013) contends that the BMI is not value free in its meaning and use. Indeed, critics would view this as a regulatory measure used to regulate undisciplined bodies (Gard & Wright, 2005).

The BMI is currently used as an arbitrary cut off point, which remains a contentious issue, because it does not distinguish fat from muscle mass (Keenan & Stapleton, 2010). An individual with a BMI of 30 is considered obese, yet many are physically fit individuals. The calculation of the BMI does not reflect differences in body fat distribution, as individuals with increased abdominal fat and waist size are at greater risk of cardiovascular and metabolic diseases (Klein et al., 2007). Being cognizant of the fact that the BMI thresholds are being calculated for predominantly white Caucasians populations, this implies that the BMI calculation may be inappropriate for other ethnic groups. In particular, the Asian population tends to have a higher percentage of body fat at a lower BMI than Caucasian people of the same age, sex and BMI (Richens & Lavender, 2010).

The rapid increase in the number of obese people in the UK is a major challenge, with over half of the UK adult population, (60% of males and 50% of females) projected to be obese by 2050 (Butland et al., 2007). As a consequence, chronic illnesses attributed to obesity, such as type 2 diabetes, stroke, chronic heart disease, metabolic syndrome and cancer will continue to rise, which subsequently, will put more pressure on NHS resources (Butland et al., 2007). With costs to the NHS predicted to rise to 9.7 billion by 2050 (Butland et al., 2007), the growing concern for this obesity epidemic has meant that it has become a significant public health issue of concern.

In response, the UK Government's Foresight programme in the Government Office for Science has produced a report named "Tackling Obesity: Future Choices", in an attempt to tackle obesity in the UK over the next 40 years.

1.3.1 Obesity – A Global Concern

The prevalence of obesity is not only a UK concern, but also a growing global concern. In 2016 more than 1.9 billion adults aged 18 years and older were overweight (WHO, 2018). Of this number, over 650 million adults were labelled obese. Overall, about 13% of the world's adult population (11% of men and 15% of women) were labelled obese in 2016. As a result, the worldwide prevalence of obesity nearly tripled between 1975 and 2016 (WHO, 2018).

To contextualize this concern, in Scotland, adult obesity is measured as part of the Scottish Health Survey. The 2016 edition of this survey found that 29% of people aged 16 or above in Scotland were labelled overweight or obese. Obesity rates were similar for men and women (Scottish Government, 2016). The figures for obesity have remained static since 2008, however the mean BMI has risen from 27.1 to 27.7 since 2003 (Scottish Government, 2016).

The UK priority in tackling obesity has been focused upon childhood obesity, because it is a known precursor to adult obesity (Heslehurst, Rankin, Wilkinson, & Summerbell, 2010).This makes those labelled as a group particularly at risk of health issues in the future. The Foresight Report (Butland et al., 2007) has predicted that by 2050, 70% of girls could be overweight or obese, with only 30% in the healthy BMI range. Hence, the future challenge will not only be the reproductive health of these girls, but also the financial impact on maternity and neonatal service provision. Understandably, maternal obesity has now become an area of growing health concern, and therefore is the focus of this thesis.

1.3.2 The Focus of Obesity in Pregnancy

> "*Obesity is arguably the biggest challenge facing maternity services today. It is a challenge not only because of the magnitude of the problem...but also because of the impact that obesity has on women's reproductive health and that of their babies*". (Heslehurst, 2011, p. 439)

To put this statement into perspective, there is an increasing trend towards obesity in early pregnancy. For example, data collected during the period of April 1st 2015 and March 31st 2016, revealed that in women booking with the midwife for the first time, half of these pregnant women (47.3%) in England, Scotland and Wales had a body mass index within the normal range (BMI between 18.5 and 25). 21.3% had a booking BMI of 30 or over (Royal College of Obstetricians and Gynaecologists, 2017).

Maternal obesity in the UK reflects socio–demographic inequalities, in particular relating to deprivation, ethnic group and unemployment (Heslehurst et al., 2010). Obese women are more likely to be living in areas of social deprivation (Butland et al., 2007; Heslehurst et al., 2010), with the incidence of obesity varying by ethnic group, with a higher prevalence in Black Caribbean, Black African and Pakistani women (Heslehurst et al., 2010). Maternal obesity has also been associated with increasing maternal age and parity, with more women with extreme obesity more likely to be unemployed (Heslehurst et al., 2010).

The rise in obesity in early pregnancy has health implications for both the mother and baby. It has been well documented that maternal obesity poses as a risk factor during the antenatal, intrapartum and postnatal period. In comparison to women of normal weight, pregnant obese women have a higher risk of gestational diabetes (Andreasen, Andersen, & Schantz, 2004; Marchi, Berg, Dencker, Olander, & Begley, 2015; Scott-Pillai, Spence, Cardwell, Hunter, & Holmes, 2013) and subsequent development of diabetes mellitus (Linne, 2004), hypertension, pre–eclampsia,

thromboembolism and an increased risk of miscarriage (Linne, 2004; Scott-Pillai et al., 2013). During labour, obese women have an increased risk of having a caesarean section, instrumental delivery, postpartum haemorrhage, and of developing a wound infection (Marchi et al., 2015; Scott-Pillai et al., 2013). Maternal obesity is also linked with increased risks to the baby, which include pre-term birth, having an infant which is large–for-gestational age and at a greater risk of developing defects and congenital anomalies (e.g., spina bifida and heart defects). As such, they are more likely to encounter risk of perinatal death (Heslehurst et al., 2008; Marchi et al., 2015; Scott-Pillai et al., 2013). The retrospective study by Scott-Pillai et al. (2013) demonstrated the relationship between an increasing BMI and increases in adverse outcomes, and the link between an increase in parity and maternal age. Such adverse outcomes can result in prolonged hospital stays for women and increased admission of babies into neonatal units, which has its logistical challenges for providing safe care and as stated previously, financial implications on the NHS Trusts/Health Boards (Heslehurst et al., 2008).

1.3.3 Medicalization of obesity – maternal responsibility?

The medicalization of the term obesity took place through the popularization of the term *obesity* (Gard & Wright, 2005). Within the context of biomedical and public health discourses it is constructed as a disease, which is attributed to the individual and their life style choices, and as a result health strategies target individuals behaviour (Gard & Wright, 2005).

In view of the obesity-associated risks to mother and baby, Heslehurst et al. (2015) acknowledges that there has been a heightened policy response to maternal obesity, since 2010. There has been publication of two sets of national guidelines, namely 1) Centre for Maternal and Child Enquiries/Royal College of Obstetricians and Gynaecologists (CMACE/RCOG) *Management of Women with Obesity in Pregnancy* (Modder & Fitzsimons, 2010), and 2) the National Institute for Health and Clinical Excellence *Weight Management Before, During and After*

Pregnancy (National Institute For Clinical Excellence, 2010). These guidelines emphasize the importance that is being placed on not only safeguarding the health of obese women, but also the health of their off–spring. Blincoe (2006) recognizes, these propositions, and in response places a considerable responsibility on the woman as a mother. The pregnant female is not only tasked with securing the health of her baby before it is born, but as Parker (2017) highlights also the health of the nation.

McNaughton (2011) highlights that obese woman with increased BMI's are singled out in obesity discourse as being responsible for the body size and weight of their offspring. It has also been reported that women who are overweight or obese are future programming their baby's health (McNaughton, 2011). Smith, Hulsey, and Goodnight (2008) stipulate high pre-pregnancy or early pregnancy weight of the mother as a likely determinate of raised birth weight and infant and adolescent obesity. In other words, the most significant predictor of childhood obesity is parental obesity (Butland et al., 2007). Studies have demonstrated that obesity negatively affects both the initiation and duration of breastfeeding, with fewer obese women likely to initiate breast-feeding. Obese women are also at a greater risk of early cessation of breastfeeding (Donath & Amir, 2000; Marchi et al., 2015).

Yet and in contrast, breastfeeding has been shown to have a positive impact on childhood obesity, and it has been suggested that women should be encouraged to breastfeed as part of a wider lifestyle intervention to reduce childhood obesity (Grube, von der Lippe, Schlaud, & Brettschneider, 2015; Wallby, Lagerberg, & Magnusson, 2017). Consequently, the accumulation of all these risks to both mother and baby has led to the classification of obese women as a high-risk group.

For the purpose of this study, high-risk pregnancy is defined as a pregnancy in which the health or life of the mother or baby is jeopardized due to a disorder coincidental with or unique to pregnancy (Richter, Parkes, & Chaw-Kant, 2007). Risk is defined as the possibility of loss or injury (Oxford

English Dictionary, 2018) and perception is defined as beliefs about potential harm (Brewer et al., 2007).

1.3.4 Neoliberalism – the good, the bad, and the risky mother

Risk is a central discourse in relation to pregnancy. Indeed, maternity care is recognized as a high–risk specialty, in view of the severity of the outcome if complications arise (Bryers & Van Teijlingen, 2010). To be classified as high–risk reinforces the maternal responsibility of obese women (Parker, 2017) given that the woman is no longer a single body, but one that cocoons and nurtures another human being (Lupton, 1999a). The more pregnant a woman becomes, the more subject she becomes to advice of others, with much of this advice directed towards containing the risky body (Lupton, 1999a). Beck's (1992) concept of contemporary risk society includes the process of individualization (Sørensen & Christiansen, 2012), which involves the individual assuming agency and responsibility for their own lifestyle, decisions and choices. Lupton (2012b) highlights the negative side of mothers incurred responsibilities, which involves being blamed when obstetric or neonatal complications arise. Dominant obesity discourse also draws upon a neoliberal notion of individualization, which positions obese women as responsible for self and their baby, and therefore their risky behaviours.

Similar to Lupton (1999a), such discourse reinforces the pregnant women as doubly responsible for her own body, and that of her baby. This means that her choice to engage in overeating habits is directly associated with the health of her baby (Lupton, 1995), which in turn creates an environment where blame is placed on the woman, and adds fuel to the testimony of her being a "bad mother". This blame culture can in turn impact upon mothers questioning their own ability to mother and care for their unborn baby (Parker, 2017).

Risk is a pivotal discourse in strategies of normalization. That is, to be labelled as high-risk compared with others is akin to be singled out as

requesting expert advice, surveillance and intervention (Lupton, 1999a).The centrality of risk in relation to the French philosophers Foucault's work on governmentality, calls on the efforts of the state and government agencies to discipline and normalize individuals in order to render them productive bodies. Such normalization involves gathering data in relation to population e.g., obese populations, and subjects them to statistical analysis and comparison with other groups. Consequently, the obese population who fall outside the norm are encouraged to engage in practices such as healthy eating to bring them back into the norm. Indeed, government health strategies emerging from public health and health promotion are directly aimed at controlling deviant bodies and bringing them back into the norm (Lupton, 1999a). In response, Parker (2017) acknowledges that health systems have responded to the obesity problem through introducing guidelines and interventions to regulate and govern the obese pregnant body. As noted previously, Foucault's concept of neoliberalism focuses on the responsibility to conform, with the expectation that the "good mother" will conform to the monitoring, regulation and disciplining of their bodies (Lupton, 2012b).

1.3.5 **Regulation of the obese pregnant woman - Deconstructing the CMACE / RCOG Guidelines (2010) – Management of Women with Obesity in pregnancy**

The risk management culture has been embedded within the maternity services since the early 1990s (McGlone & Davies, 2012). The aim of risk management is to increase safety by predicting and averting risk (McGlone & Davies, 2012). The National Health Service has formalized and has put risk management systems in place, instigated by the National Health Service Litigation Authority (NHSLA). These were set up in 1995. From the National Health Service Litigation Authority (NHSLA) emerged the Clinical Negligence Scheme for Trusts (CNST) in England and Clinical Negligence and Other Risks Indemnity Scheme (CNORIS) in Scotland and in Wales, and the Welsh Risk Pool (McGlone & Davies, 2012). These insurance schemes reward maternity units for meeting risk management standards.

The National Patient Safety Agenda was also set up in 2001 to coordinate all aspects of safety in healthcare systems.

The NHS Litigation Authority recognizes obesity for Health Boards/Trusts as a high-risk condition. Obesity in pregnancy and the impact that it has on both mother and baby has become an area of concern, so much so that now NHS Health Boards/Trusts must demonstrate the actions they are taking to reduce the risks for obese women (McGlone & Davies, 2012). As a result, the NHS Litigation Authority (NHSLA)'s Clinical Negligence Scheme for Trusts, requires that all NHS trusts implement local guidelines based on the recommendations of the aforementioned joint guidelines, CMACE/RCOG *Management of Women with Obesity in Pregnancy* (Modder & Fitzsimons, 2010).

This thesis particularly focuses on the joint guideline: CMACE/RCOG *Management of Women with Obesity in Pregnancy* (Modder & Fitzsimons, 2010), which was created by the Centre for Maternal and Child Enquiries (CMACE) and Royal College of Obstetricians and Gynaecologists (RCOG). This standardized guideline is based on standards of care developed as part of a national enquiry project on Obesity in Pregnancy conducted by CMACE and funded by the National Patient Safety Agency (*See Appendix 1*). The aim of this publication and guideline has been to offer guidance on the management of obese women throughout the pregnancy journey. This guideline provides guidance on all aspects of pregnancy in relation to obesity, including antenatal care provision, risk assessment, maternal surveillance, and planning labour and delivery. These guidelines are categorizing women as obese at their first booking appointment, according to the BMI classification system, which has previously been identified as fundamentally flawed (Parker, 2017). Heslehurst (2011) also acknowledges that despite the increased prevalence and concentrated focus on obesity, there are still no internationally agreed definitions for diagnosing maternal weight status and associated risks. This also means that the evidence base for obesity-associated risks are based on an early pregnancy BMI (Heslehurst, 2011), with this system not taking into account women who

may have an acceptable weight in early pregnancy, but have excessive weight gain during pregnancy, thus exposing them to the same risks associated with those categorized as obese at booking.

1.3.6 "Labelled High- Risk"– Implications for midwifery care

Being labelled as a high–risk pregnancy has important consequences for women, particularly in relation to the way in which their pregnancy is managed. Scamell and Alaszewski (2012) purport that there are two principals in which a birth is categorized as high-risk. If the mother has certain characteristics that place her in a high–risk category or alternatively the decision is made during the birth process. The maternity care system manages clinical risk by placing obese women into the *high-risk* category at the time of booking, where the woman's height and weight is measured, and her BMI is calculated. Following on from this, the woman's care plan is subsequently devised. For those women with a normal BMI, the midwife assesses each woman's medical, family and past obstetric history, and those deemed suitable for midwife led care are labelled *low-risk.* Whereas in Scotland, those obese women with a BMI > 35kg/m^2 would be labelled *high-risk* and are not offered the choice of midwife led care. Instead, they are routinely managed as a high-risk group, within a medical model of care that ensures closer surveillance led by a consultant (NHS Quality Improvement Scotland, 2009). Continuous risk assessment allows women to move between risk levels. For example, a woman deemed low-risk might develop complications which means that she becomes high–risk. Observably, women deemed high-risk never appear to move into the low-risk pathway. Once deemed high–risk, that is where their categorization remains. The implications of a high-risk label are outlined in Table 2.

Table 2. *Accepted notions of social and medical models of childbirth (Bryers & Van Teijlingen, 2010)*

Social Model	Medical Model
Physiologic, natural-pregnancy & birth as "normal" natural life event: all will be well until something goes wrong	**Scientific-**pregnancy and birth can only be normal after the event when nothing has gone wrong
Art-intuitive , holistic	**Medical**–aims to reduce maternal and infant mortality: to cure rather than prevent
Social–family and community orientated: health and social care should not considered separately	**Medically–led-**professional in charge of pregnancy
Holistic approach-acknowledgement of link between social structures and health care to attain state of well – being	**Control**–birth in hospital enabled medical staff to be in control of the birth
Qualitative-importance of a good experience for women and their family Subjective	**Quantitative**-task orientated: checking–such as observations
Intuitive-rely on experience, relationships and instinct as to what is right or wrong	**Treat the problem**-treatment of the disease(pregnancy) rather than care of the whole: anticipate problems
Environment-central to model	**Environment-**peripheral to the model
Local community focus/ environment- central to model – women give birth at home or in local community, supported by friends and family ; her choice	**Centralized hospital maternity services** – birth in hospital seen as the safe option
Spiritual-part of the wider culture	**Interventionist-**doing things to help women
Outcome-aims at live healthy mother, baby and satisfaction of mother/ family	**Outcome**–aims at a live healthy mother and baby

1.3.7 Social or medical model of maternity care

The social model of care is founded on the notion that birth is a natural process, with little or no intervention required. Whereas the medical model of childbirth is founded on the premise that childbirth is normal in retrospect, and needs medical control and monitoring, with early intervention to ensure safety of both mother and baby (Bryers & Van Teijlingen, 2010). The medical model of care can be aligned to governmentality and the need of the government, medical staff and risk management systems to improve the health of the nation (Bryers & Van Teijlingen, 2010).

One criticism of using standardized local guidelines (*see Appendix 2*) that are based on the standardized CMACE/ RCOG (2010) guidelines (Modder & Fitzsimons, 2010), is that they are managing groups of women as a group with little concern for personal choice (Ahluwalia, 2015). Such guidelines take a *one size, fits all* approach and assumes that all obese women will experience complications. The government's attempt to regulate these women using standardized guidelines is in fact restricting their choices of care by excluding them from normal childbirth (Ahluwalia, 2015). This is reflected in the CMACE/RCOG (2010) guidelines (Modder & Fitzsimons, 2010), which recommend that women with a BMI > 35kg/m^2 should give birth in a Consultant led unit. These national and local guidelines remove the women's choice of place of birth, by dictating where the women will give birth.

Such categorization excludes such women from homebirth, birthing centers and water birth. Hollowell et al. (2014) contest this guideline that is based on the results of their study, using data from the Birthplace study (n = 79 774) births between April (2008) and April (2010). This study examined the data of (n = 17 230) women without medical or obstetric risk factors outside obesity, who gave birth in an obstetric unit. The study measured outcomes such as maternal interventions, such as argumentation of labour, instrumental delivery, intrapartum caesarean section, blood transfusion, incidence of 3rd / 4th degree tears, neonatal unit admissions, and perinatal

death. Results of the study concluded that obese multiparous women who did not have additional risk factors (e.g, diabetes), when compared with women of normal weight, have lower obstetric risks than previously thought. In-fact, more non-obese nulliparous women required obstetric interventions. Hence, Hollowell et al. (2014) suggest reviewing guidelines for planned birth in non-obstetric units. This refutes the *one size fits all approach*. Parity should also be taken into consideration when reviewing risks associated with birth (Hollowell et al., 2014).

As previously stated, the label of high–risk signifies a childbirth journey for women, which involves closer medical surveillance. These guidelines subject obese women to a standardized glucose tolerance test, which again presents the message to women that they are likely to experience complications (Modder & Fitzsimons, 2010). Women with a BMI >40kg/m^2 should have an antenatal consultation with an obstetric anaesthetist so that potential difficulties with venous access, regional or general anaesthesia can be discussed. In reality, often women are unaware that they have been referred, and see the reason for this being to promote an epidural for pain relief in labour (Furber & McGowan, 2011). These guidelines also recommend that women with a BMI > 40kg/m^2 should have venous access established in early labour.

Smith and Lavender (2011) carried out a meta-synthesis of obese women's experiences of maternity care, and highlighted that many felt depersonalized by the medicalized care they received. In Nyman, Prebensen, and Flensner (2010) phenomenological study, which focused on obese women's encounter with midwives and physicians during pregnancy and childbirth, some women found that caregivers tended to focus on the body and risks and not holistically on the woman as a person, which resulted in obese women assimilating that they perceived themselves to be high-risk statistical complications waiting to happen. These women felt helpless and disappointed when caregivers did not focus on their personal needs and wants. Some women in this study felt disrespected when they were not involved in their care plans, which raised feelings of being ignored.

The majority of these women simply wanted to feel like normal pregnant birthing women. Instead they were left with negative emotions, such as guilt due to obesity and in fear of their own and their infants' life.

1.3.8 Medical Model of Midwifery Care - focus on risks

The whole pregnancy experience becomes a medical risk for obese women, because guidelines stipulate that discussion about obesity associated risks should take place at the booking clinic when the woman meets with the midwife for the first time (Modder & Fitzsimons, 2010). Whereas, it could be argued that good practice at the booking clinic would be to instigate discussion with the woman about, (1) what constitutes midwife led care for low-risk women? (2) what constitutes consultant led care for high-risk care?,and (3) what birthing options are open to the woman? Instead the midwife's first encounter with the woman involves promoting the measurement and classification of the pregnant body, followed by a negative discussion with the woman of the risks associated with obesity in pregnancy (Jette & Rail, 2013). Nonetheless, many women remain unaware of the associated risks, and at the same time and because of this guideline, they become subjected to a medical model of care (Heslehurst, Lang, Rankin, Wilkinson, & Summerbell, 2007). In reality, many midwives feel at the first point of contact that pregnant women should be developing a trusting midwife–woman relationship. At this time, some midwives are apprehensive to discuss the delicate issue of obesity and associated risks in case it will stigmatize, scare or blame women (Heslehurst et al., 2013).

Furber and McGowan (2011) carried out a qualitative study that explored obese women's experience of pregnancy, and reported that some obese women felt humiliated during encounters with health professionals, because the focus of care was about personal weight and not upon personal needs, wants and desires. The increased medical surveillance often resulted in upset and humiliation, especially around the issue of ultra sound scanning. Sonographers often report difficulty with visualization of the fetus. Fetal macrosomia is a risk factor that is commonly associated with obesity (Scott-

Pillai et al., 2013) with fetal growth scans used to estimate fetal growth rate. Although this it is not an accurate method of estimating fetal weight, obese women are requesting elective caesarean sections based on these findings. Edwards (2000) acknowledges that when women are placed in such a position, they are often accepting of the medical model of care and do not express their own views simply because they think *health professionals know best.*

1.3.9 Women Centered Care - Choice, Continuity and Control

Primarily the Changing Childbirth Report in (Department of Health 1993) advocated provision of a women centered service for all women. This is a model in which each individual woman is provided with choice and control over her birth. The Changing Childbirth Report has since profoundly influenced the philosophy of delivering maternity care in the UK. Providing choice, continuity and control was to be achieved by working in partnership with health care professionals and through being involved in the decision-making concerning their pregnancy and birth. However, there is an expectation placed on all pregnant (and especially high-risk obese) women that they will fully comply with standardized guidelines. Yet, if they are not fully aware of risks or do not have any in-depth discussions with health care professionals, how can they give informed consent to any care or exercise choice? Instead, they are expected to accept the assigned high–risk care pathway, and through agreeing to increased medical surveillance believe they will achieve safer birth (Symon, 2006). There is an assumption that women will accept that carrying excess weight is harmful and that they will respond unproblematically to weight related advice and interventions by adopting the recommended behaviour changes, that lead to improved health outcomes (Parker, 2017).

The rhetoric of choice and control appears to promise autonomy, yet Symon (2006) believes that the obstetric focus on risk can be experienced as both pervasive and disempowering, whilst undermining the woman's confidence in her ability to birth her baby.

1.4 Study Rationale

Women's perception of risk affects the decisions they make during pregnancy (Jordan & Murphy, 2009). Yet, with a rising population of obese pregnant women in the West, there is little evidence to date regarding obese women's perception of risk. This thesis argues that we cannot deduce our understanding of pregnancy and the complexities of obesity into simple guidelines that women are expected to comply with. Rather than just managing the risk, and assuming compliance, I will argue that we need first to understand the women's perception of her risks associated with obesity during pregnancy. We need to understand the cultural and social context of the woman's risk perception, as well as how that is influenced by family and peers. This thesis will argue that the lack of risk awareness and agreement over risk may be a fundamental flaw underpinning failure to comply with care management and behaviour change interventions. *Chapter two* will consider this in more detail, and within the context of obesity as a high-risk pregnancy.

1.5 Context of the study

This study is set against a backdrop of increasing public health concern about maternal obesity and its impact on pregnancy and perinatal outcomes. This study is timely precisely because of the results of the review of maternity and neonatal services in Scotland that were announced in 2017 (Scottish Government, 2017). The aim of this report was to ensure that every mother and baby continues to get the best possible care from Scotland's health service, which gives all children the "*best start*" in life. The review examined choice, quality and safety of maternity and neonatal services in consultation with the workforce, NHS Boards and service users.

To summarize this review, the report, "*The Best Start: A Five Year Forward Plan for Maternity and Neonatal Care in Scotland*" (Scottish Government, 2017) has made seventy-six recommendations. The following are of particular relevance to this study,

- Recommendation 1. Every woman will have continuity of carer from a primary midwife who will provide the majority of their antenatal, intrapartum and postnatal care and midwives will normally have a caseload of approximately 35 women at any one time. Where women require the input of an obstetrician in addition to midwifery care, they should have continuity of obstetrician and obstetric team throughout their antenatal and postnatal care.
- Recommendation 11. The 2009 Pathways for Maternity Care should be revised at a national level to facilitate an individualized approach to the management of risk through the development of a personalized care plan, which is assessed regularly.
- Recommendation 24. New Model of continuity of carer and community hubs and enhanced care will provide breastfeeding support.

These recommendations in light of the findings from this study are discussed further in *Chapter five.*

This study seeks to provide insight into the lived experiences of obese pregnant women in the current maternity system in Scotland, before the implementation of the "*Best Start*" recommendations.

1.6 Structure of the thesis

This thesis presents the results of an interpretative phenomenological analysis into the lived experience of obese pregnant women labelled as high–risk.

Chapter Two presents a review of both the literature on the understanding and perception of risk associated with obesity and pregnancy, and women's perception of high-risk. The literature review outlines the strategies used to inform the search of literature, and it concludes with aims for the study based upon gaps identified from current research

Chapter Three describes the research methodology employed in this study, along with key ethical considerations. This includes a critical discussion on the rationale for the choice of methodology and research design.

Chapter Four explores the master themes identified which includes 1) Choice, continuity and control, where the participants expressed the need to feel empowered and in control of their birth experience, but were ready to relinquish responsibility to the health care team when faced with complications, 2) No risky talk, where the participants experienced dissonance between their high-risk label, and lack of risk communication from health care professionals,3) Me and my body, which revealed that the participants own body image was not congruent with that of the obese body, and finally 4) Risk or no risk, whereby at the end of this study, all participants refuted their high–risk status.

Chapter Five presents a discussion of the results within the context of extant literature, theory and midwifery practice. A reflexive analysis of the research methodology, strengths and weakness of the approach used is provided. This chapter will conclude with a summary of the main arguments of this thesis, highlighting recommendations for practice and research.

The concluding *Chapter Six* provides some personal reflections on my journey as a reflexive researcher.

Chapter Two: Literature Review

"The risk laden pregnant body"

"The tendency has been…. Increasingly to define every aspect of pregnancy and birth in terms of risk in a mistaken attempt to cover all possible eventualities. In this sense, the entire female body has become risk – laden" (Murphy - Lawless, 1998, p. 21).

2.1 Introduction

Chapter One outlined the context of this study, and implicated obesity as both a public health issue and as a risk factor for pregnancy. *Chapter Two* will now report the findings of this systematic narrative literature review, and embed the current study within the relevant research. The literature review has been organized into two sections, the first will examine risk perception in studies related specifically to maternal obesity, as potentially creating a high–risk pregnancy, and the second will identify literature related to risk perception in all high–risk pregnancies. A review of all current literature will identify current knowledge and detect gaps. The chapter will conclude by summarizing key points and provide a justification for the focus of this study.

Following guidance from Munhall (2001) the literature review was delayed until after the data for this study was analyzed. This was to avoid influencing the data analysis, consequently ensuring that I stayed as close as possible to the participants' narrative and true to the epistemological approach of the method of enquiry employed. An initial scoping review provided an overview of the literature in relation to the experience of obese women within the maternity care system. This enabled the identification of a gap in the existing research and permitted the formulation of a research question, and a broad search strategy (Aveyard, Payne, & Preston 2016).

The initial scoping of the literature was conducted in relation to obese women's perceptions of their risk. The search terms used included *obesity* + and *pregnancy*+ *risk** or *percept* or attitud**, to search the following databases: Medline, CINAHL, Psychology and Behavioural Sciences and PsycINFO. 568 articles were identified, however there was an abundance of literature that related to the physical risks that obesity during pregnancy posed to the mother and baby, but only one study related to the woman's own perception of her risks. This signified a paucity of literature in relation to this area of interest. Google scholar was also utilized during the scoping search and identified a further four related studies. Medline and CINAHL alerts were used over a period of one year to alert to any new research, but did not identify any new research studies. Because of this, the decision was taken following consultation with the Director of Studies, to search for literature that addressed a parallel area (Aveyard et al., 2016). Consequently, to understand the lived meaning of a pregnancy labelled high-risk, this literature review includes literature in relation to all high-risk pregnancies. This enabled this present study to draw a parallel with the risk perception of those women who experience any condition that categorizes their pregnancy as high-risk. This literature review includes all studies that have included a measure of risk perception, either as the main issue studied or as an element of the study. This chapter will now explore the findings of the literature review that supports this study, and will draw on a variety of theoretical theories to guide an understanding of how women assess and perceive their risk.

2.2 Search strategy

This narrative review involved a systematic search of the literature, involving a broad search of not just primary research, but also theoretical or conceptual research, and any government reports or grey literature that was deemed relevant (Coughlan, Ryan, & Cronin, 2014). The primary search method was a review of the medical and psychological literature conducted between September 2017 and Septembers 2018 using the following databases. The rationale for selecting each of the databases follows:

- CINAHL (Cumulative Index to Nursing and Allied Health Literature): provides a robust collection of full text for nursing & allied health journals, providing full text for more than 770 journals indexed in CINAHL®. This authoritative file contains full text for many of the most used journals in the CINAHL index, with no embargo. CINAHL Plus with Full Text is the core research tool for all areas of nursing and allied health literature.
- The Cochrane Library: Includes systematic reviews and meta-analyses of high quality medical research
- Embase: This is a biomedical database. It covers the most important international biomedical literature from 1947 to the present day.
- Medline: provides authoritative medical information on medicine, nursing, dentistry, veterinary medicine, the health care system, pre-clinical sciences, and much more. Created by the National Library of Medicine, MEDLINE uses MeSH (Medical Subject Headings) indexing with tree, tree hierarchy, subheadings and explosion capabilities to search citations from over 5,400 current biomedical journals
- PsycINFO: The PsycINFO®, database, American Psychological Association's (APA) renowned resource for abstracts of scholarly journal articles, book chapters, books, and dissertations, is the largest resource devoted to peer-reviewed literature in behavioral science and mental health. It contains over 3 million records and summaries dating as far back as the 1600s with one of the highest DOI matching rates in the publishing industry. Journal coverage, which spans from the 1800s to the present, includes international material selected from around 2,500 periodicals in dozens of languages.
- Psychology and Behavioural Sciences Collection: This is a comprehensive database covering information concerning topics in emotional and behavioral characteristics, psychiatry & psychology, mental processes, anthropology, and observational & experimental

methods. This is the world's largest full text psychology database offering full text coverage for nearly 400 journals.

The selection of databases and key words were identified with assistance from the subject specialist librarian. The key words used to search are included in the search history (see *Appendix 3*). Once key authors were identified, search alerts were used to identify any further relevant literature.

Inclusion and exclusion criteria

Inclusion and exclusion criteria were set to determine paper eligibility for inclusion in the review. Inclusion criteria applied were as follows:

- Focus was on perceived/perception of risk rather than physical risk.
- Included studies that report perceived/perception of risk in women with high-risk pregnancies, as either the focus or a substantial element of the focus.
- Included both quantitative and qualitative, mixed methods, systematic reviews, meta-synthesis and government reports.
- No start dates so that each database searched its maximum range of papers.
- Studies of perceived/perception of risk in women with experience of high-risk pregnancies that could cause potential harm to mother and/or baby, not just related to obesity.
- Written in English.

Exclusion criteria

- Non-pregnant women.
- Not written in English.

2.2.1 Summary of findings

The initial searches identified 4522 articles. Titles and abstracts were reviewed for their relevance to the topic area, with 38 citations appearing relevant. Following review of the full text and removal of duplicates, 18 articles were included from the review. Articles were removed from consideration if they involved the risk perceptions of someone other than the woman (e.g., midwives). No specific type of article was deemed more important than the other. A further 13 articles were identified by hand searching reference lists, giving a total of 31 articles, 1 PhD thesis, 2 sets of national guidelines and finally 1 government report. *Table 3* reflects the outcome of the literature search strategy.

Table 3: Outcome of Literature Search

Data base	No of hits	No excluded	No of titles and abstracts reviewed	No. when duplicates removed	Excluded studies (not relevant)	No. included
Medline	446	432	14	31	13	18
CINAHL	100	89	11			
PsycINFO	59	55	4			
Cochrane database of Systematic reviews	0					
Embase (1988 – 2018)	3878	3870	8			
Psychology & Behavioural Sciences	39	38	1			
Additional records identified by handing searching through reference lists						13
Grey literature						1
Government report/ Guidelines						3
Totals	4522	4484	38	31	13	35

Each article was summarized using a standardized data extraction sheet, which is presented in *Appendix 4a*. Each selected article was also entered into a reference management database (Endnote). A tool devised by Atkins et al. (2008) was used to assess the qualitative studies (See Appendix 4b). A checklist devised by Mirza and Jenkins (2004) was utilized to review the quality of the quantitative studies identified (See *Appendix 4c)*. This score was used for the quality of the papers and included a range of scores from 5 – 10 (mean 7.8). The CASP tool (CASP, 2017) was utilized for reviewing the paper quality of the systematic review included (*Appendix 5).* No study was excluded on the grounds of quality. Themes from the qualitative literature were developed by listing the themes already identified in each study *(Appendix 6a*), themes derived from the quantitative literature are in (*Appendix 6b).* The final regrouping and renaming of the qualitative themes are available in (*Appendix 7a),* with the final regrouping and renaming of the quantitative themes available in (*Appendix 7b*). Table 4 provides a summary of the final themes developed from the literature review.

Table 4: Summary of Themes

Summary of Themes	
Coping strategies	Knowledge of risks
Negotiating normality	Psychometric testing of risk perception
Determinants of risk perception	Health education
Communicating risk	Perception of BMI (body image)
Understanding the high – risk label	Experience of risk

2.3 Maternal knowledge and perception of the risks associated with obesity during childbirth

The concept of risk is set within an aspiration that all women should have a baby that is 100% healthy (Robinson, Pennell, McLean, Oddy, & Newnham, 2011). Arguably, pregnancy is thought to provide a time in a woman's life where she is faced with personal experience of risk, for not just her baby but also her own health (Phelan, 2010).

Subsequently, it is postulated that it is this fear of risk concerning the well-being of her baby, which has the potential to prompt the woman to make any changes to her high-risk lifestyle, such as obesity. Indeed, pregnancy is thought to offer "teachable moments" for behaviour change (Phelan, 2010). Teachable moments are defined by changes in motivation that can lead to adoption of risk reducing health behaviours (Phelan, 2010). Risk perception and the Individuals perceived susceptibility to risk is a prominent feature in most health change models, such as the health belief model (Strecher & Rosenstock, 1997), theory of reasoned action (Fishbein & Ajzen, 1975), and protection motivation theory (Rogers, 1983) (Lennon, 2016; Lupton, 1995). These models support the premise that individuals are rational actors and when presented with knowledge, they will use the information to weigh up the risks and make the health changes required (Lupton, 1995). Yet, when Heslehurst et al. (2015) evaluated maternal obesity pathways, findings revealed that women complained of a lack of risk communication from health professionals, which left them largely unware of any obesity associated risks. Thus, perhaps the lack of risk perception is the most prominent barrier towards women making those healthy eating changes. The lack of studies specifically exploring obese women's knowledge or perception of risk is very apparent. Consequently, it highlights the importance of undertaking the present study.

The literature review identified eight studies, six of which focused on obese women's knowledge of the associated risks (Brooten, Youngblut, Golembeski, Magnus, & Hannan, 2012; Gaudet, Gruslin, & Magee, 2011;

Kominiarek, Vonderheid, & Endres, 2010; Nitert et al., 2011; Okeh, Hawkins, Butler, & Younis, 2015; Shub, Huning, Campbell, & McCarthy, 2013) and two focused specifically on perception of risk (de Jersey, Callaway, Daniels, & Nicholson, 2015; Keely, Gunning, & Denison, 2011) (*see Appendix 4a for summary).*

The six studies which focused on obese women's knowledge of obesity and the associated risks were all cross-sectional studies. They all used questionnaires to determine the knowledge base in relation to associated risks. To explore the obese woman's perception of risk, she first must recognize that she is at risk (Sjöberg, 2000b). Hence, assessing knowledge of obesity related risks was 1 of 5 aims in the cross sectional quantitative study by (Shub et al., 2013). This study based in Australia, consisted of 50% of pregnant women who were either overweight or obese. It included a convenience sample of (n=364) women, of which 50% were classified as being of normal weight, 28% overweight, and 21% as obese. Findings revealed that knowledge of specific complications that put pregnant women at risk was poor. The following percentages of participants identified that the following problems could develop because of being obese:

- 27.8% pre-eclampsia or blood pressure
- 51% gestational diabetes
- 5% caesarean section or pre-term birth
- 72.8% neonatal complications, with 5% knowing about hypoglycemia, risk of admission to the neonatal unit, and perinatal mortality
- 8% fetal macrosomia.

The second study identified was by Nitert et al. (2011). This study was based on an Australian population of women in early pregnancy. This study recruited a convenience sample of (n=412) participants and compared them with a self-reported pre pregnancy BMI< 25.0 (n = 257) and women with a pre-pregnancy BM> 25.0 (n=111) and knowledge of the obesity related risks while pregnant. Data collection warranted asking participants to rate their

perception of risk based on a pre–specified list of seven maternal and neonatal complications for women who were “very underweight”, “normal weight” and “very obese”. Findings revealed that this was the only study to report that 75% of respondents identified that obese women have an increased risk of complications in comparison to women of normal weight. More than 60% of participants acknowledged that obesity would increase risk of receiving caesarean section. However, knowledge about increased risks to the neonate was poor, with only 19.7% acknowledging potential consequences for their infant from being obese whilst pregnant. No statistical differences were found between the responses of women with a BMI< 25 compared to those with a BMI>25. Findings from this study indicated that women with higher educational status (tertiary degree qualification) had better knowledge of their risks. However, the researchers acknowledged that the study sample skewed towards well-educated women. In addition, another limitation to the study was that media coverage regarding problems from being overweight whilst pregnant around the time of this study might have influenced results.

Another cross-sectional study conducted in Chicago USA by Kominiarek et al. (2010) assessed non–obese and obese pregnant women’s knowledge of risks. Participants included a total of (n=102) participants, consisting of 56(54%) non-obese and 47(46%) obese pregnant women. Participants completed a survey at their first prenatal visit, which assessed their knowledge of obesity related risks. Findings indicated that there was no significant difference in knowledge of specific risks, between non-obese and obese women. Less than 50% of participants knew that obesity increased risks in pregnancy. Knowledge of specific risks was similar between the two groups, with non–obese (60% correct answers) and obese (64% correct answers). The participants who were obese were more aware of risks of gestational diabetes (68% v 96% p<0.001), and less than 50% knew risks for stillbirth, fetal growth problems and caesarean section. A limitation to this study was the small convenience sample size, which meant that power to detect overall differences between groups was low. This study highlighted the need for women to gain more knowledge about their risks from being

obese and related complications, with it acknowledged that education alone might not change individualized health related behaviours. Recommendations from this study included using a target approach when designing educational resources for discussing obesity related risks with women. An intervention may be required that involves educating women of the more common morbidities, such as risk of requiring a caesarean section. In relation to this current thesis, these authors emphasized that little is known about the obese woman's perception of her own risk, which is a key element of developing a health related behaviour intervention.

This literature review also identified the cross-sectional study conducted by Gaudet et al. (2011). This study had a primary aim of assessing misclassification of BMI and a secondary aim of assessing knowledge of obesity related risks. Of the (n=117) respondents, 30 (25.6%) were classified as being overweight or obese. Participants attending a routine ultrasound scan between 11 and 24 weeks required to complete a three-part questionnaire. Part two of the questionnaire asked participants to indicate if they believed obesity was associated with a series of complications related to pregnancy, labour and delivery. Data regarding misclassification of BMI revealed that underestimation of weight was more common in overweight and obese women, with 90% (n=9) of obese women underestimating their weight. The data about knowledge of risks associated with obesity was not published, with the authors stating, "most women were unable to identify obesity related complications for themselves or their baby, including increased risks of pre-eclampsia, excessive weight gain, caesarean section, neuro tube defects, macrosomia and shoulder dystocia". Most however were able to identify long-term complications, such as risk of type 2 diabetes. Overweight and obese women did not appear to have levels of knowledge that were significantly different from each other. Similar to the study by Kominiarek et al. (2010), the sample size was small and this limits the power of the study to detect significant differences between groups. The self- reporting of BMIs may potentially result in under reporting of weight. The study population also had a higher education level than the average Canadian, consequently this may overestimate the true knowledge

level in comparison to that of the average Canadian woman. Another limitation of the study design acknowledged by the authors included the convenience sample used, which may have resulted in a selection bias. The sample contained only 5.1% who were underweight, 69.2% who were normal weight, 18.1% were overweight and only 6.8% were obese participants, which the authors acknowledge as being a lighter population in accordance with the Canadian Health Survey. Ultimately, the results obtained from this survey may not be representative of the pregnancy population, and hence cannot be generalized to the whole population.

Okeh et al. (2015) prospective survey set in the USA, recruited pregnant (n=38) and non-pregnant participants (n=64) totalling (n=102) women who were recruited from a health care clinic in Georgia. The aim was to evaluate knowledge and perception of risks related to maternal obesity and pregnancy. Participants completed a survey that scored to an aggregate score, and was later reviewed together with the participant. This is the only study that supplied participants with educational pamphlets regarding maternal obesity, exercise and nutrition after been given the correct answers to the survey. Findings revealed that 18.6% had poor knowledge, 62.7% of participants had moderately good knowledge (score between 60–80% correct answers) about risks of being obese whilst pregnant, and 18.6% had broad knowledge (score between 81-100% correct). Only 51% were aware that obesity increased the risk of stillbirth. Obese participants were more aware of these risks in comparison to normal or underweight women. Correlational analysis revealed that women with a higher educational status had greater knowledge of associated risks. This finding is similar to that of Nitert et al. (2011) whose sample contained only pregnant women, but found that higher education status was associated with good knowledge of the obesity-associated risks. Only 33.7% to 36.6% of the sample in the study by Okeh et al. (2015) reported any previous discussion with a health professional regarding the risks of obesity. Yet, obese women appeared to have a good knowledge of obesity-associated risks. Interestingly, the participants were also asked a question in the survey about their perception of their current weight, and of those who were actually

obese (n=64) 1.6% thought they were underweight,15.6% as normal weight, 53.1% as overweight and only 29.7% correctly identified themselves as obese. This would indicate that overall participants who were obese perhaps did not understand the BMI and had an altered self-perception of their weight, in addition, Okeh et al. (2015) acknowledged that findings were not generalizable to the overall population, as 85% of participants were African Americans. Unique to this study, was that recruitment included participants from a wide range of 18-69 years, with those who were older being non-pregnant women.

Finally, the aim of the cross-sectional pilot study by Brooten et al. (2012) was to examine pregnant women's perceived risks of weight gain needed during pregnancy, perceived risks of excessive weight and underweight on mother and newborn, perception of actual, ideal and realistic size body size and ideal nutritional intake during pregnancy. It included five racial ethnic groups: Caribbean, Black, African – American Black, Caribbean Hispanic, Central American Hispanic and White Non–Hispanics. 54 pregnant women were recruited prior to 20 week's gestation and were asked to complete a questionnaire. Perceived pre pregnant actual, ideal and realistic body size was measured using a validated assessment tool for obesity, called The Body Image Assessment for Obesity (BIA–O). Nutritional Intake during pregnancy was measured using the Spanish/ English form of Block Food frequency questionnaire, which was developed from the Statistics (2009) National Health and Nutrition Examination Survey. Findings of the study in relation to perceived risk to the mother of being underweight during pregnancy, revealed that Caribbean Black women thought the risk was highest and African–American Black women perceived the lowest risk. Perceived risk to themselves in gaining too much weight during pregnancy was highest in Caribbean Black women, while African-American and white non-Hispanic women perceived the lowest risk. African-American women perceived the lowest risk to their infants from gaining too much weight. In examining the discrepancies between pre pregnancy weight and perceived realistic weight, only nine women thought they were too heavy, when in reality upon using the BMI category twenty-one women were too heavy.

2.3.1 Perception of BMI-Body Image

Interestingly, the studies by Okeh et al. (2015), Gaudet et al. (2011), Shub et al. (2013), and Kominiarek et al. (2010) all reported discrepancies between women's perceptions of their own weight and actual BMI reported. In the study by Okeh et al. (2015) only 40.2% of the participating women were aware of their BMI, with only 29.7% correctly identifying themselves as being obese. In the study by Gaudet et al. (2011), 90% of obese women underestimated their BMI. Likewise, In the study by Shub et al. (2013), the majority of obese women considered themselves to be overweight (65.7%), and the study by Kominiarek et al. (2010) revealed that the non-obese women were more likely to describe their weight category as normal and the ideal BMI. Hence, while all the women in these studies recorded BMI's that placed them in the obese category, none of them appeared to recognize this. This is also reflected in the PhD thesis by Jarvie (2013) where participants refused to be associated with the obesity label. By using the premise that the body is socially and culturally formed, it could be argued that current approaches to health behaviour change could be an issue, as they take no consideration of the social circumstances that shape a woman's behaviour (Warin, Turner, Moore, & Davies, 2008). Furthermore, Warin et al. (2008) questions how public health initiatives might be successful with individuals who do not identify as having an obese body.

Research studies support the premise that the perception of obesity has been "normalized" by both the general population and the health professionals involved in delivering care (Knight-Agarwal, Kaur, Williams, Davey, & Davis, 2014; Lingetun, Fungbrant, Claesson, & Baggens, 2017; Schmied, Duff, Dahlen, Mills, & Kolt, 2011). An understanding of both the social and psychological consequences of obesity and how it influences body image is essential for the health care professionals providing care.

2.3.2 Body Image in pregnancy

Body image is defined as a person's perceptions, thoughts, and feelings about their body (Grogan, 2016). Body Image according to Tiggemann (2011) has become an important construct in Western society. The sociological ideals underpinning body image can best be explored using the sociological perspective. Jackson (2004) purports that this approach supports the view that cultural values influence perceptions and behaviour of others. For example, if a culture favours the slender and thin body as attractive, then individuals value the slender body. In contrast, if the obese body is admonished, then obese individuals may be judged (Jackson, 2004). Social expectancy theory, is a theoretical approach within the sociocultural perspective that supports the premise that there is a consensual agreement within cultures about who is attractive and who is not (Jackson, 2004). Cultural values, influence individuals' behaviours towards each other, and as a result can influence an individual's perception of *self* (Jackson, 2004). For example, in relation to obese individuals, if they are viewed as *lazy*, then this expectation may lead to assigning of fewer tasks to this individual, who then internalises this self- view and this then becomes the individuals own self–perception. This is known as the "*looking glass self*" (Jackson, 2004). Hence, individuals' behaviour towards each other and negative stereotyping can result in negative self-perception (Jackson, 2004). Arguably, sociocultural concern about weight has focussed on three factors; stigma associated with obesity, the ideal slender thin female body, with thinness considered the ideal norm (Schwartz & Brownnell, 2004). Evidence suggests that social comparison theory plays a significant role in the development of body image (Tantleff-Duff & Gokee, 2004).This theory suggests that comparing one's appearance against others whom they consider more thin and attractive, rate their own attractiveness as lower, and those who compare themselves against less attractive, rate themselves as more attractive (Tantleff-Duff & Gokee, 2004).

Pregnancy is a point in time when a woman's body can change dramatically both physiologically and psychologically within a short period of time (Clark, Skouteris, Wertheim, Paxton, & Milgrom, 2009). This deviation from

society's slender ideal body is the first time weight gain is expected and appears to be acceptable by most (Hodgkinson, Smith, & Wittkowski, 2014; Wiles, 1994). For some women, however, this rapid change in body image may promote body image disturbance (Roomruangwong, Kanchanatawan, Sirivichayakul, & Maes, 2017). Skouteris, Carr, Wertheim, Paxton, and Duncombe (2005) purport that body comparison tendencies during pregnancy may contribute to the development of body dissatisfaction. For some women, weight gain, increase in breast size, changes to skin, loss of waist definition and widening of hips, positions them far from the ideal socially constructed slender body (Heinberg & Guarda, 2004). Body image dissatisfaction during pregnancy has been linked to various factors, such as depressive symptoms, obesity and excessive gestational weight gain for the mother, sociocultural pressure to be thin, and intention to breastfeed (Fuller-Tyszkiewicz, Skouteris, Watson, & Hill, 2013; Roomruangwong et al., 2017; Skouteris et al., 2005). Interestingly and in relation to obesity, the study by Roomruangwong et al. (2017) has indicated that body image dissatisfaction has been linked during the perinatal period with a higher body weight and BMI, more weight gain during pregnancy, and a greater discrepancy between actual body weight at the end of term. Sui, Turnbull, and Dodd (2013) report similar findings with a higher level of body dissatisfaction in women with a high BMI. Body image dissatisfaction has also been associated with disordered eating behaviours, which in turn can lead to antenatal complications such as intrauterine growth retardation, preterm birth and giving birth to a low birth weight baby (Linna et al., 2014).

In contrast, for some women pregnancy represents a period of protected time where they are legitimately excluded from the ideal slender body image (Johnson, Burrows, & Williamson, 2004; Skouteris et al., 2005). The meta-synthesis and systematic review by Hodgkinson et al. (2014) reports pregnancy weight gain is viewed as acceptable but being fat is not. However, Earle (2003) emphasises that only certain forms of weight gain appear to be acceptable, such as the growing bump and changes to breast size, while weight gain on arms and face is not. Changes in breast size is reported by Earle (2003) as important in the development of the "womanly

identity” and marks the transition into the mothering role. Pregnant women however appear to be eager to delineate between “fatness and pregnancy” (Earle, 2003). This is demonstrated in the study by Skouteris et al. (2005), which explored body image changes in healthy pregnant women as they progressed from early/mid trimester to the third trimester of pregnancy, and found that women felt less fat in late pregnancy than at any other point during pregnancy. Skouteris et al. (2005) purports that this was possibly because during the early stages of pregnancy, when the pregnancy is not visible, women feel that socially they cannot equate their weight gain to a pregnant body. Being aware of the pregnancy being visible and giving a valid reason for weight gain was also identified in other studies by (Clark et al., 2009; Earle, 2003; Johnson et al., 2004). Reportedly, the transition into pregnancy and bodily changes is perceived by women as a time where they felt a loss of control over their bodies (Hodgkinson et al., 2014). With some women experiencing conflict about the size of their pregnant abdomen, but justified this bodily change as it was for the baby. This, as Watson, Broadbent, Skouteris, and Fuller-Tyszkiewicz (2016) propose, is reflective of women de-prioritising aesthetics in favour of the functionality of the pregnant body.

Fox and Yamaguchi (1997) recognise body weight as the central aspect of body image, and are cognisant of the pressure that women are under to be slender. Their study examined the relationship between pre-pregnancy body weight and body image change in primigravid women. They found a strong association between the woman’s body weight before pregnancy and whether her body image change was negative or positive. With normal weight women more likely to have a negative change. However, despite the positive changes experienced by overweight women, they still had more negative body shape concerns than those of normal weight women (Fox & Yamaguchi, 1997).The overweight women in this study who did experience a negative body shape change reported feeling the social stigma of being overweight (Fox & Yamaguchi, 1997). Being overweight or obese reflects a strong anti-fat bias, which results in stigma and discrimination (Puhl & Brownell, 2001). Attribution theory is best described by Crandall et al.

(2001), whereby the obese individual is stigmatized. If the stigmatized trait is thought to be under the control of the individual, then they are to blame, bias is reasonable, and discrimination is acceptable. This theory emphasizes controllability, whereby the obese individual is held personally responsible for their weight. Women's experiences of the maternity services have reported feelings of being stigmatized, not just by family and friends, but also by health professionals (Schmied et al., 2011). Schmied et al. (2011) reflects in her study the degree of blame assigned to obese women by the health care professionals. Her study explored health professionals concerns and experiences as "they just come back fatter, it's disgusting" (pg. 426). Both stigma and discrimination is thought to have an impact on the psychological well-being of the obese individual, which as a consequence potentially impacts on body image (Schwartz & Brownell, 2004). Negative body image, as stated previously, has been associated with obese women. However, it is not clear just how much this negativity plays in motivation for health behaviour change (Schwartz & Brownell, 2004).

Obese women's experiences of maternity services, report that pregnancy for many was a time of scrutiny, where they felt that their weight was the focus of the health care professionals. They were seen as a carrier for the baby, and described as one that was laden with risk (Nyman et al., 2010).However, it is worth noting that for some overweight women, pregnancy was a time that liberated them from stigma and dieting (Fox & Yamaguchi, 1997). Pregnancy was seen as a period where it was socially acceptable to be large (Furness et al., 2011).

A number of Randomized Controlled Trials (RCTs) have examined the efficacy of interventions offered to obese women. These include information regards optimum dietary intake and/or physical activity, cognitive behavioural therapy and social (cognitive learning theory) (Dodd, Grivell, Crowther, & Robinson, 2010; Thangaratinam et al., 2012). However, evidence of the effectiveness of these interventions is limited due to poor study design and inconsistencies (Campbell, Johnson, Messina, Guillaume, & Goyder, 2011; Dodd, Crowther, & Robinson, 2008; Oteng-Ntim, Varma,

Croker, Poston, & Doyle, 2012). Recent RCT'S examining behavioural change interventions have reported poor uptakes, with many obese women reluctant to take part (Dodd et al., 2014; Poston et al., 2015). This problem may be compounded by the lack of risk communication from health professionals around obesity and associated risks, which again may lead women to believe that they are of a normal size, and having a normal pregnancy (Lavender & Smith, 2016).

2.3.3 Summary of Main Points

The six reported studies have focused on knowledge of risks associated with obesity during pregnancy, and have indicated that in general women have a lack of knowledge in relation to obesity associated risks to themselves or their baby. These six studies also highlight the discrepancy in perception between perceived BMI and actual BMI, with the subsequent rejection of an obesity body image. The next two studies examine the woman's own perception of risk.

2.3.4 Understanding Risk Perception in Obese women

Okeh et al. (2015) emphasizes that it is imperative that women understand BMI classifications in order, to be able to recognize that they are at risk. Recognizing that risk perception is a key factor that influences behaviour change, it could then be postulated that a perceived lack of risk may reduce the woman's openness to engage with any health behaviour advice (Phelan, 2010). Hence and as stated previously, it is imperative that we understand risk perception from the woman's own personal experience.

The study by de Jersey et al. (2015) was the only quantitative study found that specifically evaluated weight related risk perception in early pregnancy. A comparison was drawn between a group of women commencing pregnancy at a healthy weight (n=386) and a second group who were overweight/obese (n=196), accumulating to a total of (n=664) participants. Data were collected at 16 weeks' gestation at the first antenatal clinic

appointment. Pre–pregnancy weight, risk perception and demographic data was collected via a questionnaire. The questionnaire included twelve items that were designed to assess women's (1) perception of risk from being overweight before pregnancy, (2) perception of risk from gaining excess weight during pregnancy, and (3) risks of specific pregnancy birth and health complications for the general population and their own risks of specific pregnancy/birth complications. The questionnaire was constructed from published recommendations for assessment of risk perception. The questionnaire was reviewed by an expert panel, thus claiming to have content and face validity and was pilot tested to ensure concurrent validity. However, the scales were non-validated. Findings showed that participants had a low level of perceived risk knowledge in relation to weight-related pregnancy complications, regardless of their pre-pregnancy weight status. A higher proportion reported that pre–pregnancy weight and excess gestational weight gain during pregnancy was more likely to lead to maternal health problems in comparison to the new-born infant. Which if the women had knowledge of the risks to their baby, they might be more likely to change their health behaviour (Olander, Atkinson, Edmunds, & French, 2011). Several considerations need to be taken into account when considering the findings of this study. First, 45% of participants were educated to degree level, with Nitert et al. (2011) acknowledging that such women have better knowledge of associated risks. Hence, the authors of this study purport that it is possible that the level of education resulted in a higher estimation of risk. Second, the sample only contained 23% pre-obese and 11% obese participants, which is not a representative sample of obese women. As a result, the knowledge base in relation to risks and women's perception of risk remains under-reported.

This last study was the only qualitative study to explore women's perception of self-risk. This study (methodological framework unstated) explored obese women's experiences and perceptions of obesity risk during pregnancy at 34 weeks' gestation (Keely et al., 2011). The sample included (n=8) women with a body mass index > 40kg/m^2, who were interviewed at home and the data analysed into themes. All eight women stated that they were aware of

the risks associated with being obese during pregnancy, but had not known prior to their pregnancy. Their knowledge of risk was developed pre-natally, with four claiming to have had a prior pregnancy. Despite participants claimed understandings of associated risks, the majority did not acknowledge connection with minor or major complications they themselves were experiencing. In essence, these participants displayed dissonance between their actual state of health and their obesity status. In fact, some claimed that their health was good, in spite of their complex obstetric histories. Several studies have identified the lack of discussion that takes place between healthcare providers and women, concerning the importance of a healthy weight in pregnancy (Herring et al., 2010; Wilkinson, Poad, & Stapleton, 2013). This finding was also apparent in this study's findings, with participants reporting that many health care professionals failed to address the subject of obesity. As such, there appears to be a dichotomy between the women's high-risk classification and their midwives treating them as low risk and normal. As this study was a cross sectional study, it was not determined whether the women's perception of risk altered throughout the continuum of pregnancy. One limitation of this study is that participants were women with a BMI>40 mg/kg^2, hence little is known about perceptions of risk in women with a BMI > 35kg/m^2 who were also referred for high-risk consultant care.

2.3.5 Summary

All seven quantitative studies retrieved in the literature review were cross sectional studies carried out in Australia and the USA. These countries have private health care systems, which is a situation very different to the National Health Service (NHS) in the United Kingdom (UK) in which the midwife is the main carer and point of contact for women. All studies have used a convenience sample of women, which Gaudet et al. (2011) acknowledges can result in selection bias. Only three of the studies have sample sizes over (n=120) (de Jersey et al., 2015; Nitert et al., 2011; Shub et al., 2013) with limited sample size and study method inconsistences meaning that results cannot be generalized to the whole population. Nitert

et al. (2011) is the only study to acknowledge the impact of a public health campaign and its potential effects on risk behaviours of obese pregnant women. Only three studies noted the impact of education on women's knowledge of obesity-associated risks (de Jersey et al., 2015; Nitert et al., 2011; Okeh et al., 2015). One study used a sample population that included pregnant and non–pregnant women, as opposed to the remaining studies that compared obese and non-obese pregnant women's knowledge and perception of risk of being obese in pregnancy (Kominiarek et al., 2010).

2.3.6 Key Messages

In summary, the studies retrieved revealed that women have limited knowledge of risks associated with being obese and pregnant to either themselves or their baby. A criticism of any of the health behaviour models previously mentioned, is that they are based on the premise that an individual will act on knowledge of risks by changing behaviour in a linear way (Lennon, 2016). Whereas, women's knowledge and perception of risks associated with obesity may exist along a continuum from low to high risk. Hence, using the premise that risk perception is an inherent component of any health behaviour model, it is imperative that they first recognize the risk. This requires a health promotion programme that encompasses an increase in knowledge of the risk of obesity for maternal and baby and a tailored lifestyle intervention.

This section has given an overview on knowledge of associated risks and risk perception relating to being obese and pregnant. The lack of studies surrounding obese woman's knowledge of risk may account for the paucity of literature concerning the obese women's risk perception. From the two studies identified concerning risk perception (de Jersey et al., 2015; Keely et al., 2011), it is apparent that the women's perceived degree of risk differed from her assigned high-risk label. The following studies in section two will capture the apparent dissonance that exists between the two.

2.4 Section 2: Determinants of risk perception

Risk perception consists of both objective and subjective elements. The objective quantifiable approach to risk is based on epidemiological data, and calculates risk as odds or ratios (Carolan, 2009). The quantitative element is predominantly used by health care providers to determine the woman's risk status (Carolan, 2009). For example, health professionals calculate pregnancy risk scores through use of biomedical pregnancy risk systems based on the woman's obstetric history and current pregnancy (Gray, 2006; Heaman & Gupton, 2009). Gray (2006) criticizes this reliance on medical risk scores that is heavily focused on statistical scores without capturing women's subjective appraisals of their own risk. That is, objective classifications result in some women being subsequently labelled high-risk, with this approach reflecting an objective approach to risk that increases level of medical surveillance and use of medical technology (Lennon, 2016). In contrast, Carolan (2009) argues that few women evaluate risk by numerical scores. Instead, they construct risk in a more subjective and personal manner, using their own personal life experience, cultural and social surroundings to determine their health status (Carolan, 2009; Lennon, 2016). Once a woman has been identified as high-risk, she is offered an enhanced level of obstetric care, which she is then expected to comply with (Lee, Ayers, & Holden, 2012). Idealistically, both objective and subjective elements should be considered when planning a woman's care, because differing levels of perception of risk between health care professionals and women may influence compliance with care management.

2.4.1 Comparing risk perception between medically assigned risk (psychometric testing) and the women's subjective appraisal of her risk

The literature that has examined risk perception in high-risk pregnancies has illustrated incongruity between women's risk perceptions and those of health professional's (Cannella, Auerbach, & Lobel, 2013; Headley &

Harrigan, 2009; Heaman, Beaton, Gupton, & Sloan, 1992; White, McCorry, Scott-Heyes, Dempster, & Manderson, 2008). It would appear that risk perception is highly individualized and not solely based on a diagnosis (Bayrampour, Heaman, Duncan, & Tough, 2013). This observation has been demonstrated in the studies that follow, which developed and used self-rated risk questionnaires developed by study authors (Gray, 2006; Heaman et al., 1992; White et al., 2008) to determine individual risk and compared them to existing medically defined risk assessment.

In the first study reviewed, Heaman et al. (1992) conducted a descriptive correlational study underpinned by four objectives:

(1) To compare the childbirth expectations of high-risk and low risk nulliparous women.
(2) To compare the impact of childbirth preparation on childbirth expectations of high–risk and low-risk nulliparas.
(3) To assess the relationship between state anxiety and childbirth expectations in high-risk and low-risk nulliparous women.
(4) To determine if any of these factors are the best predicator of maternal childbirth expectations in high-risk and low-risk nulliparous women.

It is worth noting that although this study contains a measure of risk this was not the main issue being measured. The study included a convenience sample of (n=75) high-risk who developed an unanticipated complication of pregnancy and (n=77) low-risk women completed the following questionnaires. Table 5.

Questionnaire	
Childbirth Expectations Questionnaire (CEQ)	The CEQ is a self-reported questionnaire consisting of 35 items on a 5-point Likert scale. The scale had four subscales: coping with pain, nursing support, support from partner and medical intervention. This scale was developed by one of the authors (Gupton, Beaton, Sloan, & Bramadat, 1991). Reliability analysis indicates a high degree of internal consistency for the total questionnaire (alpha= .82). Alpha values for the four subscales range from .65 to .84.(Gupton et al., 1991).
Preparation for Childbirth Questionnaire (PCQ)	The PCQ was developed by Beaton (1986). It consists of nine items considered to positively contribute towards preparing a woman for her childbirth experience. Scale values for each of these items were determined using Thurston's method of paired comparisons. As yet there are no statistical psychometric validations on its rigor in relation to content validity and reliability.
Self- rating of Pregnancy Risk (SPR)	The SPR scale was developed by the investigators to differentiate the woman's subjective degree to which her pregnancy was at risk. High-risk women were asked to indicate a self-rating of pregnancy risk from a scale where zero (low risk) to 10 (high risk). Again, there is no statistical psychometric validation relating to the reliability of this questionnaire

	Prenatal Scoring Form (PSF)	The PSF form is widely used throughout the province of Manitoba to assess risk status. The form developed by Coopland et al. (1977) uses a score to denote low to high risk (0.2) high risk (3- 6) and 7 or greater high-risk in pregnancy. Each of the factors included in the form have been weighted retrospectively to known associations between factor and negative outcomes. The PSF has no known psychometric validation.
	State–Trait Anxiety Inventory (STAI)	The STAI form developed by (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) was used to measure anxiety. The state anxiety portion of the STAI has established construct validity and high internal consistency (Ayers, 2001).

Table 5: Heaman et al. (1992) Questionnaires

The Self-rating of Pregnancy Risk Questionnaire (SPR), was used specifically to compare the woman's subjective perception of her own risk in comparison to the prenatal risk score (biomedical risk score) assigned by medical staff. Findings highlighted that the women's self-rated risk perception, was a better indicator than her prenatal risk score. There was no relationship between the self-rating of pregnancy risk score and the prenatal risk score. Findings did however demonstrate that self-rating of risk was positively related to anxiety, whereas the prenatal risk score demonstrated no significant relationship. This study also identified the effects of a high-risk pregnancy on the relationship between mother and baby, with women in this study engaging in lower levels of preparation for childbirth. However, a limitation to this study identified by the authors, was that the SPR questionnaire used lacked any established reliability and

validity testing. This is also an identified limitation in relation to the PCQ and PSF form.

The second study identified, by White et al. (2008) was 1 of 3 studies that addressed the effects of a high-risk pregnancy on mother and baby relationship, with the other studies being conducted by Heaman et al. (1992) and (Gray, 2006). Again although this study contains a measure of risk it was not the main focus. The study by White et al. (2008) required participants to complete a questionnaire pack, which included a Maternal Antenatal Attachment Scale (Condon & Corkindale, 1997), State–trait Anxiety Inventory (Spielberger et al., 1983), Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983), Prenatal Distress Questionnaire (Yali & Lobel, 1999), Prenatal Coping inventory (Lobel, Yali, Zhu, DeVincent, & Meyer, 2002) and Maternal Risk Appraisal questionnaire developed to reflect aspects of the women's appraisal of risk. Finally, a senior registrar in obstetrics, reviewed the woman's medical chart and provided a risk score by considering her medical history, previous medical history and current pregnancy issues. They also undertook a medical risk assessment. The findings of this study were similar to those of Headley and Harrigan (2009) and Heaman et al. (1992), which showed that medically assessed risk scores are unrelated to maternal subjective risk scores. Woman's appraisals of their own health and risk status was shown to be a predicator of quality and intensity of attachment between mother and infant.

In contrast, the opposite was identified in the findings of the correlational descriptive study conducted by Gupton, Heaman, and Cheung (2001), which compared perception of risk in women with complicated and uncomplicated pregnancies and found a relationship between biomedical risk scores and women's perceptions of risk in low-risk women only. The sample of high-risk women included in this study had developed unanticipated complications such as preeclampsia, antepartum haemorrhage, premature rupture of membranes. The study excluded women with chronic health conditions unrelated to pregnancy e.g. cardiac disease, despite such conditions increasing risk in pregnancy and childbirth.

Again, we must be cautious of the results, as although the biomedical risk score questionnaire was the standard form used to predict perinatal morbidity and mortality, the authors used the Perception of Pregnancy Risk Questionnaires (PPRQ), and as yet the validity of this scale had not been thoroughly assessed.

Heaman and Gupton (2009) have since conducted a methodological study, which addressed the development, validation, and evaluation of the PPRQ (Gupton et al., 2001). In this study the PPRQ (Gupton et al., 2001) was used by the authors to measure pregnant women's perception of risk at any point during pregnancy. By asking women to complete a PRSF (Prenatal Risk Scoring Form) (Coopland et al., 1977), a STAI (Spielberger State Anxiety Inventory) (Spielberger et al., 1983) and the PPRQ (Gupton et al., 2001) construct validity of the PPRQ was assessed. Findings from this study revealed that scores on the PPRQ (Gupton et al., 2001) showed that perception of risk was positively related to scores on the biomedical risk score. Women who scored high on the prenatal risk score also perceived themselves to be high–risk. This study and the study by Heaman et al. (1992), both used existing Biomedical Risk Scoring Forms (Coopland et al., 1977) to calculate risk. The aim of a Biomedical Risk Scoring Form is to improve mortality and morbidity outcome. However, we should be mindful of the existing debate around their low sensitivity, specificity and predictive value. This has been demonstrated in the systematic review of 12 scoring tools used to predict preterm labour which resulted in the hospitalisation of women labelled as high-risk but demonstrated no improvement in preterm birth rate (Honest et al., 2004). The study by Heaman and Gupton (2009) also demonstrated evidence of correlation between the PPRQ (Gupton et al., 2001) and the STAI (Spielberger et al., 1983). However, as this was a cross-sectional study the cause and effect relationship could not be determined.

Maternal understanding of and perception of risk may have an impact on women's willingness to follow antenatal care recommendations. Headley and Harrigan (2009) used the same PPRQ that was developed and

validated by Heaman and Gupton (2009) to examine perception of risk, against risk factors that participants demonstrated, which were identified by the medical staff. Findings from this study revealed that there was no correlation between the woman's risk scores and the health professionals risk scores.

Thus, the relationship between women's perceived risk and biomedical risk scoring appears to be inconsistent as the three studies identified (Headley & Harrigan, 2009; Heaman et al., 1992; White et al., 2008) found no correlation between women's perception of risk and biomedical risk scoring. Whereas and in contrast the studies by (Gupton et al., 2001; Heaman & Gupton, 2009) found a positive a correlation.

Gray (2006) used the only other risk perception instrument specific to pregnancy, which was developed by the same author (Gray, 2001). The Risk Appraisal Form (RAF) was designed to examine the effects of hospitalization on women's perceived risk. Using a survey design, this study examined woman's emotional and cognitive responses to their subjective risk status. A total of (n= 207) women agreed to participate in this study. Three groups were addressed: (1) women who had been hospitalized (n=134), (2) previously hospitalized women (n=17), and (3) women never hospitalized during pregnancy (n=25). Women with hypertension, diabetes mellitus, or preterm labour were recruited. The women's subjective appraisal of risk was determined using the RAF and the medical staff assigned scores by completing a RAF for Health Care Provider (RAF–HCP), which was a modification of the participant RAF, developed again by the author of this study (Gray 2006). This was the only study to determine the woman's subjective appraisal of risk to herself and her baby. Health professionals only rated risk scores for the mother. Results indicated that the nurses rated the woman to be at significantly higher risk than the women themselves did. Results also showed that women who had been previously hospitalized had the highest scores. Currently hospitalized high–risk women had the lowest scores, possibly because they were under constant surveillance, with reassurance and explanations provided for problems

identified. Women in pre-term labour rated risk higher in comparison to those with diabetes or hypertension. No difference was found between the three groups in relation to infant risk. When interpreting these results, caution must be applied as the subjective appraisal form required evaluation in terms of reliability and validity. Indeed, Heaman and Gupton (2009) have suggested a study be carried out that compares the validity and reliability of the multi–item PPRQ with the two-item scale used by Gray (2006). The sample was a convenience sample, consisting mainly of white, married and hospitalized women, and so findings cannot be generalized to the whole population.

In the study by Cannella et al. (2013), one of the aims was to explore women's perceived risk in pregnancy to identify whether they were congruent with their providers' assessment of risk. A sample of (n=165) women completed questionnaires, which included a perceived risk questionnaire, and a Prenatal Health Behaviour Scale (PHBS)(Lobel, Cannella, et al., 2008). The revised Prenatal Distress Questionnaire (NUPDQ) (Lobel, Hamilton, & Cannella, 2008). Dispositional optimism was also assessed using a life orientation test (Scheier, Carver, & Bridges, 1994) and reproductive history and birth outcomes were recorded. Participants were identified as high-risk or low-risk by their health care provider, based on the presence of conditions such as hypertension, diabetes and blood clotting disorders. Results showed that 40% of participants viewed their risk differently from their health care provider. Interestingly, most women who were considered low-risk by the health care provider viewed themselves to be a higher risk. Patterson (1993) acknowledges similar findings in her grounded theory study, which explored how seven high-risk black women defined their level of risk. The participants were asked to self-identify themselves into pregnancy risk groups, with three participants identified by medical staff as belonging to the low-risk group, but subsequently self–identified themselves as high-risk. Two of the participants self-identified social problems, which placed them into a high-risk category. Explanation for both studies may be in relation to undisclosed health behaviours or conditions that participants had not told health care providers. It was

acknowledged by the researchers that both objective and subjective elements of risk perception had only been captured at one-time point, and acknowledged that risk perception may change over time

2.4.2 Summary

In summary the six cross- sectional studies identified (Gray, 2006; Gupton et al., 2001; Headley & Harrigan, 2009; Heaman et al., 1992; Heaman & Gupton, 2009; White et al., 2008) demonstrated a lack of consistency between the women's perception of risk and that of health care professionals. With (Headley & Harrigan, 2009; Heaman et al., 1992; White et al., 2008) demonstrating no correlation between the women's risk perception scores in comparison to health professionals. Whereas the studies by (Gupton et al., 2001; Heaman & Gupton, 2009) demonstrated positive correlation. All six studies compared women's perception of risk with a medically defined risk assessment but the methods for assessing risk varied across all studies (Lee et al., 2012). The studies also varied in how medical risk scores were collected (Lee et al., 2012). The studies by (Gupton et al., 2001; Heaman et al., 1992; Heaman & Gupton, 2009) all used an existing Biomedical Risk Scoring form (Coopland et al., 1977). The studies by (Gray, 2006; Gupton et al., 2001; Heaman et al., 1992; Heaman & Gupton, 2009) all asked women to self-appraise and make a judgement about their own risk during pregnancy. In contrast the studies by (Headley & Harrigan, 2009; White et al., 2008) had women's medical histories reviewed by obstetricians to identify risk factors (Lee et al., 2012). Whereas in the study by Heaman and Gupton (2009) obstetric nurses questioned the participants about risk perception. In essence the results of the participants subjective perception of risk was contrasted with that of the health care professionals risk with no account taken of how medical staff are influenced by subjective factors affecting risk perception (Lee et al., 2012). In total five different questionnaires were used, three of which were developed by the authors (Gray, 2006; Heaman et al., 1992; White et al., 2008) and used in their studies to measure perceived risk. The PPRQ (Gupton et al., 2001) was used in two further studies (Headley & Harrigan, 2009; Heaman &

Gupton, 2009). Despite the in consistencies in how risk was measured, all scores fell below the mid-point, hence revealing that while the participating women were aware of their level of risk in comparison to low-risk women, they did not always rate themselves at the highest risk (Lee et al., 2012). This suggests that the women did not rate their high-risk status as severe.

Three of the studies included in this review (Heaman et al., 1992; Heaman & Gupton, 2009; White et al., 2008) all contained a measure of risk but this was not the main issue being investigated (Lee et al., 2012). The main aim of the study by Heaman et al. (1992) was to compare expectations of childbirth amongst women with high-risk pregnancies in comparison with women with low risk pregnancies and White et al. (2008) focussed on the effect of prenatal attachment. The study by Heaman and Gupton (2009) was to refine the PPRQ questionnaire previously developed by Gupton et al. (2001). The studies by (Gupton et al., 2001; Heaman et al., 1992; Heaman & Gupton, 2009) only included women who developed unanticipated medical conditions during pregnancy excluding those with chronic conditions, despite such conditions placing women into a high-risk category. Gray (2006) focussed on a particular high risk group e.g. diabetes mellitus, hypertension or preterm labour (Lee et al., 2012).

In summary these studies did not compare women with the same conditions and it should also be recognised that different definitions of high-risk were used throughout. Hence this may limit conclusions that can be drawn from this review (Lee et al., 2012).

2.5 Understanding my high-risk label

The woman's appraisal of her risk may be influenced by the information that she receives from health care professionals (Cannella et al., 2013). Yet, Keely et al. (2011) has highlighted the challenge encountered by health professionals around discussing sensitively, the associated risks and weight management with obese women. Lee, Ayers, and Holden (2014a) emphasize the interaction between the woman and health care professional

is one of the major factors that influence women's risk perception. Women with high–risk pregnancies can become frustrated if they feel that the information that they receive from health care professionals is being withheld or inaccurate (Lee et al., 2014a). Findings, which have been reflected by Keely et al. (2011), where the women confessed to having no prior antenatal knowledge of the obesity-associated risks. They stated that, despite the high–risk label and referral to specialist Consultant led care, that there was inadequate reference made to obesity and the associated risks during their pregnancy. The high-risk label can lead to a highly medicalized experience, which for some women creates additional stress (Jackson et al., 2006; Stahl & Hundley, 2003). For many woman, a medicalized care pathway removes their empowerment and control, which can have a negative impact on their childbirth experience (Stahl & Hundley, 2003). In contrast, Heaman et al. (1992) highlighted that often high- risk women have less positive expectations for their childbirth experience.

Simmons and Goldberg (2011) phenomenological study contradicts the findings of Stahl and Hundley (2003). This study explored seven women's experiences of living with a high-risk pregnancy following perinatal loss, and found that some embraced the high-risk label, because it afforded much sought after protection for both self and baby.

These women had access to health care services and health professionals that they might otherwise have been denied, which ultimately gave them a greater sense of control and power. They felt that they were able to access care and the technology associated with high–risk pregnancy care. The increased frequency of appointments, fetal monitoring and ultrasound scans gave them reassurance that their baby was fine, and also gave them a sense of power that they were doing everything in their control to protect their baby.

2.5.1 Psychometric model of risk - Am I risky?

It has been previously ascertained that women and health care professionals often disagree on level of risk. To explain this, a major theory of risk perception, namely the psychological approach (heuristics and cognitive approaches) is used in research to try to understand how people process information and determine their own individual risk (Kahmenan, Slovic, & Tversky, 1982). This approach works on the premise that people use cognitive heuristics in sorting and simplifying information about risk. Psychologists Daniel Kahneman and Amos Tversky, who performed a series of experiments to see how people evaluate probabilities, conducted the earliest psychometric research (Sjöberg, 2000b). Their major finding was that people use a number of heuristics to evaluate information. Three studies within this literature review namely Gupton et al. (2001), Heaman, Gupton, and Gregory (2004) and Bayrampour et al. (2013), have applied the work of Tversky and Kahneman (1974) and Lichtenstein, Slovic, and Fischoff (1982) to a conceptual framework when discussing their findings. When constructing risk, Tversky and Kahneman (1974) explain that individuals do not assess their risk based on statistical odds. Most estimate risk through using cognitive heuristics of availability and representativeness. The availability heuristic is used to judge the relative frequency of particular events, and if frequent events become more easily managed, as opposed to the concept that people are more likely not to remember. The second heuristic is the representativeness heuristic, which is a cognitive shortcut used for judging probability of an event happening by how well it represents the event they are encountering which has similar features. Slovic's (1938) work has also contributed towards the psychometric paradigm of risk perception. Lichtenstein et al. (1982) research has identified a broad domain of characteristics that can influence an individual's perception of risk. These are condensed into 3 high order factors: (1) the degree to which a risk is understood, (2) the degree to which it evokes a feeling of dread, and (3) the number of people exposed to the risk. The more a person is aware of the risk, e.g., through repeated media coverage, then the higher their risk perception. The more familiar a person is with the risks, the less

likely they are to perceive the risk as serious. In contrast, when a person is unfamiliar with the risk, this can activate the dread factor. The dread factor evokes feelings of terror, which can be uncontrollable and catastrophic. Hence, the dread factor increases perception of risk (Slovic, 1987). The more catastrophic the risk (e.g., the more people killed) then the higher the risk perception. The more controllable the risk is, this is perceived as presenting less of a risk. Other factors that can influence risk perception include the trust that we have in the government agency that are protecting us from risks. This is particularly important in health care, and in particular in the UK NHS. The more we trust midwives within the NHS, who inform women of the obesity related risks, then the less afraid women may feel. The following studies highlight other relevant factors that influence maternal risk perception.

2.5.2 Determinants Influencing maternal perception of risk

As stated previously, pregnancy is considered a critical opportunity for obesity and behaviour change interventions, as it is thought that in pregnancy women are highly motivated to make positive changes to benefit self and baby's health (Butland et al., 2007). Yet, Heaman et al. (2004) acknowledges that little is known about the factors that pregnant women consider when assessing their risk. The following studies highlight the more subjective elements of life that woman take into account when appraising their own risk status.

The qualitative descriptive study by Heaman et al. (2004), involving (n=205) women, of which (n=103) had complicated pregnancies and (n=102) uncomplicated pregnancies, explored factors that women used to determine their risk during pregnancy. The aim was to determine if women with complicated pregnancies used different risk assessment factors compared with women with non-complicated pregnancies. Data were analysed using qualitative content analysis and a comparison made between both groups. Four themes were identified, which included self-image, history, health care, and the unknown factor. The woman's self-image played a role in how she

determined her risk status. In women with complications, self-image could change abruptly in the event of a problem arising, upon which the diagnosis became the focus of risk. Women's general state of health increased or decreased their risk perception. In response, when they felt well and healthy these women perceived that their risk was lower. Women also considered their diet, exercise and health behaviours when they assessed their risk. These findings are congruent with the qualitative study of obese women, carried out by Keely et al. (2011). The women in the study by Heaman et al. (2004) raised or lowered their risk status when they smoked or had a history of substance misuse. For those women who were older, age was considered part of the risk assessment. Women used not only their health histories, but also their family histories to assess their level of risk. Those women with complications who had previously given birth used their obstetric histories and birth outcomes to assess their present risk. These findings are also similar to those of Gupton et al. (2001). Women with past miscarriages or premature births calculated the risk for a present pregnancy as higher. Women with complicated pregnancies were more likely to differentiate their own risk from that of their baby.

The third theme identified was health care. This theme indicated that for women with complications, the key to increase their confidence was the relationship with their health care provider. Women with complications relied heavily on test results, such as ultra sound scans, maternal blood tests, fetal heart rate monitoring, and fetal movements as predictors of risk. The fourth theme, the unknown, involved the belief that anything could go wrong. This element plays a key role in risk assessment in both women with and without pregnancy complications. Limitations to this study, although not acknowledged by the author, could be attributable to the study sample, as 78% of the participants were white and well educated and 71% were married. The women with the complicated pregnancies had significantly lower income and level of education. The point made is that risk perception might have been very different for single, non-white women with unplanned pregnancies. All of the participants were in the third trimester of pregnancy, and so were nearing the end of their pregnancy, which is a time when

several birth complications can arise and survival rate of the baby is increased. Again, risk perception might have been very different if these women had been interviewed in early pregnancy.

The study by Gupton et al. (2001) compared perception of risk in complicated and uncomplicated women, and found that risk perception was also influenced by the number of days spent in hospital. That is, the longer the women remained in hospital, then the higher risk they perceived. No difference was found between woman with complications and women without, in relation to stress, self-esteem, and social support. One limitation the authors acknowledged was that a convenience sampling method was used and so findings could not be generalized to the wider population.

As highlighted in chapter one, high-risk can result in a number of consequences. For example, including where to give birth, mode of delivery, methods of pain relief and engaging in invasive forms of prenatal testing (Lennon, 2016). Many studies have reported increased levels of anxiety because of being labelled as a high-risk status (Bayrampour, Heaman, Duncan, & Tough, 2012; Bayrampour et al., 2013; Gupton et al., 2001; Headley & Harrigan, 2009; Heaman et al., 2004), with these studies explored in the next section.

2.5.3 Age and anxiety

The correlational study by Bayrampour et al. (2013), determined 5 factors associated with perception of pregnancy risk. These factors included: (1) pregnancy related anxiety, (2) maternal age, (3) medical risk, (4) perceived internal control, and (5) gestational age. These results are congruent with the findings of Bayrampour et al. (2012), Gupton et al. (2001), Headley and Harrigan (2009) and Heaman et al. (2004). The study by Bayrampour et al., (2013) indicated a relationship between older women and pregnancy related anxiety, with this group feeling more anxious than their younger counterpart. Anxiety has been associated previously with higher perceptions of risk across 4 studies (Gupton et al., 2001; Heaman et al.,

1992; Heaman & Gupton, 2009; White et al., 2008). Bayrampour et al. (2013) also identified gestational age as a factor in women's perceived risk list, with women having a higher perception of danger at an earlier gestation. This factor may again be related to chance of the fetus surviving, which improves as a pregnancy advances. This study by Bayrampour et al. (2013) has limitations, given that it was not longitudinal and used a convenience sampling method that included only nulliparous women. Hence, results cannot be generalized to the wider society of multi-parous women.

Lupton (1995) acknowledges that pregnancy is now embodied within a culture of risk, and pregnant women are expected to behave in ways that reduce these risks. Unfortunately, however women have little control over socioeconomic factors that are associated with poor pregnancy outcomes (Heslehurst, Ells, et al., 2007). Very few studies in this literature review reported a significant relationship between socio-economic variables and risk perception. The following section reports the studies that have identified such relationships.

2.5.4 Social economic status

Headley and Harrigan (2009) was the only study to report a sample that consisted of predominantly non-white women. The majority of studies reviewed have reported on the findings of predominantly white, married or cohabiting pregnant women. Two prior mentioned studies reported that the majority of women with complicated pregnancies came from lower income brackets and were generally less well educated (Gupton et al., 2001; Heaman et al., 2004). These findings are important because higher levels of obesity are reported in women of lower socio-economic class (Butland et al., 2007). Papiernik, Tafforeau, Richard, Pons, and Keith (1997) identified that women who had a higher socio-economic index, were more likely to give birth in a setting with more highly qualified staff. Their study included a population-based review of data obtained from mothers who had a twin delivery in maternity hospitals in the West of France. The study was conducted with the objective of determining if access to high-level health

facilities (level 3) was related to socio-economic factors in women expecting a twin birth. The women were asked to complete a questionnaire that was designed to characterize her socio-economic status that was used to measure their perceived risk for the twins. The participating women had a choice of attending one of 3 maternity sites to labour and give birth. A level 3 site hosted a neonatal intensive care unit; a level 2 site provided a paediatric care but no intensive care, and a level 1 site level one had no paediatric or neonatal care. The aim of the questionnaire was to measure the relationship between the choice of maternity care site (level 1- 3), socio economic level and fetal and neonatal death rates. The results of the study revealed a major difference in the choice of site for giving birth to twins, with elevated social class women requesting higher quality delivery sites. This may be indicative of the differences in understandings of risk between social groups, and that the level of neonatal care provided is a major factor in chance of survival in preterm deliveries.

Lee et al. (2012) suggests that while lower socioeconomic status might be associated with objective assessment of risk, women do not necessarily perceive or make decisions based on that objective appraisal of risk. The following section indicates the influence that friends and family have on shaping women's risk perception.

2.5.5 Friends and family

It is important to acknowledge that women will consider many factors when assessing degree of risk, and not just statistical information. To determine risk, women will seek information from a variety of people, and not just health care professionals. Patterson (1993) found that black women defined high-risk as occurring when an event seriously compromised survival of their infant. This critical moment was constructed as consisting of a process of interactions, which involved discussions with friends and family in attempts to determine their level of risk. Only when family and friends determined the situation to be a problem, would women seek out health care. This finding supports that women in this culture do not prioritize

information from their health care professionals, and instead are biased by advice from their friends and family. This finding concurs with that of Simmons and Goldberg (2011), who showed that some women define their pregnancy as problematic based on prior pregnancy experience.

Women labelled as high-risk often face complex situations in which they feel emotionally challenged. How they respond to events is dependent upon how they perceive their risk (Lee et al., 2014a). The following studies will explore women's behaviour when placed in a high-risk situation.

2.6. Experience of Risk - Navigating a high-risk pregnancy

As noted previously, women's perception of risk does not always concur with health professionals risk scoring system results, which can ultimately affect how women comply with planned care. We have determined that some women are not reliant on information provided by health care professionals, and may not prioritize this information (Patterson, 1993). Instead, often they use a variety of sources to determine their level of risk, which includes discussions with friends and family and surfing the internet (Lee, 2014b). The following study demonstrated how women use their own intuition and experiences of seeing, having and reading about chronic medical conditions.

Corbin (1987) longitudinal grounded theory study reflected upon management strategies, which include protective governing that women used to exert some control over the risks threatening their pregnancy. Protective governing consists of three specific strategies: assessing, balancing, and controlling. This study examined how (n=20) chronically ill pregnant women assessed and then balanced the benefits and risks of planned care and then how they controlled the managements of related risks. The findings of this study revealed that participating women often disagreed with health professionals over the degree of risk and planned care. Some of these women lived with a chronic medical illness for which they received long-term medical treatment and when they thought that

medication had potential to cause greater risk, they were more likely to disengage from the medical regime. This finding is congruent with those of Heaman et al. (1992); Heaman et al. (2004), and Lupton (1999a). Health professionals often plan care based upon woman's biographical considerations, whereas and in contrast a decision to comply with care is determined by woman's knowledge of their illness, home support provided to care for other children, stability of their illness, and how amenable to treatment they were, and their own sense of perceived control. However, when women understand the seriousness of risk, they are generally more willing to relinquish control to health professionals, because of desire to deliver a healthy baby (Corbin, 1987). The participating women in the study by Corbin (1987) interpreted indications for intervention, with fetal movement and fetal heart rate the strongest indicators that the pregnancy is normal. The greater the sense of control the women felt, the more willing they were to work with the health care team (Corbin, 1987).

The following studies, also displayed an element of women trying to negate normality within the high-risk context. The focus for many women was on becoming a mother, with many attempting to normalize their high-risk experience by relying on the experience of friends and family (Patterson, 1993).

The descriptive study of Bayrampour et al. (2012) demonstrated how some women respond to being ascribed high-risk and some of the coping strategies they employ. This study explored risk perception during pregnancy in a sample of (n=15) high-risk women aged 35 years and over. Findings revealed the following strategies employed by the women to enable them to cope. (1) Some women constantly gathered information about their condition and actual risk status, thus educating themselves about how to improve their lifestyle through engaging in healthy behaviours. (2) Most women demonstrated desire to seek verification that their baby was "normal" and participated in surveillance tests, in an effort to seek reassurance of their babies' wellbeing, which is congruent with the finding of (Corbin, 1987; Patterson, 1993; Simmons & Goldberg, 2011). (3) Women

articulated that communication with health professionals focused around recommended screening tests, with some reporting communication with health professionals as being stressful. (4) The majority reported that age related risks was a topic that health professionals often avoided. (5) Some participants used hope and religious beliefs as a coping strategy, sometimes electing to overlook the risks in attempts to avoid stress and anxiety associated with being labelled high-risk. (6) Some women over emphasize the positive aspects of pregnancy at an older age, using this positivity to overlook the biomedical risk.

Understanding the behaviour of women, who are faced with a high-risk situation, is crucial, especially when there is contrasting views of care between health professionals and women.

Contrasting behaviour was explored in one of two of Stainton's studies. Stainton, McNeil, and Harvey (1992) longitudinal phenomenological study examined the experience of women in high-risk perinatal situations, including (n=7) women with babies in a neonatal care unit. Data was collected using unstructured interviews up to 6 month's post birth. Although not the main aim of the study, findings revealed that women follow the same developmental tasks that low-risk women use to prepare them for mothering. Namely, seeking safe passage, gaining acceptance by others, binding-in to the child and giving of oneself (Rubin, 1975). In this study, this was altered by the high-risk situation, with the unknown dominating experience creating feelings of loss of control, involvement, and self-reliance. These women were still seeking safe passage for themselves and their baby through seeking more information. In a high-risk situation, the mother often does not feel in control, and instead relies upon medical/technological information as a way of maintaining control and reducing anxiety levels. Simmons and Goldberg (2011) acknowledge similar findings with participants' in their study who demonstrated preference for care from an obstetrician in attempts to achieve safer passage for their baby. Women sought acceptance from others and recognized the high-risk situation and uncertainty of outcome, and the

profound influence of how the infant maybe accepted by the husband, siblings, extended family, and significant others. Women were responsive to the uncertainty of the outcome, by trying to protect older siblings from becoming too attached “just in case”. The developmental task of bonding to the infant was more difficult in women who had previously experienced pregnancy loss because these women described their attempts to build a wall to protect their own feelings because of fear of a further tragedy. Corbin (1987) reports similar findings of mothers holding back their emotional attachment to their baby. The final task identified was the giving of oneself, where women perceived that their job was to be too get through the high-risk situation. This often meant giving up their independence, particularly if hospitalized, and sacrificing family life in a situation where there was no guarantee of a perfect outcome.

Some women reported feeling intimidated by health professionals, because of contrasting approaches to care. Stainton (1992) reports, separately from the findings of the study above (Stainton et al., 1992), a mismatch in caring practices between the woman and the health professionals. Three themes were identified, which included “sources of caring”, “sources of knowledge”, and “sources of meaning”. “Sources of caring” is described as the mismatch between the focus of the medical staff upon the condition and maternal mortality or morbidity. In contrast, the women’s focus was upon becoming a mother. The woman focused on keeping possibilities at the forefront and problems in the background. Healthcare professionals viewed this behaviour as the woman being in denial with participants reporting experiencing fear all of the time. The second theme, “sources of knowledge”, highlights the contrast between the medical staff problem based approach and worry about fetal well-being. Whilst in contrast the woman had embodied knowledge of their baby, which gave reassurance of their baby’s wellness. Lastly, the theme “sources of meaning” again highlighted the contrast between the health professionals focus on the technological data and tasks of caring, while the woman’s focus was on making maternal contact with the baby and conveying caring as a mother.

2.7 Summary and identification of gaps in research

The existing studies have compared the women's subjective appraisal and perception of risk against objective appraisal of risk, with all studies adopting different methods and scoring tools to assess these two factors.

The studies reported herein have included a variety of conditions, often within the one study. Consequently, results between researchers have been inconsistent. Nonetheless, in general they all reflect that women recognize some degree of risk. The studies that have reported socioeconomic factors as one cause of women's incapacity to perceive risk, have highlighted those women with high-risk conditions inclined towards being less well educated and from lower socioeconomic groups (Gupton et al., 2001; Heaman et al., 2004). There also appears to be a consistent association between increased risk perception and anxiety (Bayrampour et al., 2013; Gupton et al., 2001; Heaman et al., 1992; Heaman & Gupton, 2009; White et al., 2008). In addition, existing research has included cross-sectional studies, which identify maternal risk perception at one point in time, with no longitudinal studies found that have examined the impact of pregnancy and childbirth experiences on maternal risk perception. In addition, there are no research studies that have identified whether women's risk perception changes during pregnancy or post birth. There also appears to be an evident gap in research, which has explored how pregnancy outcomes effect maternal risk perception.

The current research available has encompassed varying high-risk definitions and a variety of high-risk conditions, which limits developing of research conclusions. Current research has also identified that woman and health care professionals perceive risk differently, and that women are more likely to contextualize risk in relation to their family and social circumstances. Whereas, health care professionals view medical conditions as statistically high-risk, which is the focus of concern. Corbin (1987) and Patterson (1993) have both highlighted that such divergence in risk perception can result in women's non-compliance with planned care. This

is not an act of denial exhibited by the women, but the women themselves engaging in the process of protective governing through assessing balance and control over their own risk factors. When they cannot negotiate management of their condition, in response women may disagree and/or disengage (Corbin, 1987).

2.8 Conclusion

The aim of this literature review was to draw a parallel between the varying high-risk conditions and obesity during pregnancy and childbirth. To contextualize this study, literature was reviewed specifically in relation to obesity during pregnancy and its associated risks. The key discursive themes that I have identified from obesity discourse, medical and public health literature, place the obese pregnant woman as having a "*risky body*", and being responsible for putting self and baby at serious risk.

Evidence to date suggests that pregnancy during one's life course, may offer optimum opportunity to influence health behaviour (Butland et al., 2007). However, as indicated previously, risk perception is a central tenant to any change in health behaviour. Yet, this literature review has identified a paucity of research that relates to the obese woman' perception of risk in relation to pregnancy associated risks. Subjective perception of risk is important to understand, because it can influence whether women adhere to recommended treatment or weight management plans. Evidence of risk awareness and risk communication between the woman and health care professionals also appears to be lacking. Communication between the woman and health professionals may be the key element, which allows a better understanding of personal obesity related risk for women and their babies. Effective communication of risk may be the motivating factor towards stimulating a change in women's lifestyle behaviours.

Midwives themselves recognize the importance of gaining insight into the lived childbirth experience from obese women's perspectives (Heslehurst et al., 2013). By understanding woman's perception of risk, knowledge gained

can be used to influence development of health professionals' educational training and clinical practice. As such, education may lead to more sensitive communication of risk and a more woman centered service within which obese women can grow to understand their care and birth choices.

This study attempts to address this gap in the literature and by doing so provides the unique opportunity to explore obese women's subjective and objective appraisal of her self-risk over the continuum of pregnancy. This study also offers the opportunity to explore risk perception and the impact of pregnancy outcome. At the time when this literature review was conducted there were no studies that focused upon the following aims. Hence, this provided an opportunity to contribute to the extant body of knowledge and understanding of obese women's perceptions of their own risks during pregnancy and childbirth. In response the aims of this study were:

2.9 Aims

- To explore perception of risk during childbearing in women with an increased BMI>35kg/m^2, who are subsequently labelled high–risk.
- To explore how their childbirth experience and birth outcome impacts on risk perception over the pregnancy continuum.

The following chapter outlines the research methodology adopted to address the aims of this study.

Chapter Three: Methodology

3.1. Introduction

This chapter discusses the theoretical underpinnings of the research methodology employed to explore the *perception of risk* in women during childbirth with a body mass index > 35kg/m^2 (obesity class 1), and how their childbirth experience and birth outcomes impact on their overall perception of risk. First, a rationale is provided for the chosen Interpretative Phenomenological Analysis (IPA), followed by a discussion of the methodology and discussion to justify its congruence with the aims of this research study. Bryman (2016) articulates the importance of the formulation of the research question at the beginning of the research study, as it not only guides the literature review, but also dictates the research design, and data collection and analysis. Hence, from the beginning of this study the research questions influenced the research design.

3.2. Theoretical underpinnings

The research question, as evident from the previous chapter, has been influenced by the literature review surrounding obesity and risk perception, and all pregnancies labelled as high-risk. From a methodological perspective, it is first helpful to distinguish between quantitative and qualitative research. Bryman (2016) acknowledges that both approaches involve gathering data, but differ in terms of how the data is gathered and analysed.

Quantitative research requires the reduction of phenomena into numerical values, which are then subjected to statistical analysis. A qualitative approach, on the other hand, involves gathering data that emphasizes meanings or understandings, as opposed to collecting and ascribing numerical values (Bryman, 2016; Smith & Osborn, 2008).

This is a short definition that many would assume to be too simple, as it is postulated that both research strategies are founded upon very different epistemological and ontological foundations (Bryman, 2016). The term ontology is referred to by Koch (1999) as the exploration of the nature of reality of life, whilst ontology explores what it means to be a person. In contrast, epistemology refers philosophically to the nature of knowledge and how we know what we know.

The ontological position on how we view the body in relation to mind, body and spirit can influence the epistemological stance taken to research matters that concern health and illness. The positivist paradigm is an epistemological position that is associated with that of quantitative research. There are many definitions of positivism (Bryman, 2016; Delamont, 2007; Willig & Rogers, 2017). The positivist perspective concerns a realist ontology that assumes that there is a reality that can be reduced into smaller parts and studied separately (Lyons, 1999). In relation to studying health and illness, quantitative research characterizes a reductionist approach that allows the workings of the human body to be scientifically described and measured without contamination from subjective mental processes (Yardley, 1999). In other words, the researcher remains objective and stands apart from the research study. The emphasis is on quantification of the collected data and the aim is to test theory and to generalize the results (nomothetic). Hence, large samples of the population are required (Bryman, 2016).

In opposition to positivism stands constructivism, which is an ontology that is associated with qualitative research. The constructivist ontology tries to understand rather than explain human behaviour and is based on the idea that there are multiple realities that change over time. The reality of any individual is created by interaction between the individual, his or her beliefs, age, gender, context, culture and linguistic background (Yardley, 1999). The aim of qualitative research, with the exception of discourse analysis, is to provide an in-depth insight into the lived experiences of the individual, where by the knowledge gained from the research is created by both the

researcher and the researched (Lyons, 1999). The focus is on reflective and idiosyncratic knowledge generation (Moses & Knutsen, 2012), with reflexivity embedded throughout to acknowledge the researcher's influence within the research process (Shaw, 2010). In qualitative research, the emphasis is on the way that individuals interpret their world; hence, this involves an inductive approach that results in theory generation. IPA qualitative data analysis involves a deep analysis and involves smaller sample sizes (Bryman, 2016).

3.2.1 Rationale for employing a qualitative methodology

This research focuses specifically on the risk perception of obese women. Lupton (1999a) postulates that there are a number of ways in which risk perception is addressed, with the most common coming from a realist perspective. The realist perspective is a scientific approach that relies on the scientific calculation of probability of risk occurring. In this case the perceived setting has traditionally operated within a realist perspective of risk analysis (Alaszewski, 2006).This model of risk analysis is reliant on epidemiological evidence to map the distribution of disease and its determinants within the population and factors that put individuals at risk. This epidemiological evidence has been the basis of a great deal of scientific knowledge, with Alaszewski (2006) acknowledging that the medical profession has claimed this expertise and monopolized assessment and management of risk within the health care settings. The result of this scientific approach has produced the biomedical model of care that is based on the assumption that all diseases and physical disorders can be explained in a cause and effect way. This biomedical model has primarily been based within a positivist paradigm, and so utilizes the quantitative research model as an evidence base for care pathways (Lyons, 1999).

The biomedical model of care has also traditionally dominated childbirth and maternity care and has been applied to health and illness, which includes obesity. The biomedical model features a dualist perspective (Van Teijlingen, 2005). Descartes 17th century theory of Cartesian dualism is

based on the premise that the workings of the body can be separated from the mind and can therefore be scientifically described and measured (Davis & Walker, 2010).

Obesity in childbearing is a perfect example of Cartesian dualism, since much of the associated research has focused on defining maternal and neonatal morbidity and mortality in terms of statistical risk. Van Teijlingen (2005) acknowledges that this results in women being labelled as *high-risk* based on statistically calculated risk, with limited reference to the psychosocial and cultural influences on this condition. Stephens (2008) acknowledges that epidemiological research, which identifies causes and scope of health problems on a population basis, has been used to underline the basis of public health and health promotion. Tones and Green (2004) criticize this through stating that there is an over reliance on the epidemiological perspective that relates heavily with the biomedical interpretation of health. Focusing on risk factors associated with developing diseases ignores the social context of health (Stephens, 2008). It is recognized that the layperson's perceptions of risks are complex and their response to identified risk is defined by interplay of psychosocial and cultural factors (Stephens, 2008). For example, as stated previously, the health belief model is based on the premise that for a change in behaviour to take place, the individual must see themselves as being at risk. That is, they must believe that the benefits of changing behaviour outweighs the costs (Lupton, 1999b). The rational actor model influences this model, where people make logical choices. Hence, placing this within the context of obesity and pregnancy, this should influence the woman's response to risk by making her feel anxious about her weight and its influence on her own health and that of her baby. In theory, the anxiety created should be enough to change her dietary habits. On the contrary, Alaszewski (2006) emphasizes that individuals are not passive to information and that they do not always respond rationally to risk information. That is, they do not always respond to risk information in a simplistic way, and instead are active in looking for more information.

In addition, they may also make a decision to avoid certain information. This indeed has been a criticism of the realist approach to risk analysis, which assumes that medical knowledge is expert knowledge and that the laypersons knowledge about risks associated with obesity are lacking. Any individual who reacts differently to medical recommendations is viewed to have deviated from the medically prescribed pathway that is based on scientific knowledge (Zinn & Taylor-Gooby, 2006). Lupton (1999b) criticizes this approach to risk analysis and identifies a weakness in this cause and effect approach, which fails to recognize the ways in which scientific facts are interpreted within a cultural context. Lack of contextualization is evident in research identified in the literature review, pertaining to women with high-risk pregnancies, where women have constructed their own perception of risk based closely on their own personal values, family history, age and lifestyle (Cameron & Ellwood, 2006). Within such a framework, it has been previously acknowledged that the women's perception of risk can often differ from that of the health professionals (Cameron & Ellwood, 2006).

Hence, while quantitative research is imperative in its approach towards identifying the risks associated with obesity, it is now important to raise the question of the woman as a person and how she perceives her level of risk. Much of the research concerning risk perception has previously been questionnaire based, with it recognized that this approach does not capture the complexity of risk perception (Lupton, 1999b). As midwives, we hold the tenet of belief that the body is connected to the mind and spirit (Davis & Walker, 2010; Hall & Taylor, 2004). With regards to the obese pregnant woman, midwives are taught to recognize that pregnancy not only brings physical changes to the woman, but also psychological, spiritual, social and cultural, all of which impact on how she perceives her risk status throughout her pregnancy. This pregnancy journey involves the *whole* of the woman, with the concept of wholeness central to the approach of care implemented in the midwifery profession (Hall & Taylor, 2004).

There has been a steady growth in research, which recognizes the role of meaning and interpretation in structuring social interaction and being (Davis

& Walker, 2010). This present research does not refute what prior quantitative studies concerning obesity and risk have said, but it does offer the opportunity to further extend knowledge and gain a deeper understanding of the woman's own socially constructed perception of her risk. This research centers on what it is to be an obese woman living throughout a high-risk period of childbirth. Therefore, it has been considered pertinent for this research to adopt a more holistic and social constructivist approach to risk, which acknowledges that scientific knowledge is never value free. Rather, the premise will be that all knowledge about risks that relate to obesity are embodied within a sociocultural context and constantly constructed as part of social interaction (Lupton, 1999a). Based on this constructivist premise, a qualitative research paradigm has been adopted that offers the opportunity to develop an idiographic understanding of the participant's own perception of their risk. This approach allowed the opportunity to go beyond phenomena and how it presents itself, to reveal the hidden dimensions of the childbearing woman's thinking, and by doing so creating rich insights into any given phenomena. Various forms of qualitative methodology were considered for this study, which included Discourse Analysis, Grounded Theory, Thematic Analysis, Phenomenology and Interpretative Phenomenological Analysis (IPA). To explain the rationale for selecting IPA as the appropriate method for answering the research question, I will now provide a brief consideration of each approach and its fit with the research question. A rationale for the exclusion of each approach and for adopting IPA follows.

3.2.2 Why not Discourse Analysis?

Discourse Analysis is a social constructionist approach (Jorgensen and Philips 2002). The focus of Discourse Analysis is on the power of language as a representation of how participants talk about and construct their social world (Jørgensen & Phillips, 2002). Morgan (2010) acknowledges the role of language and how it creates and represents social phenomena.

It involves the close analysis of text, transcripts and interactions to highlight social structures and assumptions embedded in language. Discourse Analysis is an umbrella term for many traditions by which language is analyzed. The three key approaches to social constructionism that were worth considering for this study included Ernesto Laclau and Chantal Mouffe's discourse theory (Jørgensen & Phillips, 2002),Discursive Psychology (Morgan, 2010), and Critical Discourse Analysis (Morgan, 2010). Laclau and Mouffe's discourse theory is based on the premise that social phenomena are socially constructed and never static. As the meanings in social phenomena are never fixed, Laclau and Mouffe's Discourse Analysis aims to analyze the language that is used by a person to assign meanings through social process (Jørgensen & Phillips, 2002). In contrast Discursive psychology, as described by Morgan (2010), examines psychological phenomena, such as identity, memory, personality and how they are constituted through language. Discursive psychology is heavily influenced by conversation analysis and Bakhtian and Foucauldian principles (Morgan, 2010). Bakhtian discourse is more concerned with speech patterns, whereas Foucault discourse is the analysis of power and relationships within society, as expressed through language. Lastly, Critical Discourse Analysis studies complex social phenomena using a multidisciplinary and often multi methodology approach. Critical Discourse Analysis involves examining structures, text, talk and verbal interactions to study relationships between discourse, power, dominance and social inequalities, such as gender issues (Morgan, 2010). In summary, Discourse Analysis is a methodology that focuses on the function of language and how it is used to describe a person's experience, rather than assigning meaning to that experience (Biggerstaff & Thompson, 2008). On the contrary, the aim of this study was to go beyond description to generate an understanding of how childbearing women ascribe meaning to the risks of obesity during pregnancy and birth. Hence, Discourse Analysis was not considered the appropriate method to use in the present study.

3.2.3. Why not Grounded Theory?

Grounded Theory methodology was first introduced by Glaser and Strauss (1967) and later by Strauss and Corbin (1990), and has since evolved to have various other interpretations (Dey, 2004), with concepts too large to discuss within the realms of this thesis. The premise of Grounded Theory is that it is a way of generating theory through collection of research data. It is an inductive methodology that does not test theory, but rather the theory is generated from the data itself. Grounded Theory methodology is unique, given that the data analysis and collection of data occurs simultaneously. Processes involve theoretical sampling, where data is collected from the relevant population (Dey, 2004). The data is then coded and as ideas emerge more data is collected from the relevant population, which is a process that continues until data saturation is achieved (Bryman, 2016; Dey, 2004). Thus, the decisions on where to sample and who to sample develop depending on the ongoing data analysis. Categories are then developed by constant comparison of the coded data (Bryman, 2016). Grounded Theory is known as a theory-building model of research. This is because the generation of theory is the endpoint, as opposed to a theory-testing model, which begins with a theory that requires to be tested (Sim & Wright, 2000). This methodology often used in social sciences requires the researcher to discover new theory without first imposing preconceptions. During this process, the researcher is expected to suspend awareness of relevant theories and concepts until a later stage of the study. The process of bracketing has been criticized because it neglects the role of the researcher in the generation theory (Bryman, 2016). This principle is in stark contrast to the constructivist perspective, which assumes that knowledge derived from research is created by both the researcher and the researched (Bryman, 2016). The researcher brings their own fore understandings to the research, but is expected to use reflexivity to proactively explore self and acknowledge how this might influence the research findings. Another criticism of Grounded Theory has been that many studies have been reported as being mainly descriptive (Willig & Rogers, 2017).

That is the researcher who reports description of categories of meaning and experience without articulating or providing an interpretation of the experience from the individual's perspective (Willig, 2001; Willig & Rogers, 2017). In this respect, it was considered that Grounded Theory would not support the ontological principles of this research thesis. This left Interpretative Phenomenal Analysis (IPA) or Thematic Analysis as options, which seemed more appropriate methodologies for this study.

3.2.4 Why not Thematic Analysis?

The aim of this thesis was not to generate theory, but to provide a rich in depth insight into the individual experience of obese pregnant women. Hence, to achieve the aims, consideration was also given to Thematic Analysis. This is a commonly used exploratory approach to qualitative analysis, which involves analysis of text and coding (Bryman, 2016). Thematic Analysis is a method, rather than a theoretical framework for undertaking qualitative research (Bryman, 2016). For this reason it can be used flexibly across different methodologies to address a wide range of questions (Bryman, 2016). However, the lack of theoretical or philosophical foundation provided by Thematic Analysis led me to compare this methodology with my rationale for choosing Interpretative Phenomenological Analysis (IPA). IPA specifies the ontological and epistemological underpinnings that have been applied to my study and provides a theoretical framework for the study (phenomenology). Indeed, IPA provided the entire framework for conducting this study, which included directing the type of research questions to ask, sampling strategy and data collection and analysis strategy. IPA also afforded the opportunity for a more idiographic focus on participants, as opposed to using Thematic Analysis and focusing on data patterns across all the participants involved in a study. By taking the aims of this study into account and having identified that IPA's theoretical underpinnings stem from phenomenology, it is now pertinent to examine this in detail and provide a stronger rationale for using IPA as the methodology for this study.

3.2.5 Why I chose Phenomenology

Phenomenology is a philosophical approach to the study of experience, which first arose in Germany (Regan, 2012). It is concerned with the study of experience as it occurs for that individual person (Smith, Flowers & Larkin 2009). At the core of phenomenology is the attempt to understand phenomena. Consequently it is an approach that is often used in health related and nursing research (Smith, 2007; Wojnar & Swanson, 2007). There are two main approaches that have influenced most of the phenomenological studies in nursing, with these being descriptive and hermeneutics (Wojnar & Swanson, 2007). Both of these different schools of thought in phenomenological philosophy were taken into consideration in relation to achieving the aims of this study. The following clarifies the two approaches and provides the rationale for the final choice of methodology. We will consider the philosophical stance of the two original phenomenological philosophers, namely Edmond Husserl's (1859–1938) descriptive or eidetic phenomenology and Martin Heidegger's (1889– 976) hermeneutics or interpretative phenomenology.

Both of these philosophical stances fundamentally have a different focus. Husserl (1859–1938) was a German philosopher who was inspired by his Professor of Philosophy, Franz Brentano. Brentano was particularly interested in the intentionality of psychic phenomena (Bondas, 2011). To discover and describe phenomena, Husserl saw the value of returning to the self to discover the nature and meaning of things. The thing itself being the phenomenon and its structure (Bondas, 2011). Husserl's own epistemological belief placed more emphasis on revealing the "*essence*" or structure of that experience, rather than how the event was experienced by a particular person (Smith, Flowers, & Larkin, 2009). Husserl (1859) was both a philosopher and trained scientist, who was interested in describing the experience itself through objectivity (Smith et al., 2009).This as Koch (1999) argues follows a Cartesian tradition because it separates the personal experience of an individual from his life world.

Such an approach is reflective of the strong influence of Rene Descartes (17th Century) over Husserl's work. Descartes transcendental phenomenology was essentially concerned with identifying the core structures of phenomena. He believed that you could suspend all that you know about a particular phenomena. This approach requires the use of *transcendental reduction*, which involves stepping outside of our everyday experiences and focusing on consciousness per se (Smith et al., 2009). Descartes believed that in order to describe how an object appears to consciousness, it requires the use of "*epoche*" or "*bracketing*".

Bracketing requires the researcher to set aside their previous existing knowledge about the phenomena being researched, which enables them to notice different nuances about the phenomena (Smith & Osborn, 2008). As a consequence, Husserl attempted "*to bracket the content of consciousness, in order to gaze in wonder at consciousness itself* " (Smith et al., 2009, p. 15). The process of bracketing or not bracketing has become an area of great debate in the world of phenomenological research, as many phenomenologists doubt that true bracketing can ever be achieved (Smith et al., 2009). Indeed, Husserl is the subject of much criticism, as there is no identifiable steps within his work that details how such eidetic reduction can ever be achieved (Smith et al., 2009). Taking the bracketing debate into consideration, and to employ Husserl's descriptive phenomenology as an approach for this study would present a dichotomy, as his philosophical approach would be in stark contrast to my own ontological beliefs. Midwives practice with the belief that the body is not an objective entity. Rather beliefs are embodied and the whole of the woman constructed through an emotional, spiritual, social and psychological paradigm (Davis & Walker, 2010). Hence, taking this approach into account and the process of bracketing (suspending my own beliefs) could not possibly meet the study aims.

The aim in the present study was to reconnect with the experience of obese high-risk women, which involved returning as close as possible to their primordial experience from their worldly perspective. To achieve this aim,

Heidegger argued that it is impossible or undesirable for the researcher to remain objective (Finlay, 2012). Risk is not a static objective phenomenon, but is constantly negotiated as part of social interaction (Lupton, 1999a).

Another limitation of employing Husserl's phenomenological approach includes that Husserl's descriptive tradition aims to provide a description of the high-risk experience as opposed to trying to understand the phenomena in question. What if the experience cannot be described? What if participants cannot find the words to describe risk? (Willig & Rogers, 2017). To summarize, by employing Husserl's transcendental phenomenology one could describe the experience, but would not try to understand it. In contrast, the stated aim of this study was to understand the phenomenon of risk and what it means to the women who experience it, and not to simply describe it.

To find a methodology that was congruent with the aims of this study, I next examined the work of Heidegger who was a former pupil of Husserl. Heidegger questioned Husserl's philosophical stance as being too abstract and criticized it for not focusing on the nature of knowledge and only (epistemology) (Dowling, 2004). As a consequence of rejecting Husserl's epistemological knowledge, Heidegger (1889-1976) adopted his own ontological stance, which is based on the premise that we carry notions of the world with us. That is, we preconstruct our meanings, and we cannot remove preconceptions. The focus of Husserl was on describing the experience only. In contrast, Heidegger was more concerned with the ontological question of being in the world, with existence itself embodied in relationships with others (Smith et al., 2009). On the contrary, Heidegger asserts that being human is *Daesin* (there being), which forms the foundations of his major work "Being and Time" (1962/1927). "Being and Time" is based on the premise that we are individuals embodied in the social world surrounded by people, relationships, language and culture, which together influence our "*mean making activities*". That is, our everyday life experiences are socially constructed and to understand these experiences in depth, researchers must do so within the individual participants own

social and cultural context. We cannot understand the individual's experience if we do not take into account that person as they exist in their own social world as it is. It is this tenet of belief that has created the diversity in philosophical positions between phenomenologists (Wojnar & Swanson, 2007).

To summarize, Husserl's purely descriptive philosophy and Heidegger's phenomenological approach allows the opportunity for the researcher to focus on the participant and their experience within the context of their social and cultural existence (Mackey, 2005). Heidegger's focus is on the ontological understanding of "*Being*" and what does it mean to be? (Mackey, 2005). This approach was pivotal towards the choice of phenomenological methodology chosen in this study. Hence, the philosophy, and methodology of this research is hermeneutic phenomenology, and namely Interpretative Phenomenological Analysis (IPA).

3.2.6 Why I chose Interpretative Phenomenological Analysis (IPA)

IPA provided the key ontological underpinnings that allowed me to achieve the aims of this study. The philosophical methodology was used to uncover the embodied experiences of obese high-risk childbearing women and subsequently provide a rich interpretative account of their belief surrounding their level of obstetric risk (the phenomenon). IPA emerged from the work of the hermeneutic philosophers Heidegger, Gadamer and Ricoeur (Finlay, 2012). Heidegger (1889 – 1976) rejected the notion of separating consciousness from the lived world and as a result took a more interpretative stance and in efforts to answer the question of being (Smith et al., 2009). This is the most pivotal difference between Husserl's descriptive and Heidegger's interpretative phenomenology.

IPA draws on three key areas of philosophy, which includes phenomenology, hermeneutics and idiography. Phenomenology is made up of two parts, is derived from the Greek "*phenomenon*" and "l*ogos*", and is about examining meaning that is perhaps not obvious (Smith 2007).

Phenomenon can be translated as "*show*" or "*appear*" and logos can be translated as discourse and reason (Smith, 2007). IPA places the experience of the individual as central, and acknowledges how it can be influenced culturally, historically and socially, and how language can shape that experience (Shinebourne, 2011). Heidegger, Merleu–Ponty, and Satre each see the individual as being embedded in their world of relationships, language and culture, and it is the individual's relationship within that world that we are interpreting (Smith et al., 2009). To contextualize this study, and allow us to understand how obese pregnant women make sense of their risk, involves understanding their own "*embodied experience*". Zinn and Taylor-Gooby (2006) acknowledge that their own knowledge base, social group, and social surroundings shape an individual's perception and response to risk. Hence, risk perception cannot be studied in isolation from the individual's social world.

IPA methodology is idiographic, given that it is committed to uncovering in depth phenomena as experienced by an individual within their own social context (Smith et al., 2009). An individual's perception has a meaning that is related to their own life world (Smith & Osborn, 2008) and to uncover the true meaning of their experience of the phenomenon of risk due to obesity requires interpretation. To this end, hermeneutics is the study of the theory and practice of interpretation (Smith & Osborn, 2008), which involves generating a deeper and fuller understanding of the meaning of the phenomenon under study. Willig (2012) acknowledges original interpretation as being concerned with making sense of difficult documents, such as biblical texts. Gadamer (1900- 2002) who continued the work of Heidegger and whose work is often referred to as philosophical hermeneutics, argues that hermeneutics is not just concerned with collecting and analyzing data, but also with how we come to understand (Dowling 2004). Gadamer advocates that hermeneutics is based on the premise that it is not a method of understanding, but an attempt to clarify the conditions in which understanding takes place. Every understanding is an interpretation and language is central to human understandings of that

experience. Consequently, Gadamer places more emphasis on language (*logos*) and understanding compared to Heidegger (Dowling, 2004).

Hermeneutics is regarded as the "*art of interpretation*" (Dowling, 2004) and there are two different orientations. The first, suspicious interpretation is theory driven and aims to get to the meanings that are not immediately obvious (Willig, 2012). The second, empathic interpretation requires the interpreter to get inside the phenomenon and try to understand it without importing ideas or concepts from outside of the data (Willig, 2012). IPA combines both an empathic and suspicious interpretation (Smith & Osborn, 2008), with the analysis beginning with being empathic and descriptive and then becoming more critical in its interpretation. This means the end result can be very different from the analysis at the beginning. Indeed, this is considered the hall mark of a good Interpretative Phenomenological Analysis, with the research grounded in the participants own experience, but also demonstrating a deeper hermeneutic interpretation that may be different from the one that the participant offers (Eatough & Smith, 2008). Hence and based on this premise, I decided not to return the results of the analysis back to the participants, as my deeper interpretation may be very different from the one they offered.

By applying the principles of IPA to this study, the aim was to understand what it feels like to be labelled high-risk, but at the same time ask critical questions of the text of the participants. A crucial feature of IPA is Heidegger's reading of experience through a hermeneutic lens. This involves understanding the woman's experience of risk, as she perceives it through her own cultural lens (Smith et al., 2009). Interpretation of that experience allows the researcher to uncover the meaning of the embodied experience. The interpretative role of the researcher in trying to make sense of the individuals experience has been described as a "*double hermeneutic*" (Shinebourne, 2011). This process involves the researcher being given access to the participants' experience through the cultural and social lens of that person, who at the same time is still reflecting on that experience and trying to make sense of it (Smith et al., 2009). To allow the researcher to

ask questions about this experience inextricably involves them having their own standpoint. Indeed, IPA compliments my own epistemological position, given that it recognizes how my own individual midwifery experience has created my particular standpoint.

This in turn will shape my own experiences of the participant's data and interpretation of this experience, which then becomes grounded in my own experiences within the world. As such, the interpretation will be grounded in the researcher's fore–conception (Shinebourne, 2011). This approach stands in stark contrast to Husserl's (1859) philosophy, where he advocates bracketing any preconceptions. In contrast, Heidegger recognizes that bracketing is virtually impossible to completely do, he advocates that the researcher is critical and reflexive about any preconceptions and how they influence the research findings (Smith et al., 2009).

Shinebourne (2011) recognizes the dynamic and cyclical nature of interpretation, where many of the researcher's preconceptions are only understood or become apparent as the experience is interpreted. The researcher is said to engage in the hermeneutic circle, where parts of the whole of one woman's experience can only be understood on the basis of understanding the whole, and the whole itself can only be understood if you understand the parts (Shinebourne, 2011). Gadamer also uses Heidegger's metaphor of the hermeneutic circle to describe the position of the researcher and the "*fusion of horizons*". This articulated by Gadamer, is where the researcher and the participant come together from different perspectives to reach a shared understanding of the phenomena (Dowling, 2004). Gadamer emphasizes the metaphor of fusion of horizons as a process of understanding (Dowling, 2004). To explain in more detail, the horizon is our own unique vision that is always limited to what we can see from our own vantage point. The researcher is an individual who is embodied within his or her own culture, tradition and history, and hence why they have their own vantage point. The participants of this study are also embodied within their own socially constructed world. Hence, during interviews the researcher and the participant's horizons enter into one another's through the medium

of language (*logos*) (Regan, 2012). The fusion of horizons describes what happens when these two horizons encounter each other.

During the analysis of the data, the researcher enters the hermeneutic circle and by doing so they become part of the circle and move through understanding the parts to understanding the whole, until they emerge from the circle with a shared understanding of the phenomena in question. Horizons are opened up and transformed and the researcher emerges with a new understanding and with a new horizon (Regan, 2012).

As highlighted previously, the ontological stance that the researcher assumes will influence the questions that they ask of the data collected, and as a result it could be argued that the interpretation may therefore entail more of the researcher than the participant being researched (Willig, 2012). Smith (2007) advocates, therefore, that it is essential that the researcher's position and preconceptions be articulated at the beginning of the research, as this will allow the reader to understand the interpretative account. This view is mirrored by Shaw (2010) who also stipulates engaging reflexively to address our fore–understandings. Being explicit in advance of data gathering allows the researcher to actively engage the participant in a transparent manner during interpretation of the data. To achieve this goal, the researcher used a reflective diary during the course of this research. During process, I actively recorded a very honest reflective account of my thoughts and feelings and how my personal preconceptions might have influenced the study's interpretation and findings. An excerpt from my journal is cited within the reflexivity chapter (*Chapter six*), to emphasize how I explored my journey within the hermeneutic circle.

3.2.7 Strengths and limitations of using IPA.

It was imperative at the planning stages of this research thesis to be perceptive to the methodological strengths and limitations of using IPA in this study. These reflections have allowed me to coherently select, adapt and provide justification for the methods employed**.** In essence, this study explored the lived experiences of obese childbearing women and their perceptions of obstetric risk using an interpretative process.

IPA is an ideal methodology for exploring the complexities of human experience. One advantage of using IPA as a research methodology is its inductive nature, with unanticipated themes emerging from the data. The emerging themes have uncovered the experiences of women with an increased BMI who are consequently labelled as high obstetric risk. For use in this study, such an approach brings the voices of obese women who use the maternity services to the forefront. This is relevant within the NHS values based agenda (Department of Health, 2010). It is important to acknowledge the potential impact that the findings of this study can have on influencing future training of compassionate based caring communications of maternity care professionals who deal with obesity and childbearing.

A further recognized limitation of IPA and indeed all qualitative research methods, is that of meaning making and the use of language (Willig, 2012). 2012). In other words, reliance on the participant's use of language to describe their experience may prove limiting for some readers of reports. Smith and Osborn (2008) acknowledge that when studying human experience that is enmeshed with language and culture, means that it is impossible to study the meanings of experience without relying on the use of language. Willig (2012) contradicts this argument by pointing out that when carrying out phenomenological research the researcher is interested in what the experience is like for that participant, and not necessarily claiming to transfer the results to a wider audience. As a researcher, you are paying attention to the experiential meanings that are evoked by words and expressions of an individual. You are listening to that individual's

account without making any claim to the accuracy of that account. As Willig (2012) emphasizes, it is the individual's own account of their experience and their own embodied experience. What is articulated is their own worldly account, which is described by them using their own cultural language.

Another area of uncertainty that Finlay (2012) identifies in relation to IPA, is the extent that researchers subjectivity is embedded in the interpretation of the analysis of the data. Hermeneutic researchers believe that it is impossible and undesirable to not acknowledge past experience and preconceptions, with the key being to ensure that researcher reflexivity becomes a continual process and throughout the interpretation (Finlay, 2012). To demonstrate this process as stated previously, a reflexive commentary is provided within the reflexivity chapter (C*hapter six*).

3.3 Research design

This chapter has thus far provided opportunity to consider the theoretical underpinnings and choice of methodology employed in this study. What follows now is a discussion of the longitudinal approach taken in this study, which is located within a hermeneutic framework and involves seven pregnant women. First, we will examine measures taken to ensure that the ethical integrity stipulated by the Research Governance Framework (Scottish Executive Health Department, 2006) was maintained throughout recruitment, data collection and analysis of the explored data. Data analysis in this study, focused around the meaning making experience of seven individual women. The heuristic framework of analysis recommended by Smith et al. (2009) was employed and this is also discussed in detail.

3.3.1 My own vantage point

Shaw (2010) acknowledges that it is relevant at the beginning of a study to identify any influence that the researcher might have over the data collected. Hence, the reason why my ontological position as a researcher was discussed in C*hapter one*. As an experienced midwife and midwife educator, I believed that my midwifery experience would place myself in a very fortunate position as a researcher.

Given that I already had excellent communication skills and a job which requires providing high levels of compassion and empathy, I was equipped to communicate effectively in distressing conditions, e.g., breaking bad news to parents. I believed that this prior experience provided me with the skills to interview participants about the sensitive subject of obesity. However, I did recognize that my position could also present a bias to the study, given that women might not want to disclose issues that involved being critical towards midwives. What follows outlines the steps taken to uncover and interpret the experience of childbearing women who are labelled high-risk, and considers these issues. My first point of address will focus on the ethical principles adhered to throughout this research study.

3.3.2 Ethics

During and post war crime trials held at the end of the second world war in Geneva (Bryman, 2016), the Nuremberg Code (1947) was drafted as a set of ethical principles for judging biomedical experiments (National Commission for the Protection of Human Rights of Behavioral Research 1978). This Code became the prototype of later codes, such as The Declaration of Helsinki (1964). The principles for the ethical conduct of research, although initially developed for medical research, are now applied to all types of research actively conducted in Europe. The Declaration of Helsinki (World Health Medical Association 1964) issued the first statement highlighting ethical principles relating to medical research, with the Belmont Report (1978) issued by the National Commission for the Protection of

Human Rights of Behavioural Research later following on. This report identified three core principles that all research studies must adhere to:

1. Respect for the person.

2. Benefice, which applies to minimization of risk to the individual taking part.

3. Justice, which means that any research procedures, are conducted fairly. (Hennink, Hutter, & Bailey, 2010).

These three principles, when applied to research practice, translate into the following values for conducting research studies: 1) Informed consent, which involves participants being provided with enough information to allow them to make a voluntary decision about whether to participate in the study. 2) Self-determination, which translates into the individual's right to refuse to participate. 3) Minimization of harm to participants: and issuing participants with anonymity and confidentiality (Hennink et al., 2010). The steps taken to ensure that this study adhered to these ethical principles will be discussed further throughout this chapter.

3.3.3 Ethical approval

The importance of women's perceptions of their risk status cannot be underestimated, yet what is evident from the literature review for this study is that we have no real understandings of obese childbearing women's knowledge of obstetric risk. Hence, the goal of this hermeneutic phenomenological study was to gain greater understanding of the perception of risk in women who are "*labelled high-risk at the point of booking*".

The Research Governance Framework (RGF) (Scottish Executive Health Department, 2006) was developed to ensure that the dignity, rights, safety and wellbeing of participants is a primary concern in any research study. The RGF provides governance for research in health related studies and

requires that ethical committee's review proposed studies to ensure that they have adhered to appropriate ethical standards.

The process of application for ethical approval to Lothian NHS Ethics Committee, involved submission of a proposal that was delivered through the NHS IRIS site. Evidence of indemnity insurance from Edinburgh Napier University and evidence of an Honorary Contract to work within NHS Lothian Health Board was also required. Both of these documents were also submitted to NHS Lothian Ethics Committee.

The initial study proposal submitted to the Lothian NHS Ethics Committee was accepted with only minor amendments required, which specifically focused on providing alterations to the study information leaflet. Permission was granted for carrying out this study on 7th May 2014 (see Appendix 8). In addition, there was a request to amend the recruitment plan. Due to this amendment, a further resubmission to the Ethics Committee for re approval was required. The amendments were reapproved on 20th June 2014 (see Appendix 9). Lothian's NHS Research and Development Committee also granted permission on the 24th June 2014 (see Appendix 10). Post application, this study was also granted approval from Edinburgh Napier University Ethics Committee. The following sections outline the detailed steps undertaken to conduct this study.

3.3.4 Recruitment and sampling

This study recruited a purposive sample of seven women who met the inclusion criteria and were relevant to the purpose of my research aims (Bryman, 2016). Purposive sampling technique was relevant to this study's methodology, as my intention was not to generalize the findings to the wider population, but instead keep the sample small and homogenous so that I could examine convergence and divergence in the participant's viewpoint (Smith et al., 2009).

Inclusion criteria:

1. Women who were eligible to give birth within the Lothian maternity services.
2. A body mass index (BMI)> 35kg/m^2 at point of booking.
3. Being over the age of 18 and able to speak and read English. Both primi gravida and multiparous women were invited to participate.
4. The participants must have been willing to participant in a longitudinal study involving three semi-structured interviews.

Exclusion criteria:

1. An unwanted pregnancy.
2. Known fetal abnormalities.
3. A known severe psychological disorder.
4. Non-English speaking women on the basis that this was a PhD study with no funding for interpretation services, and also because there is a heavy reliance in qualitative research on language with the potential to loose meaning during translation.

Underlying anxiety or depression may also influence an individual's own perception of risk (Zigmond & Snaith, 1983), hence the Hospital Anxiety Depression Scale (HADS) was utilized to exclude individuals with mild–severe depression or anxiety (see Appendix 11). Participants with scores (8-10) or above in each subscale (anxiety/depression) were excluded from participating in the study. There was only one occasion during the study where a potential participant was excluded post completion of the HADS, which was due to an anxiety subscale score of 9. This participant later disclosed that she was being treated by the GP for anxiety and depression. To view demographics of the recruited participants (see Table 6). Table 7 details the participants' birth outcomes.

Table 6. Demographics of the study participants

Participant Pseudonym	BMI	HADS	Parity	Occupation
Participant 1-Ellis	35.5 kg/m^2	A = 0 D=4	Primigravida	Bank Clerk
Participant 2 - Erin	38.3 kg/m^2	A=5 D=1	Primigravida	Mental health Practitioner
Participant 3-Clare	35.5 kg/m^2	A= 4 D= 2	Para 1	Full time mother
Participant 4-Anna	38 kg/m^2	A=2 D=0	Para 1	Full time mother
Participant 5-Emily	43 kg/m^2	A=2 D=2	Primigravida	Bar Manager
Participant 6-Stephanie	35.9 kg/m^2	A=1 D=1	Para 1	Care support worker
Participant 7-Mirren	36.7 kg/m^2	A=2 D=2	Para 1	Full time mother

(A= anxiety, D = depression) *****Pseudo names have been used

Participant	BMI	Parity	Outcome	Complications
Participant 1- “Ellis”	35.5kg/m^2	Prim gravida	Emergency caesarean section, live male 3.628 kg, bottle feeding	Induction of labour for reduced fetal movements and unexplained episodes of vaginal bleeding, wound infection
Participant 2- “Erin “	38.3kg/m^2	Prim gravida	Emergency caesarean section, live male 4.173 kg, bottle feeding	Induction of labour for reduced fetal movements, Increased blood pressure, postpartum haemorrhage > 1000ml blood loss, baby admitted into neonatal unit for weight loss, breastfeeding unsuccessful
Participant 3- “Claire”	35.5kg/m^2	Para 1	Spontaneous vaginal birth, live female 3.683 kg, bottle feeding	Induction of labour for reduced fetal movements, vaginal bleeding and separation of symphysis pubis dysfunction
Participant 4- “Anna”	38 kg/m^2	Para 1	Spontaneous vaginal birth, live female 3.583 kg, bottle feeding	No complications
Participant 5- “Emily”	43kg,m^2	Prim gravida	Elective caesarean section, live male 3.686 kg, breast feeding	Pre –eclampsia ,Obstetric cholestasis, baby admitted into neonatal unit for infection
Participant 6- “Stephanie”	35.9 kg/m^2	Para 1	Emergency caesarean section, live male 4.218 kg, bottle feeding	Post-partum haemorrhage > 1000mls blood loss
Participant 7- “Mirren”	36.7 kg/m^2	Para 1	Elective caesarean section, female 2.857 kg, breast feeding	Pre-eclampsia

Table 7. Participants Birth Outcome

3.3.5 Access and recruitment of participants

The initial recruitment plan was devised in conjunction with an Obstetric Consultant at a large maternity unit in which there are over 6,600 births per annum. During process, the *Lothian NHS Guideline - Obesity Management during Pregnancy and Postnatally (2011)* was applied. The guideline (see Appendix 2) stipulates that women with BMIs > 35kg/m^2 should be referred for Consultant led care. At this point, the plan of care entailed receiving an anaesthetic information leaflet, and a sticker was placed in their hand held notes. Health professionals were also advised by these guidelines to discuss weight maintenance and inform women of the increased risk of complications associated with maternal obesity, which include pre-eclampsia, gestational diabetes and intra partum complications (Scott-Pillai et al., 2013).

The initial recruitment plan discussed with the Consultant Obstetrician, involved the participant's attendance at the hospital high-risk antenatal clinic. A second requirement was for the researcher to sit in on the consultation with the doctor (permission sought from the woman) who discussed the associated risks of having an increased BMI with the woman. This allowed me to recruit women who I knew had actually had this risk discussion. As a researcher, I did not want to be the person discussing the risks, but the one researching the woman's perceptions of her risk. However, the initial recruitment strategy did not commence as planned, because I discovered that the services could not cope with the volume of women with BMIs > 35kg/m^2 who had been referred to the high-risk clinics. This meant that the Consultant Obstetrician at the high-risk clinic was only seeing some of these women. That is, specifically those who had an underlying medical condition or complication. Instead, midwives in the community were seeing the majority of women with an increased BMI. This in itself is not an isolated occurrence, as the study by Heslehurst, Ells, et al. (2007) highlighted the impact of maternal obesity on the NHS where six of the maternity units participating in their study, required to change the BMI

cut off points for referring obese women to high-risk clinics, from BMI's >30kg/m^2 to referring only those with a BMI>35kg/m^2.

The result being that many women falling just below the BMI cut off point were still potentially at risk of complications caused by their weight. As a result, the initial recruitment strategy had to change to reflect the present service offered. *The Lothian guidelines–Obesity Management during Pregnancy and Postnatally (2011*) (see Appendix 2) recommend that the discussion informing women of the increased risks in association with obesity takes place at the booking appointment. Hence, it seemed reasonable to recruit participants at the booking visit appointment. This action resulted in an amendment to the recruitment plan, which was later resubmitted to the Lothian's Ethics Committee. The amendment as previously stated was accepted on 20th June 2014 (see Appendix 9).

3.3.6 Reflection on recruitment

The recruitment strategy was planned to avoid the researcher being present at the first point of contact, thus avoiding any influence or coercion of the women to take part in the study (Hennink et al., 2010). Initially I attended the community antenatal booking clinics, and hovered in the waiting area until the community midwife identified a woman with a BMI > 35kg/m^2. The midwife discussed the risks associated with an increased BMI and then forwarded the potential participant to myself via a study information leaflet (see Appendix 12). Permission was requested from the woman, for myself to approach them and discuss the study verbally. During process I made a subsequent appointment for the participant to sign the consent form. Recruitment following this plan was wasteful of my own time, with some weeks passing with no recruits. As a result, the recruitment strategy was again modified, whereby I personally identified potential recruits via GP booking referral forms that contained the woman's BMI. From this source, I identified the community midwife booking the potential participant and requested that they were given verbal information concerning the study and an information leaflet (see Appendix 12). Permission was sought for the

researcher to approach the woman by telephone. Verbal details explaining the study were related over the telephone and at an appointment organized for 3 – 5 days later when the participant could sign the consent form.

This gave a long enough period for the woman to think about the study and make an informed decision. I initially approached nine participants, with seven participants successfully recruited. In relation to the remaining two women, one later telephoned me to decline the offer of participation on the basis that it had taken her three years to lose weight. She was also devastated to be pregnant, and needed time to adjust to her situation. Another participant approached was later excluded on the basis of her high HADs score.

3.3.7 Informed consent

Informed consent is a key principle in all research studies, and refers to a process where potential participants are given enough information about the study to enable them to make an informed decision to take part or otherwise (Bryman, 2016). Philosophically this statement poses the issue of what might be considered enough information. It is recognized that the nature of qualitative research can result in unpredictable issues (which make it more difficult to be specific in information leaflets about predicting issues that may arise during the study (Bryman, 2016). To counteract this premise the information leaflet and consent form for this study was devised using a suggested template from the Lothian Ethics Committee.

The Code for Nurses and Midwives (Nursing and Midwifery Council, 2015) stipulates that all UK midwives must act in line with the Code and ensure that all clients receive informed consent. Also that their confidentiality is respected. The Code applies to all health care professionals who are providing direct care, or are in leadership roles, education, or research (Nursing and Midwifery Council, 2015). The aim in this study was to collect data by using semi-structured interviews that took a longitudinal approach, which involved interviewing participants at three time points.

1. Between 18 – 22 weeks of pregnancy.
2. Between 34 - 36 weeks of pregnancy.
3. Between 10 – 15 day's postnatal days.

The interviews allowed access to the experience of the participating women during a particularly intimate time, with a number of ethical issues requiring to be considered around the principles of beneficence and causing the participant no harm (Brinkmann & Kvale, 2008).

As this study topic was of a sensitive nature and had potential to distress some individuals, I endeavored to conduct the semi-structured interviews as sensitively as possible. Prior to each interview, a study information sheet (see Appendix 12a) and a consent form (see Appendix 12b) was provided to all participants. Participants were reassured that participation was voluntary and that they could withdraw from the study at any time. The participants were informed that all interviews could take place in their own home and would be recorded and transcribed verbatim. A preliminary risk assessment, which included the issue of the (HAD) scale questionnaire, was undertaken prior to the interview commencing. Participant's consent was sought in relation to contacting the individuals GP and Community Midwifery Team to inform them of the individual's participation in the study (see Appendix 13).

There was potential for the participants to become upset during the interviews, but as a trained midwife I had experience of dealing with such situations. Participants were also given a debrief sheet (see Appendix 14) with the GP's and Community Midwifery Team's contact details should they require further support.

3.4 Confidentiality and data protection

Data Collection and Data Handling in this study was in accordance and as stipulated in the Research Governance Framework (Scottish Executive Health Department, 2006; United Kingdom Government, 1998), and The Code for Nurses and Midwives (Nursing and Midwifery Council, 2015).

These acts are enforced during research studies to ensure confidentiality and participant anonymity are upheld. The Data Protection Act (1998) identifies eight principles to ensure that personal information is:

- Fairly and lawfully processed.
- Processed for limited purposes.
- Adequate, relevant and not excessive.
- Accurate and up to date.
- Not kept for longer that is necessary.
- Processed in line with your rights
- Secure
- Not transferred to other countries without adequate protection

These eight principles were adhered to throughout this study. Participants were assured that all data collected was kept in a locked cabinet in my office. Data files were held on my computer, which was password protected. Anonymity was maintained throughout processes through use of pseudonyms and by changing specific contextual details that could reveal the identity of the participant. Confidentiality was also safeguarded during discussions with my supervisory team through referring to the interviewees as participant 1 – 7.

3.4.1 Data Collection

The very essence of phenomenology is concerned with examining how individuals make sense of a particular experience. Heidegger's formulation of phenomenology is interested in not only examining the experience as it

emerges, but also looking deeper beyond the surface to uncover any hidden meanings (Smith & Osborn, 2008). Hence, to capture the true voice of the participant making sense of their high-risk experience, the choice of data collection instrument was important. It required being flexible enough to allow establishment of a relationship between the woman and myself over the nine-month period of her pregnancy, which eliminated using methods such as structured questionnaires and measurement scales.

Observation, although well suited to ethnographic studies did not suit the aims of this study. As the aim of IPA research is to enter into the life world of the participant and gain a rich first-hand account of their experience, Smith and Osborn (2008) suggest utilizing in depth semi-structured interviews. This idea stands in opposition to the use of structured interviews, where the researcher constructs structured questions to elicit direct answers. While it is recognized that this approach makes the analysis easier, the very structured nature of the interview questions limits what the respondent can talk about (Smith & Osborn, 2008). In contrast, in depth interviews allow individuals to tell their own stories of their own personal experience (Smith et al., 2009). In depth semi-structured interviews have the advantage over structured interviews, in that they permit the researcher to probe deeper and perhaps frame more sensitive questions appropriately (Bryman, 2016; Smith et al., 2009). Unstructured interviews are viewed by Smith et al. (2009) as a method of implementing the inductive nature of IPA to gain its greatest potential. However, as a newcomer to IPA research, I decided to utilize a semi-structured interview and so developed an interview schedule (see Appendix 15).

The aim of using an interview schedule was to facilitate opportunity for the participant to give a detailed account of their experience of being considered high-risk (Smith et al., 2009), with the interview guide allowing the researcher to direct the interview but not dictate it. Semi-structured questions allow the researcher to ask probing questions and prompt the participant to reflect on what they articulate throughout the interview. The interview schedule was not adhered to too rigidly, but instead used as a

guide (Smith & Osborn, 2008). Development of the semi-structured interview schedule was guided by the literature, by discussion with my research supervisors, and through using the schedule guided by the advice of Smith et al. (2009), on constructing a schedule for a semi-structured interview. The first and second interviews were used as a pilot. They were transcribed, analyzed, and discussed with my Director of Studies. The interview schedule was then reviewed to incorporate new areas of interest revealed from the first and second interview. Hence, questions were added into the third interview, which were focused around the birth experience and health behaviour intentions. Data was collected using the semi-structured interviews at more than one time point throughout the pregnancy continuum. This, as Smith et al. (2009) recognizes, allows access to the phenomenon from more than one perspective, at more than one time point. There was a rationale for the timings of the data collection, which was first because at 18 – 22 weeks the midwife had potential to engage in discussion about the reason for offering a detailed scan to detect fetal abnormality. This I thought should be a trigger point for the women who are at higher risk of having a baby with a congenital abnormality (Scott-Pillai et al., 2013). Again at the second interview which was held at 34 – 36 weeks the midwife should be encouraging women to discuss and complete a birth plan (NHS Quality Improvement Scotland, 2009), which is another trigger point for discussion of risk between the midwife and the woman. Precisely because these women are denied the choice of giving birth at home, in the birth center, or a water birth due to their BMI calculation (Modder & Fitzsimons, 2010). The third and last interview took place at 10 – 15 days after giving birth, which gave the woman time to reflect on her whole birth experience. Ultimately gathering data at different times from the same people in a longitudinal study is thought by Smith and Osborn (2008) to enrich understandings of the phenomena. Participants were given a choice about the interview location, although they all opted to be interviewed at home. The interviews were tape recorded and later transcribed verbatim. The interviews lasted between 28 and 51 minutes and on average were 40 minutes long. For each participant a field note diary was completed after every interview. This was used to record any key emerging themes, unusual participant reactions,

non-verbal feedback from the participant and ultimately to record if there was anything that I needed to ask at the next interview. The interview schedule was used flexibly, starting with a very general question about the woman's pregnancy and then as suggested by Smith et al. (2009) moved into more in-depth questions and accounts of thoughts and feelings. As I have an experienced and extensive midwifery background, I found that I developed a good rapport with the women very quickly. Questions were used to probe deeper or I rephrased questions that I had already asked to try to gain a deeper response to the question.

3.5 Reflections on data collection

Throughout this research journey, I continued to use my own reflective diary to articulate my own personal thoughts and initial expectations. Participants were telephoned at the beginning of the study to arrange a suitable time and date to meet for them to sign the study consent form. The natural conversation that took place at this point was essential for building a trusting mutual relationship with these participating women (Walker, 2011). Walker (2011) highlights the professional role boundaries between the researcher and the participant and the power imbalance that it can create. I did self-disclose that I was a midwife lecturer and a researcher, but expressed that my position during this interview was as a researcher. I remained mindful of my role as a researcher, as the temptation to revert to a midwifery stance during the interview process could potentially be ethically problematic. To maintain a professional boundary, I cultivated an approachable non-critical manner. I was careful to refer the woman to discuss any midwifery issues with her named midwife. My professional background and sensitive communication skills permitted me to encourage the women not only to answer my questions, but also to tell me stories about their experience. This considered communication style enabled me to ask some well-timed and sensitive questions. In response the participating women were very eager to tell me their birth stories. Berg (2010) acknowledges that women with high-risk pregnancies that may affect the wellbeing of their baby are often filled with self-accusations. Therefore, I was aware of how sensitive the

issue of obesity was when entering into discussion during the interviews. Hence, my challenge was to encourage the woman to talk about her experience of being labelled as high-risk, but at the same time leave her feeling empowered to be a good mother (Berg, 2010).

3.6 Data analysis

The aim of this study was to understand the meaning of being labelled high-risk and hence *Daesin* (there being). Fundamentally, I asked individuals to make meaning of their emotions and feelings within the context of their own culture and social interactions. My aim was to interpret this meaning through the social lens of the individual. As my focus was on the interpretation of meaning, IPA as a methodology was consistent with my own epistemological stance and also influenced by social constructionism.

The hermeneutic circle was key in the analysis of this data and provided opportunity to move back and forth across single case studies and then subsequently across seven case studies to find emerging themes. Table 8. provides an account of the seven steps described by Smith et al. (2009) that were used to analyze the data. Data analysis was undertaken with close supervision from my PhD supervisors.

Table 8. Key steps in IPA data analysis

Smith, Flowers and Larkin (2009) Key steps in data IPA analysis
1. Reading and Re-reading
2. Initial noting
3. Developing emerging themes
4. Searching for connections across
5. Moving to the next case
6. Looking for patterns across cases
7. Writing up

For the first case study, step 1 involved reading and re reading through the transcripts twice, whilst synchronously listening to the audio file. In addition, the field notes for the participants were examined. These field notes contained some powerful recollections of the interview. Step 2 involved the initial level of analysis, which involved examining the semantic content and language used at an exploratory level. This was carried out with the aim of providing a comprehensive detailed set of notes and comments on the data. Smith et al. (2009) stipulate that there are no rules about what in particular is commented on. A hard copy of the transcript with a wide margin down the right and left hand side was created for comments to be written on. Exploratory comments, starting with descriptive comments (highlighted in blue pen) were noted in the right hand margin. These comments focused on what the participant had said and noted any contradictions. Then linguistic comments, which focused on the use of the participant's language,

were highlighted (with a pink highlighter pen) and noted in the right hand margin. To move away from the descriptive data and to create a deeper critical understanding, a more interrogative approach was then employed, with conceptual comments (highlighted by a green pen) and noted in the right hand margin (Smith et al., 2009). As I became more familiar with this step in the analysis, the stages of writing descriptive and conceptual comments did indeed merge as is indicated by Smith et al. (2009).The following extract (See Table 9) is an example of the initial data analysis (steps 1 & 2) for Participant 1.

Table 9. Exploratory comments: Participant 1 (Ellis)

Line 18	Ellis: That I could be affected and what I've done could affect how the pregnancy is going to be	**Linguistic comment** (highlighted in pink) She emphasized "what I have done".
Line 19 Line 20	In addition, how I am going to be able to cope with things. I might not be able to do what things I can normally do.	**Descriptive comments** (Highlighted in blue) She is questioning how she will cope and what she might have done? How will it affect her pregnancy? **Conceptual comments** (highlighted in green) She appears to be blaming herself for anything that might go wrong.

Step 3 of the data analysis involved developing the emergent themes. This proved to be challenging, with a large amount of data generated. This stage manifested one hermeneutic circle, where the data were broken into smaller parts and represented in the form of exploratory comments. From the data set produced, emergent themes were identified and documented in the left hand margin. The development of the emergent themes involved more interpretation on my part. Smith et al. (2009) acknowledge that emergent themes are a representation of a cylindrical process, whereby we understand the whole by breaking the data down into smaller parts, but within the hermeneutic circle. As such the smaller parts are best understood by looking at the whole. The aim during this stage was to avoid being too descriptive, but to provide a deeper level of analysis, which demonstrates a combination of hermeneutics of empathy and suspicion (Smith et al., 2009).

Step 4 involved searching for connections across the emergent themes. This involved mapping the emergent themes and identifying how themes connected together under a superordinate theme (Smith et al., 2009). To achieve this, each emergent theme was listed chronologically on paper and then moved around to form clusters of related themes. The next step involved the development of the superordinate themes. A combination of abstraction, which involved identifying patterns between emerging themes was carried out. This involved putting like with like, and identifying a new name for the superordinate theme or subsumption where an emerging theme is acquired as the superordinate theme (Smith et al., 2009). From here, each superordinate theme was tabled with related sub-themes underneath. Each theme was represented with key words from the participant's transcript, for the purpose of avoiding researcher bias. A full participant's transcript is available in Appendix 16. Table 10 demonstrates Step 4 – which involved the development of superordinate themes and related sub-themes using narrative from an interview for participant 2. Table 11 demonstrates the development of superordinate themes and related sub-themes for the same case study across the three times points. In

addition, Table 12 demonstrates a summary of superordinate themes across three times points.

The next phase of analysis Step 5 involved moving to the next case study and starting the process again. To maintain the idiographic ontology of IPA, Smith et al. (2009) suggested bracketing of what I had uncovered from the previous case study. This would allow new themes to emerge in the next case study. This I found contradictory with the framework of hermeneutic inquiry, and indeed my own ontological stance, because the researcher is very much part of the research process.

Step 6 of the data analysis involved searching for patterns across the remaining case studies. For each case study there was a table of superordinate themes developed Table 13. In this stage in the data analysis involved identifying key superordinate themes for the whole group (seven participants). This was achieved with support from my Director of Studies. Using one case study (participant 2, Table 13), four key superordinate themes were identified, namely risk, communication, body image and control. The next step was to identify any connections within these superordinate themes across the remaining case studies. Connecting themes were identified in each table of superordinate themes for each participant (Table 14, participant 5) using a highlighter pen to re-cluster the superordinate themes into the new superordinate themes (yellow = control, pink = risk, blue = body image, and green = communication). The superordinate theme required to be present at least once across the three time points. Sub-themes for each superordinate theme were also re clustered and renamed. Table 15, has tabled the new superordinate themes for each participant along with sub-themes. Sub-themes were then once again re-clustered and in some instances renamed. The final superordinate themes were also renamed as:

- Risk or no risk
- No risky talk
- Me and my body

- Choice, continuity and control

The final superordinate themes and sub-themes are in Table 16. Smith et al. (2009) also recommend that it is worth examining the transcripts for differences. The final data analysis involved examining the four superordinate themes across the time points for all participants to identify any change over time, or any convergence and divergence between findings. It became apparent that two cases were atypical. These will be presented in the results section using a negative case analysis. Table 17 summarizes the data analysis stages.

Table 10. Superordinate theme: Emotional Impact	Page / Line	Key words
Sub-themes: Self - blame – failure to breastfeed Feels anger and guilt at not being able to breastfeed Was I to blame?	Pg.28 / 571 – 574 Pg.30 / 612 – 615 Pg.31/ 628- 639	Participant ; oh but he's breastfeeding, we can leave it another day, by that point it was five days, and he hadn't had any food or weight, so that was just awful**, I felt terrible.** Participant:, **I still feel kind of upset and angry about it,** thinking nobody's talked this through with me. There's nobody kind of giving me, I mean I took myself to the breastfeeding clinic, but/ Participant: I'd like to know like what's the biggest risk factor there, **was it me? .....I've got massive hips**
Superordinate theme : Emotional impact	Page/ line.	Key words
Sub-themes; Fear of giving birth Feels infuriated	Pg.9./ 183-184 Pg.22/ 438 - 439	Participant "**I had been terrified of giving birth,** and see throughout that whole day, and being on the epidural, and the centimeters going up, I actually started building myself up and thinking, right, I can actually do this, and it's not going to be that sore because I've got the epidural/" Participant ": **It was very infuriating**, because I knew that I didn't, "

What if I don't make it?	Pg.24/ 487 – 492	Participant "Like I kind of, it was almost that I knew something was going to happen, and even, aye, so then when they were taking me to the theatre I was thinking, **what if I don't make it? I**t wasn't about him, I kind of thought he was fine, it was something to do with an awareness that my body was under stress".

Table10.Extract from participant 2: Development of superordinate themes and related sub-themes using narrative from an interview for participant 2.

Table 11. Demonstrates related sub-themes for the same case study across the three times points.

Superordinate themes: Participant 2: 18 – 22 weeks.	Sub-themes
Lack of risk communication	• No discussion with health professionals about risk • Health professionals gate keeping information • No one mentions risk (health professionals) • This research has raised more awareness
Issues of control during child birth	• Lack of choice/ control • Medicalized birth • Retaining self-control • Staying in control • Choice in childbirth • Preparing for childbirth
Self-diagnosis of risk	• Self-diagnosis of risk • Feels healthy so not at risk • Denial of risk / self-perception • Making comparisons with others • Making connections with associated risks • Feeling confused • Feeling safe in childbirth • Fear of child birth/ development of baby
Body image	• Subconsciously thinking about weight gain • Concerned about body image, not health concerns • Not looking pregnant • Change in shape

Superordinate themes 34 – 36 weeks	Sub-themes
Construction of her own risk	• Awareness of associated risks • Estimating the risks of having a large baby in comparison to a small baby • Undecided about her risks • Confused about risks • Medical staff playing down the risks associated with a large baby • Making comparison with her weight, size of baby and associated risks • Knows the risks but not convinced • Recognition of risk makes her fearful of labour • The evidence of scan has highlighted her perception of her risk • Sharing her fears of risk with her family • Making connections with her increased risk and her own /baby's health • Actively calculates her own risks, uses her own intuition • No reference to risk from health professionals • Recognizing the consequences of a large baby
Making lifestyle adjustments in recognition of the associated risks	• Preparation for the next pregnancy • Recognition of the need to change her dietary lifestyle • Protecting her son from an unhealthy lifestyle • Doing best for her baby • Making dietary modifications in preparation for the next pregnancy
Body image	• Perception of appearance during pregnancy • Weight conscious • Justifying her size • Recognizing that her size can cause difficulties

	with abdominal palpation
Denial of risks	• Aware of risks but did not actually believe them • Did not associate the risks with herself
Control in childbirth	• Feeling detached and no longer in control • Feeling panicky and out of control • Losing faith in her ability to birth her baby • Wants to remain in control • They have control • Happy to relinquish control • This is completely out of my control
Feeling safe	• Partners fear • Fears the safety of her baby • Feels more secure being monitored closely for reduced fetal movement • Feeling more secure with increased medical surveillance • Feels reassured with the use of medical technology • Contradiction around increased monitoring
Midwifery – building relationships	• They – the health care professionals • Lack of relationship with the midwife • Lack of individualized care • Midwifery care focuses on the physical aspects but lack of time to address the psychological aspects of care • Bonding with her baby

Lack of information	• No reference made to risks • Feels that the information that was given was inadequate • Feels that her job title became a barrier to her receiving information • Restricted time with midwives limits the information given • Would have preferred more discussion with the midwives
Participant 2: Postnatal Superordinate themes:	Sub-themes
Medicalized model of care – Interventionist	• No partnership in care • No partnership with midwives – refers to they • Them versus me • Medical model – cause and effect • Medical model – treating the visible symptoms • Medical control of my pain • Feels like too over the top medicalized surveillance • Lack of women centered care
Safety of baby	• Safety of baby is paramount
Body image	• Weight conscious during pregnancy
Lack of women centered Care	• No one is listening • Fragmented Care • Disappointed in care • Contrasting care • Lack of individualized care

	• Focus on the monitor, mot me
Assessing Risks	• Denial of risk • Uncertainty around associated risks • Denial of own accountability • Not making any connection with increased BMI and associated risks • She does not think that she is high risk • Calculates her own risk
Recognizing the consequences of a large baby	• Fear of giving birth to a large baby
Risk information	• Lack of information about associated risks given by health professionals • Risk information – raising awareness pre conceptual advice • Getting the health promotion message across • Impact of getting the health promotion message across
Emotional impact	• Self-blame – failure to breast feed • Feels anger and guilt are not being able to breast feed • Was I to blame? • Fear of giving birth • Feels infuriated • What if I don't make it? • Feeling terrified • Feeling angry over breastfeeding • Angry over care

Control over her birth	• Losing control of my own birth • Complications during childbirth made it all out of my control • Disappointed about her C/S but it was out of her control • Decision was out of her control • Feels cheated over her birth experience • Starting to believe I can do this • Body can’t cope any longer • Her childbirth experience was out of her control • Wants more control next time • Lack of choice.

Table 12 demonstrates a summary of superordinate themes across three times points. Participant 2: Superordinate themes 18 – 22 weeks	34 – 36 weeks	Postnatal
Lack of risk communication	Lack of information	Medicalized model of care
Issues of control during childbirth	Construction of her own risk	Safety of baby
Self -diagnosis of risk	Making lifestyle adjustments in recognition of the associated risks	Body image
Feeling safe in childbirth	Body image	Lack of women centered care
Body image	Denial of risks	Assessment of risk
	Recognizing the consequences of having a large baby	Recognizing the consequences of a large baby
	Control in childbirth	Risk information
	Feeling safe	Self-blame
	Midwifery – building relationships	Emotional impact
		Control of her birth

Participant 2: Superordinate themes 18 – 22 weeks	34 – 36 weeks	Postnatal
Lack of risk communication	Overwhelming feeling of guilt	Medicalized model of care
Self-control during childbirth	Construction of her own risk	Safety of baby
Self-diagnosis of risk	Making lifestyle adjustments in recognition of the associated risks	Body image
Feeling safe in childbirth	Body image	Lack of women centered care
Body image	Denial of risks	Assessment of risks
	Recognizing the consequences of having a large baby	Recognizing the consequences of a large baby
	Control in childbirth	Risk information
	Feeling safe	Emotional impact
	Midwifery – building relationships	Control of her birth
	Lack of information	

Control – being in control, feeling, and safe, building relationships

Risk - social perception, perception/ construction, emotional impact, and lifestyle adjustment

Body Image – perception, embarrassment, justify body image

Communication – avoiding the issue, health promotion message, timing * Supervision of Supervisor

Table 13: Demonstrates that for each participant the re-clustering and identification of superordinate themes and with help of DOS key superordinate themes identified and highlighted: risk, communication, body image and control.

Participant 5: Superordinate themes 18 – 22 weeks	34 – 36 weeks	Postnatally
Issues of Control	Feels safe with medical model of care	Communicating risk
Body image	Risks need to be discussed	Medical management of birth
Labelled high risk	Continuity of care	The risks of being obese
Sensitive communication	Feels at risk	Safety is the priority
Stigmatized because of size	Choice in childbirth	Emotional status
Emotional turmoil		Relationships
Relationships		Perception of her risk

Control – relationships, choice in childbirth, feels safe with medical surveillance, medicalized care pathway, safety is a priority, wants to feel in control

Risk- labelled high risk, stigmatized, emotional impact of high-risk status, construction of risk, and complications of risk.

Body image – perceptions of body size

Communication - sensitive issue, explanation of high-risk status

Table 14: Demonstrates that for each participant the re-clustering and identification of superordinate themes and themes across the case studies–now with participant 5: risk, communication, body image and control.

Table 15: New Superordinate themes for each participant along with re-clustered sub-themes

Phase two Superordinate theme: Control	Choice Continuity and Control Sub-themes:
Participant 1	Wants to be in control, loss of control, feeling safe, relationship with health professionals, medical surveillance, birth experience
Participant 2	Wants to be in control, Loss of control , feeling safe, relationship with health professionals, medicalized surveillance, choice in childbirth, losing faith in ability to give birth, birth experience
Participant 3	Wants to be in control, relationship's with health professionals, choice in childbirth, medicalized surveillance, Birth experience
Participant 4	Wants to Be in control, medical surveillance, relationship with health professionals, feeling safe, choice in childbirth
Participant 5	Wants to feel in control, loss of control, relationship with health professionals, feeling safe , Choice in childbirth
Participant 6	Wants to be in control, medical surveillance, birth experience, feeling safe, relationship with health professionals, choice in childbirth
Participant 7	Wants to be in control, loss of control, medical surveillance, feeling safe, relationship with health professionals, losing faith in ability to give birth, birth experience, choice in childbirth

Phase two Superordinate theme: Risk	“Risk or no Risk?” Sub-themes:
Participant 1	Risk construction, social /environmental influence, self - perception of risk, emotional impact of high risk status, relationship with others
Participant 2	Risk construction, social /environmental influence, self- perception of risk, denial of risk, emotional impact of high risk status, lifestyle adjustments, recognition of high risk complications, prioritizing risk
Participant 3	Risk construction, social/ environmental influence, self- perception of risk, emotional impact, recognition of high risk complications
Participant 4	Risk construction, social /environmental influence, self- perception of risk, emotional impact of high risk, stigmatized
Participant 5	Social / environmental influence, self-perception of risk, stigmatized, emotional impact of high risk, recognition of high risk complications
Participant 6	Social / environmental influence, self- perception of risk, recognition of high risk complications, Stigmatized, emotional impact of high risk, prioritizing risk
Participant 7	Risk construction, self- perception of risk, social /environmental influence, emotional impact of high risk status, prioritizing risks, lifestyle adjustments

Phase two Superordinate theme: Body Image	“Me and my body “ Sub-themes:
Participant 1	Self- perception, normalization of body size, pregnancy legitimizes body shape, weight management
Participant 2	Self- perception, embarrassment, pregnancy legitimizes body shape, weight management
Participant 3	Self-perception, normalization of body size, weight management, embarrassment, pregnancy legitimizes body shape, constant battle
Participant 4	Pregnancy legitimizes body size, embarrassment, self- perception
Participant 5	Self-perception, embarrassment
Participant 6	Self- perception, normalization of body size, fit and healthy, weight conscious
Participant 7	Normalization of body size, feeling comfortable with “ fat midwife “, Self- perception - fat mother, I’m fat,

Phase two Superordinate theme: Communication	"No one is talking risk" Sub-themes:
Participant 1	Avoiding risky discussion, health promotion strategy, impact of risk awareness
Participant 2	Avoiding risky discussion, health promotion strategy, timing of health communication, impact of risk awareness
Participant 3	Avoiding risky discussion, sensitive issue, impact of risk awareness
Participant 4	Avoiding risky discussion, sensitive issue, health promotion strategy
Participant 5	Avoiding risky discussion, Sensitive issue, health promotion strategy, requirement for a better explanation of high risk status
Participant 6	Avoiding risky discussion, sensitive issue, health promotion strategy
Participant 7	Avoiding risky discussion, sensitive issue, health promotion strategy needs to be verbal and written, use women's stories, Social media- MUMS Net, timing of health promotion, impact of risk awareness

Superordinate Themes	Sub-themes
Choice, continuity and control	• Choice of Experience • Feeling labelled • Empowered versus losing control • Fearing risk, feeling safe - medicalized surveillance • Continuity of care – relationships
Me and my body	• Who me? Obese • Normalization of body size • Pregnancy legitimizes body shape & Size • Feeling self-conscious exposing my belly
No risky talk	• Avoiding risky talk • Sensitive Issue – "*it's how you say it*" • No healthy talk -health promotion strategy
Risk or no risk?	• Emotional consequences of her risky position • Recognition of high-risk complications –finally sinking in? • Accepting the risk

Table 16. Final Superordinate themes and subthemes

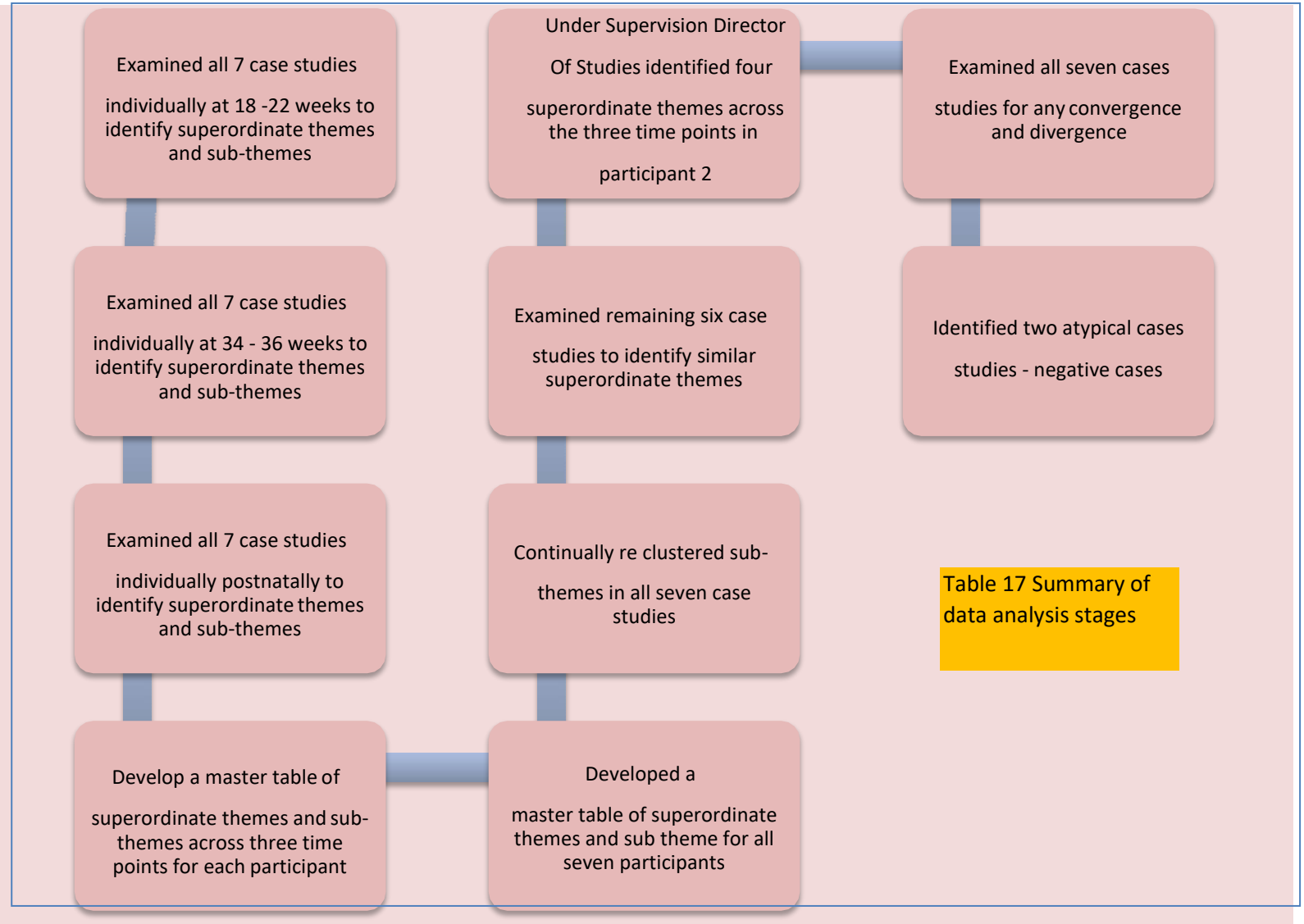


Table 17 Summary of data analysis stages

3.7 Writing up

Following recommendations from Smith et al. (2009), the results will be presented alone in the next chapter. Discussion in light of the current research follows on in the discussion chapter. There was no significant change identified in two out of four of the superordinate themes identified across the three time points. For this reason, I have chosen to present the findings from the interviews under the four superordinate themes, whilst only reporting any significant changes in time points where appropriate. Smith et al. (2009) recognize the difficulty of maintaining the idiographic focus on the individual voice when presenting data from a large data set. Hence and for this reason, I have chosen to present the findings by highlighting individual experiences using a pseudonym to protect the participants' identity.

3.8 Establishing quality in qualitative research

Establishing the quality and rigor of qualitative research presents different challenges to quantitative methodology (Bryman, 2016). There have been several criteria suggested, as opposed to the criteria for evaluating reliability and validity in quantitative research. Indeed Smith et al. (2009) acknowledge that several authors have offered guidance for evaluating qualitative research (Spencer, Ritchie, Lewis, & Dillon, 2003; Yardley, 2000). This thesis has focused on the guiding principles highlighted by Yardley (2000), which were used to direct this study. Namely, (1) sensitivity to context, (2) commitment & rigor, (3) transparency and coherence, and (4) impact and importance. What follows describes the steps taken in this study to reflect each dimension.

3.8.1 Sensitivity to context

(1) Sensitivity to context refers to many facets described by Yardley (2000) which includes context of theory, sociocultural setting in which the research took place, and ethical issues surrounding this research. This study has demonstrated sensitivity to context in numerous ways.

For example, Smith and Osborn (2008) recommend demonstrating sensitivity to relevant literature surrounding the topic area. Hence, at the proposal stage of this study a thorough literature review was carried out to identify relevant papers that discuss matters surrounding obesity during childbearing. From here, a gap in knowledge was identified and a research question formulated. Throughout the planning stages of this study, sensitivity to context was acknowledged from the initial choice of IPA as a methodology and the ethical consideration that has been demonstrated during the recruitment and data collection stage.

Obesity is a sensitive topic (Schmied et al., 2011), and to recruit the homogenous sample required, a very sensitive recruitment plan was developed. The community midwife was made the first point of contact with the woman. During the analytic stages of this study, the data was handled sensitively, with great care taken to include verbatim extracts that support arguments cited. This as Smith et al. (2009) acknowledges, maintains the participant's voice in the research study. The findings of the analysis have also been contextualized within the relevant existing literature.

3.8.2 Rigor and commitment.

(2) The second dimension that Yardley (2000) advocates, is rigor and commitment. This as Bryman (2016) states concerns the manner in which the data were collected and analysed. This IPA study reflects both rigor and commitment, with the attention to detail given especially around sensitively recruiting a purposeful sample of seven women, devising a semi-structured interview with probing questions that were asked in a sensitive manner, and meticulous detail given to the data analysis. To enhance the validity of this research study and to enrich understanding of the phenomena, triangulation was demonstrated by gathering data over three time points during the pregnancy journey (Yardley, 2000). To ensure credibility, the sub-themes and superordinate themes derived from the data analysis were examined in detail by my PhD supervisor and Director of Studies (Elliott, Fischer, & Rennie, 1999). An audit trail is available that accurately reflects the data

that was gathered (Yardley, 2000). Negative cases analysis was also utilized to strengthen rigor (Lincoln & Guba, 1985), which is reported in the next chapter.

3.8.3 Transparency and coherence

(3) Transparency and coherence relates to systematic and transparent data collection, analysis and interpretation, which Smith and Osborn (2008) highlights are markers of rigorous conduct. Hence, a very detailed description of the data analysis has been included, which reflects the third dimension of transparency (Yardley, 2000). Transparency in qualitative studies refers to how clear the processes were and what was done and why (Smith & Osborn, 2008). Yardley (2000) acknowledges that transparency can be demonstrated by presenting excerpts of the textual data and by illustrating authenticity and originality throughout the analytic process and interpretation of data (See Tables 10 - 16). Throughout this research study, a reflexive account has also been included to reflect any potential influence that the researcher may have had on the data collection and analysis (Smith 2008).

3.8.4 Impact and Importance

(4) The fourth dimension involves the impact and importance that this research can potentially have on the care of women during childbirth who have increased BMIs. The findings from this research can be used to contribute to the development of the maternity services further to meet the needs of obese pregnant women. Maternity service development may include promoting the public health issue of maternal obesity through influencing health professionals training on risk communication and employing a person-centered approach.

To further enhance rigor, comprehensiveness and credibility of this study, the consolidated criteria for reporting qualitative research (COREQ) checklist recommended by Tong, Sainsbury, and Craig (2007) was utilized

during the writing up stage of this thesis to report important aspects of the research team, study findings, context, analysis and interpretation (see Appendix 17).

3.9 Chapter Summary

This chapter reflects the research method used in this study. Namely Interpretative Phenomenological Analysis (IPA), which was employed to examine the experience of being high-risk. This methodology has provided the theoretical underpinnings of this study. Reflected throughout this chapter is the transparency of the research design, starting with practical steps taken to adhere to the ethical principles outlined in the Research Governance Framework (Scottish Executive Health Department, 2006). This is followed by a detailed discussion of the method employed for recruitment of participants. Following on from this, is a discussion concerning the data collection instrument and steps taken to examine the data, as outlined by Smith et al. (2009).The next chapter now presents the findings from the data analysis.

Chapter Four: Findings

Introduction 4.1

This chapter represents the findings of the experiential journeys of seven pregnant women who were medically considered “at risk” due to obesity. The previous chapter presented an overview of IPA methodology, including a clear audit trail of the construction of the four superordinate themes identified, 1) Choice, continuity and control; 2) Me and my body; 3) No risky talk and 4) Risk or no risk? These four superordinate themes were all interrelated and relative to each participant’s social and situational perception of risk (Table 18).

The superordinate themes are presented in a specific order. The first three themes identify how each individual’s perception of risk is shaped by their experience of being a high-risk pregnant woman attending care within the maternity system, their bodily knowledge, and their own cultural values, which are particularly influenced by friends and family. It is also highlights that interactions with health professionals and observations and self-comparison to others were key factors in constructing risk. The final superordinate theme ultimately helps to understand the participants’ situational experience in relation to their perception of risk.

The four inter-related superordinate themes are now presented in turn, and in relation to their corresponding related sub-themes. Selected extracts, which reflect the essence of each theme provide rich, detailed personal accounts that stand in support of the themes presented. An interpretation of the quotes then follows.

Superordinate Themes

Table 18. Master table of superordinate themes

Superordinate Themes	Sub-themes	
Choice, continuity and control	• Choice of experience • Feeling labelled • Empowered versus losing control • Fearing risk, feeling safe – medicalized surveillance • Continuity of care – relationships	*"Because ….. I know everybody's different, everybody's babies are different, bit I'd rather have the safety aspect of it. I was watching this morning, have your baby at home, and it's recommended. I was like, thanks I'd rather be in hospital".* (Ellis, 34-36 weeks)
Me and my body	• Who me? Obese • Normalization of body size • Pregnancy legitimizes body shape & Size • Feeling self-conscious exposing my belly	"Being pregnant, and you've got the bump, it takes the focus off it". (Claire, 34 – 36 weeks)
No risky talk	• Avoiding risky talk • Sensitive Issue–*it's how you say it*" • No healthy talk-Health promotion strategy	*"If someone had sat down and explained to me all these things were going to happen, or could happen, you would watch out for them. But nobody's ever said anything to me so I've never known what things I should be looking out for to know whether I was high risk or not". (Emily, Postnatal)*
Risk or no risk?	• Emotional consequences of her risky position • Recognition of high-risk complications–finally sinking in? • Accepting the risk	*"I don't think that I am at risk with my BMI".* (Claire,34 – 36 weeks)

4.2 Choice, continuity and control

The title of the first superordinate theme reflects the notion that the participants had choice and control of their pregnancy and birth journey. This is in-fact a stark contrast to their actual experience. All participants reported the impact of being *labelled high-risk* and that this diagnosis had far reaching biopsychological consequences which varied between participants throughout their high–risk journey. The first interview (time point 1) invited participants to tell their story starting from the beginning, the first booking appointment. The first superordinate theme therefore explores the impact of being identified as *high-risk* at the point of booking with the midwife and being subsequently placed on a high-risk care pathway. As a consequence of this, the participants care followed the *Obesity management during pregnancy and postnatally* guidelines (Lothian NHS Guidelines, 2011). The implications of these guidelines and the way in which they affected the participants' place of birth and choices available will be explored. The safety of their baby became the priority for these participants, with the focus mainly on seeking safe passage for their baby. Participants expressed a need to feel in control of their own birth experience, but accede to medical surveillance in order to seek reassurance of the safety of their baby. As a result, the participants oscillate between feeling in control and experiencing a loss of control. This superordinate theme also examines the relationship between the woman and midwife throughout their high-risk birth experience.

4.2.1 Choice of experience

As stated previously, all participants in this study were *labelled high-risk* and this subsequently restricted their choice about the place of birth for their baby and preferred mode of delivery. All the participants booked to give birth in the local Consultant led maternity unit. Four participants did not indicate whether they in fact were given a choice or indeed felt strongly about giving birth at home, in a pool birth or a birthing center. Two participants, Anna and Stephanie did experience admissions into the birthing center, despite

hospital guidelines advising against this. This was unplanned. One participant, Anna, gave birth to her daughter in the birthing center and had no complications. However, Stephanie's experience was not as fruitful. Initially she was admitted into the birthing center, but was later transferred into the labour ward because of her high-risk status. Only one participant, Ellis had a strong preference to give birth in the birthing centre in the birthing pool. However, the guidelines eradicated her birth choices:

> *"A bit upset thinking I need to deliver in a hospital, instead of the birthing center …. I did want to have a water birth… That might not be an option, because I'm classed as high- risk". (Ellis, 18 – 22 weeks)*

This outcome "*upset*" Ellis, but she accepted she had no choice. From the beginning of her pregnancy, it would appear that Ellis was very much aware of her label, she had been "*classed as high-risk"*. This phrase is suggestive that she felt that she had been segregated for being different, she was not normal and was not going to be treated as such, she belonged to and identified with the *high-risk* group. The value of this longitudinal study afforded the opportunity to capture the subtle changes in participant perception that might otherwise have been missed. Interestingly, in the second interview with Ellis, as her pregnancy had progressed with complications such as vaginal bleeding and diagnosis of a large baby, she appeared more eager to give birth in a unit that guaranteed medical supervision:

> *"I'd rather go into the labour ward where I know there is medical help if I need be. I know they are right beside each other and you can move but I'd rather be there, if anything…I'd rather have the medical care right there… labour ward with doctors, best way for me". (Ellis, 34 – 36 weeks)*

Her words "*right there*" denote automatic access to medical support, if required. Ellis appears to be reflecting a better safe than sorry attitude. The labour ward represents a safe place to give birth, and at this point in time seems precisely right for her. Likewise, as Stephanie's labour progressed with complications and she was transferred from the birthing center to the labour ward, her perception of increased medicalization of birth changed:

> "*I think personally for me my main concern was my child, so the safety of my child, if that means we have to be one level up in a bed being monitored, it's better for him…… I prefer knowing that I was up there and theatre was just two doors down and I felt more safe that I knew my risks……"* (Stephanie, Postnatal)

Emergence of pregnancy complications and the impact on the participants' choices and birth experiences becomes more evident throughout this superordinate theme.

4.2.2 Feeling labelled

As a consequence of their increased BMI, four of the participants (Erin, Emily, Mirren and Stephanie) felt that they were *labelled high-risk*, and this seemed to overshadow their pregnancy experience. A sticker was placed on the hand held maternity records that symbolized their high-risk status. This sticker was designed to alert the midwife to contact the anaesthetist when the woman was admitted into the labour suite. The purpose was for the anaesthetist to review the woman at a suitable time, to identify any problems from inserting epidurals or administering a general anaesthetic.

> "*Nothing is ever mentioned about your BMI. The only thing I got was a sticker on the front of my book*" (Claire,34 – 36)

Two participants, Erin and Emily, did stress that by being *labelled*, they felt stigmatized, and that this impacted on how they were treated by medical staff. Erin, who was actually a Health Practitioner, felt that she was

repeatedly tested for diabetes during her pregnancy, even though she had no symptoms.

> *"I was like you're just saying that as I'm fat. Just because you know he's looked at me and gone, she's fat, she's got diabetes, cause I was tired and sick…I don't really, I didn't want to go back and see him, but I ended up having to see him. I was like/… I didn't like it, I was like oh, and I might just go. But then I was like it's going to be a small victory when you prove your pregnancy test. So yeah, I didn't like that. It's horrible". (Emily, 18 – 22 weeks)*

This was also mirrored by Emily's experience with her GP, when she went for a pregnancy test and was offered a test for her diabetes rather than a pregnancy test. In her quote Emily used the words "*I'm fat*" to describe herself, she gave herself agency to do so. She perceived that her GP did not have this permission, but nonetheless her words "*he's looked at me and*..." give the impression that she felt he inspected her and automatically labelled her as fat. Emily appears to feel felt judged, stereotyped and de-individualised by the GP here. The GP automatically related her symptoms to a medical disease associated with being fat. Whereas, Emily herself did not identify with the pathology of obesity. Quite the contrary, Emily knew that she was "*feeling something different"* and returned to the GP with three positive pregnancy tests. Proving him wrong had become a battle and one that she felt she had won, claiming it felt like a "*small victory*". This experience however was not an isolated event for Emily who stated, "*You get used to it to be honest*". A phrase that is suggestive that Emily was referring to her past stigmatizing experiences. Stigmatizing behaviour towards obese individuals has been highlighted previously in the literature review chapter.

4.2.3 Empowered versus losing control

Despite the unpredictability of their high-risk status, some of the participants expressed the need to feel empowered and to take control of their birth

experience. In this next sub-theme, we see a change over the three different time points. Again the uniqueness of this study over three different time points affords this opportunity to experience temporality over the pregnancy journey.

To contextualize the participants' *high-risk* experience, at the time of this study the maternity department was part of a multi-centre research trial - AFFIRM. (Awareness of Fetal Movements and Focusing Interventions to Reduce Fetal Mortality). The trial was reviewing ways in which maternity units responded to women's reports of reduced fetal movements. Women who experienced a reduction in fetal movement were asked to follow a specific care pathway, which often involved induction of labour. SANDS (Stillbirth and Neonatal Death Society) funded this trial, with a similar trial held in Norway between 2005 – 2007,which found that following the pathway reduced the still birth rate in half. This care pathway, as will be revealed, did impact on some of the participants in this study.

We begin by examining the findings from the first interview, where participants reported a need to feel in control. In the second and third interview, we highlight that participants had begun to experience complications and consequently felt the need to relinquish control.

Like many participants, Erin reported her frustration over the guidelines of care prescribed for women with increased BMIs. She had very definite plans, stating her desire to remain within the green pathway and be cared for by midwives only. She was cognizant of the power position represented in the medical dominated model of care, which by following the guidelines would automatically have her assigned to. Her quote was reflective of a "*them versus me"* relationship of power, rather than a partnership in care:

> *"I don't know about risks but I knew about possible pathways because my sister works as a breast feeding care support worker in the hospital. So she sees all the different routes women get taken down and basically she had pre warned me, saying to me, just be*

clear about what you want, because they will assume because you are thirty-five, you've got a higher BMI, they will try and just put you right down the consultant route". (Erin, 18 – 22 weeks)

Her words encapsulate how she was feeling "*get taken down*", denotes the feeling of being seized, led or forced against her will "they *will try and put you down the consultant route*" symbolized to Erin the loss of control of her birthing experience. Her words here almost suggest a fearfulness of her birth experience being stolen from her. Erin gives the impression that she felt that she would be led astray from her own personal plan to give birth naturally. Being cared for within the medical model denoted risk assessment and diagnostic surveillance, thus removing Erin's chances of normality. This is evident in Erin's narrative, where she alludes to not wanting any unnecessary interventions "*they want you linked up to all sorts of monitors*". She gives the impression that she wanted to feel empowered and remain very much in control. As this was Erin's first pregnancy, it was evident from her quote that her sister's pregnancy experience had a significant influence on her. Ultimately, the essence of her narrative illustrated a reluctance to accept medical dominance in the form of surveillance and control of her body.

None of the participants appeared to use a written birth plan to express any preferences during birth. However, both Stephanie and Erin were vocal with regards to their chosen method of pain relief. Again Erin's words reflect her need for self-control when she was referring to the idea of using hypnosis, "*I would feel better if I can stay in as much control of keeping myself relaxed as I can*". Stephanie was determined to avoid an epidural as she experienced great difficulties having one cited in her first pregnancy.

Both Stephanie and Mirren's previous birth experience had a significant impact on how they felt in the current pregnancy. Mirren was one of the participants who had experienced an emergency caesarean section for pre-eclampsia with her first baby. Both Mirren and her husband had reflected back on this experience and both felt they we not in control of proceedings.

For this pregnancy, Mirren was booked under Consultant care. Both Mirren and her husband met the Consultant for the first appointment to discuss the plan of care:

> *"I very much got the impression I was in control and they would have respected whatever I wanted, so I found that, that actually, that was my biggest stress, in a way, that they would force me to do something, and I didn't feel that was the case, so I don't feel anxious about it". (Mirren, 18 – 22 weeks)*

Mirren's account juxtaposes that of the previous extracts where here having control brought responsibility and culpability for the outcomes of the birth experience. Mirren initially appeared concerned, stressed about losing control "they *would force me to do something*". "*They*" referring to the medical staff would make the decision for her. However, her fears were allayed after her first meeting with the Consultant. She was left feeling that she would be in control of her own birth experience, she had choices.

The remaining participant, Stephanie had a previous forceps birth, where she recalled feeling out of control. Hence, for this pregnancy, she stated a strong desire to remain in control. Stephanie this time around, wanted to avoid induction of labour. Yet, Stephanie's place of birth was dictated by her BMI. Although she never intended to give birth in the birthing centre, she was actually admitted for a short time and was later transferred to the labour suite under instruction from medical staff, because of her previous obstetric history and increased BMI. As Stephanie recounted this story to me, I did not sense any real disappointment from her, as the safety of her baby took precedence over the directed place of birth.

> "I *went to the birth center, only for an hour (laugh). Went to the birth center and the doctor says.. when the doctors came on, think they come on about nine o'clock. They turned around and said "Look, she's actually not as low-risk as you think, if you look at her previous pregnancies". So they were like, be sure you come up to the labour*

ward. It did confuse me a bit, but I think, when you are in that stage, you just want safety first and reassurance's you go with what's best and gives you more peace of mind". (Stephanie, Postnatal)

The participants in the study appeared to want to feel empowered and to retain control up to a certain point, but once they started to experience complications particularly around birth, they seemed content to render their own personal responsibility. The participants' narratives in the second interview centred mainly on emerging complications, which started to reveal a shift in power control between the participants and the medical staff. As complications arose, it was apparent that this became the right time to relinquish control and responsibility back to the medical domain. This was highlighted particularly during the postnatal interviews, where four participants stated that they felt a loss of control over their birth experience.

"*I would have been like, kind of like a proper mum, you know, give birth naturally, but he needed to be helped and I clearly wasn't well, so it was the best thing for us both, that's the main thing……..I wasn't prepared for like an hour after we had been in, here's what you need to do….I think the safest option was definitely a section". (Emily, Postnatal)*

What is of interest in Emily's quote is that she has prioritized the needs of her baby over her own desires to birth naturally. This is the very essence of motherhood, yet she fails to recognise this. Emily's account illustrates her disappointment in not giving birth naturally. She associates "*a proper mum*" with one that gives birth vaginally. It could be postulated that she felt a failure, as she could not even manage that. She was not prepared mentally for her caesarean section, but does concede that it was the safest option for them both.

Three of the participants, Erin, Ellis and Claire reported a reduction in fetal movements, and therefore experienced induction of labour. Ellis in particular

was not comfortable with this decision but was compliant with the plan. Ellis's quote below reflects a real sense of tension:

> *"My body is obviously not ready to have the baby just yet, and they are physically, medically starting it". (Ellis, postnatal*)

She refers to the health professionals as "*they". "They"* are performing a medical intervention against her will. She appeared to be in touch with her body and knew what she wanted but had no control over it. Once "*they" took* over her body, Ellis appeared to form a sense of detachment from her body "*my body is not ready"*. Hence, she had lost control over her choices. Her words reflected the power position of the medical dominated midwifery model. She clearly felt a loss of empowerment and control over her birth experience.

The longitudinal nature of this study also reflected Erin's strong desire to remain in control, and her fearing of losing control. Her narrative around the time of birth was particularly poignant, as she also appeared to be reluctant to be induced. Her own words "*If they would let me carry him longer, and then give me a Caesarean,"* revealed the shift in power and her losing control, from Erin planning a birth with no interventions to one that involved medical induction of labour. Erin clearly felt that the medical staff were in control, expressed as "if *only they would let me carry him longer".* This phrase gives the impression that she was actually asking for permission, pleading for authorization to carry her baby longer, she was no longer in control. It would seem that Erin at this stage started to lose trust in her ability to give birth, and the prospect of giving birth to a large baby haunted her. After many hours post induction, Erin progressed to active labour. However, her progress in second stage of labour slowed down. At this point, Erin described her disappointment and perception of losing control during labour.

For a short period, she thought, "I *can actually do this*". However, the decision was to proceed to an emergency caesarean section, which left her feeling somewhat "*really disappointed":*

"I just felt really disappointed. Aye, at that time I felt really disappointed and just thinking, I felt like everything was going just right, after I mean, the induction, that was horrendous, like that day just kind of felt like it was going ok, I know it took hours but I felt like oh, I was progressing to something. And then I just kind of got whipped away at the last minute". (Erin, postnatal)

Erin used the word *"I"* to denote her control over *her* birth. She felt that she was making progress, moving closer to birthing her baby, and then *"I just got whipped away at the last minute".* She was ready to birth her baby, but suddenly the opportunity was whisked away, her control gone. Control appeared to be taken away at different stages for each participant. Here the control was taken very suddenly and at a very late stage during Erin's labour.

The two participants who experienced a vaginal birth made no reference to retaining or losing control during birth. One participant despite experiencing a caesarean section still felt in control:

"*I don't feel like I was forced into having a section, but you know, I felt that I was given advice and that was…and actually, for me, when I met with the consultant to start everything, I said I don't really want to be induced and she said fine ……...Everyone said every stage is up to you, you don't have to".* (Mirren, postnatal)

4.2.4 Fearing risk, feeling safe - medicalized surveillance

The previous sub-theme illuminated the participants' compliance in relinquishing control when faced with fear of complications. As highlighted, fear meant that they readily accepted medical interventions and an acceptance of trust in medical knowledge and expertise, as it made them feel safe. This sub-theme accentuates the participants fear factor and desires to seek the safety of both themselves and their baby.

Six out of seven participants experienced complications and as a result experienced care that was governed by more intense medical surveillance of either the mother or baby. Three participants Ellis, Erin and Claire experienced episodes of reduced fetal movements, which required an increase in medical surveillance in terms of fetal monitoring. Four participants, Ellis, Erin, Stephanie and Emily were all diagnosed with potentially large for date babies, and therefore experienced increased medical surveillance in the form of frequent abdominal scans to monitor fetal growth.

One participant in particular, Emily experienced the most intense medical surveillance, as she attended the metabolic clinic as well as seeing her own community midwife. She appeared to relish the extra medical surveillance *"I kind of felt a bit special, I was like I'm going to get extra scans".* It would appear that her *high-risk* label had rewarded her with access to more scans. Initially, Emily felt safe with the attention, however this became more onerous and it was evident by the second interview that she perceived that her visits to the metabolic clinic were "*pointless"*.

> *"You sort of go in, she checks my weight, she checks everything and that's it. So it's kind of … to me, it's getting more pointless, because I learn more from my midwife here, but then I like all the scans, so I go every week". (Emily 34 – 36 weeks)*

Emily allures to the fact that the metabolic clinic confirms the physicality and safe progress of her pregnancy, she "*likes all the scans*", but "*that's it*". This would suggest that Emily is looking for more, perhaps the relational aspects which her midwife provides. Perhaps the relational aspects of care offer just as much reassurance as the medical aspects.

Two participants Stephanie and Mirren experienced problems with blood pressure in their first pregnancies, and as a result, they were to be monitored closely during this pregnancy. Both women appeared to welcome the planned medical surveillance. Mirren's quote below captures the

essence of her fear of her baby being damaged during pregnancy or birth. She felt reassured with the plan to intervene at an early stage if her pregnancy deviated from the normal:

> *"But she was, like she made it very clear they would monitor very closely, and they'll have a very low threshold for anything, like if anything starts to go wrong there'll be no, in case that's cause of it, they give her, her heart rate changes or anything, they'll just, so I feel reassured…….I just, I'm pleased that this time the consultant has said that if you haven't gone in to labour within seven days of your due date they we will do a section. Not pleased, cause I don't want a section, but I'm pleased that I know that's the parameters we are working with…….. (Mirren, 18 – 22 weeks)*

It would appear that Mirren wanted a plan, rather than face uncertainty. She would rather avoid a caesarean section, but nonetheless felt safer working within defined parameters. Parameters create boundaries, boundaries to her provided safety. In contrast to these findings, one participant complained of reduced fetal movement and was given an ultrasound scan. Erin initially welcomed the sound of her baby's heartbeat and visual movement of her baby on the ultrasound scan:

> *"I could hear his heart".* (Erin 34 – 36 weeks)

This phrase is poignant, as to her he was now a real person, her baby, very much loved, very much alive. Erin stated she felt reassured by the first scan, but then started to feel frustrated by the frequent visits required to maternity triage for growth scans, bloods and blood pressure monitoring. Her postnatal interview revealed a contrast to her initial feelings. Interestingly, it should be acknowledged that her perceptions of over surveillance were expressed postnatally after the birth of her normal healthy baby.

> *"I thought the longer that went on the longer I thought, it was, it felt like overkill…And that that whole, the in and out of triage thing, totally ruined the last bit of my pregnancy". (Erin, postnatal*)

It would appear that initially Erin felt reassured by the hospital visits, but the frequency soon medicalized her whole birth experience, and took away excitement from the actual birth.

The feeling of being *safe* and protecting their unborn baby appeared to be the main priority for the participants, and as a result dictated the place of birth, and consequently the woman's birth experience. The feeling of being safe *was* paramount, and this was illustrated by Ellis, who as mentioned previously agreed to have an induction of labour for reduced fetal movements "*the safest option to get him out*". It could be postulated that she felt that she was in a position of powerlessness as a mother and that she was responsible for protecting her baby. Hence, the only way she could guarantee his safety was by agreeing to the induction. It became evident from her next interview that her choice of place of birth became a secondary priority, with the safety aspect of her baby coming first. As demonstrated in the following quote:

> *"I know that there are midwives in the centre but it's getting you up to the labour ward, whereas they are there and there's Consultants there at the* same time". (*Ellis, 34 – 36 weeks)*

Although Ellis acknowledged that there were midwives in the birthing centre, it was a distance away from the medical expert, who was the Consultant. She perceived this distance as an obstacle and attempted to control the uncontrollable by giving birth in the labour ward, which was a place where she felt she was within safe distance of medical assistance. This was affirmation that she would do what she had to do to guarantee a live healthy baby.

Despite complications, all participants shared the same commonality, in that they all gave birth to a live healthy baby. Five out of seven of the births resulted in caesarean section, with two babies weighing over 4kg. Ellis was the first participant to give birth to a live male son by emergency caesarean section. Ellis's recovery from the caesarean section was complicated by a wound infection, which is common in obese women (Richens & Lavender, 2010). Ellis felt that her complications had made this, in her own words, "*the worst pregnancy experience".* Ellis's birth experience was like many of the other participants, overshadowed by the need to ensure her baby was safe. She was prepared to do what she had to do, to ensure the safe passage of her baby:

> *"As long as the baby is healthy at the end of the day, I don't care how he comes out … I was a bit disappointed, but at the end of the day I'd rather have the baby than delivery so long as he is healthy I don't care". (Ellis, postnatal)*

Hence, reflecting back on the birth experience, Ellis demonstrated a change in her perception. Safety of the baby was the main priority. It did not matter how she delivered her baby, but it mattered that he was born alive and healthy.

Erin also experienced an emergency caesarean section, giving birth to a live male who was later admitted into a neonatal unit due to excessive weight loss. Erin was one of three participants who initiated breastfeeding. Unfortunately, Erin did not sustain breastfeeding and by the postnatal interview had switched to bottle-feeding. Erin expressed her disappointment, particularly in relation to her birth outcome. From her quote, it is evident that there were times during her pregnancy where she had feared giving birth vaginally. However, mentally she wanted to overcome that fear and began to prepare to believe in her own ability to birth vaginally "I'm *actually going to give birth*". The moment had come, where she was actually going to need to birth her baby. This belief was short lived as her lack of progress determined by vaginal examination decided her fate.

Mentally she was ready, but her body had let her down. In such a short space of time, she had to come to terms with her bodily failure. The decision was taken to proceed to a caesarean section:

> " *.. the longer the day went on the more I thought, oh right actually I'm going to give birth here and then aye, it is, it is disappointing it never happened, it is, I can't say I'm glad I got a caesarean section. There were times when I was pregnant where I thought right I'll just have a caesarean because that'll be a lot easier, but actually no, once I had, once I was in the process of it, I was kind of looking forward to pushing him out, and then aye, it was just kind, you were waiting on that, examining and that was it, it was just decided in two minutes". (Erin, postnatal)*

Gone was Erin's opportunity and the associated sense of achievement from bringing her baby into the world. The feeling of being the only one, who could have done that, had gone. Instead, this opportunity was stolen from her, by the medical team. Perhaps she felt that her role had been eradicated and instead she was a helpless bystander.

In her third interview, Erin stated that she felt that her postnatal care was disjointed and that she did not receive enough support with breastfeeding. It could be postulated that Erin felt that she had failed as a mother and as a result, she chose to externalize her anger and disappointment, which exonerated herself from any personal blame. Instead, blame is attributed to the NHS:

> *"I lost 800mls of blood, and then of course I was anaemic as well after it, which can affect your milk and everything. I'm quite; I've got a lot of anger towards the NHS right now". (Erin, postnatal)*

In contrast to the experience of Erin, two participants who also experienced a caesarean section remained positive about their birth experience. One of the participants who was Emily, her pregnancy was complicated with

obstetric cholestasis, premature rupture of membranes at thirty-seven weeks and high blood pressure. On admission into the labour suite, a fetal tachycardia was diagnosed, which complicated her pregnancy further. Consequently, she was given the choice of being induced or having an elective caesarean section, Emily chose the latter. Therefore, although not the birth experience she had envisaged, she appeared pleased that at least she was given the choice. She did however allude to the fact that perhaps this might have been her fate because of her "*extra risks*":

> *"I was quite pleased they gave me the choice. They went through all the options and they said like, there are extra risks because of your weight and everything else…… I think they probably offered it me because I had a higher BMI…….but I think it was more when they were on about the aftercare and how long it would take to heal, and they were saying like, depending on where they do the incision depends….like, if you are a lot heavier then it will take longer to heal and …….. it made me kind of sad that I didn't have a lower BMI to be honest……(Emily, postnatal)*

It would appear that Emily felt sorrowful, dejected and regretful "*it made me feel sad that I didn't have a lower BMI*". The reality of her BMI and added complications was hard hitting here. What is of interest though is that Emily does not overtly speak of regret in regards to losing weight. She refers to medicalized terms such as BMI, perhaps reflecting a sense of shame or alternatively, a means of deflecting blame elsewhere.

Both Claire and Anna experienced vaginal births. As discussed earlier, Anna gave birth in the birthing center with no complications. This was not planned, and so she remained unsure as to why she was admitted there, when she did not meet the criteria for entry.

> "*So they filled…like, they filled the pool up and I never even got in the pool because by the time they had filled it up and waited for it to warm up and I'd got all my stuff ready and that, I only had to push*

about three or four times and that was that, she's here". (Anna, Postnatal)

4.2.5 Continuity of care - relationships

It is evident from the sub-theme "Fearing risk, feeling safe–medicalized surveillance", that being labelled high-risk placed the participants in a vulnerable position. It was also evident that in times of risky uncertainty they placed a degree of trust in both the midwives and medical staff. The importance of a trusting relationship was reflected in the fact that all participants mentioned their relationships with health professionals during the interviews. Hence, this sub-theme explored the relational element, that inter-personal partnership between the woman and her midwife. This was predominantly discussed within the context of continuity of care with the midwife. The communication element of that relationship will be explored in the superordinate theme "No risky talk".

Continuity of care with the midwife was a central theme highlighted by four of the participants. For two of the participants, this was their second pregnancy. Hence, they were able to compare the two different types of midwifery care models. In her second pregnancy, Stephanie emphasized the point that she was able to "*build a relationship"* of trust with the same midwife:

> *"My midwife was great. I thought it was great that having the same midwife. I really like that. I like … so I could build a relationship you both trust. I really like that. And it gave you that reassurance obviously. So from having Orla to having Ethan, I would say for me was really enjoyable experience …….I had different midwives with Orla, so it was really nice to have that and know you are going to see the same person". (Stephanie, postnatal)*

She expressed her vulnerability in her own words "*It gave you reassurance*", denoting her feeling of powerlessness, her need to feel protected by the midwife, and the need to protect her unborn baby. She needed to construct a relationship with the midwife based on trust. Trust required regular, consistent care. Stephanie felt the need to have faith in the midwife, after all she and her baby were reliant on her.

Continuity of care by the same midwife also proved invaluable for two participants (Mirren and Emily) who experienced pregnancy complications. Emily perceived that her own community midwife was instrumental in her diagnosis of obstetric cholestasis. Mirren also reinforced the value of continuity. In her previous pregnancy, she had experienced pre-eclampsia and it was continuity of care provided by her own midwife who noticed the change in her face and diagnosed facial oedema (a symptom of pre–eclampsia). This oedema had gone unnoticed by her family:

> *"Last time I had the same midwife pretty much all the way through... I started to get oedema on my hands and face. My mum and husband hadn't noticed because it happened gradually. I hadn't seen her for two weeks because she was on holiday and she knew it and she said to me your face looks really fat……I'm a bit scared by the constant change of home midwives this time".*
> *(Mirren, 34 – 36 weeks)*

In this account, Mirren recounts her symptoms noticed by the midwife. The phrase "*I'm a bit scared*", suggests Mirren is still reminded of the events of her previous pregnancy. Now in her second pregnancy she experiences fear and a sense of panic in light of the contrasting lack of continuity of midwifery care. For Mirren, the possibility of developing pre-eclampsia in this current pregnancy may go undetected.

Not all participants' experiences of health professionals were positive. Three participants reported midwives were often "*too busy*" with no opportunity to

develop a trusting meaningful relationship with them. The following quote from Erin best illustrates this:

> "*My midwife's brilliant but I just think that they've got to do checks, like the physical checks to make sure everything's fine. And that's really, that's what they need to cover in that session so there is probably isn't enough time for all these other things…" (Erin 34 – 36 weeks).*

The fifteen-minute appointment times forced the midwife to monitor physical needs of the mother and baby. The focus was on the risky aspects "the *physical checks*", rather than providing a holistic approach to care". *There probably isn't enough time for all these other things*…" The "*other things*" she allured to, may be suggestive of Erin's desire to form an open trusting relationship with the midwife during their vulnerable time. Feeling vulnerable meant that she had many things she wanted to discuss with the midwife, but felt that she could not. The limited time factor appeared to be the barrier. Therefore, some participants avoided asking questions and chose to seek information elsewhere.

> "…..*my midwife was too busy when we had an appointment. So I only had my ten minutes and she had to get someone else in, so it's getting the time with her".* (Claire, 18 – 22 weeks)

4.3 "Me and my body"

This superordinate theme "Me and my body" provides a contrast with the findings from the first superordinate theme, in the sense that although the participants were classified as *high–risk* based on their BMI classification, they refuted the classification of obese. They knew that they fitted into the classification, but were shocked at being labelled "*obese*". This was not their self-perception of their body image.

4.3.1 Who me? Obese

Many participants' reflections of their body image were not congruent with an "*obese body*", and hence they refused to accept the "*obesity label*". They did not identify with the medical connotation or pathology that related to obesity. Ellis demonstrated resistance to being labelled as *obese* in the following quote, where she revealed a sense of yearning to be accepted as a normal person. In addition, Ellis did not want to be stigmatized as being lazy:

> *"I don't think I am that chunky, compared to some people.. no, a little bit, but not, to some extent I know that I am slightly overweight, but compared to some other people who are extremely overweight and have loads of fat and big legs who can't get of the chair, that's not me. I get up every day, I work. I am like a normal person, just slightly bigger". (Ellis, 18 – 22 weeks)*

Here, Ellis appears to use a process of downward comparison as a means of avoiding or possibly denying the significance of her weight. She tentatively acknowledges that she is overweight but cannot accept this '*label*' and does not identify with it. It is as though Ellis struggles to recognize her actual self here. Choosing to compare herself to only those who are '*extremely overweight'* rather than to recognize herself as being larger than the norm, may serve as a defence mechanism. Ellis, like many of the participants does not yet appear ready to accept the reality of her weight. This reluctance is also reflected in the following quote from Claire:

> *"I wouldn't actually think I was overweight, but when you watch these programmes of people who, like secret eaters or something like that, they look huge compared to what I was thinking of myself " (Claire, Postnatal)*

The following quote also demonstrates Anna resorting to using downward comparison with *bigger women.*

> *"When I see people that are bigger than me, like bigger women than me, I do think, like I never used to think about it, but now I do, I'm like well I am at high- risk, but it just obviously shows that I'm not at the highest risk. Like there can be, obviously you do get people that are bigger than me" (Anna,34 – 36 weeks).*

While Anna reluctantly accepts the high-risk label, she appears to justify her high-risk status by downward comparison with "bigger women", perhaps to counteract the fear she really feels. After all there is bigger women with a higher risk than her.

The other participants further reinforced these beliefs also. Mirren for example described her feelings about being ascribed this label as *"I don't really, like I don't feel massive"*. Again, the obesity label did not appear to be congruent with her own self-image, she did not feel enormous, gigantic, but she avoided any reference to how she actually looked, in terms of her size. The other participants also used words such as "*overweight, slightly overweight or chunky"*, to describe their self-perception. They specifically avoided the use of the words "*fat"* or "*obese".* It appeared that the participants were perceiving themselves through a particular lens, a highly selective lens that perhaps serves as a coping strategy during their pregnancy. To view themselves via an alternative, realistic lens may implicate them in terms of responsibility for the health and well-being of their baby. This finding resonated with me, as it made me reflect on my own use of the word *obese,* and from this point onwards, I avoided using this term. In its place, I used the same wording as the participants, namely *overweight.*

It would appear that the participants had painted an individual canvas of their own body image. However, this appeared to be influenced by their social surroundings, as each participant belonged to a particular culture and has their own life script written within their family and social circle. This is

demonstrated in the next sub-theme where the influence of friends / family and the social environment is apparent.

4.3.2 Normalization of body size

As highlighted from the previous sub-theme, the participants compared themselves to other overweight women and by sizing themselves against them, they endeavoured to appear normalise their size. Ellis demonstrated resistance to being labelled as obese in the following quote:

> *"They class you at high risk at 35, and I'm 35.3. So they said it was just overweight. Whereas people can have BMIs of 40,50, they might have bigger problems. So they said I was more in the normal side than the higher risk" (Ellis, Postnatal)*

She appears keen to avoid the obese label as this represents greater risks, she just wants to be seen as *normal*. Perhaps If she is seen as *normal*, then she can deny the risks. To be labelled obese was at odds with the participants own self-perception and self identity. This was evident in the findings from four women in this study (Emily, Claire, Anna and Erin). In particular, one participant Claire acknowledged that she looked "*similar to friends, their weight, they don't… they're not classed as obese",* but she would not acknowledge that she was bigger in size. Acknowledging this would mean that she did not "*fit with the in group*", or that they were more at risk.

By comparing themselves with bigger women these participants appeared to position themselves as less fat. Emily reinforced these findings by referring to her observation during a visit to the metabolic clinic waiting room, where she felt "*skinny"* in comparison to the other women. It is worth reinforcing here that Emily had a BMI of 43. Two participants viewed their size as normal by implying a dress size 16 was consistent with the average UK woman. This viewpoint is reinforced by Claire's quote:

> "You *wouldn't actually think that cause you see people who maybe look bigger, and they are actually classed as obese, and they look bigger, whereas I'm told, for clothes wise I wear average clothes (size 16)". (Claire, 18 – 22 weeks*)

Again, Claire compared herself against bigger rather than smaller women. "They *look bigger*" in her eyes and in her reality. Once more, it appears that Claire (like the other participants) was only seeing what she chooses to see.

4.3.3 Pregnancy legitimizes body shape & size

In the previous sub-theme, it became apparent that the participants did not associate themselves with the *obesity label* and that this continued throughout this sub-theme. That is, they refused to be seen as *fat.* Pregnancy presented a liminal journey, where participants seemed to fear being viewed as fat.

> My belly is growing……..erm, I'm like it's just baby. It's not me" (Ellis,18 – 20 weeks)

Interestingly we can see from Ellis's quote that she appears to disconnect from her own appearance, with an eagerness to point out that her growing belly is her growing baby, not her. They were keen that the advancing pregnancy was displayed through their physical appearance. "*I'm like do people actually know that I am pregnant or do they just think I'm fat* …" There was a feeling of being "scrutinized" by others and particularly in early pregnancy, as was evidenced by Anna. The following quote illustrates the desperation for sight of the growing uterus, as it provided evidence of a pregnancy:

> *"I can feel it, I can see it sometimes, but it's still quite hidden in my own body…….the being overweight has probably affected the way I feel about the pregnancy in terms of, like, it doesn't look the same? Like so where I had bumps before I've still got those bumps*

cause my bump hasn't come out yet as a whole bump, so that makes me feel differently about it…" (Erin, 22 weeks)

Erin's quote is peppered with a deep desire for her pregnancy to be physically obvious. However, there is a sense that the pregnancy remains concealed, *hidden within the layers of her body.* The use of her words "*hasn't come out yet*" is significant here – physically. Her weight prevents her *bump* from being shared, celebrated with others. However, this may also be considered metaphorically, the term *coming out* may suggest that she is not ready to face the reality of her obesity. Here there is a sense of sadness and frustration that her body weight strips her of her pregnant identity. The lack of pregnant identity may also serve as a barrier for Erin to identify as a mother. Erin's stigmatizing experience with her GP, as discussed previously, may in-fact have had a profound impact on her identity as a pregnant mother. Her reference to the unborn baby as "*it"* suggests a lack of connection with her pregnant body and unborn baby.

Four of the participants highlighted the feeling of freedom from being pregnant. The quote from Anna's second interview illustrates that she viewed pregnancy as liberating because it "*allowed"* her to be big:

"…. I think, well I think everyone is self-conscious about their body anyway, and I was even before I fell pregnant…. I wouldn't walk about with tight tops like I can now, because I didn't feel comfy, but because I've got a bump. I've got more of an excuse, more, like people can notice it more now I've got a bump, rather than just obviously being big". (Anna, 34 – 36 weeks)

Anna in this quote appears to be very aware of being scrutinised for her size. However now that she is pregnant she could be proud of her shape in a way that before she might have felt ashamed. Pregnancy for some participants provided an excuse to be culturally exempt from having to look slim, as the characteristic "*bump*" in pregnancy is all part of the image.

4.3.4 Feeling self-conscious exposing my belly

Despite the refusal to accept the "*obesity label",* participants reported feeling self-conscious about their size. This was in direct contrast to the previous sub-theme where participants often attempted to normalize their weight. Four out of the seven participants reported feeling embarrassed about their size and having to expose their bodies during pregnancy. The growing uterus, "*their bump*", was the focus of participant's attention during pregnancy, more than any other part of their anatomy. This as previously stated was their testimony to being pregnant.

The midwife uses her hands as her tools to palpate the growing uterus and this required the women to expose their abdomen. This act resonated some powerful memories for Erin who recalled having a conversation with the midwife when she made reference to her size "*because there is more of you to begin with it".* Erin linked this with difficulty of being accurate when palpating her abdomen. Two further participants also confessed to feeling embarrassed at having to expose their growing abdomen to the midwife, so she could auscultate the fetal heart. Emily in particular felt unhappy:

> *"Um at first, I wasn't scared but I wasn't happy about it, Cause yeah, I don't get my belly out for nobody". (Emily, 18 – 22 weeks)*

It would appear from Emily's quote that she was in-fact ashamed of her body, so ashamed it is only her that see's it. The feeling of being "*scared or hating pulling up my top"* was only mentioned during the antenatal period. No further reference was made during the birth, postnatal period or indeed while breastfeeding. This would suggest that participants habituated to this process or perhaps became more comfortable with the process as their relationship with the midwife developed.

4.4 No risky talk

The following superordinate theme “No risky talk” continues this high-risk experience by exploring the participants’ perceptions of their communication with health professionals. This is inclusive of midwives, student midwives, doctors, GP’s and ultra-sonographers. This superordinate theme reveals the lack of risk discussion that takes place with health professionals. The participants were labelled high-risk because of their weight, yet there was no meaningful communication-taking place. Subsequently, the lack of transparency around obesity and risk communication made it easier to deny and not prioritize risk. This sub-theme recognizes the participants’ emotional response to the lack of risk communication. The sensitivity of communicating risk and the health promotional aspects of obesity are also addressed.

4.4.1 Avoiding risky talk

Risk construction appeared to be influenced by the contact participants had with health professionals. All the participants in this study reported a lack of communication around their increased BMI and its associated risks. Four of the participants (Anna, Ellis, Erin and Stephanie) stated that they were *labelled as high-risk* and reported that they found it difficult or confusing when a high-risk sticker was placed on their maternity records. Yet, no health professional ever referred to their high-risk status. As stated, this action was not followed by any risk discussion with their midwives, which is a recommendation of the *CMACE/RCOG Management of Women with Obesity in Pregnancy (Modder & Fitzsimons, 2010)* and *Obesity management during pregnancy and postnatally (Lothian NHS Guidelines, 2011)*. One of the participants account encapsulates the participants’ lack of information:

> *“I didn’t know any risks with the pregnancy, I knew my BMI has always been quite high, I didn’t realize it was that high until my first pregnancy and I was classed as obese”. (Claire, 18 – 22 weeks)*

The above quote highlights that Claire was faced with the stark reality of her obesity during her pregnancy. While the above quote suggests a sense of shock associated with the "diagnosis", Claire had not made any considerable lifestyle changes in preparation for her second pregnancy. For some of the participants, I was the only individual to discuss risk with them. As a consequence of our meetings, this increased awareness did evoke an angry reaction from some participants. Stephanie was one of those many participants, who appeared angry at the lack of risk discussion in her first pregnancy, stating she may have made lifestyle changes in preparation for this pregnancy:

> "*I was quite angry and upset at the fact that's never been mentioned before, this is my second pregnancy, if I knew beforehand I could have maybe changed things, been more active*". (*Stephanie, 34 – 36 weeks)*

Erin also alluded to her experience of being diagnosed with a "*high-risk of DVT,"* which she discovered written in her notes. This label was not discussed with her by any health professional. "*I don't think it's been pressed upon me very much by health services*". This left Erin questioning her risk status. If it was such a risk, then why were health professionals not raising awareness of the risks? Her risk status was left unspoken. Hence, Erin felt a sense of let down at her risk being known, but no one had told her. Her own words illustrate her anger:

> "*There were things written in my notes. I've got my notes actually… So pathways available: green, midwifery led or red, and maternity team care. Yeah that's what I read. And that wasn't discussed with me. The deep vein thrombosis risk". (Erin, 18 – 22 weeks)*

Here Erin appears angry at the negligence of the medical profession to alert her to the risks associated with her pregnancy. The medical team have negated to inform her of the risks her body weight posed to her own

health and her unborn baby. Action, requires knowledge. This omission is also reflected in the following quote from Ellis:

> *"They've said nothing about my health, about me being overweight or anything". (Ellis, 34 - 36 weeks)*

Ellis so wants to be seen as a normal person, she does not want to associated with the obesity label. Yet they have labelled her high-risk, and it would appear abandoned her:

> *"Did they not class me as high-risk? Did they think I was going to have a normal pregnancy like a normal person? Sometimes I don't look overweight, because of the height that I am, did they think, oh, you're not high-risk. There is a big thing on my folder that says that I am". (Ellis, Postnatal)*

Stephanie's experience of risk communication in her present pregnancy (second pregnancy) was contradictory to her first pregnancy and the main findings of this study. This time around, Stephanie revealed that her booking midwife did in fact discuss her risk status with her:

> "Yeah*, I think yeah, she did. We spoke about obviously, the risk of pre – eclampsia happening again, it's really high, we spoke about diabetes, obviously your blood pressure, the effects it can have on the baby as well, it's obviously, the baby has to work harder and what have you*". (Stephanie, 18 – 22 weeks)

In response to this new knowledge, Stephanie did discuss during her postnatal interview, her intention to join a gym and try to lose weight.

4.4.2 Sensitive issue – it's how you say it

Five participants agreed that although obesity was a sensitive topic, health professionals should not avoid discussing it. This needed to be addressed in a sensitive compassionate manner:

> "*I didn't ken because it's a sensitive subject, obviously, because it's usually people that are sort of bigger that they're trying…it depends on how they come across. … I don't know how they would put it across, but it's sort of, it's not what you say, it's how you say it".* (*Anna, postnatal)*

Anna's words "it's *not what you say, it's how you say it"* captures the sensitive nature of the discussion that needs to take place. Although Anna suggests the importance of informing women of their increased risks, she struggles to suggest a possible and acceptable means of doing this. This in itself highlights the sensitivity of the issue. Perhaps this again, reinforces the importance of continuity of care and building a relationship with the midwife prior to disclosure of such information. Anna's words "*it's usually people that are sort of bigger that they are trying* …" is rather revealing, given that she sees this as a sensitive topic for discussion with the larger woman, but not for herself. She does not associate herself with the risky body, nor does she perceive herself to be at risk.

Mirren's narrative also emphasized the need for health professionals to have an open honest risk discussion, adopting a non-judgmental manner:

> *"I don't think I would ever be offended if it was brought up in context to a certain medical conversation, but I think… like I know some people have found that they have felt very judged because the comments have been very negative. And I think, yes compared with other things, being overweight is something that you have brought upon yourself, but in the same way, if I were smoking or something, I wouldn't expect you to be rude to me about it…. I think they are*

health professionals, they're not there to sugar coat the truth..." (Mirren, postnatal).

Mirren's frank account suggests that a medicalized, fact based conversation around obesity and risk may encourage expecting mothers to acknowledge the truth and accept their obesity. Risk awareness is considered to be necessary but requires a non-judgemental perspective. Mirren advises against "*sugar coating"* the truth, perhaps a stark, frank and open conversation focussed on medical risk is required to stimulate acknowledgement.

Mirren did discuss during interviews, her own experience of being given "*a fat mother* leaflet" by the "*fat midwife*". This leaflet highlighted the risks associated with being obese. Mirren acknowledged the label of the "*fat mother",* but in turn retaliated by labelling the "*fat midwife*".

"This midwife who was just… who've I've just gotten a ..I don't know how to say it nicely, but she's really fat. And in a way that was like… because I was saying to her, oh, I got this leaflet about being a fat mother and like I felt comfortable talking to her about it in a way that as if she was like a really skinny little thing I might really feel embarrassed" (Mirren Postnatal)

Mirren's encounter with the *fat* midwife made her feel more comfortable when discussing the contents of the leaflet. In this instance, she stated that she was not in a position to be judged by the fat midwife, as the midwife was "*much bigger*". Hence, by comparing herself to a bigger woman, she could protect her own moral identity and ameliorate her guilt.

4.4.3 No healthy talk - Health promotion strategy

The last sub-theme has highlighted the sensitivity surrounding obesity and communication and the necessity of having an open, honest, sensitive conversation around the associated risks. It is worth noting that because of this study and the discussion around associated risks that some

participants' reported feeling motivated to increase physical activity and modify their diet. Subsequently, six participants in the postnatal interviews explored areas around risk communication and health promotion. The importance of the wording of risk communication was reinforced. Ellis reiterated that such discussion should not be avoided:

> *"I think you just need to be plain in talking to you, in saying these are the risks you need to look for, you know, so I would say, they need to say whether you are extremely high- risk, or just likely high-risk and you need to put it on the different levels, cause high-risk can cover a majority of things. So it not just you're high-risk". (Ellis, postnatal)*

There appeared to be a strong sense that Ellis wanted to be seen as an individual, with her own personal risks assessed and presented individually. She articulated the need to personalize any communication of risk and in terms that the individual understands. The conversation needs to be frank and honest.

> "*I wouldn't say there is a way without offending you, to say your fat, you're overweight (laughs), but you have to be, it's all in on the telly just now with Katie Hopkins, eat less, move more. You can't be subtle about it, you just have to be straight to the point, if it's going to offend somebody, it's going to offend somebody".* (Ellis, Postnatal)

There was also an acknowledgement that obesity and risk exist on a continuum, some indication of where that person sits on that continuum both in terms of obesity and risk is necessary.

The timing of risk communication and general weight management was also identified as an issue. Both Anna and Stephanie stipulated that it was pointless to discuss risk management when the woman was already pregnant, as they were not in a position to lose weight. Nor did they want to feel guilt or ashamed of their size. The sensitive issue of weight

management needed to be addressed at the pre-conception stage, or at the six-week postnatal examination, and prior to another pregnancy. When asked to identify how information needed to be conveyed, it was agreed that both written and verbal discussion with the midwife would be the preferred strategy. Interestingly, two participants remarked on the lack of health promotion materials available. Anna's quote reflects this:

> *"I think it needs to be made like sort of clearer. Like, when you're going, like, for scans or like check ups or that, there's no posters telling you about, like high BMIs or what sort of that means". (Anna, postnatal)*

Anna's words appear to articulate the need to understand the BMI, this needs to be clearer to women, before they can comprehend any associated risks. One participant highlighted the fact that obesity was not given the same risk priority as smoking or drinking alcohol during pregnancy. Consequently, women might not see the danger of an increased BMI and its associated risks.

Another participant Mirren, during the postnatal interview reflected back on her pregnancy, and confessed to feeling isolated during pregnancy. This was reflected in the comment, "*I suppose 20 years ago people were in communities a bit more, you would have had maybe a network of people, but we don't have a lot of friends who are at the same stage*". This narrative stimulated an interesting conversation around use of social media, e.g. (NET mums), as a social platform for health promotion regarding what constitutes a healthy BMI. Mirren emphasized that it was reassuring to hear mothers with similar stories and that *NET mums* was a social networking resource she frequently used.

4.5 Risk or no risk?

The final superordinate theme "Risk or no risk" provides insight into the participants' own perceptions and acceptance or rejection of their risk. The

participants lived experience and emotional response to being labelled high-risk is interpreted. This superordinate theme examines the nature of the complications experienced by the participants, some of which are associated with an increased BMI. Finally, this superordinate theme takes cognizance of the situational experience of each individual, which includes the birth experience, social and cultural influences and personal philosophy, and thus explores the overall impact on each individual's perception of risk. This is the only superordinate theme where there were distinctive changes across time points. Hence, the findings of the sub-theme *Accepting the risky body?* Is presented over three key time points.

This discussion is followed by a negative case analysis, which highlights some contrasting findings revealed by two participants.

4.5.1 Emotional consequences of her risky position

Six participants disclosed feeling emotionally affected by the high-risk label. This sub-theme identifies mixed emotions in response to this, including guilt, shock, self-blame, guilt and the acceptance of responsibility. Emily, like many participants reported an associated self–blame:

> *"Like I'd, cause I'd done something wrong now. Cause I didn't look after myself and I wasn't the skinny kid that I had to be, to have the child. And then I was going to give it not a great start, because you know, I can't make it properly as a fat kid". (Emily, 18 – 22 weeks)*

Emily's narrative is poignant "*I'd done*". From this it could be inferred that she was feeling some self-blame and guilt for doing "*something wrong*". She appears to be internalizing her blame, she was culpable. It could be postulated that Emily felt guilty, as she was never the "*skinny kid*", she was never the normal kid, always the "*fat"* one. Now she was pregnant but still feeling guilty, potentially for being a failure because she was "*obese*", and harming her unborn baby by programming it for a "*fat future*". In addition,

some participants felt initially felt shocked and upset that they were even classified as obese.

For many of the participants, the emotional impact of being labelled high-risk intensified as they started to experience complications. Erin was one participant in particular whose narrative stood out, as she was one of the participants whose perception of risk faltered across the time points. Initially she acknowledged that "*statistically"* she fitted within the obese category and was classified as high-risk. Although Erin refuted this classification by stating that, the BMI label was outdated and no longer fit for purpose. She felt that it required to be updated, as individuals as a whole were larger compared with the past. This I suspect was Erin's way of normalizing her weight.

The classification of high-risk was more apparent at Erin's second interview, where she described how she felt when she was diagnosed with a baby that was large in relation to weight for the relevant gestational age.

> *"I feel a bit panicky, thinking he's that big, they're going to leave me to full term and that I'm not going to be able to deliver him…. And then thinking, that I've then been thinking that I've caused him to be too big. And then I was thinking, oh my god does that mean that I've given him health problems before he's even born…. I don't think it causes diabetes in the baby but I wasn't sure. I don't think it does. But obviously there, blood sugar will need to be monitored closely and stuff". (Erin 34 – 36 weeks)*

Erin's initial panic centred on the fear of her personally delivering the baby. However, Erin does go on to acknowledge her own self-blame "I've *caused him to be too big*". This narrative suggests a shift towards Erin accepting responsibility for her baby's health, "I've *given him health problems before he's even born*". She is accepting culpability, but also the sudden realization of the implications of her weight. It is as though the consequences of her

risky position have finally begun to sink in. For Erin, there is concern that now she and her baby are paying the price.

In total six participants experienced complications. Anna was the only individual who was exempt from having problems. The following sub-theme now explores the impact from having these complications.

4.5.2 Recognition of high-risk complications – finally sinking in?

It is hoped that by drawing attention to the complications experienced by six of the participants, it becomes more visible how each individual made sense of their risk. Four participants (Erin, Ellis, Stephanie and Emily) in this study had an ultrasonography prediction of a large baby and subsequently required frequent monitoring by serial growth scans.

Initially it would appear from the findings that the participants' only acknowledgement of this diagnosis centred on their own risk and fear of the pain associated with giving birth to a large baby. Erin was the exception and stated that although the diagnosis of large baby triggered her fear of giving birth "*I don't want a 12 pound baby".* This was also the point where Erin made the link between her obesity classification and its associated health risks and in particular for her baby. This influenced Erin's perception of risk at the second interview, as a result, which is discussed later. Erin's added complications, including increased blood pressure and decreased fetal movements, meant that she was actually one of those statistics, which she was aware of but never actually, thought would be part of:

> "*Being part of it made me more aware of the risks I think. But, still I think until something happened. I still just thought, well it's not going to affect me. Something like that It's not. Yes, I know that exists but it's not necessarily going to happen to me". (Erin 34 – 36 weeks)*

Erin was perhaps displaying unrealistic optimism, where she was aware of the risks but she chose not to acknowledge them assuming that they would not affect *her.*

Three other participants, Ellis, Stephanie and Emily all had similar experiences, given that they failed to acknowledge the association between high maternal BMI and size of the baby. For them actually delivering such a large baby was the main fear described specifically or a fear of pain and discomfort, and not about how this might affect their baby? The participants in this study did not identify with obesity or any other of the associated risks. They did not recognize any of the complications that they ultimately experienced, (e.g., postpartum haemorrhage, caesarean section, wound infection, pre-eclampsia and obstetric cholestasis). It was apparent that their social environment, including friends and family, influenced their perception and acceptance of their risk. They seemed to seek comfort by making frequent references to friends and family with normal BMIs, who had experienced the same complications throughout their pregnancy:

> "…*my cousin had two sections, she was rushed to theatre cause they couldn't get the heart rate properly, and she wasn't high BMI or anything, she was healthy again, so not anything like that, I was more, I think you are at more risk for your health in general in your pregnancy, and the baby……. anybody is at risk, anybody is, regardless of your BMI*". (Claire, Postnatal)

Claire's words are very revealing "*she wasn't high BMI or anything, she was healthy again*", this phrase is suggestive that she associated obesity as a pathological disease, obesity means to be unhealthy. Hence, perhaps this explains why she was keen to avoid the obesity label and why she did not perceive that obesity was the cause when complications did arise, as "*they could happen to anyone*". Anna's quote below, supports Claire's belief that obesity may not be the causative factor should complications arise.

"When I've been walking about and that, I've seen bigger, and I mean bigger women than me, and I'm like Christ, if I'm at risk, I wonder what they are like. But, it doesn't, like I said I tend not to think about it all the time, because if something's going to happen then it's going to happen, regardless of me being bigger, or more at risk…." (Anna,34 – 36 weeks)

Anna like other participants, demonstrates the downward comparison with women much, much bigger than herself. It could be postulated that by appearing smaller in size, negates her from taking any responsibility if anything happens, after all it's down to fate, not her size.

This misalliance exonerated them from taking personal responsibility. For example, Erin in her postnatal interview stated that she did not ascribe her BMI as being the cause of problems during her birthing experience, despite stating in a previous quote that she overtly acknowledged the risk she has caused her baby. Her birth outcome included a caesarean section followed by a post-partum haemorrhage. Post-delivery her baby was admitted into the neonatal unit due to increased weight loss and she was unsuccessful with breast-feeding:

"*I think, to a certain extent, because if I was, well I don't know as I've never been pregnant when I've been fitter, but if I was maybe my body would have coped better with the last bit. So in that respect I guess yes. But, do I think it had an effect in like how he was lying or the fact his head wouldn't come out or anything, no. I don't..I'm not 100% convinced the blood pressure going up at the end was linked to my BMI either ……I think the caesarean section might have happened anyway ….."* (Erin, postnatal)

Despite acknowledging that her weight was an issue, Erin did not want to acknowledge that it might have contributed to her caesarean section. Denial or avoidance for Erin perhaps serves as a mechanism to void her of culpability.

Claire, who had previously had a post-partum haemorrhage, experienced this again in her current pregnancy. Again, she failed to make the connection with her increased BMI, yet acknowledged that it was suggested as a possible repeat complication during a medical consultation:

> "*It was at the end, like I didn't think I was high-risk……I'd seen a consultant, she said to me, because of your weight, because you are heavier, we don't want to keep trying, because you'll be more at risk, and especially your birth before, it was quite complicated, we had to cut, you lost a lot of blood….I just thought my weight, right, I never really thought of it after*". (Claire Postnatal)

It would appear that Claire did not identify herself with the obese label, nor did she make any links with the associated risks. Consequently, it could be raised that denial may be a significant factor in addressing the knowledge gap between obesity and its associated risks. Fortunately, and despite the complications experienced, all participants gave birth to live healthy babies, with no long-term maternal or neonatal morbidities anticipated.

The combination of the lack of acceptance of their risk status and lack of risk communication evidenced from the previous theme "No risky talk", appeared to have had a negative consequence on the participants' prioritization of their risk. This was evident from Erin's narrative in which she confided at her second interview, that because of her age (35 years) she would probably have another baby in close succession to her first. This afforded me the opportunity to enquire about any life style changes she would make in preparation for this, in anticipation that she would mention losing weight. Erin confessed that losing weight was not her first priority, with her main concern around her age and ability to conceive:

> *"So any kind of, if I wanted to lose weight or whatever, waiting on that would be ruled out by my age or whatever, I would try and conceive. Regardless of whether I had managed to lose the weight*

because I would think that's more of a risk. Things like that I tend to balance up myself so". (Erin 34 – 36 weeks)

Erin chose to prioritize in this way because she had no control over her ageing and ability to conceive. The statement "*if I wanted to lose weight*" would suggest that Erin felt that she could control her weight. Two other participants echoed the same findings. In particular, Mirren who had a previous history of a caesarean section:

"You know, not everybody is going to be a size 10 and some people smoke… you know… some people undertake high-risk sports while pregnant or things like that. You know there are always risks……...The only thing that's really got me thinking, is rupture……...(Mirren,18 – 22 weeks)

From this interpretation it would seem that Mirren was trying to downplay the obesity-associated risks by making comparison with smoking and high-risk sports. By taking the stance that there is always risks, means that she can avoid any personal responsibility for her weight. Even if she were a size ten, there would still be other risks. Mirren prioritized the risk of uterine rupture, which is a complication associated with a previous caesarean section, which she considered more important than the risks associated with obesity.

Stephanie, who worked with vulnerable children and young adults, also viewed the risk of assault from these individuals as being a far greater risk than those associated with her increased BMI.

4.5.3 Accepting the risky body?

This final sub-theme explores the accumulative situational high-risk experience of each individual, and how this influenced their risk perception. The following accounts illustrate changes in risk perception over the three interview time points.

Five participants stated at the beginning of their journey that they did not perceive themselves to be high–risk. Two of the participants, namely Claire and Anna, although accepting of their risk status, did not feel that they were at a high-risk of the complications associated with obesity during their pregnancy.

> *"I didn't feel as though, I didn't feel as though I was high- risk*". (Claire, Postnatal)

This perception remained static for both post birth. Another participant, namely Stephanie, never accepted her risk status and maintained this same belief throughout "I *don't look at myself in the mirror and go I'm high-risk, I don't".* It is evident from her quote that she felt that her appearance did not reflect her *high-risk* label. She refused to identify with this label. Stephanie's self reflection is not one of an obese woman. Her words "I *don't"* reinforced her rejection of this inconceivable notion of high-risk. Another participant, Mirren attributed her high-risk status to her previous caesarean section and not to her weight. Erin also did not perceive herself to be high-risk.

The remaining two participants, namely Ellis and Emily, contrasted with this belief, by both stating that they felt that they were indeed high-risk at the first interview. These participants are represented later as a negative case analysis.

During the middle of their pregnancy, some of the participants reported experiencing complications. This did not affect risk perception for four of the participants, who still reported that they did not perceive themselves to be at risk. Erin was the exception, as her experience of complications made her more aware of the risks, but did not necessarily change her overall perception. By the third interview, Erin remained unconvinced:

> "I *don't, I honestly struggle to answer it…… I don't really know, the only thing that it made me more at risk of… I think the*

caesarean section might have happened anyway to do with his position..." (Erin, postnatal)

There appears to be a sense of fatalism here in this extract. Yet again, there is failure to acknowledge or accept culpability for risk. Erin denied that her BMI contributed to any of the other complications that she had experienced, including a large for gestational age baby who was admitted into the neonatal unit and a post-partum haemorrhage. Erin's perception was of having a positive outcome, which was a live healthy baby. Therefore, it could be postulated that perhaps her notion of risk had been biased by this positive outcome.

By the end of the study, all of the participants refuted their high-risk status and subsequently rejected the high-risk label. Apart from two participants, namely Emily and Ellis, who stated that they understood that they were high–risk at the first interview. This belief will now be discussed.

4.5.4 Negative case analysis

The close interrogative nature of the analysis of the data identified the subtle nuances disclosed within the seven participants' narrated experiences. In particular, Emily's narrative around her perception and acceptance of her risk status appeared to differ from the main body of evidence. Both Emily and Ellis stated at their first interviews that they felt high-risk. However, Emily seemed to be the one most emotionally affected by this. Emily was unique given that her BMI status was 43, and she was the only participant to attend a metabolic clinic and her own community midwife clinic.

The hospital based metabolic clinic was optional and offered to all women with a BMI over 40. An obstetrician, midwife and a nutritionist closely monitor the women who attend. In between hospital appointments, these women also receive midwifery care from their own case-loading midwife. Emily's regular attendance at the metabolic clinic meant that she experienced extensive medical surveillance of her health, but also received

repeated ultrasound scans to monitor the progress of the baby. Despite experiencing obstetric cholestasis, caesarean section and her baby being admitted into a neonatal unit, Emily's risk perception altered in the opposite direction to what I had anticipated. Emily at the end of the pregnancy journey did not see herself as a "*risky self*". Indeed, both Ellis and Emily disconfirmed my expectations that exposure to BMI associated risks and increased medical surveillance would heighten their fear and perception of risk. This negative case analysis emphasizes the need to not only understand risk from a techno–rational stance, but also from a social/ cultural perspective.

At the beginning of her pregnancy, Emily's high-risk label initially had a significant emotional impact on her. The following quote highlights her initial reaction to being at high-risk status:

> "*If they maybe just said like, your overweight, you know, you might have a few issues, or this is what could happen, that would have been fine, but saying high-risk, well as I said I thought I was going to die kind of thing*". (Emily 18 – 22 weeks)

Emily wanted to reject the obese label simply because, being described as "*just overweight*" softened the reality for her. In contrast, hearing out loud that she was "*high-risk*" was a sudden hard-hitting reality and one she interpreted as a death sentence. She had been forced to face her own mortality.

Mid-way through her pregnancy, it became evident from Emily's narrative that her perception of risk was beginning to change, in the opposite direction to what might have been expected. This may be because the concept of risk had been explained in detail to her by the staff at the metabolic clinic. Therefore, she started to question her high-risk status at this time point:

> " … *I don't think high-risk, to me, high-risk would be if I was 20 tons and, you know. But, not to be horrible, I've seen some of the ladies*

in there. Like, I don't think… to me they're more high-risk than I am, if that makes sense. If they just said it... there was a risk that would have made the whole thing so much easier". (Emily, 34 – 36 weeks)

This quote reflected her own interpretation of her risk status. Emily used the term "*tons*" rather than BMI, stones and pounds to describe her perception of extreme obesity. By using downward comparison to acknowledge other larger pregnant women's body sizes which allowed her to construct a more positive body image of herself that distanced her from the more "*obese*" women. Meeting those larger women had given Emily a glimpse of what high-risk looked like and she did not want to identify with this image.

Finally, in Emily's postnatal interview we can see the contrast between her risk perceptions at the beginning of her pregnancy and how she felt postnatally. It is evident from the quote below that Emily had completely rejected the high-risk label that was assigned to her:

"*They say that I am high-risk but I don't feel high-risk, high-risk if you know what I mean. Like at first I thought I was like you know, that's heart attack death*". (Emily, Postnatal)

Emily's own interpretation of high-risk was now very different to the high-risk label that she had been assigned by health professionals. Emily *did not "feel high-risk"*, she was alive, her baby was alive. She had not succumbed to that "*heart attack death".*

The findings were also similar for Ellis, who experienced multiple episodes of vaginal bleeding throughout her pregnancy, which required frequent hospital visits.

"*I've been in so many times, I would say it's changed. But when I met you I'd only been in once, twice, and then the thought of being risky was quite scary, but after everything I've been through, thinking,*

what, what's classed as high-risk. It's not actually as bad, cause I've been through it, So it is not as bad.

(Ellis, 34 – 36 weeks)

It could be postulated from Ellis's quote, that her frequent visits to the hospital where her complications were managed safely, meant that although she initially she felt risky, she now felt safe. The risks were dealt with. It is also possible that being alive and well and having had a positive outcome has minimised the threat or risk. Had there not been a positive outcome for either mother or baby, we consider that the reflection would have been quite different.

Ellis experienced an emergency caesarean section, which was complicated by a wound infection. Yet, despite the complications that are associated with an increased BMI during pregnancy, Ellis, postnatally did not see her as a "*risky self*":

"… *my weight was nothing, gave me no problems throughout my pregnancy because I was just classed as overweight. Maybe if I had been somebody who has a BMI of 45, then there may be more complications. But just being 35.3, I wouldn't class as being any problems*". (Ellis, postnatal)

Ellis's quote reveals a real sense of not identifying with having a high-risk label. She refused to acknowledge her weight "my *weight was nothing*". Ellis again did not associate herself with the obesity label "I *was just classed as overweight*". Nor did she associate the complications she had with having a high BMI. The complications she experienced were successfully managed, hence no longer a problem. Ellis's outcome was to have a live healthy baby and self. To her, there was no problem.

4.6 Summary of Findings

This chapter has presented the lived experience of the high–risk journey that each of the seven participants experienced. The rich data generated through the "*lens"* of these women has proved challenging to capture and present in terms of the true essence of their experience. This study is unique in that the longitudinal design has afforded the opportunity to tell each woman's story and explore the impact of her birth experience on their risk perception.

I chose to present the participants results through pseudonyms, to maintain as personal privacy, while at the same time demonstrating findings. The superordinate themes were presented in a specific order to build a picture of the women's experiences of the maternity services, contact with friends, family and health care professionals and ultimately their birth experience. Hence, leading to the final theme Risk or no risk, which was written in such a way that it demonstrated changes in risk perception in two of the participants over the time span of the study. This was the only superordinate theme where this was clearly visible.

The following *Chapter five* will now focus on the discussion of the findings of this study.

Chapter Five: Discussion

5.1 Introduction

"…*under the rhetoric of "health" a large body size has come to be symbolic of self-indulgence and moral failure*

" (Wray & Deery, 2008, p. 227)

The aim of this study was to explore the perception of risk in obese women who were considered medically to have a "high-risk" pregnancy. This exploration enabled participants to reflect on their lived experiences of being high-risk within the present maternity services. Interpretative Phenomenological Analysis (IPA) was used to explore the *pregnancy and birth experiences* of these women, to create an in-depth understanding of how they constructed their perception of their obesity-associated risk.

Chapter four presented my interpretations from analysis of the participants' journey through pregnancy and childbirth in women who hold a high-risk label. This chapter now discusses the interpretation of these findings and positions them in context with existing research discussed previously in *Chapter Two*. Prior to this study, little was known about obese women's perception of risk, with findings from this thesis identifying key themes that add to the body of existing knowledge of risk perception in obese women. This hermeneutic research has enabled me to present and interpret the lived experience of obese pregnant women within the situational context of *their pregnancy life story*. During the process, I have developed my own conceptual framework to articulate elements that have influenced the risk perception of seven participants. This conceptual framework presented is unique, given that the longitudinal nature of this study has captured the impact of the pregnancy and birth experience, and influence of friends and family over the continuum of the pregnancy. Presently there are no other

existing studies that can claim to have generated knowledge of risk perception in this way.

This chapter will conclude with a reflection on the research methods used, and upon the strengths and limitations of the research process.

5.2 Summary of Key Findings

A key summary of the results of the analysis is presented below, before being discussed in relation to the conceptual framework and current literature.

Choice, continuity and control

Some of the participants expressed the need to feel empowered and in control of their birth experience, with only one having a strong preference to give birth in the birthing pool situated in the birthing center.

Six participants experienced complications, with only one participant recognizing the connection between their obesity and its associated risks.

When the participants started to experience complications, it became evident that they were more ready to relinquish responsibility to the health care professionals. Safety of the baby became the priority over place of birth, with participants readily accepting medical surveillance and interventions that ensure safer passage of their baby.

Four women mentioned the relationship that they had with the midwife, in which continuity of care was a central theme. Six vulnerable women expressed feelings of fear, blame guilt and denial, and three expressed that they felt that midwives appeared too busy to talk. This involved them focusing on the physical aspects of their pregnancy.

Five out of seven women experienced a caesarean section, and two had a vaginal birth. All participants shared the same commonality, given that they all gave birth to a live healthy baby.

Me and my body

The participants own body image was not congruent with that of the obese body. That is they did not associate themselves with the obesity label and its associated pathology. Instead, participants constantly compared themselves with larger women, seeking to downsize themselves and be seen as *normal.* Two of the participants experienced stigmatizing behaviour from health care professionals. Two of the participants viewed pregnancy as liberating, as it afforded the opportunity to be legitimately *big.* In other words, they felt they were socially accepted as being different and except from being slim.

No risky talk

Despite being categorized and subsequently labelled as high–risk, this was not discussed openly with women beyond the booking appointment. Participants recognized that this was a sensitive subject, however were very aware that health care professionals avoided any risk communication. The participants stated that discussion around obesity and its associated risks, needed to be open, honest and non–judgmental. Timing of this discussion was also was crucial, as during pregnancy this was not beneficial because they were not in a position to make any significant weight changes. Pre–conception or postnatally were considered the optimal time points for such discussion to take place.

Participants were cognizant that obesity associated risks, were not given the same priority as smoking during pregnancy or alcohol related risks.

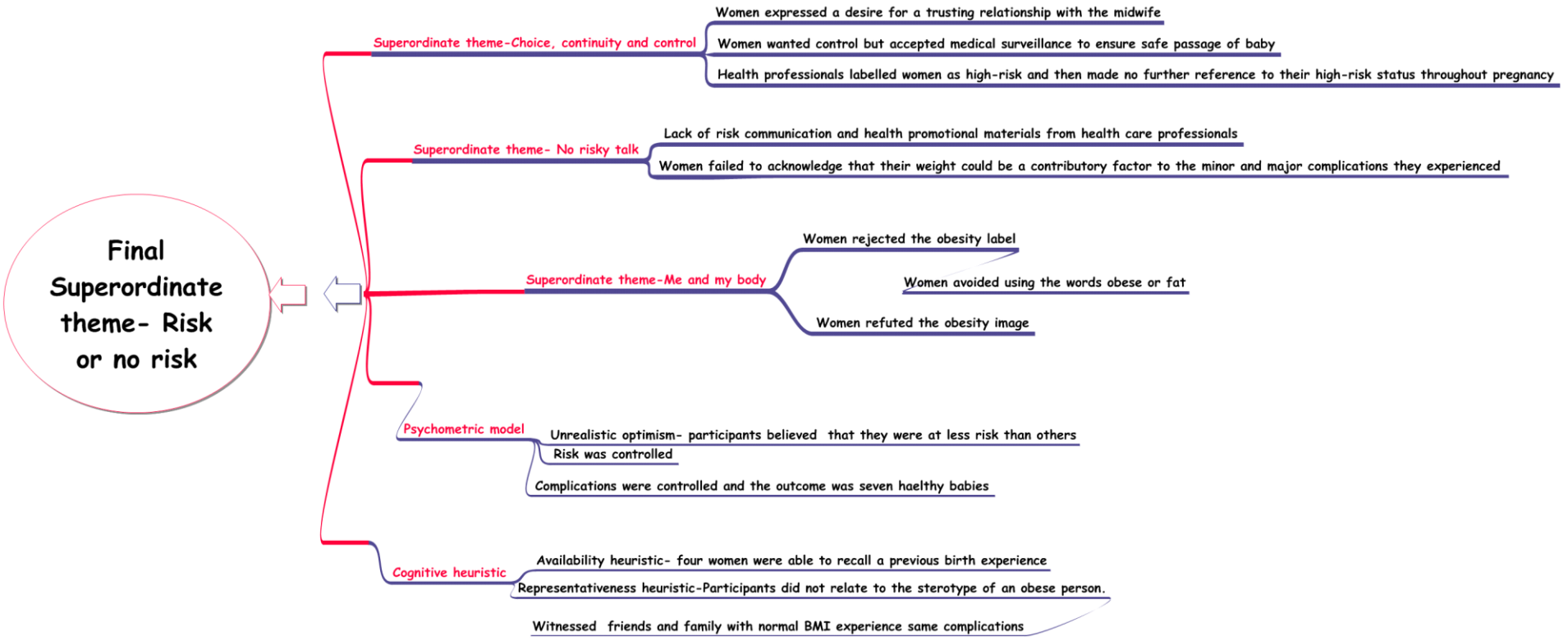
Risk or no risk?

Some of the participants viewed their own complications in light of what they had observed in friends and family, and concluded that complications can happen to anyone. That is even women with a normal BMI.

Only two participants at the beginning of their pregnancy journey stated they felt at risk. The remaining five participants disagreed with their medically assigned risk status. By the end of the study, all participants refuted their high –risk status.

5.2.1 Conceptual framework

Bayrampour et al. (2013) purport that risk perception is an area that is poorly understood and that current risk theories only explain a small part of the concept. In response, this thesis proposes a conceptual framework developed from the themes identified in this study. These themes interact with those already identified within the current literature which includes cognitive heuristics, Cooley's (1902) looking glass theory, and the psychometric model of risk perception. All three of these concepts are drawn upon to explain participant's perception of their own risks. During process, risk perception of obese women during pregnancy has guided the research question and the chosen methodological approach. The proposed conceptual framework (Figure*1*) is now presented as a new way of understanding risk perception in obese women during pregnancy and childbirth.



Conceptual framework "my risky self"

The influence of the three superordinate themes- No risky talk, Me and my body and Choice,continuity and control on the final superordinate theme, Risk or no risk meant that all seven women ended their pregnancy journey feeling no more at risk from complications than women with a normal BMI

Figure 1 "my risky self"

5.2.2 Objective risk assessment

In the current study, participants held a perception of risk that contrasted with the health provider's constructions of "high-risk". All participants at the end of this longitudinal study viewed their risk differently from health care providers, and did not perceive themselves to be high-risk. This finding concurs with that of Cannella et al. (2013), Headley and Harrigan (2009), Heaman et al. (1992), Lee et al. (2012), White et al. (2008). This present study reinforces the premise that women do not construct risk appraisal based solely on a clinical diagnosis, with findings similar to that of Bayrampour et al. (2013). Instead participants chose to base their interpretation of risk on different factors, such as birth outcomes, and opinions of friends and family, compared with risk factors identified by their health care provider (Heaman et al., 2004; Lee et al., 2012).

Chapter Two has explored in detail the identified studies that have compared health providers' objective assessment of risk, which have been compared to the women's subjective assessment of their risk. The findings of this study are paradoxical, given that all participants' risk perceptions contrast to that of their assigned high-risk by health care providers. Six of the participants did in fact experience complications that are associated with their obese status. This study identifies differences between participants' risk perception and their assigned risk status, based upon how these women have contextualized their own risk. Results emphasize that women will contextualize risk relative to their life circumstances, and in contrast Lupton (1999a) recognizes that health professionals view these risks as isolated medical conditions. We now proceed to explore the first superordinate theme identified in the current study, which is one of the elements of the Conceptual Framework (*Figure* 1). That is, *Me and my body*, which is a theme that considers how women's personal body image influences her risk perception.

5.2.3 Me and my body

One of the most surprising findings from *Chapter Four* and essentially the element which appeared to have most influence on obese women's perception of risk, was the fact that the participants distanced themselves from their obesity image. That is, they refuted their embodied position. In relation to seeking an understanding of this, Lorber and Martin (2012) purport that the social constructionist approach to the body constructs the female body according to the accepted views of gender and the norms of femininity, with slenderness central to normative femininity (Earle, 2003). To add to this, Lorber and Martin (2012) report that cultural views of the body are more than aesthetic, and that they consist of moral judgments too. Fatness is currently viewed within today's culture as self-incurred, with such individuals viewed as lazy (Lupton, 2013). Hence, when obese women contradict the social conventions of a slim body, they are often viewed as lacking in self-control and self-respect. Using the premise that pregnancy is currently modelled on a slender body (Nash, 2012), this places the seven participants outside the culturally accepted norm, which exposes them to potential weight related stigma (Mulherin, Miller, Barlow, Diedrichs, & Thompson, 2013).

Consequently, it is easy to see why these women feared being viewed as *fat* (section 4.3.1). Participants did not associate themselves with the biomedical obesity label or the culturally imposed image of obesity. In addition, the body image of participants was not congruent with that of an obese body, size or shape, with this finding similar to those of Jarvie (2013) and Warin et al. (2008).

As stipulated previously, body weight is a central aspect of body image in western society (Fox & Yamaguchi, 1997). Indeed, Gard and Wright (2005) purport that the body's appearance is taken to be the evidence of the "*care*" taken of the body. Interestingly, the participants in this study rejected their subject position of in fact being obese, to instead describe themselves as being "*overweight* or *chunky"* (Ellis section 4.3.1). Also, during the interview

process they avoided using the words *fat* or *obese,* which are findings similar to those of Gaudet et al. (2011), Okeh et al. (2015), Kominiarek et al. (2010), and Shub et al. (2013). These aforementioned studies are limited given that their quantitative nature of data collection only reported discrepancies between the women's perceptions of their BMI and actual weight, without a deeper exploration of their actual lived experiences of being obese. In contrast, the evidence presented in the present study has captured the lived experience of being pregnant and obese over the continuum of pregnancy and the postnatal period.

The data from the current study emphasizes that some participants saved the word *fat* to describe those larger than themselves (Ellis section 4.3.1), with Nash (2012) describing *fat* as a relational concept in which one is viewed as fat when they are next to someone who is thin. Conversely, the women in this study appeared to constantly compare themselves to a *fatter* version of themselves, thus desperately seeking a thinner appearance. For some this may be seen as a form of self-protection, by implying that they were in a better position than the larger individual being viewed (Puhl & Brownell, 2003). Gard and Wright (2005) acknowledge that the word *Fatness* denotes pathology and symbolizes self-indulgence or moral failure, which is something that these women appeared keen to avoid. The term obesity may have held some negative connotations, with some Lupton (1995) contends associating *fatness* with having a disease.

Conversely, I will draw on the findings of Cooley's (1902) "*looking glass theory*", to explore in more depth the findings of the present study. The "*looking glass theory*" demonstrates that self-relation, or how one views themselves, is not just down to the individual, but also society (Rousseau, 2002). The self–idea has three main principles:

1. The imagination of our appearance to the other person.
2. The imagination of their judgment of that appearance.
3. Some sort of self-feeling, such as pride or mortification.

The findings of this study suggest that these women experienced mixed views towards their appearance and body size, with their friends normalizing their body shape and size (section 4.3.2). From stories that also report contrasting stigmatization by health professionals, it would appear that to avoid judgment of the "*fat self*", these women portrayed themselves as healthy and as having no existing medical conditions, and that all they had was an increased BMI. This finding is similar to those of Heaman et al. (2004) who reported that pregnant women with complications assessed their risk status based upon their past reproductive experiences, present health, and that they considered a good diet and exercise would risk alleviate their situation.

Puhl and Brownell (2001) report that the strong anti-fat bias associated with being obese can result in stigma and discrimination. The findings from this study support this corpus of work, with two participants (section 4.2.2) reporting stigmatizing treatment from health care workers, where they were tested for diabetes, despite both women asserting knowledge of their own bodies against their symptoms being misattributed to their weight. One of the participants resonated strongly with this treatment, stating that she was used to it (Emily section 4.2.2). This is reflective of Cooley's (1902) "*looking glass theory* ", where stigmatized people are aware of others perception of them, which thus affects their self-concept (Puhl & Brownell, 2003).

Scrambler (2009) also describes this as "***felt stigma",*** where the individual has an experience of this treatment and has entered into pregnancy expecting the same treatment. Puhl and Brownell (2001) see stigma as "*an enemy*" to public health, as weight stigmatization can pose serious health risks to individual's psychological and physical health. Indeed, Puhl and Brownell (2001) contend that the experience of weight related stigma can increase the likelihood of individuals engaging in unhealthy behaviours and lower levels of physical activity. However, this current study contends these findings, with some participants reporting a change in dietary habits and an increase in physical activity in response to new knowledge of their obesity related risks. This suggests that these women were exerting their own

personal and maternal responsibility, through attempts to ensure their baby's health.

However, because of society's stigma towards obesity, it could potentially have a significant influence over the participants' perceptions of their own "*overweight* or *chunky*" body. Deaux and Ethier (1998) have explored several coping strategies employed by obese individuals that help them cope with weight stigma. Further discussion of these coping strategies will now be used to help further explain the findings of this study. The first coping strategy that was used by study participants was "*identity negation*", amongst those who compared themselves against the larger women. Hence, separating themselves from their real social identity through appearing smaller compared with the larger woman. In addition, participants who rejected the BMI classification system and biomedical definition of obesity, by stating that it is no longer fit for purpose (i.e., Erin section 4.5.1), serve to reinforce this point.

The second coping strategy used was denial of identity, which is evident amongst participants who rejected by overt downward comparison, the external stereotype of being labelled as an obese person. Wray and Deery (2008) conclude that western society links thinness to health and fatness to illness. Thus, by portraying themselves as healthy, the participants can avoid the obesity label. This stance is accompanied by the viewpoint that people with fat bodies are constructed as being "*out of control*", which is a label that these women wanted to distance themselves from (Wray & Deery, 2008). In the main, participants strived hard to be seen as *normal individuals,* which is a finding concurrent Schmied et al. (2011).

The ultimate aim of these participants was avoidance of the obesity label, even during early pregnancy when they are construed as being overweight due to lack of discipline, deviance and being labelled dangerously unhealthy (Gard & Wright, 2005).The social unacceptability of being *fat* versus the social acceptability of being *pregnant* was clearly visible in this study. The pregnancy "*bump*" was confirmation that the participating women waited for,

because it delineated themselves between the labels of *fatness* and *pregnancy* (Erin section 4.3.3). This point in pregnancy is described by Nash (2012) as the "*in between stage*", which is a point when the participating women relied on the early appearance of the pregnancy bump to qualify their shape and pregnancy. Pregnancy is seen as a legitimate excuse for not conforming to society's ideal female form (Fox and Yamaguchi 1997), with some overweight women experiencing a degree of positive body change. This construction of self was also evident in the findings of the current study (Anna section 4.3.3), with some women using the excuse of their pregnancy bump to wear tighter clothes. In other words, pregnancy allowed them to be overweight, giving them an excuse to be overweight, instead of trying to conform to society's slender body (Fox & Yamaguchi, 1997; Furness et al., 2011; Wiles, 1994).

The participants expressed the feeling of being scrutinized and under surveillance, which are findings similar to that of (Nyman et al., 2010). As stated previously, within the context of governmentality, individuals singled out as high-risk are identified as needing expert advice, surveillance and self-regulation (Lupton, 1995). These findings portray the message that the individual is being held *personally responsible* for their body size and shape and its associated health risks, and thus justifying the stigma attached (Puhl and Heuer, 2010). Lupton (1995) contends that when government strategies conflict with the image of themselves and the image that others hold of them, that the tension resulting from the clash between these two differing points can create resistance to self-belief of being overweight. Hence, to avoid the label of "*bad mother*" these women sought solace and avoided the categorization of being obese and its subsequent label of being high-risk. This dissonance was successively reinforced by the lack of risk communication by health care professionals (section 4.4).

5.2.4 No risky talk

The following super-ordinate theme *No risky talk* highlights the findings discussed previously in *Chapter Four.* Participants in the current study

perceived that health care professionals avoided the subject of their weight in general, despite their high- risk status.

From Foucault's perspective, Lupton (1999a) concurs that the disciplinary gaze and surveillance of the obese woman starts at the booking clinic, whereby her visible size is a moral confession that she is in need of medical advice and regulation to enable her to fit back into the "*norms of society".* The regulatory measures imposed by local obesity guidelines categorized the women in this study as a high-risk pregnancy. In spite of this label, the participating women still rejected their obesity identity. This highlights the conflicting perspectives of risk assessment between the woman and the midwife. Lupton (1995) contends that fundamental to any risk is the notion that by naming it as a risk it can be managed. In neoliberal societies, it could be argued that government strategies as regard to managing and reducing body weight are articulated not only in government documents, but also in health promotional strategies (Lupton, 1995). Articulated earlier in this thesis, is the notion that health promotional strategies within the context of obesity locate the responsibility with the individual to monitor their own health behaviour, and that the individual deemed high-risk, need only to follow advice to reduce that risk. Only when failure to follow such advice, the individual can be blamed for not acting responsibly.

> *"….the unacknowledged assumption is that people are given the ability and acknowledge that they will make "rationale choices "about their own health care. In this context "not to lose weight" can only be understood as non-sensible: even irrational: not to comply in a direction of duty of care of the self". (Davies, 1998 p.89)*

Again, if women do not comply with the recommended health promotional strategies, they are deemed as being "*bad mothers*" (Gard and Wright 2005). Within the context of a neoliberal society free choice is portrayed as dominant Lupton (2013), but on the presumption that women will use their own assessment of risk and therefore comply with a weight loss strategy. Yet, the women in this study had limited knowledge of obesity-associated

risks, which is a findings similar to those of (de Jersey et al., 2015; Gaudet et al., 2011; Keely et al., 2011; Kominiarek et al., 2010; Nitert et al., 2011; Okeh et al., 2015; Shub et al., 2013). The lack of risk discussion taking place between themselves and the health professionals has also been reported elsewhere in previous studies (Herring et al., 2010; Wilkinson et al., 2013). This as Keenan and Stapleton (2010) agree, highlights the disparity between the public discussion of the obesity epidemic and the communication of health risks at an individual level. Arguably, obese women have been placed in a position where they have limited knowledge to make an informed choice, but if they are seen to be resisting any weight loss advice, they are subsequently regarded as irresponsible and possibly a *bad mother* (Lupton, 2012a).

Communicating risk is a key factor in any health promotional strategy that is aimed at obese women. Interestingly, midwives themselves have reported in other studies, that they feel too embarrassed to initiate discussions around obesity with women (Schmied et al., 2011). Evidence from this study highlights that women are aware that their obesity is a sensitive issue (section 4.4.), and likewise existing research findings highlight that midwives are aware of this sensitivity too, and want to protect women during such a vulnerable time through becoming gatekeepers of information (Singleton & Furber, 2014). This in itself is recognized as counterproductive, because without knowledge of the risks, women cannot take action to improve their eating habits (Singleton & Furber, 2014). As a consequence, they return "*fatte*r" in the next pregnancy and the cycle continues (Schmied et al., 2011). Evident from this study (Stephanie section 4.4.1) is that denying access to information around the associated risks from being obese evoked feelings of anger in some women, because had they known their level of risk then they might have taken some remedial action before having a subsequent pregnancy. Furness et al. (2011) has identified some of the main reasons why health professionals and midwives avoid risky discussions. The fear of causing offence to obese women during a time when they should be building a trusting relationship with their midwife has been cited as one such reason.

As Schmied et al. (2011) contends "*It's this juggle between political correctness and how do we address a serious health issue,"(pg. 427).* It is recognized that this point of political correctness represents an ethical challenge to midwives, who need to provide evidenced based care to women who do not identify themselves as being high-risk (Lingetun et al., 2017).

Health professionals have also reported that additional constraints include lack of training in communicating risk as one barrier, as well as time constraints and lack of resources such as dieticians (Heslehurst et al., 2011; Hildingsson & Thomas, 2012; Knight-Agarwal et al., 2014). In addition, midwives find initiation of the conversation difficult when they themselves have a high BMI (Schmied et al., 2011). Contrasting findings in the present study indicate that advice given to a woman from a midwife with an increased BMI felt less judgmental (Mirren section 4.4.2). Following interviews throughout this study, where the obesity-associated risks were discussed, participants sought information from magazines, internet, friends and family. Participants themselves acknowledged this lack of health promotion materials aimed specifically at pregnancy obesity and its associated risks. Very few women sought advice from health care professionals, as is also reported by Patterson (1993) and Lavender and Smith (2016). Even when the risks were highlighted during the current study interview process, the participants appeared to underestimate potential consequences, with only one participant making the connection between complications experienced and those associated with obesity (Erin section 4.5.1). Findings also reflected in the qualitative study by Keely et al. (2011), in which the majority of the women interviewed failed to acknowledge that their weight could have been a contributory factor to the minor and major complications they experienced in pregnancy.

To further perpetuate this circle, midwives themselves have admitted to normalizing obesity (Schmied et al., 2011), which makes it even more difficult for health professionals to instigate conversations on obesity and its associated risks (Knight-Agarwal et al., 2014). Singleton and Furber (2014)

agree by stating that as a society it is easier to make acceptable the unacceptable, rather than tackle the issue itself. Therefore, I would postulate that this oversight compounded by the lack of risk discussion, has led to the women in this study believing that they had a normal pregnancy, which fundamentally will have influenced their overall low perception of risk.

To summarize this point, if health care professionals continue to avoid risky talk, this ultimately takes away the woman's individual control and responsibility, and also her choices about her own health and that of her baby. Consequently, continuing to place the blame on *irrational women* not complying with their *duty of self-care*, reinforces the concept of "*bad mother".*

The evidence presented in the findings of the present study support the concepts of the midwife not providing adequate amounts of choice and control, which are features that warrant further discussion. Hence, the following superordinate theme; Choice, continuity and control discussed earlier in *Chapter four* (section 4.2.3.), are explored further in the next section.

5.2.5 Choice, continuity and control

The following superordinate theme title has been appropriately named, to reflect some of the findings of this current study. Providing choice, continuity and control are also concepts that underpin the current philosophy of the midwifery profession as it stands today in the 21st century (Department of Health, 1993).

To reiterate the point made in *Chapter One*, risk management has become central to the management of childbirth and has resulted in a movement from a social to a medical model of care (Scamell & Alaszewski, 2012). As a result, childbirth in the UK has come under the surveillance of medical experts, with the type provided dependent on the experts classification of risk (Scamell & Alaszewski, 2012).

This comes with the recommendation that births deemed as high-risk should be supervised by obstetricians and take place in high tech-facilities (Scamell & Alaszewski, 2012). In opposition to this assertion, are the recommendations of the *The Changing Childbirth Report* (Department of Health, 1993), which reports that all women should be given choices in relation to their birth, secondly that continuity of care should be provided by a known midwife, and thirdly that women should be in control of their own birth experience.

The majority of the participants in this study did express the wish for some degree of choice, and they wanted to maintain control of their birthing experience. It should be noted, however, that choice and control provision during childbirth were not the focus of this study. However, my analysis did focus on the lived childbirth experience of participating women and these concepts were revealed. Lupton (1999a) contends that the degree of uncertainty that high-risk women face might not produce the control that they were striving for. It has been the value of the longitudinal nature of this study, which has highlighted some of the risk management strategies that these women employed to retain some control during their pregnancy. This approach by the women was against a backdrop of complications experienced, yet ensured the safe passage of their baby. To explain the findings of the current study, the work of Corbin (1987) on protective governing strategies, included assessing, balancing and controlling risk, will now be discussed. Within this debate, the concepts of choice, continuity and control will be delicately interwoven.

Corbin (1987) stipulates that women themselves will initially assess their own risk status. Despite their categorization of being high-risk, most of the women in this study did not initially perceive themselves as being in the risk zone. Interestingly, however, when balancing the risks against their planned care, all of the participating women were compliant with their care and followed local guidelines, which involved giving birth in a consultant led maternity unit. No objection was made about this line of management. This

compliance in itself suggests that the women were following professional advice as a risk reducing strategy (Lee, Ayers, & Holden, 2016).

As Burton-Jeangros (2011) articulates, the focus on individual risk factors brings some strong moral expectations in relation to the choices that women make during childbirth. There was no indication given that a home birth would have been a preference for the participating women. Arguably, this leaves some questions unanswered as to whether had these women opted for home birth, would the persuasive communication of obesity-associated risks become a prominent feature of their care? As such attempts made to persuade women to have a hospital birth? Further exploration of the choices of place of birth offered to the women in this study was outside the realms of this thesis, and is perhaps an area that requires further research. Two participants were refused the option of using the birthing center based upon their BMI classification (section 4.2.1). However, one multigravida woman had an unplanned vaginal birth in the birthing center and had no complications. This provides evidence that not all obese women have complications, which thus strengthens the findings of Hollowell et al. (2014) who supports that care for obese women needs to be planned on an individual basis.

With regards the concept of choice, obese pregnant women situated within a paradigm of risky blame, face a dichotomy when choosing where to give birth. Being cognizant of Foucault's governmentality there is an expectation that women will accept the medical gaze, particularly when the responsibility to produce a healthy baby is placed with them. Hence, there is an expectation for them to seek out and accept expert medical advice, and to comply with planned care within a biomedical childbirth model (Kelhä, 2009). Lupton (2012b) recognizes that it would be difficult for obese women to reject medical advice and technology, as the imperatives of reproductive asceticism involves social pressure. Being ascribed as having high-risk status means increased surveillance for the women in this study, which subsequently resulted in them being singled out through a high-risk label being placed on their maternity records. However, reportedly there was no

further reference made by health care professionals as to their high-risk status throughout the remaining pregnancy journey. Cahill (2001) acknowledges that with regards to risk, the interactions with the medical institutions that women have contact with will influence their experience and risk perception.

In this study, the women's' perception of risk was not reinforced during interactions with the midwife or other members of the health care team. Hence, I would concur that the lack of risk-talk by health professionals left these women in a liminal state where there appeared dissonance between their high-risk status and the care they received. Thus, I would conclude that their dissonance as to whether they were at risk or otherwise, left them questioning their threat status. In consequence, this dissonance appeared to impact upon their overall perception of self.

With regard to the concept of control Coxon, Sandall, and Fulop (2014) report that women seek control over childbirth in diverse ways. This is evident in my study findings, with some participants expressing need for control of their birth experience and method of pain relief. For example, one participant initially appeared compliant yet resentful that the medical model care pathway would remove control over her birth experience (section 4.2.3). Interestingly, Coxon et al. (2014) speaks to this idea through contending that women who prefer to stay in control often see hospital birth and the use of medical technology as a means of reducing risk and securing opportunity for a safer birth. Simmons and Goldberg (2011) are cognizant of a power relationship within the medical model of childbirth, with doctors and the NHS standing in the position of power through applying or withholding the high-risk label. Stahl and Hundley (2003) discuss that labelling pregnant women as high-risk can in some instances lead to the woman experiencing feelings of loss of control and powerlessness. This present study contradicts this ascertain, with one participant, Emily, embracing the high-risk label because its application made her feel special and equipped with a sense of power and control given that she had access to the metabolic clinic where she received sophisticated tests and ultra

sound scans. This finding is similar to that of Simmons and Goldberg (2011), who report that women who have experienced a previous pregnancy loss viewed the high-risk label as reassuring, since it gave them greater access to medical care. Nonetheless and in contradiction, this study demonstrates that this reassurance provided by referral was not the case for the majority of the women.

Women who feel in control of their birth experience report an increase in confidence and self-esteem (Berg & Dahlberg, 1998). Interestingly and in contrast, some of the participants in this study reported that they relinquished control when faced with pregnancy complications, and despite all seven participants' rejecting the high-risk label, all remained compliant with their planned care. That is, even when the prescribed induction of labour or caesarean section was counter to their wishes, they still complied. Van Wagner (2016) supports that maternal altruism or social expectation may explain this, as women will put their baby's safety first and by doing so accept risks to self. An advantage of this longitudinal study was that it afforded the opportunity to witness that controlling risk, which increased safety for the baby was paramount for participants, and often overarched their preferred choice of place of birth. Despite having ambivalent feelings towards their risk status, these women accepted surveillance, with some becoming reliant on the use of ultra-sound scans and fetal heart rate monitoring to confirm their baby's well-being.

These findings are concurrent with the discovery of Heaman et al. (2004); Simmons and Goldberg (2011) and Solchany (2017), all of whom recognized that use of technology, such as ultra sound, was one way of seeking safer passage for baby. However, in the event of complications, the women realized that in order to control the risk level from rising, they needed to share controlling action to manage the problem. This, Corbin (1987) terms, as corporate control, which requires teamwork between the woman and the health care team. This I concur would explain why the participating women in my study relinquished control to the health care team. When faced with a situation that threatened their desire for a healthy baby, they

were prepared to do what was necessary to achieve this goal. They entrusted control to the health care team for purpose of reducing threat of harm to their baby (Corbin 1987). The outcome for all seven women, despite some complications, was a healthy baby.

Thus, the possibility of infant and maternal morbidity and mortality was controlled, and the risks normalized within the context of a biomedical model of childbirth. Thus, I suggest that these positive outcomes further influenced the participating women's overall risk perception. Had a poor maternal or neonatal outcome in fact happened, this in itself might have left these women feeling at a higher risk than they first initially perceived. At this time, there are no studies available to support this argument, with the next section exploring this concept in greater depth.

Some of the participants expressed significant importance of receiving continuity of care from the same midwife. In the context of this study, continuity of care means that the women received antenatal and postnatal contact from the same community midwife, with care provided during birth hospital based. Continuity of care is sought to offer women a more personalized women centered service (Boyle, Thomas, & Brooks, 2016). Participants mentioned the relational aspect, which was particularly important for building a relationship of trust (Stephanie, section 4.2.5). It was however viewed that providing continuity of care alone did not guarantee development of a trusting relationship. There is evidence in the current study that building of a positive quality women-midwife relationship was hindered by constraints on the midwives' time. Participants reported that imposition of time forced their midwife to focus more upon physical aspects of their care. This finding concurs with that of Boyle et al. (2016), who explored partnership working and choice provision for pregnant women. This study identified that women felt that time constraints meant that midwives ignored the psychological aspects of care through giving women little time to ask questions, which left them feeling emotionally unprepared and thus seeking information from the internet.

The influential aspects of continuity of care and building of a trusting relationship between women and midwife is explored in more detail in the next section.

5.2.6 Risk or no risk

The final superordinate theme considers the subjectivity of all seven women, and their construction of risk. As stipulated previously, all seven participants by study end refuted their high-risk status.

Five participants shared this perception of risk at outset of this study, and this view remained static throughout. The remaining two participants demonstrated differing perceptions of risk at the beginning of the study, compared with the end. This apparent disconnect between labelling self as high-risk will now be explained using features of a psychometric model to discuss perceived characteristics of risk, such as dread, controllability, familiarity and seriousness, cognitive heuristics, availability, and representativeness.

The psychometric model focusses mainly on cognitive factors that influence an individual's risk perception (Lichtenstein et al., 1982). This approach draws on two factors, which are referred to as dread/non-dread and known/unknown risk. There are parameters associated with both of these dimensions. The less familiar a person is with risk activates the dread factor. This in itself evokes feelings of terror as the risk is viewed as uncontrollable and catastrophic. The more catastrophic the risk, then the higher the perception of risk (Lichtenstein et al., 1982). In contrast, risks that are viewed as non-dread are controllable, and hence risk perception is lower (Lichtenstein et al., 1982). The more known or familiar the risk is, then the less likely the woman is to perceive the risk as serious. Despite lack of risk communication by health care professionals, awareness of obesity-associated risks were highlighted in the study information leaflet. However and despite this, five participants did not consider themselves to be high-risk. This perception can be explained by the fact that people often rate their

risk lower in comparison to general risk (Sjöberg, 2000a). Findings of this study may also be attributed to unrealistic optimism, with the women believing that they are at less risk than others (Weinstein, 1980). This was evident when one participant voiced that others might be more unfortunate, but not her (Erin section 4.5.2.) (Weinstein, 1980). This unrealistic optimism may result from lack of certain information needed to make an accurate assessment, which in this case included lack of knowledge and awareness surrounding obesity-associated risks (Weinstein 1980). Past positive birth experiences of four participants who had delivered live healthy babies, also makes it easier to sustain positivity about any future experience (Weinstein, 1980). The availability heuristic explains the ease with which these participants were able to recall having a positive experience (Heaman et al., 2004; Patterson, 1993; Tversky & Kahneman, 1974).

People can be unrealistically optimistic when they perceive an event to be controllable, as it may signify steps one can take to increase the likelihood of having a desirable outcome (Weinstein, 1980). This concept in itself may explain why all five women who perceived their risk to be low were compliant with planned care, especially when induction of labour and caesarean section were advised. The outcome for all of these women was a live healthy baby, which supports that through their compliance risk was controlled. A link has been identified in a prior study between perceived control and lower perception of risk (Audrain et al., 1997). Perhaps an area worthy of future research is the exploration of risk perception in pregnant women following a poor outcome in a prior pregnancy.

Findings from this study also point to participants using the cognitive heuristic of representativeness (Tversky & Kahneman, 1974). When referring to the term unrealistic optimism, which is explained by Weinstein (1980) as a process of judging an event and whether the individual's related characteristics fit with a particular stereotype. Where individuals do not see themselves as fitting into this stereotype, then the representativeness heuristic promotes the idea that the person will conclude that the related event will not in fact happen to them. This concept is particularly relevant in

this study, given that the participating women rejected the notion that they were overweight and by doing so rejected the obesity label. In response, they did not associate themselves with obesity-associated complications, which ultimately influenced their perception of risk. Instead, they referred to events, such as having a caesarean section, that would have been experienced by pregnant friends and family with normal BMI is, quoting “it *could happen to anyone*”. Hence, their evaluations of risk were comparable with that of friends and family who had normal BMI’s.

In the present study, two participants, Emily and Ellis, had contrasting perceptions of risk from the other five, with this perception changing over the continuum of the pregnancy. Hence, the valuable longitudinal nature of this study afforded opportunity to consider temporality as the experiences and perception of risk changed over time. I will now explore this concept using the three phases identified in a study of risk perception of women with breast cancer conducted by Chalmers and Thomson (1996). In essence three phases identify what individuals’ experience when forming a personalized view of their risk. The three phases include:

1. Living the lived experience of high-risk.

2. Assessing own experiences.

3. Integrating risk into sense of self.

For both participants, the first phase of *living the lived experience of high-risk* became apparent when they were labelled high-risk through biomedical risk scoring and BMI classification. I suggest that the ramifications of this resulted in their initial heightened risk perception. In adjunct, the *lived experience of high-risk* was apparent as the care experienced by both women differed from the other five participating women, given that they experienced closer surveillance and had repeated hospital admissions over the pregnancy continuum. Gray (2006) reports that women under frequent or constant surveillance may have the provided reassurance that their

problems might be identified early. Once both participants started to *assess their own experience* of surveillance, we start to see a gradual lowering of risk perception.

For one particular participant, the change and lowering of perception of risk became more obvious over the three different interview points. This participant, I would consider unique, given that she was the only one to attend both the community midwife clinic and the metabolic clinic. Noticeably, her attendance at the metabolic clinic, where she felt "s*kinny*" (section 4.3.2) in comparison to larger women, indicated the downward sizing and rejection of the obesity label, which is similar to the other five participants. She started her pregnancy fearing death, so much so that it affected her ability to sleep (Emily section 4.5.4).

The subtle changes in risk perception are more evident at her second interview, and could be attributed to the repeated ultra-sound scans that she felt reassured by (Emily section 4.5.4). Patterson (1993) concluded that women interpreted indications from the provider that the baby is growing and responding appropriately, which is the strongest indicator towards her perceiving her pregnancy to be normal. Hence, the impact of this experience resulted in a lowering of perception of risk. It is not until a critical event threatens the survival of the baby that women consult first with family and friends, and subsequently health professionals to legitimize the risks (Patterson, 1993). Ultimately however, it was the women's friends and family that verified that the pregnancy was normal and non-problematic (Patterson, 1993). Another significant factor identified in this participant, was the relationship that she formed with her community midwife. The care she received and explanation of risk by her known community midwife with whom she had built a trusting relationship, aided her by putting risk into perspective. Heaman et al. (2004) reports that women rely on their health professionals' assessment of risk. Care in this environment of trust appeared to give them more control (Green, Coupland, & Kitzinger, 1998), which again strengthened the premise that the more perceived control that one has, then the lower the perception of risk becomes (Slovic, 1987).

This current study does not differentiate between the perceived risks to the mother or the perceived risks to the baby. However, the fact that perception of lowered risk from inquiry at the second interview compared to the third interview, particularly with one participant (Emily section 4.5.4), may be explained by the constant reassurance of surveillance which instigated optimism about pregnancy outcome as it advanced in gestational age. In addition, as the fetus becomes older risk of preterm birth and its complications disappear (Bayrampour et al., 2013). These conclusions are supported by Öhman, Grunewald, and Waldenström (2009), who explored perceptions of risk in relation to ultrasound screening for Downs syndrome, and demonstrated a decline in worry about the baby's health from early pregnancy across to the postpartum period.

The maternal responsibility and moral connotation was evident in all seven participants, despite refuting their high-risk status, which was illustrated by their frequent references to their emotional state. Most of the participating women expressed emotional concerns regarding their pregnancy and fetal health, which differed in intensity between each other. Emotions ranged from worry, anger, guilt and fear, and despite these women's refusal to accept their high-risk status, it might seem reasonable to label them as being in denial. However, I would argue that they were not in denial, which is evidenced by their compliance with planned care and risk alleviating strategies, such as dietary changes. Also, they were focused on the uncertain possibility of becoming a mother (Stainton, 1992). Instead, I would support that what I witnessed emerge from the narratives of these seven women was an attempt to alleviate their anxieties by turning their bodies over for medical surveillance and technological assessment to ensure the safe passage of their baby (Stainton et al., 1992). More importantly, it is imperative that this ascertain is not misinterpreted by health professionals as the women being in denial. Stainton (1992) reinforces this point by being mindful that the focus of health care professionals is upon the woman's medical condition, but for women it is about becoming a caring mother.

5.3 A conceptual framework for obese pregnant women, labelled high–risk

This thesis has presented an argument for the proposed conceptual framework, "my *risky self",* as a way of understanding risk perception in obese women. The framework has drawn on cognitive heuristics, the psychomotor model of risk perception, and Cooley's (1902) looking glass theory to explain the findings of the seven women interviewed in the study's perception of their high-risk status. This conceptual model has been developed using the findings from the current study, which have been intertwined within the context of the existing studies, previously identified in *Chapter Two.* This conceptual model supports the tenet that subjectivity is central to understanding of risk perception. These women were categorized as high-risk, but were not fully aware of their obesity-associated risks. This I would argue may have a substantial impact on any health behaviour intervention aimed at obese women.

Risk perception in these seven women has been socially constructed through their birth experience and birth outcome, along with interactions with their health care providers'. The participating women did not define their risk by the health care provider's measure of epidemiological data, but instead their desire to normalize their pregnancy. This construction was in part driven by contemporary society's normalization of obesity, and family and friends' pregnancy related experiences. I argue that it has been the unique longitudinal nature of this study that has led to the rich interpretation of risk perception through the *lived experience* of these participants.

The next section will reflect back on the research process to highlight strengths and limitations of the study.

5.4 Reflection on the Research design- Looking back, Moving Forward

The aim of this study was to explore the lived experience of women with a BMI >35kg/m^2 during their pregnancy and childbirth. The phenomenological approach taken allowed for the interpretation of the participating women's narrative through *the lens* of high-risk. Such experiences need to be understood within the context of the women's everyday lives. Hence, by using IPA, this longitudinal study has afforded the opportunity to explore women's temporality and socially embodied being, which involved '*Dasein* being in the world' (Shaw, 2010). Through the reflexive nature of this methodology I have been able to enter into a dialogue with participants and through analysis have made sense of the phenomenon *labelled high-risk.* It has also been through my own engagement with reflexivity that I have proactively explored *myself* at the start of this research enquiry (Shaw, 2010). My position as a researcher is presented in *Chapter One* of this thesis. While it is considered that reflexivity is important to gain understanding of human experience, it should not be the objective of the research study, but seen as a way of researching (Shaw, 2010). With this in mind, the next section will present a reflective account of the research process, where I will highlight the limitations and strengths of my study, along with a reflexive account of my own development as a researcher.

5.5 Reflecting back

My own position as a researcher was presented in *Chapter One*, with a view from my *own vantage point* highlighted. Recognizing that as a living human being who is *not value free*, it was imperative that my own influence within this study was first explored. Horsburgh (2003) acknowledges the intimate involvement of the researcher in both the research process and as a product of the research. This involves being aware of what influences the researcher, both internally and externally, and also being aware of the researcher's relationship with the topic and participants (Horsburgh, 2003). My own position was complex. I am a PhD research student, a former

clinical midwife, current midwife educator, stepmother, and a grandmother. Ultimately, however, my stance in this research study was as a PhD research student, who was researching the true meaning of experience. Taking into account my other positions and putting them into the background, I felt that I needed to be honest and open with the participants. Values such as honesty need to be shared. Hence, I introduced myself first as a researcher, but did disclose that I was also a trained midwife. A reflexive diary was used throughout to provide transparency and the reality of my position, and the need to address any ethical implications of this during my study.

The expectation that I had following this disclosure was unfounded. I had expected that my position as a researcher/midwife would have affected the women's openness to speak out about their care. To counteract this, I tried to assume a non-hierarchical partnership when conducting the semi-structured interviews, as opposed to taking a detached approach. During process, I viewed the woman as a partner in the mutual creation of data (Im & Chee, 2003), and this strategy I believe was successful given the rich data generated from the participating women's birth stories. However, upon reflection of my first interviews, I used the interview schedules rigidly. Yet, as experience was gained in the subsequent interviews, it simply became a guide.

5.6 Strengths

This research study has been successful in achieving the aims of exploring risk perception during childbirth in women with a BMI>35kg/m^2, and to gauge how their birth outcomes have influenced this perception. This present study contributes to the existing body of knowledge in a number of ways. First, it is the only study yet, to specifically consider how pregnant women "labelled as high-risk" perceive their risk from being obese. Another recognizable strength has been the longitudinal design, which has afforded the opportunity to engage with temporality. Hence, capturing the participants' childbirth experiences and the influence this had upon their risk

perception, along with the influence of friends and family and ultimate birth outcome, required that observations be witnessed across time, as opposed to only one single time point. In essence, and under the scrutiny of my research supervisory team, I have witnessed the subjective construction of these seven participants' reality of high-risk. This was only possible with repeated access to the participants using a longitudinal design, which gained understandings of deep aspects of women's private lives (Snelgrove, 2014). Another notable strength of the longitudinal design was the retention of participants across the length of the study, with all seven original participants remaining engaged throughout the three time points of data collection. A key strength of this thesis is the knowledge that has been generated in an under researched area. This new knowledge will add depth to previous understandings by proposing a new conceptual framework called "my *risky self".*

Central to this study has been the reflexive accounts that I as the researcher have noted throughout. My own journey as a reflexive researcher can be explored further in the last chapter of this thesis, where my engagement in the hermeneutic process has brought together a "*fusion of horizons*" (Gadamer 1900-2002).

5.7 Limitations and considerations

The reflexive stance taken throughout this study has meant that the limitations of using IPA as a methodology were previously acknowledged in *Chapter Three.* Indeed, I have considered many limitations throughout this thesis. A brief summary of these is now provided. *Chapter Two* has discussed the limitations of current research studies pertaining to risk perception in obese women during pregnancy. Hence, a need was identified to broaden the literature search to include all high-risk pregnancies. *Chapter Three* also highlighted some of the issues around recruitment experienced, and how these were resolved. This same chapter also acknowledged the ethical issues identified in labelling women as obese as a potential cause of distress.

Further limitations of this study include the sample size of women included. The sample composed of seven Caucasian women recruited from one community clinic in Scotland. Also, this was an in-depth study that only focused on seven participants, which is in keeping with the recommendation of Smith et al. (2009). Nonetheless, the data yielded an in-depth idiographic focus that can now be used to inform a larger quantitative or qualitative study. In reality, obese women are not a homogenous group. Hence, this study did not take into account socioeconomic and lifestyle variables. A mixed social and ethnic sample might have revealed findings that were more diverse. It must however be acknowledged that IPA research tends to focus idiographically on participants from a homogenous group (Smith et al., 2009). Another limitation was the study location, with participants recruited from one community clinic in the East of Scotland. Again, this limits the findings to a particularized style of clinical midwifery practice located in one cultural setting. It has been recognized in previous studies, that women's perception of risk is influenced by their past pregnancy experiences. Consequently, the four women in this study who had previous live healthy births might have developed a more positive outlook on their high-risk position (Heaman et al., 2004; Patterson, 1993). Whereas a sample of women in their first pregnancy might have revealed some differing results. Despite these limitations, *Chapter Three* has captured the detailed data analysis and audit trail used to ensure that the principles of quality assurance were applied within this qualitative study.

These included sensitivity to context, commitment, rigor, transparency, coherence, impact, and importance (Yardley, 2000). The data uncovered in this study hears the voices of seven participants who have used the maternity services.

The knowledge generated can later be used to inform a larger systematic body of knowledge to inform further research and maternity unit policy. Particularly in relation to influencing the future training of midwives in communicating risk to women with a BMI>35kg/$m^{2.}$

5.8 Conclusion

This thesis has explored the childbirth experiences of seven obese women who were subsequently labelled as "*high-risk*". This deep exploration of their experiences has afforded the opportunity to develop an understanding of the impact on individual's perception of the *high-risk self.* The main argument presented is that there is a need for health professionals, and especially midwives who work closely with women, to fully understand women's experiences of being classified as obese and using the maternity services. In addition, midwives need to be better equipped to support woman to be the best healthy mother they can be so as to optimize conditions for their baby. The obese pregnant body is potentially risky for both woman and baby, with recognition of a rising prevalence of associated problems that can lead to development of national government policy and local guidelines designed to control risk and improve outcomes for this group of service users. This thesis has highlighted the convergence of a neoliberal government trend towards individualization, accompanied by assumptions about individual agency and maternal responsibility for baby. Risk discourse that grows expert knowledge, surveillance and regulation of obese pregnant women is based upon the strong moral connotation that women will comply and minimize risks for their baby. It is evident in the element of the conceptual framework *Choice, continuity and control* that the women in this study had a desire to feel in control, yet all complied with their medically assigned care pathway. That is, they accepted medical interventions and did not challenge their offering.

Hence, I have argued that the participating women perceived themselves to be in a vulnerable position, and as such tried to negate the safe passage of their baby and protect them from harm and risk. There was also affirmation by the majority of women that they valued an open honest and non-judgmental relationship with their midwife.

The labelling of women as *high-risk* meant diverse things to different people, with health care providers basing this concept solely on epidemiological

calculations. Whereas and in contrast, the theme *Me and my body* ultimately reveals that the women in this study refuted the label of being obese and that they had a *risk-laden body, and* so rejected their risk. During the process of attending the metabolic clinic, risk had become normalized. It was also normalized within the context of the participating women's everyday lives, which was in addition influenced by friends and family.

I have argued that public health promotional interventions aimed at obese women have made simplistic assumptions, and are failing to take into account the complexity of the social-cultural world in which obese woman subjectively construct their own perception of risk. Such health promotion has based models of behaviour change on the assumption that individuals, when given knowledge about risks, will rationally weigh up their chances and act accordingly through changing their behaviours. Education is key to behaviour change. Whereas, the element *No risky talk* has revealed that women are wholly unfamiliar with their obesity-associated risks, and that health care professionals are wholly reluctant to discuss the sensitive issue of obesity with them. If obese women do not recognize themselves therein or have no knowledge of their risks, they will not be able to in act accordance with recommended health behaviour. So rather than work against these women, we need to work with them to provide the risk based information they require to make informed choices.

The women in this study, as demonstrated in the final element *Risk or no risk,* understand peril when it is based in their experiences of real cases, including those of friends and family. This study has demonstrated that the participating women relied on personal data in their assessment of their own risk. Ultimately for them the risks were unfounded. That is, there was no real risk, which was confirmed by the positive outcome of delivering a live healthy baby.

The aim of this study was not to refute the risks associated with obesity, with some of these risks reflected in the birth experiences of some of the participating women. Instead, the aim was to understand how the seven

participating women perceived their risks from being obese within their everyday lives. Risks need to be tangible for women to understand and act upon them. In the absence of any *risky talk* between the woman and health care professionals, women are left to construct their own personal views around their obesity-associated risks. In addition, most of the women in this study reported obesity related stigmatizing experiences. Hence, I would contend that providing these women with risk based obesity information is fundamental, and that such action should be the first step in any health behaviour change model.

5.9 Implications and recommendations for clinical practice

The findings of this study have potentially far reaching implications for policy and practice within midwifery. Therefore based on the study findings and to enhance the provision of midwifery care that obese women receive, I would like to highlight the implications of the findings of this research and make the following recommendations. As stipulated in *Chapter One* of this thesis, the *Best Start* maternity review has been timely with respect to its final recommendations (Scottish Government, 2017), with the recommendations taken into consideration when writing my conclusions of this thesis.

The findings of in this study demonstrate that the participants generally displayed a lack of knowledge of the risks associated with obesity, despite the recommendation that pregnant obese women are provided with accurate information on obesity related risks (Modder & Fitzsimons, 2010). This study indicates this has proven to be particularly challenging for health professionals to implement. The reluctance of health care professionals to discuss this sensitive subject is not unique to this study and has been recognized elsewhere (Herring et al., 2010; Wilkinson et al., 2013). Yet the message about obesity associated risks needs to be delivered consistently and clearly by all health care professionals (Furness et al., 2011). Otherwise the downplaying of the pregnancy associated risks of obesity, creates a challenge to fix it. The women in this study refuted the obesity label. Hence,

if obese women do not classify themselves as obese, then they will see no need to engage with any health promotional messages delivered.

Furness et al. (2011) stipulate that when discussing risks, any risk information given should not be delivered on its own, instead it should always come accompanied with advice and support. This means striking a balance between allowing obese women to feel comfortable with their pregnant body and at the same time conveying the message of obesity related risks. Recognizing that midwives need to provide information about the risks of obesity to women at several time points, which include pre-conception, at the booking appointment, during antenatal care provision, and during the postnatal period. To enable midwives to communicate effectively and deliver advice they need specific training to increase knowledge of the obesity associated risks and support services available to support women with weight management. Midwives also need training in developing communication skills to support them to approach this sensitive subject(Smith, Cooke, & Lavender, 2012). Hence to enable midwives to feel confident to discuss these issues sensitivity it is a recommendation that a training needs analysis needs to accompany any implementation of guidelines or policy documents related to obesity. Another recommendation is that standardized routine questioning has been shown to help reduce stigma attached to sensitive issues (Price, Baird, & Salmon, 2007), hence adding standardized questions to the booking appointment might make the subject of obesity easier for health professionals to approach.

Evident from the findings of this study was the stigmatizing treatment that participants received from health care professionals. Heslehurst et al. (2014) acknowledges that health professionals need to also acknowledge the causes of the woman's weight gain, and provide them with advice and care absent of bias or stigma. This recommendation is reiterated in the *Best Start* (2017) review, which advocates that the most vulnerable women need to be supported with compassion and support, accompanied by services and advice designed to promote a healthy lifestyle. This signifies that there

is a training need, to enable health professionals to challenge the stigma attached to obesity, and allow them to raise the issue of weight with women in a sensitive manner (Furness et al., 2011). Hence as a recommendation for practice pre-registration curriculum should incorporate training which includes communicating risk sensitively in a non- bias manner for all health care professionals. Post-registration education should be incorporated into mandatory update training programme.

Being mindful that the empirical data in both this study and from pre-existing studies shows that women relate to real life case studies. Therefore a recommendation made is that obese pregnant women contribute to this training developed and delivered. During process, obese women can highlight the reality of their own maternity journey, e.g., using digital documentary development of story worlds. Also the training delivered needs to be mindful of the wording used to describe obese women. The words "*fat"* or "*obese*" have proven to be unconvincing and morally laden. Empirical data from this study suggests that it would be better to refer to obese women as being "*overweight*" as a means of describing their state of being.

Women in this study also acknowledged a lack of health promotional information in relation to obesity associated risks. They themselves voiced the need for obesity associated risk information to be conveyed face-to-face, in information leaflets, and through posters displayed in clinic areas, thus making information visible to childbearing women. Evidence from wider studies (Arden, Duxbury, & Soltani, 2014), suggests that social media is another means of knowledge diffusion and therefore is a further avenue that warrants consideration.

The current "one size fits all" approach, which is often enforced when following local guidelines, does not take into account the individual needs of women. The women in this study constructed their perception of risk through their own birth experience, birth outcome and interaction with health care professionals. Therefore, midwives need to be mindful and sensitive to the psychological and social factors that influence ways in which women

respond to risk information. Women labelled as high-risk need to be provided with appropriate support and reassurance during their pregnancy journey. Some of the women in this study indicated that the building of a trusting relationship, especially between woman and midwife, was essential for establishing trust in care provision and self-trust. We now have an opportunity to craft midwifery models of care that suit the needs of both high-risk, low-risk women, and their families. This assertion is supported by the current recommendations of the *Best Start* (2017) review, which recommends that all women in Scotland should by 2022 be provided with a named midwife who delivers continuity of care. Hence, affording the opportunity to build such essential trusting relationships. Scottish midwifery and obstetric teams will in the future be aligned with a caseload of women, and support the concept that women can build a relationship with their midwives placed within a small group practice (Scottish Government, 2017). Development of such a system means that women will receive continuity of care across their entire maternity continuum, with a more person-centered support tailored for vulnerable obese women and families. An area of support particularly relevant to this study, includes the opportunity for midwives delivering continuity of care to actively support and encourage obese women to initiate and sustain breastfeeding, with such action protecting against future development of childhood, adolescent and adult obesity.

5.9.1 Further research

The proposed conceptual framework "my *risky- self*" requires further exploration and refinement. In particular, the inclusion of participants with a previous poor maternal or neonatal outcome may help to further illustrate the impact of the birth experience on risk perception.

This current study and pre-existing research has identified that health professionals find communication surrounding obesity associated risks a sensitive subject (Schmied et al., 2011). Therefore, I would recommend further research be required to address the positive and negative effects of providing risk related information to obese woman.

In addition, the lack of risk communication that has been identified in both this and other studies (Herring et al., 2010; Keely et al., 2011; Wilkinson et al., 2013), promotes that further research is required to explore how women attain knowledge about their obesity associated risks during pregnancy.

A longitudinal study that explores the childbirth experience of obese women within the continuity of carer midwifery model, also warrants further exploration. It would also be pertinent to evaluate the person-centered model of care as an intervention offering support to obese women.

5.9.2 Impact of this study

As the present study progressed, findings were disseminated both orally and by poster presentation. Dissemination has taken place both nationally and internationally. Details of these presentations are available in Appendix 17. I also plan to publish a number of papers from this study in peer-reviewed journals. These publications will include:

- A literature review about knowledge and awareness of obesity associated risks during childbirth.

- A paper presenting the main thematic findings.
- A paper focusing on IPA and using a longitudinal study design.

5.9.3 Final summary of this research study

This thesis has contributed to the existing body of knowledge through proposing development of a new conceptual framework, called "*my risky self"*. This development has been made possible through using IPA as a methodology, because it yielded rich and detailed accounts of high-risk experiences of child bearing obese women. The data produced revealed the *truth,* as presented through the *lens* of the women who participated, which was then interpreted by myself as both midwife and researcher. The development of the conceptual framework has been underpinned by existing literature. For example Cooley's (1902) looking glass theory, cognitive heuristics (Tversky & Kahneman, 1974) and the psychomotor model of risk (Lichtenstein et al., 1982). The original findings from this research study has added to a previously under-research area of obstetric practice. Hence, this thesis makes a valuable contribution to existing knowledge, and presents several key messages.

5.9.4 Key messages

- Risk communication is key to any behavioural change.
- Health care professionals are continuing to avoid the sensitive discussion of obesity related risks, and as a result childbearing women overall are wholly unaware of their obesity associated risks.
- Women distance themselves from the obese body image, and also avoid using words such as *obese* or *fat* to describe themselves.
- Health care professionals view risk as isolated medical conditions, whereas women contextualize risk relative to their life circumstances.
- The focus for obese high–risk women was on becoming a mother. In response, turned their bodies over to medical surveillance and technology to ensure safe passage for their baby
- Risk perception has been constructed through the women's' birth experience, birth outcome and interaction with health professionals, family and friends.

Chapter Six: Reflexivity

6.1. "Look inside me, what do you see? Not the obese woman that you labelled me" - The examination of self

The aim of this research study was to explore the high–risk experience of women during pregnancy, with a BMI >35kg/m^2, who were subsequently labelled as high- risk. The ultimate aim was to understand their lived experience, and to effect change, either in how we care for these women individually or at policy or guideline level. Shaw (2010) concurs that research with the power to influence change has a responsibility to employ reflexivity. A requisition which I have taken into account, by carefully interweaving my reflections, within the previous chapters of this thesis.

In this last chapter, I wish to reflexively explore my own journey as the researcher, and how I have come to reach a shared understanding with the seven participants in this study. The metaphor, *standing on the edge of a cliff with the sun beating down*, has been depicted to illuminate my journey through this PhD thesis.

"*Standing on the edge of a cliff*"

Writing and conducting this thesis has been an emotional journey of *highs and lows*, under pressure from the *heat of the burning sun.* This metaphor I

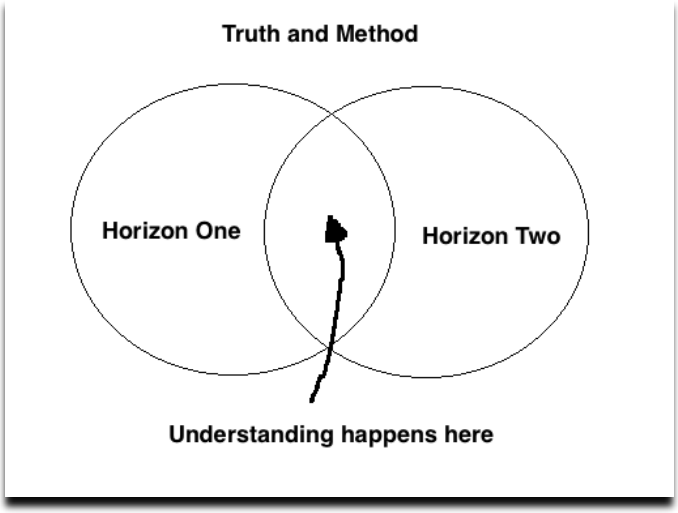
use to describe the constant pressure that I felt in relation to my PhD over a five-year period. I could have chosen to either fall off the cliff top, or choose to fly.

I chose the latter. The following gives a reflexive account of my learning throughout the journey of conducting this thesis.

Throughout this study I embraced an interpretative ontology, with the understanding that people and the world are intertwined with multiple versions of reality (Shaw, 2010). Indeed, Heidegger's existential phenomenology and focus on *Dasein* – being in the world, emphasizes the fact that the world we live in reflects on how we experience our life (Shaw, 2010). For each and every one of us, we experience and interpret the world from our own particular lens, and we can never fully escape subjectivity (Shaw, 2010). Therefore to explore my own journey, Gadamer's (1975) (Gadamer, Weinsheimer, & Marshall, 2004) metaphor "*fusion of horizons*" referred to in *chapter three,* is utilized to illuminate the shared understanding between myself as the researcher, and the seven participants in this study.

Gadamer (1975) (Gadamer et al., 2004) purports we each have our own standpoints or fore understandings, where pre-suppositions and beliefs make up our own horizons and when we meet with other people, both horizons overlap (Figure 2). The interpretative process is circular, given that to understand an experience we move back and forth between the investigators fore structure and understanding and what was learned through the research process (Wojnar & Swanson, 2007). This circular movement continues until the text is understood and a fusion of horizons achieved (Dowling, 2004). The following excerpts from my reflective diary, have been used to illustrate my journey through the data analysis stage and the uncovering of a shared understanding, which in other wards is a fusion of horizons.

Figure 2 "*Gadamer's hermeneutics"*



6.2 Pre-supposition / vantage point

The concept of having my own vantage point has been identified at the beginning of this thesis in *Chapter One*. I started this journey as an individual new to research, but also as an experienced clinical midwife and midwife educator. Hence, whilst I was in inexperienced in using IPA as a researcher methodology, I was a skilled communicator with extensive midwifery knowledge and experience of caring for high–risk women during pregnancy.

Initially I made contact with an IPA group for support, however this was short lived as my own demanding role in the university, meant that I was not always able to attend. As a result, my PhD experience felt at times, like a lonely isolated journey.

Only now upon reflection, I can acknowledge that I entered into this hermeneutic circle with a medicalized perception of high–risk. The following excerpt, placed in italics and in text boxes, to distinguish these extracts clearly from the transcripts of the participants' comments, and is from my own reflective diary written prior to my first encounter with a participant.

"*High-risk to me means danger to my baby. I would not question or disagree with the Consultant about my pathway of care if they were suggesting the safest route of care. Why would these women? Do they not want a healthy baby*?"

My diary continues with my reflections on how I would feel guilt and blame myself for putting my baby at risk. My own stance appeared to be one that reflected stigmatizing bias, which was something that I was not aware of. Here I was blaming these women and their body weight and size for placing their baby at risk.

My expectation was that all participants would feel at risk, simply because they were classified as high–risk. I fully expected the participants to take responsibility for both themselves and their baby, but they did not. The reality was that they were wholly unaware of their obesity-associated risks. Indeed, it was not until the point of interacting with the data and particularly during data analysis that I really started to question the participant's knowledge and understanding of their risks. During which, it became apparent that there was a lack of risk discussion by health professionals. This made me feel embarrassed, and specifically that I had blamed these women for something that they were not aware of. My next excerpt reflects how annoyed I was with my own midwifery profession.

"Annoyed that no-one ever asks what these women want. No-one mentions risks".

"As the researcher, this was disconcerting for me to hear, as I had not anticipated that I would be the first person to relay this information to these women. As Claire's words impacted, "you're at risk for your life".

What became apparent, was that the women interviewed very rarely mentioned the term *midwife*. This I found difficult, especially as the term itself means *to be with women (Wilkins, 2010).* Something that we as midwives appeared to be failing to do. My immediate reaction to this

acknowledgement *was we need to do better* in supporting these vulnerable women.

It was not until I started to fully interact with the data and the literature, that my own understanding of the participants and their situational context I started to change my own pre-understandings. In other words, *my fusion of horizon* started to change.

6.3 Blurred boundaries

My position as researcher/midwife and educator/midwife caused consternation, as I was conscious of conflicting boundaries, that presented was challenged. Despite my initial concerns, that knowledge that I was a midwife would influence the voice of these women was unfounded, as participants were eager to share their stories with me. Many of which included an account of the childhood bullying and stigmatizing behaviour that they had encountered due to their obesity. One participant asked if I would help her devise her birth plan when the time came, however I felt that this would blur the boundaries between my position as the researcher and the midwife. I politely refused, by acknowledging that her community midwife had knowledge of her pregnancy and would be best suited to help her with this activity. The second situation where there was potential for blurring of boundaries, proved more challenging. I arrived to undertake my last interview in this study and a husband answered the door with the baby in his arms. He called to his partner that the *midwife* had arrived and proceeded to tell me about the need to take the baby to the Children's hospital the evening before. Both his wife and I explained that I was the research midwife and not the community midwife. However, despite my research capacity, I am also a registered midwife with a *duty to care*. Hence, once I ascertained that it was a minor problem, that had been reviewed by a doctor, and that the baby looked well and healthy. Also that the midwife was coming to review the baby that morning, we continued with the research interview. This situation however, did signify the ethical dilemmas of having disclosing dual roles. This dilemma however was acknowledged early in the

research process during the application of the NHS IRIS ethics application, and to mitigate a debrief sheet containing contact details of the community midwife and GP was given to each participants should they require further counselling.

6.4 Sensing my frustration - Analyzing the data

My main frustrations with this study centered upon time management. Trying to juggle full time employment around interviews with women at various gestations proved challenging. The data analysis felt overwhelming at times, simply because of the amount of rich data that I had generated. This added to my frustration, since the more I became immersed in the data collection and analysis, the more frustrated I was becoming with having to leave my PhD studies to concentrate on my full time employment.

Step one of the data analysis involved reading and re-reading the transcripts, synchronized with listening to them. This I found intense, as I was conscious that I would miss some meaning that would be crucial to my own understanding. Indeed, initially the analysis of the data felt descriptive, and indeed was descriptive, but with the support and guidance from my research supervisory team, this progressed into a raised interpretative analysis. Each participant had three interviews each, which were analyzed, with sub-themes and superordinate themes identified across all three interviews. Each case study was therefore analysed separately, before moving to the next case study, and starting the process again. As Smith et al. (2009) suggest that maintaining an idiographic perspective is important. Hence, it was imperative that I tried to bracket the ideas emerging from the analysis of the first case study. Again I reiterate, that I found this contradictory within the framework of hermeneutic inquiry, and indeed my own ontological stance where the researcher is very much part of the research process. It was at this stage, following the analysis of the first six interviews that I recognized the difficulty that I was experiencing bracketing off the emerging themes that I uncovered. I attempted to reflect back on my

preconceptions at this stage using my reflective diary, as the emerging themes from these interviews were not what I had expected to see:

> "Only the very first participant appears to be worried that she is at risk? Why don't those others feel at risk?
>
> "Initially, after analyzing the first five interviews I thought that I would see more self-blame, guilt, but this has not happened until I analyzed the sixth interview. This participant was overwhelmed with guilt".

I had not been prepared to uncover this, with my own pre-understandings believing that every mother wants to protect her baby. So why did these women not feel at risk? Indeed, at this point I was quietly thinking that their risk perception would change, once they had contact with the midwives and Consultant. Despite the complications that these participants experienced, all of which can be linked as risk factors associated with obesity during pregnancy, this was not to be the case. With most not making the connection with the complications that they were experiencing and their increased BMI.

For example, one participant, who was a Mental Health Practitioner, whom I initially met in her workplace. My initial assumption of this woman was that based on her occupation that she would certainly recognize the connection between obesity and obesity-associated risks. Indeed, she was the only participant to make the connection between her large baby and her BMI. Nonetheless her last interview she blamed the NHS for her complications. This I found difficult to understand, and my frustration is evident in the following quote from my diary:

> "*The complications are never viewed in terms of the harm I am doing to my baby, always the harm it will do to them giving birth".*

6.5 Fusion of horizons

Throughout this study, I did struggle to comprehend why these women did not feel that they were high–risk. With further interaction with the data, I slowly uncovered perhaps one of the most significant findings, that the participants avoided using the word *obese*, and instead referred to themselves as being overweight.

> **"……..*I am slightly overweight*,** *but compared to some people who are extremely overweight and have* ***loads of fat*** *and big legs……..****I am like a normal person****, just slightly bigger……" (Ellis, 18 – 22 weeks)*

She has saved the word *fat* for the larger woman, that both she and other participants, appeared to compare themselves with.

> "*I didn't ken because it's a sensitive subject, obviously, because it's usually people* ***that are sort of bigger*** *that they're trying….." (Anna, Postnatal)*

My analysis of the data had now progressed into an interpretative stance. Slowly I started to uncover and understand the true meaning of the data. With language "logos", the meaning became clear. The participants in this study did not associate themselves with having an obese body. As the quote below uncovers, this was not her, it was for the bigger women.

> ***"…you see people, who maybe look bigger****, and they are actually classed as* ***obese,*** *and* ***they look bigger****…." (Claire, 18-22 weeks)*

Up to this point, I had used the word *obese* without thinking of any moral connotations attached to it. This word to me represented a medical BMI classification. However and in hindsight, when this study was submitted for ethical approval, I was asked to amend the title of the study which involved removing the word *obese*. In response, I subsequently replaced the word

obese with increased BMI. Yet, I still had not made the connection with this morally laden term. That is until the point of data analysis. Subsequently, the findings from this study uncovered that these women refuted the obesity image, along with the BMI classification of obese. Now I started to understand why these women did not associate themselves with their high–risk label. Not only were the women refusing the obesity label, also friends, family and interactions with health care professionals, seemed to be normalizing their body shape and size too. The blurring of both horizons was becoming clearer.

Consequently, I was able to develop my pre-understanding, and in response to this develop new understandings. Consequently, I carefully avoided referring to the word *obese in* any of my writing. From this new knowledge and interacting with existing literature, my initial understanding of the participant's vantage point changed. My initial pre-understanding was that these participants were in denial of their risks, and therefore I could not understand their compliance with planned care, e.g. induction of labour and growth scans, if they did not believe that they were high–risk. It became clear through the stages of data analysis and interacting with existing literature that participants were not in denial, but were focusing on their pregnancy and the prospect of becoming a mother. My own pre-understanding subsequently changed in response to this new understanding. This is the point in the hermeneutic circle, where both distinctive viewpoints have fused into a shared meaning. We had reached the point where understanding happens (Figure 2.), the "*fusion of horizons"*. The participants in this study were not in denial, and nor did they see themselves as high–risk. Compliance with planned care had been to guarantee the safe passage of their baby, with the aim of delivering a live healthy baby.

6.6 The examination of self as a researcher

This thesis has taken me on a personal journey where I began by first exploring my own ontological position as a midwife in chapter one, but subsequently ended this research study as a researcher, trained in IPA. At the beginning of this journey I had my own assumptions that reflected a very medicalised view of how women should respond to their high-risk status. I assumed that women who were categorised as a high-risk pregnancy, would follow the care planned by healthcare professionals. Whereas on reflection this was a paternalistic approach to midwifery care. Instead of providing women centred care I expected that all women would comply with their planned care, simply because of the high-risk label they had assumed. I started this research study with the assumption that all the participants once categorised as high-risk at the beginning of pregnancy, would feel high-risk, and subsequently end the study still feeling high-risk. I was not quite prepared for what I uncovered during the data analysis stage. First, as explained earlier these women did not associate themselves with the obesity label, secondly, they did not feel that they were indeed at risk. Only two participants felt at the beginning of the study that they were indeed at risk, however by the end of the study this had changed, to both feeling that they were no more at risk than friends and family with a normal BMI. As a research student completing a PhD study, this finding started to arouse my own curiosity. I felt that I needed to understand this more as this was a contradiction to what I believed that I would find. To help me understand this I started to explore more literature around risk and risk perception. I particularly found interesting the literature around cognitive heuristics and the psychomotor model of risk. At this point I started to link the women's life stories and events throughout their pregnancy to the literature around risk and risk perception. Only at this point as a researcher, I started to really understand how life events, family and friends had indeed shaped how these women perceived their risk. This led me to search for a way to explain the findings of the data analysis and I chose to do this by developing my own conceptual model "*my risky self*". Until this point I had not appreciated the value of my own longitudinal approach to this research study, nor had I

comprehended that I had achieved this without any attrition from my study participants. This I now understand was an achievement, as a cross sectional study would not have uncovered the changes over time that I had revealed. A conceptual framework appeared to be the most appropriate way to explain how a series of life events had influenced the women's final perception of their risk. With the most pivotal influence being the women's refusal to accept the image and the obesity label. Acknowledging that this, with the lack of risk communication from health professionals, has created a real challenge to fix. Hence with this in mind, my plan is to next pursue a small research grant which will create an opportunity to explore the terms used when referring to obese women. As I have explained earlier the term *obese* appears to be morally laden, and a term that women appear keen to avoid. The aim is to explore what would be the best terminology for health professionals to use when discussing obesity and associated risks. This I speculate would best be achieved by perhaps using a survey approach with women on a social media site (e.g. Netmums) and small focus groups, This, I envisage to be an essential step in the development of sensitive communication skills for health care professionals.

This thesis has challenged me to think about not only my role as a researcher, but also my former role as a midwife. Unfortunately, I cannot rewind and change the pre-understandings that I had as a former midwife, but I can now understand them. My pre-understandings were challenged by the methodological approach that I had chosen, in pursuit of answering my research question. To move from my own standpoint, enter into the hermeneutic circle, interact with the data and existing literature, and uncover the true meaning, has required the development of skills as an IPA researcher. Returning back to the metaphor, *standing on the edge of a cliff,* meant that as an inexperienced researcher, I was challenged intellectually as an academic to quickly develop new skills as an IPA researcher. This has afforded opportunity throughout to become immersed in an expanding community of IPA researchers. This skill development has also meant immersing myself in literature that is out with my own profession, and namely psychology.

I can confidently say that upon the completion of this thesis that *I stood on the edge of a cliff top and flew,* emerging as an IPA researcher who has since presented at the British Psychology Annual Conference and is now ready for more challenges in the field of IPA.

6.7 My ontological position as a midwife

As stated previously I have identified at the beginning of this thesis my ontological stance as a researcher. However, this journey challenged not only my role as a researcher, but as midwife/ midwife educator. Hence, to conclude this thesis I will now explore my own ontological perspectives and beliefs as they now currently stand. The challenge of this study has been to present the voice of the participants in multiple layers, within the context of a high-risk caring environment. Hence, I have been very honest with my own interpretations, whilst being mindful that I have viewed the women's accounts through my own cultural lens. As a midwife / midwife educator, my own personal values have been influenced by what I have uncovered. I have previously stated that while practising as a midwife I always assumed that high-risk women would comply with medically planned care, and would not question this. Also as a midwife educator, I previously endeavoured to reinforce to student midwives that women-centered, holistic care was essential for all women. Yet, reflecting back on my own ontological stance at the beginning of this journey, this was not how I actually practised. I never really considered how the woman's own family relationships, friends and cultural stance, influenced how they might influence their own perception of risk.

Following this study, my new knowledge and understanding has resulted in me questioning my own midwifery practice. I have always assumed that I easily developed a rapport with women, and the relationship was meaningful and made a difference to women. Whereas the data uncovered in this study revealed that while women sought that trusting relationship with the midwife, this did not always happen.

This experience has been insightful as being with the women, listening to their voice as meant that my own personal awareness, values and beliefs have been questioned. As stated previously, I am no longer in a position to change my midwifery practice, however I can now influence how student midwives practice. The aim in teaching student midwives is to continue to encourage them to practice holistically, but to actually challenge their interpretation of the meaning of holistic. This means valuing and respecting women and the choices they make, and being more open to how women respond in high-risk situations.

REFERENCES

Ahluwalia, M. (2015). Supporting the individual needs of obese pregnant women: effects of risk-management processes. *British Journal of Midwifery, 23*(10), 702-708. doi:10.12968/bjm.23.10.702

Alaszewski, A. (2006). *Health and risk* (P Taylor-gooby & J Zinn Ed.). Oxford: Oxford University Press.

Andreasen, K. R., Andersen, M. L., & Schantz, A. L. (2004). Obesity and pregnancy. *Acta obstetricia et gynecologica Scandinavica, 83*(11), 1022-1029. doi:101.1080/j.001.2004.00624x

Arden, M. A., Duxbury, A. M., & Soltani, H. (2014). Responses to gestational weight management guidance: a thematic analysis of comments made by women in online parenting forums. *BMC pregnancy and childbirth, 14*(1), 216. doi:doi.org/10.1186/1471-2393-14-216

Atkins, S., Lewin, S., Smith, H., Engel, M., Fretheim, A., & Volmink, J. (2008). Conducting a meta-ethnography of qualitative literature: lessons learnt. *BMC Medical Research Methodology, 8*(1), 21. doi:doi.org/10.1186/1471-2288-8-21

Audrain, J., Schwartz, M. D., Lerman, C., Hughes, C., Peshkin, B. N., & Biesecker, B. (1997). Psychological distress in women seeking genetic counseling for breast-ovarian cancer risk: the contributions of personality and appraisal. *Annals of behavioral medicine, 19*(4), 370-377. doi:doi.org/10.1007/BFO2895156

Aveyard, H., Payne, S., & Preston , N. (2016). *A Postgraduates Guide to Doing a Literature Review*. Glasgow: Open University Press

Ayers, S. (2001). Assessing psychopathology in pregnancy and postpartum. *Journal of Psychosomatic Obstetrics & Gynecology, 22*(2), 91-102. doi:doi.org/10.3109/01674820109049959

Bayrampour, H., Heaman, M., Duncan, K. A., & Tough, S. (2012). Advanced maternal age and risk perception: a qualitative study. *BMC pregnancy and childbirth, 12*(1), 100. doi:doi.org/10.1186/1471-2393-12-100

Bayrampour, H., Heaman, M., Duncan, K. A., & Tough, S. (2013). Predictors of perception of pregnancy risk among nulliparous women. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 42*(4), 416-427. doi:doi.org/10.1111/1552-6909.12215

Beaton, J. (1986). *Patterns of nurse patient interaction in labour: An analysis of impact on patient perceptions of satisfaction and control in childbirth.* (Doctoral Thesis), University of Texas, Texas.

Berg, M. (2010). *Midwifery relationships with childbearing women at increased risk* (M. Kirkham Ed. 2nd ed.). Great Britain: Palgrave.

Berg, M., & Dahlberg, K. (1998). A phenomenological study of women's experiences of complicated childbirth. *Midwifery, 14*(1), 23-29. doi:doi.org/10.1016/S0266-613(98)90111-5

Biggerstaff, D., & Thompson, A. R. (2008). Interpretative phenomenological analysis (IPA): A qualitative methodology of choice in healthcare research. *Qualitative research in psychology, 5*(3), 214-224. doi:doi.org/10.1080/14780880802314304

Blincoe, A. J. (2006). Optimum maternal nutrition for a healthy pregnancy. *14*(151-154). doi:10.12968/bjm.2006.14.3.20575

Bondas, T. (2011). Husserlian phenomenology reflected in caring science childbearing research. In *Qualitative Research in Midwifery and Childbirth–Phenomenological Approaches* (1st ed., pp. 1-18). London: Routledge.

Boyle, S., Thomas, H., & Brooks, F. (2016). Women' s views on partnership working with midwives during pregnancy and childbirth. *Midwifery, 32*, 21-29. doi:doi.org/10.1016/j.midw.2015.09.001

Brewer, N. T., Chapman, G. B., Gibbons, F. X., Gerrard, M., McCaul, K. D., & Weinstein, N. D. (2007). Meta-analysis of the relationship between risk perception and health behavior: the example of vaccination. *26*(2), 136 - 145. doi:10.1037/0278-6133.26.2

Brinkmann, S., & Kvale, S. (2008). Ethics in qualitative psychological research. In *The Sage handbook of qualitative research in psychology* (2nd ed., pp. 263-279). Los Angeles: Sage.

Brooten, D., Youngblut, J. M., Golembeski, S., Magnus, M. H., & Hannan, J. (2012). Perceived weight gain, risk, and nutrition in pregnancy in five racial groups. *Journal of the American Association of Nurse Practitioners, 24*(1), 32-42. doi:doi.org/10.1111/j.1745-7599.2011.00678.x

Bryers, H. M., & Van Teijlingen, E. (2010). Risk, theory, social and medical models: a critical analysis of the concept of risk in maternity care. *Midwifery, 26*(5), 488-496. doi:doi.org/10/10.16/j.midw.2010.07.003

Bryman, A. (2016). *Social research methods* (5th ed.). Oxford: Oxford University Press.

Burton-Jeangros, C. (2011). Surveillance of risks in everyday life: The agency of pregnant women and its limitations. *Social Theory & Health, 9*(4), 419-436. doi:10.1057/sth.2011.15

Butland, B., Jebb, S., Kopelman, P., McPherson, K., Thomas, S., Mardell, J., & Parry, V. (2007). *Tackling obesities: future choices-project report* (Vol. 10). London: Department of Innovation, Universities and Skills.

Cahill, H. A. (2001). Male appropriation and medicalization of childbirth: an historical analysis. *Journal of advanced nursing, 33*(3), 334-342. doi:doi.org/10.1046/j.1365-2648.200101669

Cameron, J., & Ellwood, D. (2006). Choice Collboration & Outcomes in Australia. In A. Symon (Ed.), *Risk and Choice in Maternity Care: An International Perspective* (pp. 123). China: Churchill & Livingstone.

Campbell, F., Johnson, M., Messina, J., Guillaume, L., & Goyder, E. (2011). Behavioural interventions for weight management in pregnancy: a systematic review of quantitative and qualitative data. *BMC public health, 11*(1), 491. doi:doi.org/10.1186/1471-2458-11-491

Cannella, D., Auerbach, M., & Lobel, M. (2013). Predicting birth outcomes: Together, mother and health care provider know best. *Journal of psychosomatic research, 75*(4), 299-304. doi:doi.org/10.1016/j.jpsychores.2013.08.004

Carolan, M. C. (2009). Towards understanding the concept of risk for pregnant women: some nursing and midwifery implications. *Journal of Clinical Nursing, 18*(5), 652-658. doi:doi.org/10.1111/j.1365-2702.2008.02480.x

CASP. (2017). *CASP Tool Critical Appraisal Skills Programme*. UK: CASP UK Retrieved from http://www.casp-uk.net/.

Chalmers, K., & Thomson, K. (1996). Coming to terms with the risk of breast cancer: perceptions of women with primary relatives with breast cancer. *Qualitative Health Research, 6*(2), 256-282. doi:doi.org.10.1177/104973239600600207

Clark, A., Skouteris, H., Wertheim, E. H., Paxton, S. J., & Milgrom, J. (2009). My baby body: A qualitative insight into women's body-related experiences and mood during pregnancy and the postpartum. *Journal of reproductive and Infant Psychology, 27*(4), 330-345.

Condon, J. T., & Corkindale, C. (1997). The correlates of antenatal attachment in pregnant women. *Psychology and Psychotherapy: Theory, Research and Practice, 70*(4), 359-372. doi:doi.org/10.1111/j.2044-8341.1997.tb01912.x

Coopland, A., Peddle, L., Baskett, T., Rollwagen, R., Simpson, A., & Parker, E. (1977). A simplified antepartum high-risk pregnancy scoring form: statistical analysis of 5459 cases. *Canadian Medical Association Journal, 116*(9), 999.

Corbin, J. M. (1987). Women's perceptions and management of a pregnancy complicated by chronic illness. *Health care for women international, 8*(5-6), 317-337. doi:doi.org/10.1080/07399338709515797

Coughlan, M., Ryan, F., & Cronin, P. (2014). *Doing A Literature Review in Nursing, Health and Social Care* Los Angeles: Sage.

Coxon, K., Sandall, J., & Fulop, N. J. (2014). To what extent are women free to choose where to give birth? How discourses of risk, blame and responsibility influence birth place decisions. *Health, Risk & Society, 16*(1), 51-67. doi:doi/org/10.1080/1398575.2013.859231

Crandall, C. S., D'Anello, S., Sakalli, N., Lazarus, E., Nejtardt, G. W., & Feather, N. (2001). An attribution-value model of prejudice: Anti-fat attitudes in six nations. *Personality and Social Psychology Bulletin, 27*(1), 30-37. doi:doi.org/10.1177%2F0146167201271003

Davis, D. L., & Walker, K. (2010). Re-discovering the material body in midwifery through an exploration of theories of embodiment. *Midwifery, 26*(4), 457-462. doi:doi.org/10.1016/j.midw.2008.10.004

de Jersey, S. J., Callaway, L. K., Daniels, L., & Nicholson, J. (2015). Weight-related risk perception among healthy and overweight pregnant women: a cross-sectional study. *Journal of Perinatology, 35*(9), 683. doi:doi.org/10.1038/jp.2015.57

Deaux, K., & Ethier, K. A. (1998). Negotiating social identity. In K. Swim & C. Stangour (Eds.), *Prejudice- The Targets Perspective*. London: Elsevier.

Delamont, S. (2007). Ethnography and Participant Observation In C. Seale, G. Giampietri, J. F. Gubrium, & D. S. Silverman (Eds.), *Qualitative research practice* (2nd ed.). London: Sage.

Department of Health. (1993). *Choice in Maternity Services vol 1*. London: HMSO Retrieved from https://publications.parliament.uk/pa/cm200203/cmselect/cmhealth/796/796.pdf.

Department of Health. (2010). *Midwfery 2020:Delivering Expectations*. London: Department of Health and Social Care Retrieved from https://www.gov.uk/government/publications/midwifery-2020-delivering-expectations.

Dey, I. (2004). Grounded Theory. In C. Seale, G. Gobo, C. Jackson, J. F. Gubrium, & D. Silverman (Eds.), *Qualitative research practice* (1st ed.). London: Sage.

Dodd, J. M., Crowther, C. A., & Robinson, J. S. (2008). Dietary and lifestyle interventions to limit weight gain during pregnancy for obese or overweight women: a systematic review. *Acta obstetricia et gynecologica Scandinavica, 87*(7), 702-706. doi:10.1080/00016340802061111

Dodd, J. M., Grivell, R., Crowther, C., & Robinson, J. (2010). Antenatal interventions for overweight or obese pregnant women: a systematic review of randomised trials. *BJOG: An International Journal of Obstetrics & Gynaecology, 117*(11), 1316-1326. doi:doi.org/10.1111/j.1471-0528.2010.02540.x

Dodd, J. M., Turnbull, D., McPhee, A. J., Deussen, A. R., Grivell, R. M., Yelland, L. N., . . . Robinson, J. S. (2014). Antenatal lifestyle advice for women who are overweight or obese: LIMIT randomised trial. *Bmj, 348*, g1285. doi:doi.org/10.1136/bmj.g1285

Donath, S., & Amir, L. (2000). Does maternal obesity adversely affect breastfeeding initiation and duration? *Journal of paediatrics and child health, 36*(5), 482-486. doi:10.1046/j.1440-1754.2000

Dowling, M. (2004). Hermeneutics :an exploration *Nurse Researcher, 11*(4), 30- 35.
Earle, S. (2003). “Bumps and boobs”: fatness and women's experiences of pregnancy. *Women's Studies International Forum, 26*(3), 245-252. doi:doi.org/10.1016/So277-5395(03)00054-2
Eatough, V., & Smith, J. A. (2008). Interpretative Phenomenological Analysis. In C. Willig & W. Stainton-Rodgers (Eds.), *The Sage handbook of qualitative research in psychology*. London: Sage.
Edwards, N. (2000). Women planning homebirths: their own views on their relationships with midwives. In *The midwife-mother relationship* (pp. 55-91). London: MacMillian.
Elliott, R., Fischer, C. T., & Rennie, D. L. (1999). Evolving guidelines for publication of qualitative research studies in psychology and related fields. *British journal of clinical psychology, 38*(3), 215-229. doi:doi.org/10.1348/014466599162782
Finlay, L. (2012). Debating phenomenological methods. In N. Friesen, C. Henriksson, & T. Saevi (Eds.), *Hermeneutic phenomenology in education* (pp. 17-37). Rotterdam: Springer.
Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading: Addison - Wesley.
Fox, P., & Yamaguchi, C. (1997). Body image change in pregnancy: a comparison of normal weight and overweight primigravidas. *Birth, 24*(1), 35-40. doi:doi.org/10.1111/j.1523-536x.1997.00035.pp.x
Fuller-Tyszkiewicz, M., Skouteris, H., Watson, B. E., & Hill, B. (2013). Body dissatisfaction during pregnancy: A systematic review of cross-sectional and prospective correlates. *Journal of Health Psychology, 18*(11), 1411-1421.
Furber, C. M., & McGowan, L. (2011). A qualitative study of the experiences of women who are obese and pregnant in the UK. *Midwifery, 27*(4), 437-444. doi:doi.org/10.1016/j.midw.2010.04.001
Furness, P. J., McSeveny, K., Arden, M. A., Garland, C., Dearden, A. M., & Soltani, H. (2011). Maternal obesity support services: a qualitative study of the perspectives of women and midwives. *BMC pregnancy and childbirth, 11*(1), 69. doi:doi.org/10.1186/1471-2393-11-69
Gadamer, H.-G., Weinsheimer, J., & Marshall, D. G. (2004). *EPZ truth and method*: Bloomsbury Publishing USA.
Gard, M., & Wright, J. (2005). *The obesity epidemic: Science, morality and ideology*. London: Routledge.
Gaudet, L. M., Gruslin, A., & Magee, L. A. (2011). Weight in pregnancy and its implications: what women report. *Journal of Obstetrics and Gynaecology Canada, 33*(3), 227-234. doi:doi.org/10.1016/S1701-2163(16)34823-x
Gray, B. (2001). *Womens subjective appraisal of pregnancy risk and the effects of uncertainty,perceived control,coping, and emotions on maternal attachment.* (Doctoral Thesis), University of Case Western Reserve, Cleveland,Ohio.
Gray, B. A. (2006). Hospitalization history and differences in self-rated pregnancy risk. *Western Journal of Nursing Research, 28*(2), 216-229. doi:doi.org/10.1177/0193945905282305
Green, J. M., Coupland, V. A., & Kitzinger, J. (1998). *Great expectations: a prospective study of women's expectations and experiences of childbirth* (Vol. 1): Butterworth-Heinemann.
Grogan, S. (2016). *Body image: Understanding body dissatisfaction in men, women and children*: Routledge.
Grube, M. M., von der Lippe, E., Schlaud, M., & Brettschneider, A.-K. (2015). Correction: Does breastfeeding help to reduce the risk of childhood overweight and

obesity? A propensity score analysis of data from the KiGGS study. *PLoS One, 10*(4), e0126675. doi:doi.org/10.1371/journalpone.0126675

Gupton, A., Beaton, J., Sloan, J., & Bramadat, I. (1991). The development of a scale to measure childbirth expectations. *The Canadian journal of nursing research= Revue canadienne de recherche en sciences infirmieres, 23*(2), 35-47.

Gupton, A., Heaman, M., & Cheung, L. W. K. (2001). Complicated and uncomplicated pregnancies: women's perception of risk. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 30*(2), 192-201. doi:doi.org/10.1111/j.1552-6909.2001.tb01535.x

Hall, J., & Taylor, M. (2004). Birth and spirituality. In S. Downe & R. D. Floyd (Eds.), *Normal childbirth: Evidence and debate* (pp. 41-56). China: Churchill & Livingstone.

Headley, A. J., & Harrigan, J. (2009). Using the pregnancy perception of risk questionnaire to assess health care literacy gaps in maternal perception of prenatal risk. *Journal of the national medical association, 101*(10), 1041. doi:doi.org/10.1016/S0027-9684(15)31071-3

Heaman, M., Beaton, J., Gupton, A., & Sloan, J. (1992). A comparison of childbirth expectations in high-risk and low-risk pregnant women. *Clin Nurs Res, 1*(3), 252-265. doi:10.1177/105477389200100305

Heaman, M., Gupton, A., & Gregory, D. (2004). Factors influencing pregnant women's perceptions of risk. *MCN: The American Journal of Maternal/Child Nursing, 29*(2), 111-116.

Heaman, M., & Gupton, A. L. (2009). Psychometric testing of the perception of pregnancy risk questionnaire. *Research in nursing & health, 32*(5), 493-503. doi:doi.org/10.1002/nur.20342

Heinberg, L., & **Guarda, A.** (2004). Body Image Issues in Obstetrics and Gynecology. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice*

New York The Guilford Press.

Hennink, M., Hutter, I., & Bailey, A. (2010). *Qualitative research methods*. Cornwall: Sage.

Herring, S. J., Platek, D. N., Elliott, P., Riley, L. E., Stuebe, A. M., & Oken, E. (2010). Addressing obesity in pregnancy: what do obstetric providers recommend? *Journal of Women's Health, 19*(1), 65-70. doi:doi.org.10.1089/jwh.2008.1343

Heslehurst, N. (2011). Identifying 'at risk'women and the impact of maternal obesity on National Health Service maternity services. *Proceedings of the Nutrition Society, 70*(4), 439-449. doi:10.1017/S0029665111000625

Heslehurst, N., Dinsdale, S., Sedgewick, G., Simpson, H., Sen, S., Summerbell, C. D., & Rankin, J. (2015). An evaluation of the implementation of maternal obesity pathways of care: a mixed methods study with data integration. *PLoS One, 10*(5), e0127122. doi:doi.org/10.1371/journal.pone.0127122

Heslehurst, N., Ells, L., Simpson, H., Batterham, A., Wilkinson, J., & Summerbell, C. (2007). Trends in maternal obesity incidence rates, demographic predictors, and health inequalities in 36 821 women over a 15-year period. *BJOG: An International Journal of Obstetrics & Gynaecology, 114*(2), 187-194. doi:10.1111/j.1471-0528.2006.01230.x

Heslehurst, N., Lang, R., Rankin, J., Wilkinson, J., & Summerbell, C. (2007). Obesity in pregnancy: a study of the impact of maternal obesity on NHS maternity services. *BJOG: An International Journal of Obstetrics & Gynaecology, 114*(3), 334-342. doi:doi.org/10.1111/j.1471-0528.2006.01230.x

Heslehurst, N., Moore, H., Rankin, J., Ells, L. J., Wilkinson, J. R., & Summberbell, C. D. (2011). How can maternity services be developed to effectively address maternal obesity? A qualitative study. *Midwifery, 27*(5), e170-e177. doi:10.1016/j.midw.2010.01.007

Heslehurst, N., Newham, J., Maniatopoulos, G., Fleetwood, C., Robalino, S., & Rankin, J. (2014). Implementation of pregnancy weight management and obesity guidelines: a meta-synthesis of healthcare professionals' barriers and facilitators using the T heoretical D omains F ramework. *Obesity Reviews, 15*(6), 462-486. doi:doi.org/10.1111/obr.12160

Heslehurst, N., Rankin, J., Wilkinson, J., & Summerbell, C. (2010). A nationally representative study of maternal obesity in England, UK: trends in incidence and demographic inequalities in 619 323 births, 1989–2007. *International journal of obesity, 34*(3), 420. doi:10.1038/jo.2009.250

Heslehurst, N., Russell, S., McCormack, S., Sedgewick, G., Bell, R., & Rankin, J. (2013). Midwives perspectives of their training and education requirements in maternal obesity: A qualitative study. *Midwifery, 29*(7), 736-744. doi:doi.org/10.1016/j.midw.2012.07.007

Heslehurst, N., Simpson, H., Ells, L., Rankin, J., Wilkinson, J., Lang, R., . . . Summerbell, C. (2008). The impact of maternal BMI status on pregnancy outcomes with immediate short-term obstetric resource implications: a meta-analysis. *Obesity Reviews, 9*(6), 635-683. doi:10.1111/j.1467-789.x.2008.00511.x

Hildingsson, I., & Thomas, J. (2012). Perinatal outcomes and satisfaction with care in women with high body mass index. *Journal of Midwifery & Women's Health, 57*(4), 336-344.

Hodgkinson, E. L., Smith, D. M., & Wittkowski, A. (2014). Women's experiences of their pregnancy and postpartum body image: a systematic review and meta-synthesis. *BMC pregnancy and childbirth, 14*(1), 330.

Hollowell, J., Pillas, D., Rowe, R., Linsell, L., Knight, M., & Brocklehurst, P. (2014). The impact of maternal obesity on intrapartum outcomes in otherwise low risk women: secondary analysis of the Birthplace national prospective cohort study. *BJOG: An International Journal of Obstetrics & Gynaecology, 121*(3), 343-355. doi:1011111/1471-0528.12437

Honest, H., Bachmann, L., Sundaram, R., Gupta, J., Kleijnen, J., & Khan, K. (2004). The accuracy of risk scores in predicting preterm birth—a systematic review. *Journal of Obstetrics and Gynaecology, 24*(4), 343-359. doi:10.1080/01443610410001685439

Horsburgh, D. (2003). Evaluation of qualitative research. *Journal of Clinical Nursing, 12*(2), 307-312. doi:doi.org/10.1046/j.1365-2702.2003.00683

Im, E.-O., & Chee, W. (2003). Feminist issues in e-mail group discussion among cancer patients. *Advances in Nursing Science, 26*(4), 287-298.

Jackson, A. (2004). Physical Attractiveness:A sociocultural Perspective. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice*. New York: The Guilford Press.

Jackson, C., Bosio, P., Habiba, M., Waugh, J., Kamal, P., & Dixon-Woods, M. (2006). Referral and attendance at a specialist antenatal clinic: qualitative study of women's views. *BJOG: An International Journal of Obstetrics & Gynaecology, 113*(8), 909-913. doi:doi.org/10.1111/j.1471-0528.2006.01016.x

Jarvie, R. (2013). *Discourses pertaining to, and lived expereinces of maternal obesity (body mass index) (BMI) > 30 and gestational diabetes mellitus, type two diabetes melltius in the pregnancy and post birth period* (PhD), Plymouth University Plymouth.

Jette, S., & Rail, G. (2013). Ills from the womb? A critical examination of clinical guidelines for obesity in pregnancy. *Health:, 17*(4), 407-421. doi:10.1177/1363459312460702

Johnson, S., Burrows, A., & Williamson, I. (2004). 'Does my bump look big in this?'The meaning of bodily changes for first-time mothers-to-be. *Journal of Health Psychology, 9*(3), 361-374.

Jørgensen, M. W., & Phillips, L. J. (2002). *Discourse analysis as theory and method*. London: Sage.

Kahmenan, D., Slovic, P., & Tversky, A. (1982). Judgement Under Uncertainty: Heuristics and Bias. In: Cambridge University Press, Cambridge, Massachusetts.

Keely, A., Gunning, M., & Denison, F. (2011). Maternal obesity in pregnancy: Women's understanding of risks. *British Journal of Midwifery, 19*(6), 364-369. doi:doi.org/10.12968/bjom.2011.196.364

Keenan, J., & Stapleton, H. (2010). Bonny babies? Motherhood and nurturing in the age of obesity. *Health, Risk & Society, 12*(4), 369-383. doi:10.1080/13698571003792926

Kelhä, M. (2009). Too old to become a mother? Risk constructions in 35+ women's experiences of pregnancy, child-birth, and postnatal care. *NORA—Nordic Journal of Feminist and Gender Research, 17*(2), 89-103. doi:doi.org/10.1080/08038740902885722

Klein, S., Allison, D. B., Heymsfield, S. B., Kelley, D. E., Leibel, R. L., Nonas, C., & Kahn, R. (2007). Waist circumference and cardiometabolic risk: a consensus statement from shaping America's health: Association for Weight Management and Obesity Prevention; NAASO, the Obesity Society; the American Society for Nutrition; and the American Diabetes Association. *Obesity, 15*(5), 1061-1067. doi:10.1038/oby.2007.632

Knight-Agarwal, C. R., Kaur, M., Williams, L. T., Davey, R., & Davis, D. (2014). The views and attitudes of health professionals providing antenatal care to women with a high BMI: a qualitative research study. *Women and Birth, 27*(2), 138-144.

Koch, T. (1999). An interpretive research process: Revisiting phenomenological and hermeneutical approaches. *Nurse Researcher (through 2013), 6*(3), 20.

Kominiarek, M. A., Vonderheid, S., & Endres, L. K. (2010). Maternal obesity: do patients understand the risks? *Journal of Perinatology, 30*(7), 452-458. doi:10.1038/jp.2010.52

Lavender, T., & Smith, D. M. (2016). Seeing it through their eyes: a qualitative study of the pregnancy experiences of women with a body mass index of 30 or more. *Health Expectations, 19*(2), 222-233. doi:10.1111/hex.12339

Lee, S. (2014b). Risk perception in women with high-risk pregnancies. *British Journal of Midwifery, 22*(1), 8-13. doi:doi.org/10.12968/bjom.2014.22.1.8

Lee, S., Ayers, S., & Holden, D. (2012). Risk perception of women during high risk pregnancy: a systematic review. *Health, Risk & Society, 14*(6), 511-531. doi:doi.org/10.1080/13698575.2012.701277

Lee, S., Ayers, S., & Holden, D. (2014a). A metasynthesis of risk perception in women with high risk pregnancies. *Midwifery, 30*(4), 403-411. doi:doi.org/10.1016/j.midw.2013.04.010

Lee, S., Ayers, S., & Holden, D. (2016). Risk perception and choice of place of birth in women with high risk pregnancies: A qualitative study. *Midwifery, 38*, 49-54. doi:doi.org/10.1016/j.midw.2016.03.008

Lennon, S. (2016). Risk Perception in Pregnancy: a concept analysis. *Journal of advanced nursing, 72*(9), 2016-2029. doi:doi.org/10.1111/jan.13007

Lichtenstein, S., Slovic, P., & Fischoff, B. (1982). *Facts versus fears: understanding perceived risk Judgement under uncertainty: heuristics and biases (eds Kahneman D., Slovic P., Tversky A.)*

Cambridge: Cambridge Press.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry* (Vol. 75). United States of America: Sage.

Lingetun, L., Fungbrant, M., Claesson, I. M., & Baggens, C. (2017). 'I just want to be normal' - A qualitative study of pregnant women's blogs who present themselves as overweight or obese. *Midwifery, 49*, 65-71. doi:10.1016/j.midw.2017.01.015

Linna, M. S., Raevuori, A., Haukka, J., Suvisaari, J. M., Suokas, J. T., & Gissler, M. (2014). Pregnancy, obstetric, and perinatal health outcomes in eating disorders. *American journal of obstetrics and gynecology, 211*(4), 392. e391-392. e398.

Linne, Y. (2004). Effects of obesity on women's reproduction and complications during pregnancy. *Obesity Reviews, 5*(3), 137-143. doi:10.1111/j.1467-788x.2004.00147.x

Lobel, M., Cannella, D. L., Graham, J. E., DeVincent, C., Schneider, J., & Meyer, B. A. (2008). Pregnancy-specific stress, prenatal health behaviors, and birth outcomes. *Health Psychology, 27*(5), 604. doi:10.1037/a0013242

Lobel, M., Hamilton, J. G., & Cannella, D. T. (2008). Psychosocial perspectives on pregnancy: prenatal maternal stress and coping. *Social and Personality Psychology Compass, 2*(4), 1600-1623. doi: 10.1111/j.1751-9004.2008.00119.x

Lobel, M., Yali, A. M., Zhu, W., DeVincent, C., & Meyer, B. (2002). Beneficial associations between optimistic disposition and emotional distress in high-risk pregnancy. *Psychology and health, 17*(1), 77-95. doi:10.1080/08870440290001548

Lorber, J., & Martin, P. Y. (2012). *The socially constructed body*. United States of America: Sage.

Lothian NHS Guidelines. (2011). *Obesity management during pregancy and postnatally*. NHS Lothian

Lupton, D. (1995). *The imperative of health: Public health and the regulated body*. London: Sage.

Lupton, D. (1999a). *Risk and Sociocultural Theory*. Cambridge: Cambridge University Press.

Lupton, D. (1999b). *Risk: Key ideas*. Oxon: Routledge.

Lupton, D. (2012a). *Medicine as culture: illness, disease and the body*. London: Sage.

Lupton, D. (2012b). 'Precious cargo': Foetal subjects, risk and reproductive citizenship. *Critical public health, 22*(3), 329-340. doi:doi.org/10.1080/09581596.2012.657612

Lupton, D. (2013). *Fat*. London: Routledge.

Lyons, A. (1999). *Shaping Health Psychology: Qualitative* (M. Murray & K. Chamberlain Eds.). London: Sage.

Mackey, S. (2005). Phenomenological nursing research: methodological insights derived from Heidegger's interpretive phenomenology. *International Journal of Nursing Studies, 42*(2), 179-186. doi:doi.org/10.1016/j.ijnurstu.2004.06.011

Marchi, J., Berg, M., Dencker, A., Olander, E., & Begley, C. (2015). Risks associated with obesity in pregnancy, for the mother and baby: a systematic review of reviews. *Obesity Reviews, 16*(8), 621-638. doi:1o.1111/obr.12288

McGlone, A., & Davies, S. (2012). Perspectives on risk and obesity: Towards a 'tolerable risk'approach? *British Journal of Midwifery, 20*(1), 13-17. doi:10.12968/bjm.2012.20.1.13

McNaughton, D. (2011). From the womb to the tomb: Obesity and maternal responsibility. *Critical public health, 21*(2), 179-190. doi:doi.org/10.1080/09581596.2010.523680

Mirza, I., & Jenkins, R. (2004). Risk factors, prevalence, and treatment of anxiety and depressive disorders in Pakistan: systematic review. *Bmj, 328*(7443), 794. doi:doi.org/10.1136/bmj.328.7443.794

Modder, J., & Fitzsimons, K. (2010). *CMACE/RCOG joint guideline: management of women with obesity in pregnancy*. England: Centre for Maternal and Child Enquiries and the Royal College of Obstetricians and Gynaecologists.

Morgan, A. (2010). Discourse analysis: An overview for the neophyte researcher. *Journal of Health and Social Care Improvement, 1*(5), 1-7.

Moses, J., & Knutsen, T. (2012). *Ways of knowing: competing methodologies in social and political research* (2nd Ed.). China: Palgrave Macmillan.

Mulherin, K., Miller, Y. D., Barlow, F. K., Diedrichs, P. C., & Thompson, R. (2013). Weight stigma in maternity care: women's experiences and care providers' attitudes. *BMC pregnancy and childbirth, 13*(1), 19. doi:doi.org/10.1186/1471-2393-15-19

Munhall , P. (2001). *Nursing Research - A Qualitative Perspective* (4th ed.). Boston: Jones and Bartlett Publishers.

Murphy - Lawless, J. (1998). *Reading Birth and Death : A History of Obstetric Thinking*. Cork: Cork University Press.

Nash, M. (2012). Weighty matters: Negotiating 'fatness' and 'in-betweenness' in early pregnancy. *Feminism & psychology, 22*(3), 307-323. doi:doi.org/10.1177/0959353512445361

National Institute For Clinical Excellence. (2010). *Weight Managment before, during and after pregnancy*. London: NICE Retrieved from https://www.nice.org.uk/guidance/conditions-and-diseases/fertility--pregnancy-and-childbirth/postnatal-care#panel-pathways.

NHS Quality Improvement Scotland. (2009). *Pathways For Maternity Care* Edinburgh: Scottish Government Retrieved from http://www.healthcareimprovementscotland.org/our_work/reproductive,_maternal_child/programme_resources/keeping_childbirth_natural.aspx.

Nitert, M. D., Foxcroft, K. F., Lust, K., Fagermo, N., Lawlor, D. A., O'Callaghan, M., . . . Callaway, L. K. (2011). Overweight and obesity knowledge prior to pregnancy: a survey study. *BMC pregnancy and childbirth, 11*(1), 96. doi:doi.org/10.1186/1471-2393-11-96

Nursing and Midwifery Council. (2015). *The Code For Nurses and Midwives* London: NMC Retrieved from https://www.nmc.org.uk/.

Nyman, V. M., Prebensen, Å. K., & Flensner, G. E. (2010). Obese women's experiences of encounters with midwives and physicians during pregnancy and childbirth. *Midwifery, 26*(4), 424-429. doi:10.1016/j.midw.2008.10.008

Öhman, S. G., Grunewald, C., & Waldenström, U. (2009). Perception of risk in relation to ultrasound screening for Down's syndrome during pregnancy. *Midwifery, 25*(3), 264-276. doi:doi.org/10.1016/j.midw.2007.04.007

Okeh, N., Hawkins, K., Butler, W., & Younis, A. (2015). Knowledge and Perception of Risks and Complications of Maternal Obesity during Pregnancy. *Gynecol Obstet (Sunnyvale), 5*(323), 2161-0932.10003.

Olander, E. K., Atkinson, L., Edmunds, J. K., & French, D. P. (2011). The views of pre-and post-natal women and health professionals regarding gestational weight gain: An exploratory study. *Sexual & Reproductive Healthcare, 2*(1), 43-48. doi:doi.org/10.1016/j.srhc.2010.10.004

Oteng-Ntim, E., Varma, R., Croker, H., Poston, L., & Doyle, P. (2012). Lifestyle interventions for overweight and obese pregnant women to improve pregnancy

outcome: systematic review and meta-analysis. *BMC medicine, 10*(1), 47. doi:doi.org/10.1186/1741-7015-10-47

Oxford English Dictionary. (2018). Oxford English Dictionary on-line. Retrieved from http://www.oed.com/

Papiernik, E., Tafforeau, J., Richard, A., Pons, J.-C., & Keith, L. G. (1997). Perception of risk, choice of maternity site, and socio economic level of twin mothers. *Journal of Perinatal Medicine-Official Journal of the WAPM, 25*(2), 139-145. doi:doi.org/10.1515/jpme.1997.25.2.139

Parker, G. (2017). Shamed into health? Fat pregnant women's views on obesity management strategies in maternity care. *Women's Studies Journal, 31*(1), 22. doi:1173.6615

Patterson, K. (1993). Experience of risk for pregnant black women. *Journal of perinatology: official journal of the California Perinatal Association, 13*(4), 279-284.

Phelan, S. (2010). Pregnancy: a "teachable moment" for weight control and obesity prevention. *American Journal of Obstetrics & Gynecology, 202*(2), 135. e131-135. e138. doi:doi.org/10.1016/j.ajog.2009.06.008

Poston, L., Bell, R., Croker, H., Flynn, A. C., Godfrey, K. M., Goff, L., . . . Oteng-Ntim, E. (2015). Effect of a behavioural intervention in obese pregnant women (the UPBEAT study): a multicentre, randomised controlled trial. *The lancet Diabetes & endocrinology, 3*(10), 767-777. doi:doi.org/10.1016/S2213-8587(15)00227-2

Price, S., Baird, K., & Salmon, D. (2007). Does routine antenatal enquiry lead to an increased rate of disclosure of domestic abuse? Findings from the Bristol Pregnancy and Domestic Violence Programme. *Evidence-Based Midwifery, 5*(3), 100-107.

Puhl, R., & Brownell, K. D. (2001). Bias, discrimination, and obesity. *Obesity, 9*(12), 788-805. doi:doi.org/10.1038/oby.2001.108

Puhl, R., & Brownell, K. D. (2003). Ways of coping with obesity stigma: review and conceptual analysis. *Eating behaviors, 4*(1), 53-78. doi:doi.org/10.1016/S1471-0153(02)00096-X

Regan, P. (2012). Hans-Georg Gadamer's philosophical hermeneutics: Concepts of reading, understanding and interpretation. *Research in Hermeneutics, Phenomenology and Practical Philosophy, 4*(2), 286-303.

Richens, Y., & Lavender, T. (2010). *Care for pregnant women who are obese*. London: Quay.

Richter, M. S., Parkes, C., & Chaw-Kant, J. (2007). Listening to the Voices of Hospitalized High-Risk Antepartum Patient. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 36*(4), 313-318. doi:10.1111/j.15526909.2007

Robinson, M., Pennell, C. E., McLean, N. J., Oddy, W. H., & Newnham, J. P. (2011). The over-estimation of risk in pregnancy. *Journal of Psychosomatic Obstetrics & Gynecology, 32*(2), 53-58. doi:doi.org/10.3109/0167482X.2011.569099

Rogers, R. W. (1983). Cognitive and psychological processes in fear appeals and attitude change: A revised theory of protection motivation. *Social psychophysiology: A sourcebook*, 153-176.

Roomruangwong, C., Kanchanatawan, B., Sirivichayakul, S., & Maes, M. (2017). High incidence of body image dissatisfaction in pregnancy and the postnatal period: Associations with depression, anxiety, body mass index and weight gain during pregnancy. *Sexual & Reproductive Healthcare, 13*, 103-109.

Rousseau, N. (2002). *Self, symbols, and society: Classic readings in social psychology*. Oxford: Rowman & Littlefield.

Royal College of Obstetricians and Gynaecologists. (2017). *National Maternal and Perinatal Audit*. London: RCOG Retrieved from http://www.maternityaudit.org.uk/pages/home.

Rubin, R. (1975). Maternal tasks in pregnancy. *Maternal-Child Nursing Journal, 4*(3), 143-153.

Scamell, M., & Alaszewski, A. (2012). Fateful moments and the categorisation of risk: Midwifery practice and the ever-narrowing window of normality during childbirth. *Health, Risk & Society, 14*(2), 207-221. doi:doi.org/10.1080/13698575.2012.661041

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a reevaluation of the Life Orientation Test. *Journal of personality and social psychology, 67*(6), 1063. doi:psycnet.apa.org/doi/10.1037/0022-3514.67.6.1063

Schmied, V. A., Duff, M., Dahlen, H. G., Mills, A. E., & Kolt, G. S. (2011). 'Not waving but drowning': a study of the experiences and concerns of midwives and other health professionals caring for obese childbearing women. *Midwifery, 27*(4), 424-430. doi:doi.org/10.1016/j.midw.2010.02.010

Schwartz, M., & Brownnell, K. (2004). Obesity and Body image. In T. P. Cash, T (Ed.), *Body Image :A handbook of Theory, Research and Clinical Practice* New York: The Guildford Press.

Schwartz, M. B., & Brownell, K. D. (2004). Obesity and body image. *Body image, 1*(1), 43-56. doi:doi.org/10.1016/S1740-1445(03)00007-X

Scott-Pillai, R., Spence, D., Cardwell, C. R., Hunter, A., & Holmes, V. A. (2013). The impact of body mass index on maternal and neonatal outcomes: a retrospective study in a UK obstetric population, 2004-2011. *BJOG: An International Journal Of Obstetrics And Gynaecology, 120*(8), 932-939. doi:10.1111/1471-0528.12193

Scottish Executive Health Department. (2006). *Research Governance Framework For Health and Community Care* Scotland: Chief Scientist Office

Scottish Executive Health Department Retrieved from www.cso.scot.nhs.uk.

Scottish Government. (2016). *Scottish Health Survey* Edinburgh Scottish Government Retrieved from https://www.gov.scot/Topics/Statistics/Browse/Health/scottish-health-survey.

Scottish Government. (2017). *The Best Start-A Five year Forward plan For Maternal and Neonatal Care in Scotland* Edinburgh Scottish Government, Retrieved from http://www.gov.scot/Publications/2017/01/7728.

Shaw, R. (2010). Embedding reflexivity within experiential qualitative psychology. *Qualitative research in psychology, 7*(3), 233-243. doi:doi.org/10.1080/14780880802699092

Shinebourne, P. (2011). The Theoretical Underpinnings of Interpretative Phenomenological Analysis (IPA). *Existential Analysis: Journal of the Society for Existential Analysis, 22*(1). doi:doi.org/10.1163/15691624-12341245

Shub, A., Huning, E. Y., Campbell, K. J., & McCarthy, E. A. (2013). Pregnant women's knowledge of weight, weight gain, complications of obesity and weight management strategies in pregnancy. *BMC research notes, 6*(1), 1. doi:doi.org/10.1186/1756-0500-6-278

Sim, J., & Wright, C. (2000). *Research in health care: concepts, designs and methods*. UK: Nelson Thornes.

Simmons, H. A., & Goldberg, L. S. (2011). 'High-risk'pregnancy after perinatal loss: understanding the label. *Midwifery, 27*(4), 452-457. doi:doi.org/10.1016/j.midw.2010.02.013

Singleton, G., & Furber, C. (2014). The experiences of midwives when caring for obese women in labour, a qualitative study. *Midwifery, 30*(1), 103-111. doi:doi.org/10.1016/j.midw.2013.02.008

Sjöberg, L. (2000a). Factors in risk perception. *Risk analysis, 20*(1), 1-12. doi:doi.org/10.1111/0272-4332.00001

Sjöberg, L. (2000b). The methodology of risk perception research. *Quality & Quantity, 34*(4), 407-418.

Skouteris, H., Carr, R., Wertheim, E. H., Paxton, S. J., & Duncombe, D. (2005). A prospective study of factors that lead to body dissatisfaction during pregnancy. *Body image, 2*(4), 347-361.

Slovic, P. (1987). Perception of risk. *Science, 236*(4799), 280-285. doi:DOI: 10.1126/science.3563507

Smith, D. M., Cooke, A., & Lavender, T. (2012). Maternal obesity is the new challenge; a qualitative study of health professionals' views towards suitable care for pregnant women with a Body Mass Index (BMI)≥ 30 kg/m 2. *BMC pregnancy and childbirth, 12*(1), 157. doi:doi.org/10.1186/1471-2393-12-157

Smith, D. M., & Lavender, T. (2011). The maternity experience for women with a body mass index ≥ 30 kg/m2: a meta-synthesis. *BJOG: An International Journal Of Obstetrics And Gynaecology, 118*(7), 779-789. doi:10.1111/j.1471-0528.2011.02924.x

Smith, J., Flowers, P., & Larkin, M. (2009). Interpretative Phoneomological Analysis: theory, method and research. In: London: SAGE Publications.

Smith, J., & Osborn, M. (2008). Interpretative phenomenological analysis. JA Smith (Ed.), Qualitative psychology: A practical guide to research methods (51–80). In: Los Angeles, CA: Sage.

Smith, J. A. (2007). Hermeneutics, human sciences and health: Linking theory and practice. *International Journal of Qualitative Studies on health and Well-being, 2*(1), 3-11. doi:10.1080/17482620601016120

Smith, S. A., Hulsey, T., & Goodnight, W. (2008). Effects of obesity on pregnancy. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 37*(2), 176-184. doi:10.1111/j.1552-6909.2008.00222.x

Snelgrove, S. R. (2014). Conducting qualitative longitudinal research using interpretative phenomenological analysis. *Nurse Researcher, 22*(1), 20-25. doi: 10.7748/nr.22.1.20.e1277

Solchany, J. E. (2017). *Promoting Maternal Mental Health During Pregnancy: Interventions*. Paper presented at the NCAST programs, Seattle WA :University of Washington

Sørensen, M. P., & Christiansen, A. (2012). *Ulrich Beck: an introduction to the theory of second modernity and the risk society*. Oxon: Routledge.

Spencer, L., Ritchie, J., Lewis, J., & Dillon, L. (2003). *Quality in qualitative evaluation: a framework for assessing research evidence*. UK: Goverment Chief Social Office.

Spielberger, C., Gorsuch, R., Lushene, R., Vagg, P., & Jacobs, G. (1983). Consulting Psychologists Press; Palo Alto, CA: 1983. *Manual for the state-trait anxiety inventory*.

Stahl, K., & Hundley, V. (2003). Risk and risk assessment in pregnancy–do we scare because we care? *Midwifery, 19*(4), 298-309. doi:doi.org/10.1016/S0266-6138(03)00041-X

Stainton, M. C. (1992). Mismatched caring in high-risk perinatal situations. *Clinical Nursing Research, 1*(1), 35-49. doi:doi.org/10.1177%2F105477389200100106

Stainton, M. C., McNeil, D., & Harvey, S. (1992). Maternal tasks of uncertain motherhood. *Maternal-Child Nursing Journal, 20*(3,4), 113 -122.

Statistics, N. C. f. H. (2009). National Health and Nutrition Examination Survey, 1999-2002. *Mobile exam center components descriptions. Accessed via http://www. cdc. gov/nchs/data/nhanes/meccomp. pdf (October 15, 2002)*.
Stephens, C. (2008). *Health promotion: A psychosocial approach*. Glasgow: McGraw-Hill Education (UK).
Strecher, V. J., & Rosenstock, I. M. (1997). The health belief model. In A. Baum, S. Newman, J. Weinman, R. West, & C. McManus (Eds.), *Cambridge handbook of psychology, health and medicine* (pp. 113-117). UK: Cambridge University Press.
Sui, Z., Turnbull, D., & Dodd, J. (2013). Effect of body image on gestational weight gain in overweight and obese women. *Women and Birth, 26*(4), 267-272.
Symon, A. (2006). The risk-choice paradox. In *Risk and Choice in Maternity Care*. London: Churchill Livingstone.
Tantleff-Duff, S., & Gokee, J. (2004). interpersonal Infleunces on Body Image development. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice*. New york The Guilford Press.
Thangaratinam, S., Rogozińska, E., Jolly, K., Glinkowski, S., Roseboom, T., Tomlinson, J., . . . Khan, K. (2012). Effects of interventions in pregnancy on maternal weight and obstetric outcomes: meta-analysis of randomised evidence. *Bmj, 344*, e2088. doi:doi.org/10.1136/bmj.e2088
Tiggemann, M. (Ed.) (2011). *Sociocultural perspectives on human appearance and body image*. New York: Guilford Press.
Tones, K., & Green, J. (2004). *Health promotion: planning and strategies*. London: Sage.
Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International journal for quality in health care, 19*(6), 349-357. doi:doi.org/10.1093/intqhc/mzm042
Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science, 185*(4157), 1124-1131. doi:10.1126/science.185.4157.1124
United Kingdom Government. (1998). *Data Protection Act*. UK Retrieved from https://www.legislation.gov.uk/ukpga/1998/29/contents.
Van Teijlingen, E. (2005). A critical analysis of the medical model as used in the study of pregnancy and childbirth. *Sociological Research Online, 10*(2), 1-15. doi:doi.org/10.5153%2Fsro.1034
Van Wagner, V. (2016). Risk talk: Using evidence without increasing fear. *Midwifery, 38*, 21-28. doi:doi.org/10.1016/j.midw.2016.04.009
Walker, W. (2011). Hermeneutic inquiry: insights into the process of interviewing. *Nurse Researcher, 18*(2), 19-27.
Wallby, T., Lagerberg, D., & Magnusson, M. (2017). Relationship between breastfeeding and early childhood obesity: Results of a prospective longitudinal study from birth to 4 years. *Breastfeeding Medicine, 12*(1), 48-53. doi:doi.org/10.1089/bfm.2016.0124
Warin, M., Turner, K., Moore, V., & Davies, M. (2008). Bodies, mothers and identities: rethinking obesity and the BMI. *Sociology of health & illness, 30*(1), 97-111. doi:doi.org/10.1111/j.1467-9566.2007.01029.x
Watson, B., Broadbent, J., Skouteris, H., & Fuller-Tyszkiewicz, M. (2016). A qualitative exploration of body image experiences of women progressing through pregnancy. *Women and Birth, 29*(1), 72-79.
Weinstein, N. D. (1980). Unrealistic optimism about future life events. *Journal of personality and social psychology, 39*(5), 806. doi:psycnet.apa.org/doi/10.1037/0022-3514.39.5.806
White, O., McCorry, N. K., Scott-Heyes, G., Dempster, M., & Manderson, J. (2008). Maternal appraisals of risk, coping and prenatal attachment among women

hospitalised with pregnancy complications. *Journal of reproductive and Infant Psychology, 26*(2), 74-85. doi:doi.org/10.1080/02646830801918455
WHO. (2018). *Obesity and Overweight Fact Sheet* Geneva Retrieved from http://www.who.int/mediacentre/factsheets/fs311/en/.
Wiles, R. (1994). *I'm not fat, I'm pregnant': The impact of pregnancy on fat women's body image* (S. Wilkingston, Kitzinger,C Ed.). London: Taylor and Francis.
Wilkins, R. (2010). Poor Relations: The Paucity of the Professional Paradigm. In M. Kirkham (Ed.), *The midwife-mother relationship* (2nd ed.). Great Britain: Palgrave MacMillian
Wilkinson, S. A., Poad, D., & Stapleton, H. (2013). Maternal overweight and obesity: a survey of clinicians' characteristics and attitudes, and their responses to their pregnant clients. *BMC pregnancy and childbirth, 13*(1), 117. doi:doi.org/10.1186/1471-2393-13-117
Willig, C. (2001). *Introducing qualitative research in psychology: adventures in theory and method*

Philadephia: Open University Press.
Willig, C. (2012). *Qualitative interpretation and analysis in psychology*. Glasgow: McGraw-Hill Education (UK).
Willig, C., & Rogers, W. S. (2017). *The SAGE handbook of qualitative research in psychology* (2nd ed.). UK: Sage.
Wojnar, D. M., & Swanson, K. M. (2007). Phenomenology: an exploration. *Journal of holistic nursing, 25*(3), 172-180. doi:doi.org/10.1177%2F0898010106295172
Wray, S., & Deery, R. (2008). The medicalization of body size and women's healthcare. *Health care for women international, 29*(3), 227-243. doi:doi.org/10.1080/07399330701738291
Yali, A. M., & Lobel, M. (1999). Coping and distress in pregnancy: an investigation of medically high risk women. *Journal of Psychosomatic Obstetrics & Gynecology, 20*(1), 39-52. doi:doi.org/10.3109/01674829909075575
Yardley, L. (1999). Understanding embodied experience. In *Qualitative Health Psychology Theories and Methods* (pp. 31-46). London: Sage.
Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology and health, 15*(2), 215-228. doi:doi.org/10.1080/08870440008400302
Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta psychiatrica scandinavica, 67*(6), 361-370. doi:doi.org/10.1111/j.1600-0447.1983.tb09716.x
Zinn, J. O., & Taylor-Gooby, P. (2006). *Risk in Social Science*. United States of America: Oxford University Press.