“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

Appendices

July 2019

Appendices

Centre for Maternal and Child Enquiries
Improving the health of mothers, babies and children

CMACE

Royal College of Obstetricians and Gynaecologists
Setting standards to improve women's health

CMACE/RCOG JOINT GUIDELINE MANAGEMENT OF WOMEN WITH OBESITY IN PREGNANCY

1.

1. Provision of antenatal care

1.1. How should antenatal care be provided for women with obesity?

Management of women with obesity in pregnancy should be integrated into all antenatal clinics, with clear policies and guidelines for care available.

D

The prevalence of obesity in pregnancy has increased significantly since the early 1990s,4,5 and this is expected to continue in parallel with increasing prevalence in the general population. Specialist clinics are unlikely to be feasible in areas of high prevalence due to resource issues, and it is important that all health professionals providing maternity care are aware of the maternal and fetal risks and the specific interventions required to minimise these risks.

1.1 Information-giving during pregnancy

1.1.What information should be provided to women with maternal obesity?
All pregnant women with a booking BMI ≥30 should be provided with accurate and accessible information about the risks associated with obesity in pregnancy and how they may be minimised. Women should be given the opportunity to discuss this information.

While pre-conception advice and care is the ideal scenario for women with obesity, those women presenting for the first time during pregnancy should be given an early opportunity to discuss potential risks and management options with a healthcare professional. The aim is to provide appropriate information sensitively, which empowers the woman to actively engage with health professionals and the services available to her. Relevant information will include the increased risk of pre-eclampsia, gestational diabetes and fetal macrosomia requiring an increased level of maternal and fetal monitoring; the potential for poor ultrasound visualisation of the baby and consequent difficulties in fetal surveillance and screening for anomalies; the potential for difficulty with intrapartum fetal monitoring, anaesthesia and caesarean section which would require senior obstetric and anaesthetic involvement and an antenatal anaesthetic assessment; and the need to prioritise the safety of the mother at all times. Women should be made aware of the importance of healthy eating and appropriate exercise during pregnancy in order to prevent excessive weight gain and gestational diabetes. Dietetic advice by an appropriately trained professional should be provided early in the pregnancy.

6. Care during childbirth

6.1.Where should women with obesity give birth?
Women with a BMI ≥35 should give birth in a consultant-led obstetric unit with appropriate neonatal services, as recommended by the NICE Clinical Guideline No. 55 (Intrapartum Care, Sept 2007).56

Women with obesity are at significantly higher risk of shoulder dystocia15,20 and postpartum haemorrhage10,20 and immediate obstetric intervention is vital in these situations. In addition, babies born to mothers with obesity are up to 1.5 times more likely to be admitted to a neonatal intensive care unit than babies born to mothers with a healthy weight.10,20,46 The odds of admission have been shown to increase with each increasing BMI category, similar to those defined by WHO.23 Please see the table in Appendix 3 for the specific risks associated with maternal obesity.

The NICE Clinical Guideline No. 55 recommends that women with BMI ≥35 should be advised to give birth in an obstetric unit to reduce the increased risk of maternal and fetal adverse outcomes. It recommends an individual risk assessment regarding planned place of birth for women with a booking BMI of 30 – 34.

4.0 RECOMMENDATIONS FOR ANTENATAL CARE

4.1 WOMEN WITH A BMI ≥35 KG/M2

- Booking appointment
- Document height weight and BMI.
- Folic acid 5mg
- Referral for consideration of consultant led care
- Document full plan of care in special features in TRAK or in hand-held records.
- Give anaesthetic information leaflet and put BMI >35 in TRAK and place a sticker and the patient's hand held notes
- Advise weight maintenance and not weight loss during pregnancy. Refer to dietician, exercise classes and support groups where appropriate (APPENDIX 2).
- Inform women of the increased risk of complications associated with maternal obesity including pre- eclampsia, gestational diabetes and lntra-partum complications.
- TED stockings and thromboprophylaxls with Dalteparin throughout any period of immobilization or inpatient stay should be considered in accordance with the RCOG Clinical Green Top Guideline no.37. (See Appendix 3 for doses). Knee length stockings (class 2) are suitable for most women. However, thigh length (class 1) should be used in women in whom there are contraindications to low molecular weight heparin. TEDS may need to be ordered at this point
- Measure blood pressure with appropriate sized cuff.
- Weigh and calculate BMI again in 3rd trimester to allow planning for any special equipment required at delivery

- Perform USS to assess fetal presentation if doubt at Term.

5. RECOMMENDATIONS FOR INTRAPARTUM CARE

5.1 WOMEN WITH ABMI ≥35 KG/M2

- The obstetric senior registrar (ST 6/7 RIE; Registrar SJH) and anaesthetist should be Informed of admission. Consultant Input should be sought at the discretion of the senior registrar.
- Admission CTG and continuous external fetal monitoring are recommended, and fetal scalp electrode may be required.
- Labour and delivery of primiparous women should be managed on labour ward.
- The use of the pool is not recommended.
- In labour, women should be nil by mouth and have regular oral ranitidine 150mg six hourly.
- Venous access should be established in early labour
- Consider the wearing of graduated compression stockings during labour and throughout any Induction process.
- Aim to induce labour on weekdays and avoid the weekends.
- Caesarean Section should be performed by a senior obstetrician with experienced assistant.
- Thorough skin preparation with iodine based prep is recommended, ideally before the spinal is sited and repeated immediately pre-operatively to reduce wound infection.
- Skin incision should be either low transverse skin incision (ideally under the pannus) is suggested (4) or supraumbilical. It should be remembered that obesity may distort normal anatomical landmarks and care should be taken not to buttonhole the pannus.

- Consider looped PDS for closure of the rectus sheath. Consider suturing the subcutaneous tissue space in women with more than 2cm of sucutaneous fat8. Interrupted non absorbable sutures (e.g. ethibond) and staples for skin closure should be considered.
- Active management of the third stage is recommended, and prophylactic oxytocin infusion (40IU in 500ml normal saline, at 125ml/hr) should be started in the presence of a risk factor for postpartum haemorhage (e.g. macrosomia, caesarean delivery, prolonged labour).

Appendix 3 Search History

#	Query	Limiters/Expanders	Last Run Via	Results
S3	((MM "Pregnancy, High-Risk") OR (MH "Risk+") OR (MH "Risk Assessment+/CL") OR "high risk pregnancy" OR (MH "Pregnancy Complications+/CL/DG/PX/NU") OR "complications" OR (MH "Obesity+/CO/NU/DI")) AND (child birth or maternity or pregnancy) AND (risk perception OR perceived risk*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text;MEDLINE;Psychology and Behavioral Sciences Collection;PsycINFO	644
S2	((MM "Pregnancy, High-Risk") OR (MH "Risk+") OR (MH "Risk Assessment+/CL") OR "high risk pregnancy" OR (MH "Pregnancy Complications+/CL/DG/PX/NU") OR "complications" OR (MH "Obesity+/CO/NU/DI")) AND (risk perception or perceived risk*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text;MEDLINE;Psychology and Behavioral Sciences Collection;PsycINFO	7,806
S1	(MM "Pregnancy, High-Risk") OR (MH "Risk+") OR (MH "Risk Assessment+/CL") OR "high risk pregnancy" OR (MH "Pregnancy Complications+/CL/DG/PX/NU") OR "complications" OR (MH "Obesity+/CO/NU/DI")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text;MEDLINE;Psychology and Behavioral Sciences Collection;PsycINFO	3,957,688

Appendix 4a.

1. Full reference	Shub, A, Y-S Huning, Campbell, K and McCarthy (2013) Pregnancy women's knowledge of weight, weight gain, complications of obesity and weight management strategies in pregnancy BMC Research Notes 6:278 pg. 1 – 6.
Population targeted and number of participants	Convenience sample of 354 women
Intervention or area of interest	To assess the level of knowledge of pregnant women regarding 1) their own weight and body mass index (BMI) category, 2) awareness of guidelines for GWG (gestational weight gain) and 3) knowledge of safe weight management strategies in pregnancy. (4) Knowledge of complications associated with GWG and (5) Knowledge of safe weight management strategies in pregnancy
Study method used	Descriptive Survey
Summary of findings	47.8 % of the study population was obese, 74% of obese women underestimated their BMI category, and 64 % of obese women and 40% of overweight women overestimated their recommended GWG. Women's knowledge of the specific risks associated with excess GWG or maternal obesity was poor. Women also reported many incorrect beliefs about safe weight management in pregnancy.
Conclusions	Many pregnant women have poor knowledge about obesity, GWG, their consequences and management strategies. Bridging this knowledge gap is important step towards improving perinatal outcomes for all pregnant women, especially those who enter pregnancy overweight or obese.
Themes from main findings	1. Knowledge of obesity associated risks 2. Health education
Similarities between other studies	Gaudet et al (2011),Kominarek, et al (2010) , Nikert,Foxcroft et al (2011), Okeh et al (2015)

2. Full reference	Nitert, M, Foxcroft, K, Lust,Fagermo, N, Lawlor, D, O'Callaghan, M, McIntyre, D and Calloway, L (2011) Overweight and obesity knowledge prior to pregnancy: a survey study BMC Pregnancy and Childbirth 11:96 (Australia)
Population targeted and number of participants	Cross sectional survey of 412 consecutive unselected women in early pregnancy in Brisbane,
Intervention or area of interest	The main outcome measure was knowledge regarding the risks of overweight and obesity in pregnancy.
Study method used	Cross sectional survey
Summary of findings	Over 75% of respondents identified that obese women have an increased risk of overall complications, including gestational diabetes and hypertensive disorders of pregnancy compared to women of normal weight. More than 60% of women asserted that obesity would increase the risk of caesarean section and less than half identified an increased risk of adverse neonatal outcomes. Women were less likely to know about neonatal complications (19.7% did not know about the effect of obesity on these) than maternal complications (7.4%). Knowledge was similar amongst women recruited at the public hospital and those recruited whilst attending for an ultrasound scan at a private clinic. For most areas they were also similar between women of lower and higher BMI, but women with BMI < 25.0 were less likely to know that obesity was associated with increased rate of Caesarean section than those with higher BMI (16.8% versus 4.5%, P < 0.001).
Conclusions	Higher educational status was associated with more knowledge of the risks of overweight and obesity in pregnancy. Many women correctly identify that overweight and obesity increases the overall risk of complications of pregnancy and childbirth. The increased risks of maternal complications associated with being obese are better known than the increased risk of neonatal complications. Maternal education status is a main determinant of the extent of knowledge and this should be considered when designing education campaigns
Themes from findings:	1.Knowledge of obesity related complications – maternal risks 2.Knowledge of neonatal risks 3.Health education
Similarities between other studies	Gaudet et al (2011),Kominarek et al(2010) , Shub et al (2013), Okeh et al (2015)

3. Full reference	Kominiarek, M, Vonderheid, S and Endres, L (2010) Maternal obesity: do patients understand the risks Journal of Perinatology 30 pg. 452 – 458 (USA)
Population targeted and number of participants	105 women recruited from an antenatal clinic – primarily low-income minority women. 54 % non-obese women and 46% obese women BMI > 30kg/m2
Intervention or area of interest	To explore patient knowledge of the risks of maternal obesity and compare knowledge between non obese and obese women
Study method used	Quantitative study **f**ace to face survey
Summary of findings	56 non – obese and 47 obese participants. 49% participants knew that obesity increases risks in pregnancy. The knowledge of specific risks was similar in the non – obese (60%) and obese (64%)
Conclusions	Regardless of BMI women required more knowledge about risks of obesity in pregnancy, Recommendations for future research – Little is known about the obese woman's perception of risk during pregnancy
Themes from main findings	1.Knowldege of obesity related risks
Similarities between other studies	Gaudet et al (2011), Nitert et al (2011),Shub et al (2013), Okeh et al (2015)

4.Full reference	Gaudet,l,Gruslin,A,Magee,L (2011) Weight in Pregnancy and its implications: What women report JOGC 33(3) pg.227 – 234
Population targeted and number of participants	117 women attending a routine ultrasound clinic between 11 and 24 weeks
Intervention or area of interest	The primary objective in this study was to determine the proportion of a group of pregnant women who were able to correctly classify BMI.Secondary objectives included assessing the direction of BMI misclassification and maternal knowledge of target gestational weight gain and obesity associated pregnancy complications.
Study method used	Cross sectional survey
Summary of findings	Out of 117 respondents 30 were overweight (BMI 25 to 29.9) or obese (BMI >30) Obese or overweight women were significantly more likely to misclassify their BMI. There were no differences between women in the various BMI categories with regard to their awareness of several common related pregnancy complications.

Conclusions	Misclassification of pre pregnancy BMI is common, particularly among women carrying excess weight. Evaluation of pre pregnancy BMI and education regarding appropriate gestational weight gain are logical initial steps for optimizing weight related pregnancy outcomes.
Themes from main findings	1. Knowledge of obesity related risks
Similarities between other studies	Okeh, et al (2015)

5.Full reference	Okeh, O, Hawkins, K, Butler, W and Younis, A (2015) Knowledge and Perception of risks and Complications of Maternal Obesity during Pregnancy Gynecology and Obstetrics 5(9) pg., 1 – 5.
Population targeted and number of participants	Convenience sample of 102 women pregnant and non-pregnant who attended a Women's health clinic for care (prenatal, postpartum, well- woman and follow up visits)
Intervention or area of interest	To assess the knowledge and understanding of the risks of maternal obesity during pregnancy in patients visiting a prenatal Health Clinic at an academic, public medical center located in Macon, Georgia.
Study method used	Face to face survey asking questions about knowledge and perception of Body Mass Index (BMI) and maternal obesity risks were collected. Responses were scored between 0-100percent and categorized to minimal, good and broad knowledge groups.
Summary of findings	Most respondents have moderately good knowledge of maternal obesity risk. However, only 40.2% of women were aware of the term BMI, 48% knew goals of weight gain during pregnancy, and 51% were aware that obesity increases the risk of stillbirth. Obese patients were more aware of the risk for pregnancy complications compared to normal and overweight. But only 29.7% of them correctly identified themselves as obese, 53.1% classify themselves as overweight, 15.6% normal and 1.6% report being underweight. Maternal weight, educational status and daily exercise were consistently associated with good and broad knowledge of maternal risks. Overall, most women have limited knowledge of BMI, goals of weight gain during pregnancy and risks of maternal obesity on them and their unborn child. The perception of most overweight and obese women about their current weight was imprecise.
Conclusions	Our findings underscore the need for healthcare providers to make pregnant women more aware of the increased risks associated with overweight and obesity

Themes from main findings	1.Knowledge of obesity associated risks 2. Health education
Similarities between other studies	Shub et al (2013), Kominiarek et al (2010)

6.Full reference	Brooten, D, Youngblut, J, Gloembeski, S, Magnus, M and Hannan, J (2012) Perceived weight gain, risk, and nutrition in pregnancy in five racial groups Journal of the American Academy of Nurse Practitioners 24 pg. 32 – 42 (USA)
Population targeted and number of participants	54 women < 20 weeks' gestation
Intervention or area of interest	Aim was to examine perceived pregnancy weight gain needed, perceived risks to mother, and infant of excessive weight and underweight, perceptions of actual, ideal, realistic body size, nutritional intake in five racial/ ethnic groups.
Study method used	Questionnaires
Summary of findings	39% of women were obese or overweight. African American women had low perceived risk for mother and infant of gaining too much pregnancy weight, highest perceived risk for both of gaining too little. Caribbean black women perceived highest risk to mother of gaining too much pregnancy weight, highest risk to infant of gaining too little.
Conclusions	Education is need to raise awareness of risks of prepregnancy weight and excessive weight Gain for mother and infant. The need for prenatal nutritional; counseling to reduce the intake of calories, fats and sweets and increase intake of vegetables, fruits and fiber.

7.Full reference	de Jersey, S, Callaway, L and Daniels (2015) Weight related risk perception among healthy and overweight pregnancy women: a cross sectional study
Population targeted and number of participants	664 women participated, 34% were overweight before pregnancy – 23% pre obese and 11% obese
Intervention or area of interest	The objective of this study was to evaluate risk perception in early pregnancy and to compare this perception between women commencing pregnancy healthy and overweight.
Study method used	Cross sectional survey
Summary of findings	Excess gestational weight gain during pregnancy was more important in leading to health problems for women or their child compared with prepregnancy weight. Personal risk perception for complications was low for all women, although overweight women had slightly higher scores than healthy weight women. All women perceived the risk for complications to be below that of the average pregnancy woman.
Conclusions	Women should be informed of the risk associated with their pre – pregnancy weight (in the case of maternal weight) and (excess gestational weight gain) .If efforts to raise risk awareness are to result in preventative action, this information needs to be accompanied by advice and appropriate support on how to reduce risk
Similarities between other studies	Keely et al (2011)

8. Full reference	Keely, A, Gunning, M and Dennison, F (2011) Maternal Obesity in pregnancy: Women's understanding of risks British Journal of Midwifery (19) 6 pg. 364 – 369 (UK)
Population targeted and number of participants	Eight women BMI > 40kg/m2 > 34 weeks
Intervention or area of interest	To explore obese women's perceptions of obesity as a risk factor in pregnancy and their experiences of NHS maternity care
Study method used	Open ended, semi structured interviews analyzed using thematic analysis
Summary of findings	Participants were aware of obesity as a risk factor in pregnancy. Some felt that they had significant risks but this awareness developed in the index pregnancy. Some participants felt that the significant risks posed by obesity in pregnancy had not been properly explained to them, both prior to and in early pregnancy. In addition, midwives need guidance in discussing this sensitive issue with women, in order to promote open communication and effective clinical care.
Conclusions	Need for opportunities for health promotion aimed at disseminating information about risks of obesity in pregnancy to overweight and obese women
Themes	1.Perceptions of health ,2.Medical /obstetric problems,3.Risk awareness,4.Risk awareness and the lived experience,5.Experience of the NHS
Similarities and differences between other studies	Kominiarek et al(2010),Brooten et al (2012)

9.Full reference	Heaman, M ,Beaton, J ,Gupton, A and Sloan(1992) A Comparison of Childbirth Expectations in High risk and Low Risk pregnant Women Clinical Nursing research 1(3) pg.252- 265
Population targeted and number of participants	75 high risk nulliparous and 77 low risk nulliparous
Intervention or area of interest	Comparison of childbirth expectations of high risk and low risk pregnant women and then examining the influence of anxiety, risk status and childbirth preparation on these.
Study method used	Descriptive correlational study
Summary of findings	High risk women had significantly less positive expectations for their childbirth experience than low risk women. High risk women expected more medical intervention and more difficulty coping with pain during labour and birth.
Conclusions	Results indicate that high risk women expect more difficulty in coping with pain during childbirth than low risk women. Therefor techniques for coping with pain and methods of pain relief need to be discussed. High risk women expect more medical intervention during childbirth, hence the nurse requires to explore the types of intervention and clarify any misconceptions. High risk

	women exhibit high levels of state anxiety, because anxiety is directly related to less positive expectations for the childbirth experience, nursing interventions to reduce anxiety are important.
Themes from main findings	1.Predictors of risk perception
Similarities and differences between other studies	Headley and Harrigan (2009)

10.Full reference	White, O, Noleen, K, McCorry, N, Scott-Heyes, G, Dempster, M and Manderson, J (2008) Maternal appraisals of risk, coping and prenatal attachment among women hospitalized with pregnancy complications Journal of Reproductive and Infant Psychology 26(2) pg. 74 – 85.
Population targeted and number of participants	87 women who were hospitalized for pregnancy related complications.
Intervention or area of interest	Women's appraisal of risk may not be congruent with medical assessments of risk. This study sought to model relationships between risk (maternal perceptions and medical ratings) and copying, psychological well-being and maternal fetal attachment.
Study method used	Survey using: Maternal Antenatal Attachment Scale, State –trait Anxiety Inventory. Hospital Anxiety and Depression Scale, Prenatal Distress Questionnaire, Prenatal Coping Inventory, Short Form Social Support Questionnaire Maternal risk Appraisal and Medical Risk Assessment
Summary of findings	Analysis indicated that positive appraisal as a coping strategy mediates the relationship between maternal appraisals of risk and maternal fetal attachment
Conclusions	Awareness of the potential incongruence between patients and health care professionals' perceptions of risk is important within the clinical environment. The potential benefits of promoting positive appraisal in high-risk pregnancy merits further research.
Themes from main findings	1.Maternal appraisal of risk versus Health professionals' appraisal of risk
Similarities and differences between other studies	Heaman et al (1992), Headley and Harrigan (2009)

11. Full reference	Gupton , A, Heaman , M and Cheng, L (2001) Complicated and uncomplicated Pregnancies: Women's Perception of Risk JOGNN Clinical studies 30(2)
Population targeted and number of participants	Convenience sample of 105 women with complicated pregnancies requiring hospitalization and 103 women with no known complications.
Intervention or area of interest	Perception of risk during pregnancy
Study method used	Descriptive correlational study
Summary of findings	Women with complicated pregnancies perceived their overall risk and risk for specific pregnancy outcomes as significantly higher than women with uncomplicated pregnancies State anxiety and biomedical risk were positively related to perception of risk, but there was no relationship between stress, self-esteem, or social support and perception of risk. Strongest predicators of self-perception of risk were the biomedical risk score and state anxiety.
Conclusions	Women with complicated pregnancies perceive risks as higher than women with uncomplicated pregnancies. Both biomedical and psychosocial factors play a role in influencing risk perception. Nursing assessment of the pregnant women should include discussion with her of her perception of risk.
12. Full reference	Headley, A and 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) pg. 1041 – 1045.
Population targeted and number of participants	One hundred and thirty-three women. 30.4% were attending a high risk clinic and 67.4% were attending a routine low risk clinic
Intervention or area of interest	In this study participants were queried about their perception of risk using a visual analogue scale called Pregnancy Perception of Risk Questionnaire. (PPRQ)
Study method used	Survey using the PPRQ
Summary of findings	Patients in the high risk clinic demonstrated higher PPRQ scores, suggesting increased concerns regarding potential pregnancy complications/outcomes. However, correlation between patients PPRQ scores and Medically identified Patient Risk factors (MIFs) was not identified. More work is needed to educate all pregnant women about their MIFs). Lack of awareness by women is unlikely to lead to adherence to medical recommendations for amelioration of risks.
Conclusions	Adaptation of obstetrical health care materials and culturally appropriate counseling may mitigate gaps between MIFs and patient perception

Themes from main findings	1.Measuring risk perception
Similarities and differences between other studies	Heaman et al (1992), White, McCorry et al (2008)
Themes from main findings	1.Factors that influence risk perception 2.Measuring risk perception
13.Full reference (USA)	Cannella,D,Auerbach,M and Lobel,M (2013) Predicting birth outcomes: Together, mother and health care provider know best Journal of Psychosomatic Research 75, pg. 299 – 304
Population targeted and number of participants	165 women at high obstetric risk (n= 34) or low risk (131)
Intervention or area of interest	To examine contributors to perceived risk in pregnancy and it's utility in predicting lower birth weight and earlier delivery in conjunction with health care providers assessment of obstetric risk.
Study method used	Cross sectional study – Questionnaire
Summary of findings	40% of the sample perceived their risk status differently than their health care provider. Stress, poor reproductive history, provider assigned risk, and unhealthy behaviours were significant, independent predictors of perceived risk (R2=.37). The greatest in birth weight (p=.003) and gestational age (p=.05) was between women considered at low risk by both self and provider and women considered at high risk by both. Perceived risk improved prediction of adverse birth outcomes, especially lower birth weight, in women considered by providers to be at low risk.
Conclusions	Women's perceptions of risk are an important contributor to prediction of birth outcomes, but the combination of information from both a woman and her health care provider is superior. Incorporating women's perceptions into obstetric risk determination may help to reduce the number of women identified as high risk who subsequently have normal birth outcome (false positives) and more importantly, the number of women considered to be at low risk who ultimately experience an adverse outcome.

14. Full reference	Gray, B (2006) Hospitalization History and Differences in Self Rated Pregnancy Risk Western Journal of Nursing Research 28(2) pg. 216 – 228
Population targeted and number of participants	207 expectant women who were medically diagnosed as high risk
Intervention or area of interest	High-risk pregnancies affect a significant number of women each year. Limited information exists on how these women appraise risk to their pregnancy. This study-examined women who were medically categorized as high-risk .The study examined the differences in women's appraisal of risk, based on hospitalization history, and differences amongst risk appraisals made by women and health care professionals
Study method used	Non experimental survey design – Descriptive
Summary of findings	Women in the current study who were hospitalized appraised their own risk to be significantly lower than women who were never hospitalized and women previously hospitalized. Women previously hospitalized perceived the most risk to themselves and their baby. These findings suggest that the post hospitalization phase may be particularly stressful for expectant woman. Women reported significantly lower self-appraisal risk to mother scores than their nurse.
Conclusions	Current study contributes information regarding how the need for hospitalization, or lack of need, may affect expectants women's subjective appraisal of risk. The current study also reinforces previously reported information regarding inconsistencies between how women interpret the risks to their pregnancy and the interpretations of health care providers.
Similarities and differences between other studies	Heaman et al (1992),Hedley and Harrigan (2009), White et al (2008)

15. Full reference	Heaman, M and Gupton, A (2009) Psychometric testing of the Perception of Pregnancy risk Questionnaire Research in Nursing & Health 32, pg. 493-503.
Population targeted and number of participants	199 women in third trimester of pregnancy
Intervention or area of interest	Purpose of the study was to refine a new instrument , the Perception of Pregnancy risk Questionnaire (PPRQ) and conduct psychometric assessment of the final version
Study method used	Methodological study
Summary of findings	Evidence of construct validity was demonstrated using the known groups technique and through convergent validity. Ratings of pregnancy risk correlated with state anxiety level, providing evidence of concurrent validity.

Conclusions	The PPRQ had high internal consistency, reliability and excellent test – retest reliability. This new measure of self-risk will be a useful tool for the future research exploring this concept.
Themes from main findings	1.Measuring perception of risk
Similarities and differences between other studies	Gupton et al (2001)

16. Full reference	Bayrampour,H,Heaman,M,Duncan,K,Tough,S (2013) Predictors of Perception of Pregnancy Risk among Nulliparous Women JOGNN 42(4) pg. 416-426
Population targeted and number of participants	159 nulliparous women in their third trimester of pregnancy
Intervention or area of interest	To determine factors associated with perception of pregnancy risk using a conceptual framework based on a review of the relevant literature and the psychometric model of risk perception
Study method used	Correlational study
Summary of findings	Five factors were significant predictors of perception of pregnancy risk, including pregnancy related anxiety, maternal age, medical risk, perceived internal control and gestational age, accounting for a 47% - 49% variance in risk perception. An interaction between the pregnancy related anxiety score and maternal age was found.
Conclusions	These results contribute to the literature on perception of pregnancy risk by identifying a new predictor (gestational age) supporting the role of the previously known factors in the state of pregnancy, and proposing pregnancy related anxiety as a pregnancy dread factor in risk perceptions theories. This knowledge may have implications for developing more effective risk communication models.
Themes from main findings	1. Predictors of risk perception 2. Risk communication/ education
Similarities and differences between other studies	Headley and Harrigan (2009), Gupton et al (2001), Heaman et al (2004)

17. Full reference	Heaman, M, Gupton, Gregory, D (2004) Factors influencing Pregnant Women's Perceptions of Risk American Journal of Maternal Child Nursing 29(2) pg. 111-116
Population targeted and number of participants	205 women in the study, half (n= 103) had pregnancy complications, while the other half had (n= 102) had no know complications.
Intervention or area of interest	To explore factors women consider in determining their perception of pregnancy risk, and to compare and contrasts factors considered by women with complicated and uncomplicated pregnancies.
Study method used	Descriptive qualitative study using qualitative content analysis to interpret the data.
Summary of findings	Four major themes emerged that influenced perception of risk for both groups: self-image, history, health care and the unknown. Women with complications voiced greater risk perceptions and identified specific risks, while women with no complications mentioned potential risks that were diffuse and hypothetical.
Conclusions	Women do not necessarily use statistical odds in making their risk assessments, but rather use their own personal data. Results reveal that the process of risk assessment was multidimensional and influenced by more than statistical ratios, consistent with findings from other studies. Health professionals who communicate about risk need to understand the perspectives of those whom they advise.
Themes	Self-image, 2. History, 3. Health care, 4. The unknown
Similarities and differences between other studies	Corbin (1987), Stainton (1992), Patterson (1993), Jackson et al (2006), Simmons and Goldberg (2011), Gupton et al (2001)

18. Full reference	Bayrampour, H,Heaman, Duncan, k and Tough, S (2012) Advanced maternal age and risk perception: A qualitative study BMC Pregnancy and Childbirth12: 100
Population targeted and number of participants	15 women of advanced maternal age (AMA)
Intervention or area of interest	Advanced maternal age is considered to be “high risk”. This study aimed to address this gap by exploring the risk perception of pregnancy women with AMA.
Study method used	Qualitative descriptive study. Content analysis was utilized to identify themes and categories
Summary of findings	Perception of risk may be an interaction among several factors including physiological and psychological elements, characteristics of the experienced risk and feedback from health care providers.
Conclusions	Understanding these influential factors which may influence perception of risk: medical risk, psychological elements, characteristics of risk, stage of pregnancy and health care providers opinion, may help health professionals who care for women of AMA to gain insight into their perspectives on pregnancy will improve the effectiveness of risk communication
Themes	1. Definition of pregnancy risk, 2.Factors influencing risk perception, 3.Risk alleviation strategies and 4. Risk communication with health professionals.
Similarities and differences between other studies	White et al (2008),Heaman and Gupton (2009), Heaman et al (1992), Gupton et al (2001)

19. Full reference	Papienik, E, Tafforeau, J, Richard, A, Pons and Keith, L (1997) Perception of Risk, choice of maternity site, and socio economic level of twin mothers Journal of Perinatal Medicine 25(2) pg. 139 – 144.
Population targeted and number of participants	546 mothers of twins
Intervention or area of interest	The objective of this study was to determine if access to high level health facility (level 3) perinatal center) is related to socio economic level of the mother and to her perception of risk for a twin birth
Study method used	Retrospective questionnaire administered to the mother of twins during first post-partum days in 27 maternity sites
Summary of findings	The opinion of mothers of twins about specific risk for her and her children is very different by socioeconomic level, as is the choice of level 3

Conclusions	The present study documents a major difference in the choice of perinatal level of the maternity site by social class, the higher the social class of the mother, and the higher the quality of the requested delivery site. As the level of perinatal care is a major factor associated with the survival and reduction of handicaps in pre term deliveries, differences in decisions made for or by pregnant women must be considered in any attempt to understand the discrepancies observed in fetal and neonatal morbidity by social groups, even if in this population the rates of preterm births and early preterm births appear to be equally distributed.
Themes from main findings	Factors affecting risk perception

20. Full reference	Corbin (1987) Women's perceptions and management of a pregnancy complicated by chronic illness Health Care for women international: the journal of the international Council on Women's Health Issues
Population targeted and number of participants	20 women with pregnancies complicated by the presence of a chronic illness.
Intervention or area of interest	This exploratory longitudinal study addresses how a group of chronically ill pregnant managed the medical risk factors associated with their pregnancies through a process of protective governing.
Study method used	Grounded Theory / constant comparative method for data analysis
Summary of findings	Off course, non-critical context (risks seem a looming reality): Women felt that fetal heart rate and fetal movement indicative of fetal well-being. Four women held back on emotional attachment until they the immediate danger to them had gone. Women weighed the options available to them to bring the pregnancy and illness under control. Women were willing to do what they had to do necessary to achieve their goal of a healthy baby. They entrusted control in the health care team to delegate to them responsibility to take any action necessary. However, if the women felt that the potential risks of treatment had potential to cause greater harm than good they took back control. Of Course: High risk context: Where the pregnancy was perceived to be on course but there is uncertainty regarding its outcome, Perception of pregnancy risk was high so women felt that as long as the fetus continued to grow and move, they felt reassured. Because the risks were

	perceived as high, women felt that they had fewer choices available. They employed corporative control to manage this problem of high risk, thus indicating the need for a degree of teamwork between the woman and the medical team. They realized that they had to delegate a large portion of responsibility to the medical team, in turn they knew that they had to cooperate with that plan.
Conclusions	1. Important that women are given information about a wide range of strategies that they might use to manage their illness. This would make them feel in control and doing something positive to control their illness. 2. Women have a right to know all the potential risks as well as benefits associated with a treatment. 3. Women want healthy babies and will do what they believe is necessary to achieve that end, even if it means going against medical advice. 4. Women are for the most part willing to negotiate with the health care team, if given the opportunity.
Themes	1.Determinants of risk perception,2.Not seeing it the way others do,3.Normality versus risk,4.Managing risk,5.If the infant is ok, I'm ok
Similarities and differences between other studies	Corbin (1987),Stainton (1992),Patterson (1993),Heaman et al (2004),Jackson et al (2006) Simmons and Goldberg (2011) ,Keely et al (2011)

21. Full reference	Stainton M (1992) Mismatched caring in high risk perinatal situations Clinical Nursing Research pg. 35 – 49
Population targeted and number of participants	27 women recruited during a high risk pregnancy and 7 recruited following the birth of a high risk newborn
Intervention or area of interest	Learning about and understanding what being in a high-risk perinatal experience is like for women from their point of view.
study method used	Phenomenological approach
Summary of findings	Nurses are concerned with poor outcomes of maternal or infant mortality and focus on minimizing or preventing risks. Mother focus of the possibility of good outcomes and monitor their progress towards being a good mother. Both are synchronous with goals of caring. Mothers are labelled as denying and caregivers as worrying
Conclusions	Difference in the focus of care between the professionals and the mother.
Themes	1. Sources of caring, 2. Sources of knowledge, 3 Sources of meaning

22. Full reference	Stainton, C, McNeil, D and Harvey, S (1992) Maternal Task of Uncertain Motherhood Maternal Child Nursing Journal20 (3, 4) pg. 113 – 122.
Population targeted and number of participants	Twenty-seven women from a high risk maternity population
Intervention or area of interest	Experience of women in a high risk perinatal situation
Study method used	Phenomenological approach
Summary of findings	Women in high risk situations work on the same developmental tasks described by Rubin (1975). However, these tasks are altered by the uncertainty of motherhood.
Conclusions	The original theory of developmental tasks described by Rubin (1975), prior to the creation of the population group labelled high risk is supported by this study.
Themes from main study	1. Seeking safe passage 2. Gaining acceptance by others 3. Binding in to the child.4. Giving of oneself.

23. Full reference	Simmons, H, Goldberg, L (2011) "High risk" pregnancy after perinatal loss: understanding the label Midwifery 27 pg.452- 457
Population targeted and number of participants	Seven women receiving care following perinatal loss
Intervention or area of interest	Aim was to explore women's experience of living with "high risk" pregnancy following a perinatal loss
Study method used	Feminist phenomenological methodology
Summary of findings	Being labelled high risk meant that the woman received an elevated level of care: one she viewed as supportive – positive perception. The second theme relational engagement brought to light that the women in the study experienced a dichotomy within their relationship with their unborn babies. The third theme insight and acceptance of the influence of previous loss, the variability in healthcare providers, family, friends and the general public's ability to have insight into pregnancy was like for women who had a previous pregnancy loss. The fourth theme

	essentiality of information, delved into women in the study requiring information to help them cope during their high-risk pregnancies following perinatal loss.
Conclusions	Findings from this study suggest that a high-risk pregnancy following perinatal loss results in women embracing the high-risk label. The women following perinatal loss may perceive the label of high risk in a positive way.
Themes	1.Understanding the label of high risk,2 Relational engagement with the unborn infant, 3 Insight and acceptance of the influence of previous loss.,4 Essentiality of information
Similarities and differences between other studies	Patterson (1993), Jackson et al (2006)

24. Full reference	Patterson, K, A (1993) Experience of Risk for Pregnant Black Women Journal of Perinatology: official publication of the National Perinatal Association Mosby-Year Book INC 13(4) pg. 279.
Population targeted and number of participants	17 participants,7 at risk and 10 non –risk
Intervention or area of interest	Qualitative study exploring how risk is determined by black women during pregnancy
Study method used	Grounded Theory
Summary of findings	All women perceived their pregnancy as normal; for some that never changed: for others it did. The change was precipitated by the occurrence of an unexpected event, indicated by a critical moment. The critical moment is a dynamic interplay among biophysical changes, patterns of social interaction and inters subjective reflection. These findings emphasize the black women's reliance on the significant role of sharing between black women in perpetuating their cultures normative expectations concerning
Conclusions	Study suggests that black women may not comply with preterm labour precautions because they do not define risk by the provider's measure of mathematical probability. The desire to normalize the pregnancy is socio culturally driven. Stories of peer's experiences, beliefs are used to bolster the black women's views that the change that is occurring is normal. Need to understand that her perspective of her pregnancy is based on her families, and
Themes	Determinants of Risk Knowledge of Risk – The critical moment
Similarities and differences between other studies	Simmons and Goldberg (2011)
25. Full reference	Jackson, CJ, Bosio, P,, Habiba, M, Waugh,, Kamal, Dixon- Woods, M (2006) Referral and attendance at a specialist antenatal clinic: qualitative study of women's views BJOG An International Journal of Obstetrics and Gynaecology 113,909 – 913
Population targeted and number of participants	21 pregnancy women attending a hypertension clinic
Intervention or area of interest	To explore women's experiences and perceptions of being referred to and attending a specialist antenatal hypertension clinic
Study method used	Qualitative interview study, Data analysis – constant comparative method
Summary of findings	Being referred to clinic conferred an at risk status on the pregnancy. Some women welcomed the referral, others found it unsettling. Many were unclear why they were referred there. Women felt that they were inadequately informed about why they were referred. Attendance at the clinic was cited as a source of reassurance, however some questioned the benefits of attending the clinic when they could have been managed in the community.

Conclusions	Women's accounts suggest that the interface between community and secondary antenatal services needs improvement to minimize the adverse effects from identifying women as "at risk" during pregnancy.
Themes	1. Being referred: identification of "riskiness"2, Attending the clinic: reassurance 3. Negotiating normality
Similarities and differences between other studies	Simmons and Goldberg (2011),

26. Full reference	Lee, S (2014) Risk perception in Women with high – risk pregnancies British Journal of Midwifery 22(1) pg.8 – 13
Population targeted and number of participants	Clinical Practice
Intervention or area of interest	Risk Perception in women with high risk pregnancies
Study method used	Clinical practice review
Summary of findings	Risk perception affects women's attitudes towards antenatal care. Women may not perceive risks in the same way as health – care professionals. Women will act in the way they believe best to protect their babies wellbeing. Midwives need to ensure the care they give is respectful and sensitive to individual women's circumstances
Conclusions	Midwives need to be sensitive when discussing risk. Particularly when women may not perceive the risks in the same way as health care professionals, They should ensure that each woman's needs and support are individualized. Women should be involved in the decision-making surrounding their care. Further research is required to establish how women prioritize the different sources of information they receive during pregnancy and how they decide which are trustworthy
Themes	1. How do women perceive risk? 2, Comparison with professionals' risks perception. 3. Women's attitude to care.
Similarities and differences between other studies	Lee et al (2014), Lee, Ayers and Holden (2012)

27. Full reference	Lennon (2016) Risk Perception in Pregnancy: a concept analysis Journal of Advanced Nursing 72(9) pg. 2016-2029
Population targeted and number of participants	Analysis of the concept of risk perception
Intervention or area of interest	Aim is to report an analysis of the concept of risk perception in pregnancy
Study method used	Walker and Avant's method was used to guide the analysis – thematic analysis
Summary of findings	The attributes of the concept are the possibility of harm to mother or infant and beliefs about severity of the risk state. The physical condition of pregnancy combined with the cognitive ability to perceive a personal risk state is antecedents. Risk perception in pregnancy influences women's affective state and has an impact on decision – making about pregnancy and childbirth. There are limited empirical references with which to measure concept.
Conclusions	Women today know more about their developing infant than at any other time in history: however, this has not led to a sense of reassurance. Nurses and midwives have a critical role in assisting pregnancy women, and their families to make sense of the information that they are exposed to. An understanding of the complexities of the concept of risk perception in pregnancy may assist

28. Full reference	Lee, S, Ayers, S and Holden, D (2016) Risk perception and choice of place of birth in women with high-risk pregnancies: A qualitative study Midwifery 38 pg. 49- 54.
Population targeted and number of participants	Twenty-six women with high-risk pregnancies, at least 32 weeks' gestation. Half were planning hospital births and half homebirths.
Intervention or area of interest	To examine perception of risk among a group of women with high-risk pregnancies who were either planning to give birth in hospital, home despite medical advice.
Study method used	Qualitative study using semi structured interviews, Results analyzed using thematic analysis
Summary of findings	Women from both groups had some understanding of the implications of their medical/ obstetric conditions. They displayed concerns about their baby's wellbeing. Women planning homebirths assessed their risks as lower and expressed less concerns than women planning hospital births. Women planning hospital births more frequently described following professional advice.
Conclusions	Risk perception is individual and subjective. Women with high-risk pregnancies who plan to give birth at home perceive risk differently to women who plan hospital births. Health care professionals working with women with high-risk pregnancies should be aware of the potential for differences in definitions and perceptions of risk within this group.
Themes	1. Understanding of situation, 2.judgment of risk, 3.Reassuring factors, 4, Impact of risk: and coping with risk.

29. Full reference	Lee, S, Ayers, S and Holden, D (2013) A meta synthesis of risk perception in women with high risk pregnancies, Midwifery
Population targeted and number of participants	Systematic search of eight electronic data bases
Intervention or area of interest	Risk perception in women with high risk pregnancies
Study method used	Systematic search
Summary of findings	Findings resulted in identification of five themes
Conclusions	Suggestion that women at high risk during pregnancy use multiple sources of information to determine their risk status. It shows that women are aware of the risk posed by their pregnancies but do not perceive risk in the same way as health care professionals. They will take steps to ensure the health of themselves and their infants but these may not include following all medical advice
Themes	1.Determinants of risk perception,2 Not seeing it the way others do,3 Normality versus risk4.If the infant is ok , I'm ok 5.Managing risk
Similarities and differences between other studies	Simmons and Goldberg (2011), Patterson (1993), Corbin (1987), Stainton (1992), Jackson et al (2006),Heaman et al (2004)

30. Full reference	Carolan, M (2008) Towards understanding the concept of risk for pregnant women: some nursing and midwifery implications Journal of Clinical Nursing 18,652-658.
Population targeted and number of participants	Pregnant women
Intervention or area of interest	Concept of risk as understood by health professionals and pregnant women
Study method used	Concept analysis
Summary of findings	Women make a subjective appraisal of risk, measuring it against their personal values and prior experience, while health professionals evaluate risk in an objective manner.
Conclusions	Health professionals and pregnant women understand risk differently. It is important that health professionals understand and respond to maternal understandings of risk.

31. Full reference	Lee, S, Ayers, S and Holden (2012) Risk Perception of women during high-risk pregnancy: A systematic review Health, Risk and Society 14(6) pg.511-531.
Population targeted and number of participants	High risk pregnant women
Intervention or area of interest	Review of quantitative measures of risk perception in women with high-risk pregnancies.
Study method used	6 cross sectional studies,1 Retrospective study, mothers of twins
Summary of findings	Data from studies shows women with high-risk pregnancies are likely to recognize their condition presents a degree of risk to the wellbeing of themselves and or/ their babies. They are also likely to rate their degree of risk as higher than women with low risk pregnancies. Results are inconsistent for the association between women's perceived risk scores and healthcare professionals' ratings of risk. Socio-economic factors, when reported, suggest that women with high risk pregnancies are more likely to have completed education earlier, be of a lower income and be of an ethnicity other than white. Women from higher economic backgrounds are more likely to show concern about health risks. There is consistent positive association between risk perception and anxiety.

Conclusions	Limited by the small number of studies in this area. Differences in risk perception between the women and health care professional should be managed respectfully and sensitive, conversations if women are not to feel alienated from, and so less likely to engage with healthcare services. Areas for future research: What information influences women when they make value judgments about risk? How health professionals assess risk and the development of a standardized risk perception assessment measure.
Themes from main findings	1.Factors that influence risk perception 2.Measuring risk perception
Similarities and differences between other studies	Heaman et al (1992), Heaman and Gupton (2009), Gupton, Heaman et al (2001) , Gray (2006),Headley and Harrigan (2009) ,White et al (2008) ,Papiernik et al (1997)

Quality appraisal – qualitative studies (Atkins et al 2008)- Appendix 4b

Study	Are the research questions clear?	Is the qualitative approach appropriate for the research question?	Is the study context clearly described?	Is the role of the researcher clearly described?	Is sampling clearly described?	Is Data collection Clearly described?	Is the Analysis Clearly described?	Appropriate Sampling	To Data collection	research Analysis	Are the claims Made supported by sufficient evidence	Total Score
Corbin (1987)	1	1	1	X	X	x	x	1	1	1	1	7
Stainton (1992)	1	1	1	X	X	1	1	1	1	1	1	9
Patterson (1993)	1	1	1	X	1	1	x	1	1	1	1	9
Heaman et al (2004)	1	1	1	X	X	1	1	1	1	1	1	9
Jackson et al (2006)	1	1	1	X	1	x	1	1	1	1	1	9
Simmons & Goldberg (2011)	1	1	1	X	X	1	1	1	1	1	1	9
Stainton,et al (1992)	1	1	1	x	1	1	x	1	1	1	X	8
Stainton 1992)	1	1	1	x	1	1	1	1	1	1	1	10
Keely et al (2011)	1	x	1	x	1	1	1	1	1	1	1	9
Bayrampour et al (2012)	1	1	1	x	1	1	1	1	1	1	1	10

Quality appraisal – quantitative studies (Mirza and Jenkins 2004)- Appendix 4c

Quantitative - Quality Assurance Mirza and Jenkins (2004)	Clear study aims	Adequate or justifiable sample size	Sample representative of population	Clear inclusion And exclusion Criteria	Reliability and validity of measure stated	Response/ or dropout rate specified	Adequate description of data	Appropriate statistical analysis	Discussion of potential for generalization included	Total Score
Gray (2006)	1	1	1	1	1	1	1	1	1	9
Gupton,Heaman and Cheung (2001)	1	1	1	1	1	1	1	1	1	9
Headley & Harrigan (2009)	x	x	1	X	1	x	1	1	1	5
Heaman et al (1992)	1	1	x	1	1	x	1	1	1	7
Heaman & Gupton (2009)	1	1	1	1	1	1	1	1	1	9
Papiernik et al (1997)	x	x	1	1	1	x	1	1	1	6
White et al (2008)	1	1	x	1	1	1	1	1	1	8
Gaudet et al (2011)	1	x	x	1	x	1	1	1	1	7
Kominarek et al (2010)	1	1	1	1	1	1	1	1	1	9
Nikert et al (2011)	1	1	x	X	x	1	1	1	1	6
Shub et al (2013)	1	1	x	1	x	1	1	1	1	7
Cannella et al (2013)	1	x	1	1	1	x	1	1	1	7

Critical Appraisal Skills Programme

www.casp-uk.net
info@casp-uk.net
Summertown Pavilion, Middle Way Oxford OX2 7LG

CASP Checklist: 10 questions to help you make sense of a Systematic Review

How to use this appraisal tool: Three broad issues need to be considered when appraising a systematic review study:

- Are the results of the study valid? (Section A)
- What are the results? (Section B)
- Will the results help locally? (Section C)

The 10 questions on the following pages are designed to help you think about these issues systematically. The first two questions are screening questions and can be answered quickly. If the answer to both is "yes", it is worth proceeding with the remaining questions. There is some degree of overlap between the questions, you are asked to record a "yes", "no" or "can't tell" to most of the questions. A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

About: These checklists were designed to be used as educational pedagogic tools, as part of a workshop setting, therefore we do not suggest a scoring system. The core CASP checklists (randomised controlled trial & systematic review) were based on JAMA 'Users' guides to the medical literature 1994 (adapted from Guyatt GH, Sackett DL, and Cook DJ), and piloted with health care practitioners.

For each new checklist, a group of experts were assembled to develop and pilot the checklist and the workshop format with which it would be used. Over the years overall adjustments have been made to the format, but a recent survey of checklist users reiterated that the basic format continues to be useful and appropriate.

Referencing: we recommend using the Harvard style citation, i.e.: *Critical Appraisal Skills Programme (2018). CASP (insert name of checklist i.e. Systematic Review) Checklist. [online] Available at: URL. Accessed: Date Accessed.*

CASP
Critical Appraisal Skills Programme

Paper for appraisal and reference:

Section A: Are the results of the review valid?

1. Did the review address a clearly focused question?

Yes	✔
Can't Tell	
No	

HINT: An issue can be 'focused' In terms of
- the population studied
- the intervention given
- the outcome considered

Comments: Lee,Ayers and Holden (2012) Risk Perception of Women During High-risk Pregnancies

Risk perception in women with high-risk pregnancies. Focus is on perception rather than actual risk.

2. Did the authors look for the right type of papers?

Yes	✔
Can't Tell	
No	

HINT: 'The best sort of studies' would
- address the review's question
- have an appropriate study design (usually RCTs for papers evaluating interventions)

Comments: Medical and psychological literature data bases - Medline, Pub Med, Psycinfo, Web of Science, Scopus,Embrace and CINAHL

Is it worth continuing?

3. Do you think all the important, relevant studies were included?

Yes	✔
Can't Tell	
No	

HINT: Look for
- which bibliographic databases were used
- follow up from reference lists
- personal contact with experts
- unpublished as well as published studies
- non-English language studies

Comments: Bibliographic data bases used, key words were identified and checked citations. Search for non - english studies - no.

CASP
Critical Appraisal Skills Programme

4. Did the review's authors do enough to assess quality of the included studies?

Yes	✔
Can't Tell	
No	

HINT: The authors need to consider the rigour of the studies they have identified. Lack of rigour may affect the studies' results ("All that glisters is not gold" Merchant of Venice – Act II Scene 7)

Comments: Qualitative checklist used to assess quality of papers - Mirza and Jenkins (2004). No paper discounted on basis of quality as research in this area appears to be limited.

5. If the results of the review have been combined, was it reasonable to do so?

Yes	✔
Can't Tell	
No	

HINT: Consider whether
- results were similar from study to study
- results of all the included studies are clearly displayed
- results of different studies are similar
- reasons for any variations in results are discussed

Comments: Results were inconsistent around women's appraisal of risk in comparison to health professionals. inconsistency not in risk perceptions tools used and definition of risk which made it difficult to draw comparisons.

Section B: What are the results?

6. What are the overall results of the review?

HINT: Consider
- If you are clear about the review's 'bottom line' results
- what these are (numerically if appropriate)
- how were the results expressed (NNT, odds ratio etc.)

Comments: Results of risk perceptions means indicated. All mean scores fell below midpoint on the scales used, despite all studies using different scales. Difficult to make comparisons.

CASP
Critical Appraisal Skills Programme

7. How precise are the results?

HINT: Look at the confidence intervals, if given

Comments: Results were inconsistent as studies used different scoring systems

Section C: Will the results help locally?

8. Can the results be applied to the local population?

Yes	
Can't Tell	✔
No	

HINT: Consider whether
- the patients covered by the review could be sufficiently different to your population to cause concern
- your local setting is likely to differ much from that of the review

Comments: No standardised definition of high-risk used therefor participants had different conditions and therefore difficult to make comparisons.

9. Were all important outcomes considered?

Yes	✔
Can't Tell	
No	

HINT: Consider whether
- there is other information you would like to have seen

Comments:

10. Are the benefits worth the harms and costs?

Yes	✔
Can't Tell	
No	

HINT: Consider
- even if this is not addressed by the review, what do **you** think?

Comments: Highlighted need for standardised instrument to measure perceived risk

Appendix 6a Themes from Qualitative Literature

Studies	Understanding the high risk label	Determinants of risk perception	Coping strategies	Communicating risk	Experience of risk	Negotiating normality
Keely ,Gunning & Dennison (2011)	Y			y	Y	
Stainton (19920	Y				Y	Y
Heaman,Gupton and Gregory (2004)				Y	Y	Y
Corbin (1987)		Y	Y			Y
Patterson (1993)	Y	Y	y			Y
Simmons & Goldberg (2011)	Y		y	Y		Y
Jackson,Bosio and Habiba et al (2006)	Y		y			Y
Lee (2014)		Y			y	
Lee, Ayers and Holden (2016)	Y	Y	y			
Lee, Ayers and Holden (2013)		Y	y			Y

Studies	Understanding the high risk label	Determinants of risk perception	Coping strategies	Communicating risk	Experience of risk	Negotiating normality
Bayrampour, Heaman, Duncan et al (2012)		Y	Y			
Stainton,McNeil and Harvey (1992)			Y			

Appendix 6b Themes from quantitative data

Study	Knowledge of obesity related risks	Health Education	Determinants of perception of risk	Psychometric testing of risk perception	Perception of BMI (body image)
Nikert, Foxcroft and Lust (2011)	Y	Y			
Kominiarek,Vonderheid and Endres (2010)	Y				Y
Brooten,Youngblut, Gloebeski et al (2012)	Y	Y			
Gupton,Heaman & Cheung (2001)			Y	Y	
Lee,Ayers and Holden (2012)			Y	Y	
Headley and Harrigan (2009)				Y	
White,Noleen,McCorry et al (2008)				Y	
Gray (2006)			Y		
Okeh,Hawkins,and Butler (2015)	Y	Y			Y
Papienik, Tafforeau,Richard et al (1997)			Y		
Bayrampour,Heaman, Duncan et al (2013)		Y	Y	Y	

Shub, Huning, Campbell et al (2013) Heaman and Gupton (2009)	Y	Y		Y	Y
Heaman, Beaton, Gupton et al (1992)			Y		
Gaudet ,Gruslin and Magee (2010	Y				Y
Cannella,Auerbach and Lobel (2013)			Y		
de Jersey,Calloway and Daniels (2015)				Y	

Appendix 7a.Formation of themes from Qualitative data

Understanding the high risk label	**Determinants of risk perception**
Risk awareness & lived experience	Determinants of risk perception
Sources of knowledge	How do women perceive risk
Knowledge of risks	Perceptions of health
Being referred – identified as risky	Factors influencing risk perception
Understanding of the high risk label	How to health professionals perceive risk
Understanding the situation	
Understanding of risk	

Coping strategies	**Communicating risk**
Not seeing it the way others do	Essentiality of Information
Managing risk	Risk communication with health professionals
If the infant is ok, I'm ok	
Attending the clinic- reassurance	
Impact of risk and coping with risk	
Risk alleviation strategies	
Relational engagement with the new-born	
Insight and acceptance of previous loss	
Reassuring factors	

Negotiating normality	**Experience of risk**
Normality versus risk	Health care
Self-image	The unknown
Negotiating normality	Experience of the NHS
	Sources of caring
	Medical obstetrical problems

Appendix 7b. Formation of themes from Quantitative data

Quantitative Themes: Knowledge of risk	**Psychometric testing of risk perception**
Knowledge of obesity related risks	Factors affecting risk perception
Knowledge of maternal risks	
Knowledge of neonatal risks	

Health education	**Determinants of Perceptions of risk**
Communicating risk	Predictors of risk perception
	Factors influencing risk
	Differing perceptions of risk- maternal appraisal v health professional

Perception of BMI	
Body- image	

Lothian NHS Board

Appendix 8

South East Scotland Research Ethics Committee 02

Waverley Gate
2-4 Waterloo Place
Edinburgh
EH1 3EG
Telephone 0131 536 9000

www.nhslothian.scot.nhs.uk

Date 07 May 2014
Your Ref
Our Ref

Enquiries to: Joyce Clearie
Extension: [redacted]
Direct Line: [redacted]
Email: J[redacted]

07 May 2014

Miss G Norris
[redacted]

Dear Miss Norris

Study title:	**Labelled "High Risk" Exploring obese women's perception of risk during childbirth**
REC reference:	**14/SS/0085**
Protocol number:	**N/A**
IRAS project ID:	**141937**

Thank you for your letter of 06 May 2014, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the REC Manager Ms Joyce Clearie, joyce.clearie@nhslothian.scot.nhs.uk.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation [as revised], subject to the conditions specified below.

Ethical review of research sites

[Omit this sub-section if no NHS sites will be taking part in the study, e.g. Phase 1 trials in healthy volunteers]

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission

being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Non-NHS sites

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non clinical trials this is not currently mandatory.

If a sponsor wishes to contest the need for registration they should contact Catherine Blewett [redacted]), the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Covering Letter		08 April 2014

Evidence of insurance or indemnity	Napier Univ public /employers insurance and Personal Indemity	01 August 2013
GP/Consultant Information Sheets	v2	01 May 2014
Interview Schedules/Topic Guides	1.0	03 January 2014
Investigator CV	1.0	03 January 2014
Other: Debrief sheet	1.0	03 January 2014
Other: HADS		
Other: CV Dr ZOË CHOULIARA	1.0	03 January 2014
Other: CV: DR ADELE DICKSON	1.0	03 January 2014
Other: Midwifery Team Leader Letter	2	01 May 2014
Participant Consent Form: PCF	v2	01 May 2014
Participant Information Sheet: PIS	v2	01 May 2014
Protocol	1.0	03 January 2014
REC application		14 April 2014
Response to Request for Further Information		06 May 2014

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document *"After ethical review – guidance for researchers"* gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at http://www.hra.nhs.uk/hra-training/

With the Committee's best wishes for the success of this project.

Yours sincerely

Mr Thomas Russell
Chair

Email [redacted]

Enclosures: "After ethical review – guidance for researchers" *[SL-AR2]*

Copy to: *Miss G Norris*
Karen Maitland, NHS Lothian

Lothian NHS Board

Appendix 9

South East Scotland Research Ethics Committee 02

Waverley Gate
2-4 Waterloo Place
Edinburgh
EH1 3EG
Telephone 0131 536 9000

www.nhslothian.scot.nhs.uk

Date 20 June 2014
Your Ref
Our Ref

Enquiries to: Joyce Clearie
Extension: [redacted]
Direct Line: [redacted]
Email: [redacted]

20 June 2014

Miss G Norris
[redacted]
n

Dear Miss Norris

Study title:	**Labelled "High Risk" Exploring obese women's perception of risk during childbirth**
REC reference:	**14/SS/0085**
Protocol number:	**N/A**
Amendment number:	**14/SS/0085 AMO1 SA1**
Amendment date:	**11 June 2014**
IRAS project ID:	**141937**

The above amendment was reviewed at the meeting of the Sub-Committee held on 18 June 2014 by the Sub-Committee in correspondence.

The Committee queried whether what proposed with this amendment would conflict with the process previously agreed by the Committee but noted that it did not. No further significant ethical issues were raised.

Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved at the meeting were:

Document	*Version*	*Date*
Notice of Substantial Amendment (non-CTIMP) [SA]		11 June 2014
Research protocol or project proposal [Protoocl]	2	11 June 2014

Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at http://www.hra.nhs.uk/hra-training/

14/SS/0085: Please quote this number on all correspondence

Yours sincerely

[redacted]

Jo Mair
Chair

E-mail: [redacted]

Enclosures: *List of names and professions of members who took part in the review*

Copy to: *Ms Karen Maitland, NHS Lothian, Academic and Clinical Central office for Research and Development*
Miss G Norris,

South East Scotland 02

Attendance at Sub-Committee of the REC meeting on 18 June 2014

Committee Members:

Name	*Profession*	*Present*	*Notes*
Ms Joanne Mair	Portfolio Manager	Yes	
Professor Lindsay Sawyer	Retired University Lecturer	Yes	

Also in attendance:

Name	*Position (or reason for attending)*
Mr Alex Bailey	Scientific Adviser
Ms Joyce Clearie	Coordinator

University Hospitals Division

NHS Lothian

Queen's Medical Research Institute
47 Little France Crescent, Edinburgh, EH16 4TJ

FM/NM/approval

25 June 2014

Research & Development
Room E1.12
Tel: 0131 242 3330

Email:
R&DOffice@nhslothian.scot.nhs.uk

Director: Professor David E Newby

Ms Gail Norris
Edinburgh Napier University
Sighthill Campus
Sighthill Court
Edinburgh
EH11 4BN

Dear Ms Norris

Lothian R&D Project No: 2014/0205

Title of Research: Labelled "High Risk" Exploring perception of risk during childbirth in women with an increased body mass index > 35kg/m2

REC No: 14/SS/0085

Patient Information Sheet:
Version 2 dated 1 May 2014

Consent Form:
Version 2 dated 1 May 2014

Protocol:
Version 2 dated 11 June 2014

I am pleased to inform you that this study has been approved for NHS Lothian and you may proceed with your research, subject to the conditions below. This letter provides Site Specific approval for **NHS Lothian.**

Please note that the NHS Lothian R&D Office must be informed if there are any changes to the study such as amendments to the protocol, recruitment, funding, personnel or resource input required of NHS Lothian. This includes any changes made subsequent to management approval and prior to favourable opinion from the REC.

Substantial amendments to the protocol will require approval from the ethics committee which approved your study and the MHRA where applicable.

Please inform this office when recruitment has closed and when the study has been completed.

I wish you every success with your study.

Yours sincerely

[redacted]

Ms Fiona McArdle
Deputy R&D Director

CC Ms Fiona Mitchell, General Manager, Women and Children's Services, RHSC

HAD SCALE

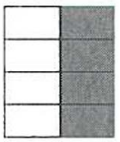
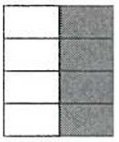
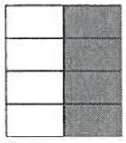
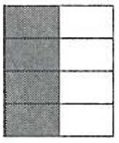
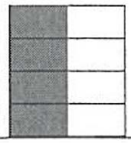
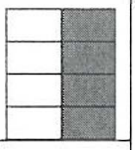
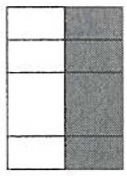
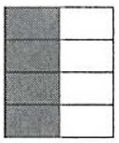
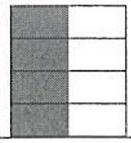
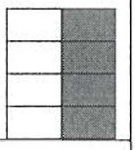
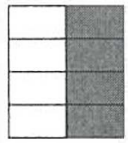
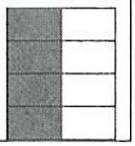
Name: ..... Date:.....

Doctors are aware that emotions play an important part in most illnesses. If your doctor knows about these feelings he will be able to help you more.

This questionnaire is designed to help your doctor to know how you feel. Read each item and place a firm tick in the box opposite the reply which comes closest to how you have been feeling in the past week.

Don't take too long over your replies: your immediate reaction to each item will probably be more accurate than a long thought-out response.

Tick only one box in each section.

I feel tense or 'wound up: Most of the time ..... A lot of the time ..... Time to time, occasionally. Not at all		**I feel as if I am slowed down:** Nearly all the time ..... Very often ..... Sometimes ..... Not at all	
I still enjoy the things I used to enjoy: Definitely as much ..... Not quite so much ..... Only a little ..... Hardly at all		**I get a sort of frightened feeling like 'butterflies' in the stomach:** Not at all ..... Occasionally ..... Quite often ..... Very often	
I get a sort of frightened feeling as if something awful is about to happen: Very definitely & quite badly Yes, but not too badly ..... A little, but it doesn't worry me. Not at all		**I have lost interest in my appearance:** Definitely ..... I don't take so much care as I should I may not take quite as much care I take just as much care as ever	
I can laugh and see the funny side of things: As much as I always could Not quite so much now .... Definitely not so much now Not at all		**I feel restless as if I have to be on the move:** Very much indeed ..... Quite a lot ..... Not very much ..... Not at all	
Worrying thoughts go through my mind: A great deal of the time .... A lot of the time ..... From time to time but not too often ..... Only occasionally		**I look forward with enjoyment to things:** As much as ever I did ..... Rather less than I used to ..... Definitely less than I used to ... Hardly at all	
I feel cheerful: Not at all ..... Not often ..... Sometimes ..... Most of the time		**I get sudden feelings of panic:** Very often indeed ..... Quite often ..... Not very often ..... Not at all	
I can sit at ease and feel relaxed: Definitely ..... Usually..... Not often ..... Not at all		**I can enjoy a good book or radio or TV programme:** Often ..... Sometimes ..... Not often ..... Very seldom	

Do not write below this line

A - (8-10) .....

D - (8-10) .....

HAD SCALE SCORE SHEET

		A		D	
		3		3	
		2		2	
		1		1	
		0		0	
	D				A
	0				0
	1				1
	2				2
	3				3
		A		D	
		3		3	
		2		2	
		1		1	
		0		0	
	D				A
	0				3
	1				2
	2				1
	3				0
		A		D	
		3		0	
		2		1	
		1		2	
		0		3	
	D				A
	3				3
	2				2
	1				1
	0				0
		A		D	
		0		0	
		1		1	
		2		2	
		3		3	

FOR PHYSICIAN/ NURSE USE Patients Name/No:

D (8-10) .....

A (8-10) .....

HAD Scores of over 10, change of duties and refer to OHP
HAD Scores of over 21, ask whether panic attacks have occurred.

Participant Information Sheet (12a) and Consent Form (12 b)

“ Labelled high risk”

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

You are being invited to take part in this research study which is looking at the perception of risk during childbirth in women with a raised body mass index (BMI) over 35kg/m^2. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to listen to the following information carefully and discuss it with others, if you wish. Please ask me if there is anything that is not clear or if you would like more information. Take some time to decide whether or not you wish to take part.

What is the purpose of the study?

Your BMI matters because your weight is closely linked to your long-term health. People with very low or very high BMIs tend to have the greatest health risks. People with an overweight BMI are at greater risk of a range of serious health conditions, including heart disease, diabetes and high blood pressure.

During pregnancy

If you are pregnant and have a raised body mass index (BMI) 30 and above then you are considered to more at risk than women of a normal weight of developing complications during your pregnancy and giving birth. This includes a higher risk of developing conditions such as pre eclampsia (high blood pressure) diabetes and caesarean section. For this reason you are considered “high risk” throughout your pregnancy.
Within Lothian maternity services if you have an increased body mass index (BMI) over 35 (class 11 obesity) you will be referred at the first booking appointment with the midwife to the hospital for consideration for Consultant led care. This means that rather than seeing the midwife only throughout your pregnancy you will also be closely monitored by the Consultant throughout your pregnancy journey.
Having a raised BMI may also affect the choices that you would like to make during the birth of your baby e.g. using a birthing pool during labour is not recommended.

A team of researchers at Edinburgh Napier University are interested in the personal experience of pregnant woman who at the beginning of their pregnancy have a BMI over 35kg/m2. This project is interested in YOUR experiences of being “higher risk” and how it affects YOUR pregnancy and birth. We are interested in learning more about your own feelings of being more at risk of complications developing during your pregnancy. This project will be running for the during of your pregnancy, approximately 9 months.

Why have I been asked to take part?
You have been asked to take part as you have a BMI over 35kg/m^2 at the beginning of your pregnancy.

Do I have to take part?
No, it is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason. Deciding not to take part or withdrawing from the study will not affect the healthcare that you receive, or your legal rights.

What will happen if I take part?

If you decide that you would like to be involved, you will take part in a series of three interviews with the first one taking place around 18 – 22 weeks into your pregnancy .The second interview will take place around 34 – 36 weeks into your pregnancy and the third interview will take place around 10 – 15 days after the birth of your baby. The interviews will take place in a location of your own choosing (at home if you wish). First I will ask you to complete a short questionnaire (approximately 5 mins). This questionnaire is the Hospital Anxiety Depression questionnaire that is used by Health Professionals to detect any underlying feelings of anxiety/ depression. Any feelings of anxiety /depression can affect how you feel about risks during your pregnancy. I can score your questionnaire immediately after you complete it. If the outcome of your questionnaire reveals that you are suffering from undue anxiety / depression then I would not advise you to take part and I would notify your GP/ community midwife of this outcome. I would also advise you to seek support from your GP / community midwife.
The interviews will concentrate on your experience of being at a higher risk of developing complications during childbirth. While there are a number of different areas that I am interested in asking you about, I'm hoping that you will communicate freely and openly about the things that are most important to you. Please try to be as honest as you can about your experiences and remember that I am not here to judge you in any way. I simply want to understand what being considered a higher risk is like for you. With your permission, I will record the interview on a digital voice recorder. This is just so that I can give you my full attention and so that I can type the interview up at a later date. This is a normal procedure for this type of project.

What are the possible benefits of taking part?
You may not get a direct benefit from taking part in this study but the results from this study will give a better understanding and deeper insight into what it means to be considered at a higher risk of developing complications during childbirth in relation to an increased BMI (body mass index).

What are the possible disadvantages and risks of taking part?
It is not thought that there are many disadvantages; however, it is possible that you might become upset due to the sensitive nature of the questions. Please remember that you do not have to answer any questions that you do not wish to. If you do feel uncomfortable, embarrassed or upset at any time, please just ask me to

stop. You are free to withdraw from the research at any time. This will not affect your future pregnancy in any way.

What if there is a problem?

If you have concerns about any aspect of this study please contact:

Gail Norris
Edinburgh Napier University
Sighthill Court
Edinburgh Napier University EH11 4BN
Tel: [redacted]
Email [redacted]

Who will do their best to answer your questions?
In the unlikely event that something goes wrong and you are harmed during the research and this is due to someone's negligence then you may have grounds for a legal action for compensation against NHS Lothian but you may have to pay your legal costs. The normal National Health Service complaints mechanisms will still be available to you.

What happens when the study is finished?

The study will continue for the nine month period of your pregnancy. Any data collected will be retained for the five year period of the PhD study. At the end of the research study all tape recordings and confidential information in relation to you will be destroyed.

Will my taking part in the study be kept confidential?

All the information we collect during the course of the research will be kept confidential and there are strict laws which safeguard your privacy at every stage.
With your consent we will inform your GP/ community midwife that you are taking part.
Study researchers will need access to your medical records to carry out this research.
To ensure that the study is being run correctly, we will ask your consent for responsible representatives from the Sponsor Edinburgh Napier University and NHS Institution to access your medical records and data collected during the study, where it is relevant to you taking part in this research. The Sponsor is responsible for overall management of the study and providing insurance and indemnity.
If you decide to take part, you will be asked to give a false name before we start the interview. We will refer to this name at all times. We will also change all of the names of the people and places that you refer to during the interview. All personal details (e.g. name, age, date of birth, address etc.) will be stored in a locked filing cabinet at Edinburgh Napier University so that no one but the researcher can access your details. With your permission, we will record the interview so that the researcher can type it up afterwards. The tape recording of your interview will remain within a locked

filing cabinet until the researcher has typed it up. It will then be deleted. Your details will remain confidential at all times.

What will happen to the results of the study?

Results of this study will be presented as a group .The results may be presented at relevant conferences and may be published in academic journals. However, all personal details will remain confidential at all times and we will only ever refer to the false name that you give at the beginning of the interview.

Who is organising the research and why?
Edinburgh Napier University are organising and funding the research as part of a PhD educational award.

Who has reviewed the study?
The study proposal has been reviewed by Doctor Adele Dickson and Doctor Zoe Chouliara. All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee. A favourable ethical opinion has been obtained from Lothian Ethics Committee. NHS management approval has also been obtained.

If you have any further questions about the study please contact Gail Norris on: [redacted] or email: [redacted]

If you would like to discuss this study with someone independent of the study please contact:

Dr Barbara Neades
[redacted]
Edinburgh Napier University
Sighthill Court
Edinburgh
EH11 4BN
Telephone [redacted]

If you wish to make a complaint about the study please contact NHS Lothian:

NHS Lothian Complaints Team
2nd Floor
Waverley Gate
2 - 4 Waterloo Place
Edinburgh
EH1 3EG
Tel: 0131 465 5708
complaints.team@nhslothian.scot.nhs.uk.

Thank you for taking the time to read this information sheet.

CONSENT FORM

"Labelled high risk"

Exploring perception of risk during childbirth in women with an increased body mass index > 35kg/m2 Appendix 12b.

Participant ID:

Gail Norris
Edinburgh Napier University
Sighthill Court
Edinburgh
EH11 4BN
Tel: [redacted]
E-mail: [redacted]

Please initial box

1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to consider the information and ask questions. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected. ☐

3. I understand that relevant sections of my medical notes and data collected during the study may be looked at by individuals from Edinburgh Napier University from the NHS organisation or other authorities, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records. ☐

4. If I withdraw from the study I agree to allow any data collected up to my withdrawal to be used for the intended purpose of the study. ☐

.

5. I agree to my General Practitioner/ community midwife being informed of my participation in this study. ☐

6. I agree to take part in the above study ☐

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Person taking consent	Date	Signature

1x original – into Site File; 1x copy – to Participant; 1x copy – into medical records

Appendix 13

Date: 13.7.15

Dear Doctor

Re: "Labelled high risk"

Exploring perception of risk during childbirth in women with an increased body mass index >35kg/m^2.

The above Individual has kindly agreed to take part in a research project entitled: "Labelled high risk" Exploring perception of risk during childbirth in women with an increased body mass index >35kg/m2.

This is a qualitative study exploring the personal experience of pregnant women who at the beginning of their pregnancy have a BMI > 35kg/m^2 at booking. These women and their babies are considered to be more at risk than a woman of normal weight in developing complications during childbirth. Some of these complications include thromboembolism, pregnancy induced hypertension, pre eclampsia, gestational diabetes mellitus, still birth and are at an increased risk of a caesarean section and postpartum haemorrhage during pregnancy and birth. The negative impact that obesity has on the baby includes babies who are large for gestational age, congenital abnormalities and increased admissions to neonatal units. Current Lothian guidelines " Obesity management during pregnancy and postnatally " recommend that women with a (body mass index) BMI> 35kg/m^2 are referred for consideration of Consultant led care and part of these guidelines also recommend that women receive discussion surrounding the increased risk of complications associated with a raised BMI . The study, given favourable opinion by [Lothian Ethics Committee ref number 14/SS/0085], is being conducted by Gail Norris Midwife Lecturer/ PhD student.

The purpose of the study is to explore these individuals perception of their risk during pregnancy and childbirth.

The above individual has agreed to participant in the above study which will involve a series of three interviews with the first one taking place around 18 – 22 weeks, 34 – 36 weeks and the last one taking place in the postnatal period 10 – 15 days after

the birth of the baby. The interviews will be taped recorded and transcribed verbatim and confidentiality will be protected at all times.

A copy of the participant information sheet is enclosed for your information. Should you have any questions regarding this study, please do not hesitate to contact me by email [redacted], or phone [redacted]

Yours sincerely,

Gail Norris

Midwife Lecturer

Edinburgh Napier University

Sighthill Campus

Sighthill Court

Edinburgh

EH11 4BN

Appendix 13

Date:

Midwifery Team;

Tel:

Dear Midwifery Team Leader,

Re: "Labelled high risk" Exploring perception of risk during childbirth in women with an increased body mass index >35kg/m^2

Name :

The above individual has kindly agreed to take part in a research project entitled: "Labelled high risk" Exploring perception of risk during childbirth in women with an increased body mass index >35kg/m^2.

This is a qualitative study exploring the personal experience of pregnant women who at the beginning of their pregnancy have a BMI > 35kg/m^2 at booking. These women and their babies are considered to be more at risk than a woman of normal weight in developing complications during childbirth. Some of these complications include thromboembolism, pregnancy induced hypertension, pre eclampsia, gestational diabetes mellitus, still birth and are at an increased risk of a caesarean section and postpartum haemorrhage during pregnancy and birth. The negative impact that obesity has on the baby includes babies who are large for gestational age, congenital abnormalities and increased admissions to neonatal units. Current Lothian guidelines " Obesity management during pregnancy and postnatally " recommend that women with a (body mass index) BMI> 35kg/m^2 are referred for consideration of Consultant led care and part of these guidelines also recommend that women receive discussion surrounding the increased risk of complications associated with a raised BMI . The study, given favourable opinion by [Lothian Ethics Committee ref number 14/SS/0085], is being conducted by Gail Norris Midwife Lecturer/ PhD student.

The purpose of the study is to explore these individuals perception of their risk during pregnancy and childbirth.

The above individual has agreed to participant in the above study which will involve a series of three interviews with the first one taking place around 18 – 22 weeks, 34 – 36 weeks and the last one taking place in the postnatal period 10 – 15 days after the birth of the baby. The interviews will be taped recorded and transcribed verbatim and confidentiality will be protected at all times.

A copy of the participant information sheet is enclosed for your information. Should you have any questions regarding this study, please do not hesitate to contact me by email [redacted], or phone [redacted]

Yours sincerely,

Gail Norris

Midwife Lecturer

Edinburgh Napier University

Sighthill Campus

Sighthill Court

Edinburgh

EH11 4BN

Appendix 14
Participant de-brief

"Labelled High Risk"
Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2

Thank you so much for your time and co-operation on this research study. The information you have given me has been most helpful. Should you have any questions or concerns about anything that you have said or discussed today please do not hesitate to get in touch with one of the following people?

GPS Name :

OR :

Community Midwifery Team:

These contact details can also be found in your hand held maternity records.

Thank you again- your help is much appreciated.

Gail Norris
Edinburgh Napier University
Sighthill Court
Edinburgh
EH11 4BN
Telephone: [redacted]

(Appendix 15) “Labelled high Risk “Exploring perception of risk during childbirth in women with an increased body mass index > 35kg/m^2.

Interview Schedule

Interview one – 18 – 22 weeks. (Normally fetal anomaly scan takes place around now).

1. Tell me about your pregnancy so far / what are your expectations of this pregnancy/ do you have a specific plan of birth?
2. The midwife at the booking clinic has discussed the risks associated with pregnancy and your increased weight (BMI). What did she say? What do you understand by the term high risk?
3. You have been referred to the Consultant Obstetrician/ metabolic clinic/anaesthetist for your care rather than just the midwife .Do you understand why? How do you feel about this?
4. What does this mean to you to have your pregnancy referred to as high risk?
5. How would you describe yourself as a person? Happy / anxious/moody? Does being referred to as high risk affect your mood?
6. Has being referred to as high risk made a difference to how you feel about your pregnancy/ baby?
7. Does being referred to as high-risk affect your relationship with your partner/ family / friends?
8. How did you feeling going for your 20 week scan? What were you expecting from this scan?

Interview two 34 – 36 weeks

1. Has your pregnancy gone the way that you would have liked?
2. What other health professional has mentioned risks associated with obesity in pregnancy?
3. Has you high-risk pregnancy affected your everyday life?
4. If I asked you to define the term risk, what does it personally mean to you?
5. Do you personally see yourself as high risk? What does your partner/ family friends think?
6. What are your thoughts around giving birth?
7. How has being referred to as high risk altered what you would have planned for your birth?

8. Do you think about life beyond giving birth? (Clarify if required – does being referred to as high risk during this pregnancy motivate you to lose weight postnatally?)

Interview three – postnatal 10 – 15 days.

1. Reflecting back on your pregnancy what did you think high risk meant?
2. Did you see yourself as being high risk?
3. In relation to high risk how much did you think about your own health and health of your baby during pregnancy and giving birth?
4. If you had any complications / Health problems would you say any of these were related to your weight?
5. How would you describe your relationship with your midwife? Did you openly discuss risks with her? Did you discuss risks with any health professional?
6. If yes how helpful was the information? How would you have liked to have seen the information in relation to risks and increased BMI delivered?
7. Describe your pregnancy and giving birth. Did it meet your expectations?
8. Describe your feelings going into labour knowing you were high risk (emotionally/ mentally)
9. Only if appropriate (why did you think you needed the C/S or forceps/ ventouse?
10. So how did she feel when you had to go to theatre- what were your worries? What factors do you think might have led to you needing a C-section? Could you have prevented it in any way?
11. Then looking back, what would you do differently?
12. What advice would you give to other overweight women who are trying for/expecting a baby?
13. Looking back over your pregnancy and delivery, what are your thoughts on obesity and risk now? If you had to pinpoint any risk factor, what would you say caused you the most risk during the pregnancy and why?
14. Are health professionals right to be concerned about overweight/obesity in pregnancy? If so, why? If not, why not?
15. How much did your care during pregnancy and giving birth vary from what you had expected? How did you feel about your care that you received? Did anyone discuss choices available throughout your pregnancy and birth?

Linguistic descriptive Conceptual

Appendix 16

G: Alright [redacted] so that's you at 34 weeks now/

[redacted]: Yes. So basically I had, Wednesday I got up and I never felt the baby moving all day so I went up to. Well I lay on my left side first of all for a few hours, still nothing. Drank my can of coke and I never felt anything so I phoned them and they said just come up. So, they put him on a heart rate monitor and his heart was fine, and then, they did a scan to check the amniotic fluid, which they said was fine. Then they told me to come back the next day for my growth scan because they were worried that the baby was small. So I went back up and basically they found out that he's very big. His head is measuring at 37 weeks and his body is measuring at 40 weeks but his legs are only 34 weeks. (LAUGHS)

G: (LAUGHS)

[redacted]: So I don't know what's happened to him. They asked me if my partner was tall and I said that he is not tall, he's just a bit, he's a bit taller than me but just a couple of inches really. So they took bloods for, to check for gestational diabetes. They asked me if I had my bloods done at my midwife, which I had, 5 weeks, I'm due to see

Does not sound upset

Does not sound upset

She does not use the term midwife

Does she feel that she is not in control here

Laughing

Refers to midwife as them

There is no relationship here

her tomorrow but she had done them 5 weeks ago and I hadn't had the results back but triage checked them and they said they were fine but they did bloods again last Thursday and I phoned them this morning to see if they were back and I don't have diabetes so that's good. They said it was 3.9.

Sense of relief that does not have diabetes

Was she worried that she did have diabetes ?

Relieved ?

G: Mmhmm. Right

[redacted]: So. That kind of put my mind at ease a bit but, I was thinking about, see when, see after they had taken the test. Even without knowing the results. I then started criticising myself in my head for all the takeaways that I've ever had while I was pregnant and the biscuits that I've eaten and thinking, I went through my full price thing and went I really should have eaten better. I really should have/

Emotional impact – self blame

Seems to be blaming herself for what she has eaten

Is she feeling some shame and self- blame ?

G: Mmhmm

[redacted]: Aye, I just without even knowing/

Emotional Impact- self blame

G: What made you think like that? What's?

So she is aware of the risk of diabetes in relation to her weight !

[redacted]: I think I kind of felt that because it might be diabetes. That I had brought it on myself through my diet.

Self – blame

42 G: Right.

43 [redacted]: And I just started thinking, oh I shouldn't have been

Emotional consequences – self – accusations, self blame

44 having those takeaways and I have been having a bit

45 extra tea in, a bit extra sugar in my tea because when I

She is being critical of her dietary lifestyle. She knows that she should not have eaten the biscuits and the sugar. Know it is wrong

46 started drinking it again. I was really enjoying it and I was

47 thinking oh a bit of sugar and then I started, I was just

48 going through, aye I was criticising myself in my head.

Consumed by guilt, self – blame

49 G: So did you then start to associate your increased BMI

50 with the risks associated with increased/

51 [redacted]: Yeah.

So she is aware of associated risk !

52 G: In your head?

Demonstrates awareness of risks associated with her BMI

53 [redacted]: So I already knew, obviously because I was overweight

She has made the association between her weight and diabetes as a risk. She appears to be taking some responsibility here

54 before I got pregnant. Interestingly enough as well, I was

55 looking back at my notes to see about my weight and,

56 because I had been reading, I think it was from a couple

57 of weeks ago. You put on a pound a week.

58 G: Yes.

59 [redacted] And half of that goes to you and half of it to the baby.

What exactly does she have in her head ?

60 So I had that in my head already. But everybody,

61 everybody that sees me apart from the bump obviously

She has made the connection with her BMI and large baby. Is she blaming herself for a large baby ?

62 says that you look like you've lost loads of weight and I

63 don't see it obviously because I just see this. But I looked

64 back and I was at my first booking appointment I was 16

65 stone 6, I think, and I weighed myself, yesterday, and I'm

66 just under 17 stone.

67 G: Oh because/

68 [redacted]: So I had put on/

69 G: They say, yeah/

70 [redacted]: So I must have lost weight in the first bit of it I think.

71 G: They say, I have read that you should be looking at

72 about a stone, 1 stone 6 pounds, to put on, in total.

73 [redacted]: So I think I've probably done not bad at all.

74 G: How does that make you feel?

75 [redacted]: Aye, it makes me feel I am interested to see what

76 weight I'm going to be when he comes out. (LAUGHS)

77 G: (LAUGHS)

78 [redacted] and once all the fluid and everything goes away I think,

79 aye that made me feel a bit better but then I was thinking.

80 Is that really bad have I starved him then in the first 3

Consumed by guilt, blame for her size

She is influenced by others comments. What does she mean by this

Appears disgusted by her appearance

Appears weight conscious. Happy to have not much weight on

Appears happy here

Them versus me relationship

Never refers to health professionals by name

Self – congratulating. Sense of control

Self-congratulating

Full of anticipation

Thinking about the well - being of her baby

Self- blame , what has she done to her baby

months when I've not been eating, and you do aye it was just terrible I just started thinking to myself, oh this is my fault and he's going to be born big and I just started worrying more about the labour. Which I was already worried about just in general because I've never given birth before. And I said to the junior doctor I think she was. On the day I had gone back on the Thursday to get the scan and I said, I was like, because they didn't seem overly, I mean they seemed, they were like aye he's big but they didn't seem overly worried, and I'm saying to her. Are you not worried? That he's like the size of a full term baby now and I'm only 33 weeks. And she just looked at me and she went, well you know she said, women do give birth to 10, 11 and 12 pound babies. And I was, I was thinking. Aye, but I don't want to do that for my first baby. I was just a bit like, she was saying it like. Yes this is just a normal, some babies are big, and I'm thinking. No how can a ten pound baby come out of me? (LAUGHS)

Worried for the health of her baby.

Consumed by guilt ! What has she done, self- blame

Having a big baby has added to the worry of giving birth

Lack of relationship between herself and health professionals

Refers to health professionals as they

Making a size comparison here to a large baby

She is consumed , with guilt, She did this

Worrying about her giving birth, but not the health of the baby

G: There is, there is an error of miscalculation.

[redacted] Aye and, do you know most people I've spoken to have said, Oh they told me my baby way big when actually they

Refers to friends and family stories

102 were only 6 pounds and I think in my head, I calculated

103 the size to my weight. Which was of course is more/

104 G: Do you feel yourself it's a big baby?

105 [redacted]: No.

106 G: No, so.

107 [redacted]: I feel, I feel like my bump is, a lot of it is baby like there

108 is, I can definitely, I've been aware of where he's lying, for

109 ages and ages, I know, I could tell his feet are here. I feel

110 big strong kicks and his bum, and his back. I didn't realise

111 though that his heads a way down here. I thought his

112 head was over here. I think he moves about up here. But.

113 No I don't feel like he's/ massive

114 G: (LAUGHS) Cos that's what we say when we train

115 midwives and that. That you go by what you're feeling,

116 and go by what mums telling you.

117 [redacted]: Aye rather than the instruments because they are

118 trying to get a snapshot at that time. So you can see them

119 trying to get it and trying to get it. So I've to go back,

120 basically to go and get monitored. Twice a week now on a

121 Tuesday and a Friday <u>they said,</u> on a Tuesday I've to go

She is starting to panic about the size of the baby

So she herself does not feel that it is a big baby

Concerned how she appears to others. Pregnancy justifies her size

Trying to justify her size by her pregnancy and size of the baby

Aware of her baby – bonding . Does not feel big to her

She knows her own baby

She knows her own baby .

They said !

Relationship with health professionals. Them v me

No relationship here

up and get the heart rate. I can't mind if they're doing the scan on the same day but basically twice a week the heart rate's getting monitored, and, once, once a week the amniotic fluids scan. And then in 3 weeks they'll give me another growth scan. So I've kind of, now I've got, and they've not said this to me. I need to ask them to get it out my head but now I've got it in my head that when I go in there in 3 weeks they're going to say, this baby is too big and he's to come out of you now.

Recalling her plan of care over the next few weeks

Is this close medical surveillance panicking her. Does she fear losing control ?

Excessive thinking about giving birth to large baby – losing control

G: How would you feel if they did say that?

[redacted]: I think. I think I'm kind of preparing myself. For them saying that for some reason and I think that's what's made me think about stopping my work early. Cos I, cause I kind of realistically think that if they have got their measurements right. He might come early anyway if he's that size. Maybe, maybe my body and he will decide that's them cooked enough.

Losing control here !

Is She is thinking that they are going to suggest a C/S because of his size ?

She is starting to feel that she is losing control here

G: (LAUGHS)

[redacted]: (LAUGHS) And out, and out you come. That's you, you're fully grown. The other part of me is thinking, I feel a bit panicky, thinking he's that big, they're going to leave

Losing control of her birth

Feeling panic and out of control

me to full term and that I'm not going to be able to deliver him.

Now feels that she cannot deliver her baby

Losing faith in her ability to birth her baby

G: Aye. Go back to how you were feeling about when you were starting to think about the risks and the fact that he was a big baby. Go back; describe your feelings a bit more

[redacted]: So I was kind of thinking, a lot of it I was thinking was to do with my diet. That actually, somehow I had caused it. I didn't, there was bits that didn't match up for me though because, and I still in my head believe this is what happened. Basically the night before. The night before I stopped feeling him moving. I had woke up in the middle of the night. With really bad cramp in my bum, which I've never had in my life before but it was like a massive, both sides of my bum and I remember saying to Danny, I jumped up out my bed, which was agony because you can't move fast/

She is linking her diet to the size of her baby

Feeling guilt and self- blame . She did this to her baby

Over consumed by guilt for her baby's size

Feeling confused by events

G: (LAUGHS)

[redacted]: (LAUGHS) And I was like ahh. And because the cramp was so bad, I was saying. You need to rub my bum; you need to rub my bum. And I'm wondering if what's

happened is he has moved positions and I did ask them about this. He's kicking into the back of me as opposed to out the front more rather than all of a sudden he's giant. Because to me, his movements were really, predictable, and like honestly, I could like, I could go like that and he would kick me, if I was sitting on my phone like this, he would be saying, no you're squashing me, get off me. All these things that just stopped happening within the space of a day. So I'm, I kind of thought, either that panics me that there is something really wrong here. That he's not moving. And then it wasn't until later that I thought, but I did wake up with that like, something had happened. I don't know. Cos I kind of thought he'd changed positions but then I just started, Aye, I just, All started going through my head about, I've not eaten as healthily as I should have eaten throughout this pregnancy and like in my head thinking, half of that, half of that was, just me being too tired or too lazy or whatever after work. To eat as healthily as I could have. And thinking then that I've, then 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. So just, just this

She knows her own baby

I am his mother ,My baby. Relationship. Bonding with her baby

Bonded with her baby

Realises that her baby is not moving about as much

She is starting to relate her size and diet to harming her baby

Over consumed with guilt , relating her diet to her baby's health

Self -accusations - My fault – I did this to him . Self- blame

Feeling responsible for her baby's health

What have I done to my baby. I did this to him !

kind of, catastrophic thinking, just went, spiralling, spiralling, spiralling, thinking. Oh that's it I've done this to my baby.

She is blaming herself for her baby not moving

Self- accusations of blame

panic

She is consumed with guilt. She has no control over any of this now

G: And what, what about your husband, is he, did you speak to him about it?

[redacted] Aye. I never really spoke to him about all the, I said to him about the healthy eating thing. But he, he, he said that his perception was that actually I had eaten quite well. And when I think back to the, certainly when I think back to the first part of my pregnancy. Practically the only thing I could face to eat was fruit at the time. Aye I could have lived of fruit for a fortnight, fruit and crackers or something. So his, I think he had a better perspective on it than me. I think he could look a bit more objectively at it and he was saying aye you have had takeaways. But. Actually I've had ate less crisps and chocolate since I've been pregnant probably more than I have done in the last ten years of my life, and that's not been a hugely conscious thing. That's just been, I've not wanted, my bodies not wanted it the same as I would have wanted it before. So objectively, not, it probably hasn't been as bad as it was in my head. And he, he's just kind of trying to

She is having conversations with her husband with reds her diet and eating habits.

Panicking. Knows the connection between her diet and large baby. Full of regret.

Having conversations with diet with husband. Looking for more positive answer though

Excessive thinking about diet, Self-accusations of blame.

Consumed by guilt. Knows diet has not been good.

Lack of relationship with the midwife

reassure me. Although it, it was hilarious listening to him when he was telling his parents and that. He was just making up stuff that the midwives had said to us.

She has mentioned midwives – first time

G: (LAUGHS)

[redacted]: (LAUGHS) Honestly He was like saying; I can't mind what I heard him saying. I was like; no they never said that at all Danny. (LAUGHS) He had, what was it he was saying? Oh he was, which must be a bit of his fear as well, he was telling them, he said so if he was born now. He wouldn't need to go to a neo natal unit. Is what, that's what he was telling folk but nobody had ever even spoken to us about that?

Feeling of the loss of control . Recognising partners fear too

She is recognising that her husband is fearful of the present situation – big baby and reduced movement

Recognizing that this is out of both their control

G: So you think deep down he's quite fearful?

[redacted]: Aye. I think he is. Because. The fact that he, he's kind of made up that story in his head. Thinking because the size of him is full term that, that means he'll be fine, and that's obviously what I was thinking, that's obviously him reassuring himself in his head. Cause he's big he will be alright.

Partner is fearful of the outcome

She is recognizing that her husband is feeling stressed.

G: Mmhmm. I think you were you fearful at all about this at all? What's your thoughts?

Fearful now of a complicated birth

229 [redacted]: I'm more fearful about the giving birth, and thinking. But
230 I, but that's more for my pain perspective. I'm not,
231 because I know now that I've not got the diabetes. I'm not
232 so worried about the health things at all I just think well, if
233 he is a big baby. He's just a big baby. But it more worries
234 me about, complications for birth, thinking, if he's too big
235 for me to get out. Does that mean then that I'm going to
236 be at more of a chance of an emergency caesarean? I've
237 got it in my head, thinking, should I ask them about being
238 induced earlier, or, like taking me for a caesarean as
239 opposed to it being/

She seems to be relieved that she does not have diabetes. She is becoming fearful of giving birth with a big baby. Preparing for the worst-case scenario.

Feels that she has lost control

Wants to take control back of the situation

240 G: Emergency?

Panicking about birth complications

241 [redacted]: Emergency. I start, I've started kind of, I've made it up
242 in my own head a bit that in 3 weeks I'm going to get this
243 growth scan and somehow, these will be my options.
244 (LAUGHS)

She is starting to pre- empt what is going to happen

Starting to worry more about labour

245 G: (LAUGHS) What, what about, what would you like to
246 happen?

Refers to friends and family for information

247 [redacted]: Aye I know, I've been thinking about it, thinking. For
248 what folk. For what folk have told me about getting
249 induced, it's not a good way, it's not a, well it's not the

Thinking about labour. Talking to friends about induction

Listen to her mothers experience of childbirth

best experience. Folk have said as well. And my mum was telling me she got induced with the twins and that basically the labour was a lot, she must have went through several things I'm guessing until she got, I don't know what it's called but the drip.

Looking to her mother for advice

G: The syntocinon drip?

[redacted] She said that just brought on the contractions too quickly and it was too sore and she didn't/

G: Yeah. You've no got a natural build up.

Fears birth of large baby- losing control

[redacted] Exactly, so that, that, that process kind of worries me a bit although from being, I've just finished the ante natal classes so she was explaining, like induction, as kind of <u>like different levels of things they can do</u> and that doesn't put me off quite as much. But I do worry about, how I would cope, delivering a big baby. Which makes the idea of thinking that a planned caesarean is less pain, well, it's not obviously there is after things that's painful but, well I don't know, more painful, it's painful, <u>but thinking, is that safer than struggling through a really long labour that, that's, I might not get him out and end up having to have</u> an emergency so I, I don't know, and the other, there's

Worried about induction of labour

Who is in control here ?

Worrying about giving birth to a big baby

Fears safety of giving birth to her baby

Fear of safety of baby

Maternal need to protect her baby

Fear of losing control of her birth

She has lost faith in her ability to birth her baby

Fears the safety of her baby

They are now controlling her birth

another bit of me that thinks, he's safer in here for longer, so I think, I feel like, if they would let me carry him longer, and then give me a caesarean. I feel like that's better than bringing him out early by getting induced. But I don't have (LAUGHS)

G: (LAUGHS)

[redacted]: I don't have any knowledge to back that up. I've no idea if that's the case or not.

G: So. By choice would you, would you prefer an elective caesarean section?

[redacted]: By choice, if that was the options, I think I would ask to go, nearer my due date, I would ask to go longer and have a planned caesarean than be induced early.

G: And if/

[redacted]: Because I feel like he's safer in there for longer.

G: And what if labour started on its own?

[redacted]: Yeah that's what I thought; I've been thinking that as well. Right but what happens then if they leave me, and I go into labour on my own and then I have to, try and deliver him. Yeah I think I'm just go, I think I'm

Wants to protect her baby

Strong maternal instincts bond to protect her baby

She is starting to relinquish control

Would prefer not to be induced

Has she lost faith in giving birth vaginally

Fears that her baby is no longer safe inside her

Now questioning the safety of her baby- lost faith in herself

She is not feeling part of the decision making

She is losing control here

Feels that she has lost control

just going down a road that's going to end up in an emergency caesarean. And I started; my sister gave me a load of hypno birthing stuff which I've not even listened to yet. So I spent yesterday uploading that onto my iPod and everything so that I could start with that and I was thinking, that was going through my head as well I was thinking, I'm not even going to have the hypno birthing to fall back on I'm just going to have nothing and I just felt. All of a sudden like that, I'm just totally unprepared for going into labour. Just like Oh my god panic

She feels like this is all going to end in a c/s anyway

Fear of birthing a big baby- lost faith to give birth naturally

Fear and panic over giving birth

She is starting to feel that this is not going to end well

Fearful and feels a loss of control

G: Do you think you would have felt any differently if your scan had said he was, he's/

[redacted]: small

G: Uh huh

[redacted]: Aye I know, I don't know.

[...]

[redacted]: I, this sounds ridiculous but it would have probable, it's not more reassuring than, but I feel like I might be less worried. Even though it's probably equally as bad, or worse probably for, the baby to be smaller. But. And this

Estimating her own risks now

She feels that she would be less worried if he was a small baby

She is equating a large baby with more risk. Estimating her own risk

311 isn't logical. But it wouldn't add. It wouldn't have added to

312 my concerns about going through labour if I thought he

313 was small. I'm not saying the smallness would have

314 reassured me because I would have been worried about

315 why he was small and why he was wee and why he

316 wasn't growing and actually no I would probably have still

317 blamed myself for not eating properly if he was small. I

318 would think well I've no ate the proper things to bulk him

319 out enough or something, so probably the same things

320 but without, without the added stress of how difficult is the

321 labour going to be now.

322 G: So/

323 [redacted]: That would be the bit that was different I think.

324 G: So if I go back again and one of the very first things I

325 asked you at the very first interview was your definition of

326 your high risk and what did you think I meant by high risk.

327 Has that changed now or

328 [...]

329 [redacted] I don't know.

330 [...]

She is excessively thinking of her big baby. Her thoughts are in turmoil

She is feeling that this is her fault because of her diet

Feels a strong sense of guilt and blame

She is starting to think about giving birth

Fearing the birth of a big baby

Can't decide if she is at risk

Confusion over risk status

Guilt and self –blame for what she has done to her baby

Stressing over the implications of giving birth to a large baby

Undecided /Confusion over high –risk status

She is trying to understand the associated risks

331 [redacted]: Maybe logically no. But emotionally yes. So

332 logically I'm thinking. No it might just be a big baby.

333 But then, I don't know if he's bigger because I was

334 bigger. I don't know if there is a correlation between

335 me being bigger and him being bigger.

She does sound confused

She is starting to think about a connection between her BMI and the big baby

Dismisses any association between her weight and the baby's weight

336 G: Well/

337 [redacted] I think there is/

338 G: There is uh huh.

339 [redacted] I think I read that. That there is, so. But. Whether

340 that's higher risk than being a wee baby I don't know,

341 and thinking. The doctor kind of responded, women

342 give birth to 10, 11, I don't want a 12 pound baby.

She has read that there is a connection between her weight and the weight of the baby

She is denying her risks, she knows that there is a risk but doe not believe it

She acknowledges the response from the doctor

Medical staff trying not to scare- playing down the risks

343 G: (LAUGHS)

Are the health professionals highlighting the risks enough ?

Feeling very stressed and anxious about birthing a large baby

344 [redacted](LAUGHS) Do you hear me? There is no doubt about it

345 I do not like that prospect in the slightest.

laughs

She clearly does not want to birth a big baby

346 G: (LAUGHS)

She is now making the connection with her weight and that of the baby. Recognising the risks

347 [redacted]And I suppose in that sense yes, in that sense it

348 has changed because, well, that is the risk, I was

Now she is acknowledging the connection between her weight and the baby's weight

Risks are more real now that she has experienced a complication

She can see the risks but not convinced that she accepts them

more overweight, he's bigger, therefore the birth, is potentially more complicated now.

G: So would you say you accept that as a risk now?

Associated with the higher BMI.

She is now acknowledging that there is probably risks

[redacted] Yes, probably.

Reluctant to accept the risks

G: Did any other health professionals anywhere throughout your pregnancy ever mention your increased risk of a bigger baby, caesarean section?

No reference to risk made by health professionals

[redacted] No.

She is acknowledging that health professionals do not talk about the risks

Confirmation that lack of risk discussion by health professionals

G: No. Increased BMI?

[redacted] No.

G: Nobody else has mentioned anything at all?

[redacted] No. It's never been spoken about.

She confirms risks are not spoken about about

Risk has never been communicated by health professionals

G: How does that make you feel? It's never been spoken about.

Feels isolated and vulnerable

[redacted]: I, I kind of feel, I mean you don't want, I, I was saying this to Danny, It's, I kind of feel you're kind of left a lot to go through your pregnancy like obviously until last week. I've had very few dealings with anybody to do with the

She is feeling left in the dark

Feeling very alone and vulnerable

pregnancy. And things like, I thought, I thought for some reason I would have been more, cushioned by the midwives or something. So things like, things that I just thought would happen that I've actually had to do myself, have surprised me. Things like I, I got my own flu jab organised through work. I arranged for my own whooping cough vaccine, those things weren't discussed with me. What was the other thing you were saying about? The two things. My mat B form I was meant to get it 27 weeks after and I never got mine until 2 weeks ago or something when I phone up and asked for it, and I kind of think at my appointments. I think because the midwives are so pushed for time, and you can see it because there is always somebody else waiting, I don't know how long they get for appointments. I think she said something like 20 minutes or something. I think realistically there is not enough time in those appointments for them to go through, I suppose for them to give an individual service that they would probably want to give. Because whenever I've asked questions. My midwife's brilliant but I just think that they've got to do the checks, like the physical checks to make sure everything's fine. And that's, really,

Felt that midwives were uncaring , felt that she would have felt more protected

Feeling vulnerable

Lack of individualised midwifery care received

Busy midwives

Midwives too busy for caring

Lack of individualised care, time restricted

Physical needs met but psychological needs avoided

Likes here midwife, but aware that she is too busy

Midwifery care addresses the physical aspects but what about the psychological aspects

that's what they need to cover in that session so there probably isn't enough time for all these other things. So I kind of feel that a lot of that's been left up to me to read about or find out.

G: How does that make you feel/

[redacted]: More about/

G: That it's left up to you.

[redacted]: I suppose I wished I had been, I probably wished I had been spoon fed a bit more information than I have been. I do sometimes wonder when folk find out you're a nurse that they think you know more than you do. I even, I seen it when I went up to the physio at the royal because, I could, because I was having great difficulty turning myself in my bed without all the pelvic pain and actually she ended up, she was brilliant she showed me like, just things like to hold in my pelvic muscles and it's made the world of difference, but, she talked to me totally normally. Until she got to the question, what's your job title, and I said advanced nurse practitioner with mental health and she started stammering and couldn't. She was like I don't know how to spell the word practitioner and I was like,

Expresses that information given during pregnancy was inadequate

She is describing her experience of being a patient

Feeling very vulnerable

Being a health care professional herself, actually created a barrier when she was receiving care

Feels that her position as a health practitioner was a barrier to her care

don't worry I forget it all the time. But I think that, is in the back of folks minds so they maybe don't give you as much information and I know, I do a carers group at the hospital and there's a man who is a consultant, who has a son who has mental health problems and he says it as well. He says, he says I think folk are frightened to talk to me because I'm a doctor, and so they don't offer me the same support. I think there's a truth in that. I think if folk see that they think, oh she's clued up on it or, and to an extent I do know where to go for information. I can do that but at the same time you think well this has never happened to me before I would like people to look after me a wee bit, but, I mean she did at the first appointment, she did say to me about the metabolic clinic and did I want to go. And I kind of decided, I decided I didn't want to go because I thought. I know all the things about healthy eating. I don't want to, start being monitored from the start of my pregnancy because I think once you go down that route, I think it's harder to get back down a midwifery led route and the more you're being monitored the more they can pick up, things that might have progressed fine anyway.

Wants to feel cared for and protected

Knows what a healthy diet is, letting us know that she is in control here

She admits that she knows what a healthy diet is but chooses how she uses this information

Wants to avoid any medical intervention

Acknowledges that if your being monitored it can lead to interventions

Wants to avoid surveillance /Wants to be in control and avoid medical intervention

Happy to accept surveillance and monitoring closely for reduced fetal movement

G: So how, how does it make you feel now that they want you back every 2 weeks?

[redacted] I'm no, I'm not quite sure what, well she explained to me, they're basically, they're just wanting to make sure the baby will be fine but they don't want to miss that baby who's movements change. But I think the reason that they monitor. But I do want to clarify it is because the movements changed. And the movements are definitely still different, that's, without a doubt, but, he has been moving since after that day which is the main thing but, there's something about me suddenly having to adjust to this baby that moved one way for my full time that I've felt him move to now that he moves a different way and that's psychological, that's really difficult to get used to. And. I feel like, I feel like the more I'm on the radar, but I, the more, they might, they might pick up things that are wrong? But I do feel a bit more reassured thinking, I'm glad they know he's big now, and that actually they'll be. Well hopefully there's a bit of me that thinks, they'll look after that bit now, and they'll kind of direct me or offer me suggestions as to, what I should do if I need to change anything. As in, if they are going to say, we thing you

Wants the reassurance that all is ok with the baby but is now frightened that the more she is monitored that they will find something else

Feels more reassured with medical surveillance but still wants to be included in the decision making

Fears for the safety of her baby and welcomes medical surveillance now. Putting her trust in medical staff

Reflecting back on the consequences of not detecting a large baby

should, get induced early or, we want you to think about a caesarean, whereas, if I hadn't ever gone. That wouldn't have been picked up, because they wouldn't have done another growth scan. If everything had been going along normally. They wouldn't have done another growth scan and then it goes in my head that then I would get to labour and I would be trying to push out a 12 pound baby (LAUGHS)

Is feeling relieved that her big baby has been detected, rather than go into labour and find out then

G: (LAUGHS)

[redacted]: I think, do you know?

G: Does it make you feel safer then?

[redacted] Yes.

Feels safer with more medical surveillance

G: Yes.

Feels safer with more medical surveillance, but knowing now frightens her

[redacted] I think it does make me feel safer. I'll see what they say after the next growth scan (LAUGHS) Whether I feel safer but it does, aye, a bit reassured, there's part of me that, I don't know, there's part of me that still wishes I didn't know. Because I think that's got an influence now on how I, I feel worse and more frightened about labour, and if I didn't know, and actually women do give birth to 10 and

The fear of knowing that she has a large baby

Now in fear of giving birth to a large baby

11 pound babies, that actually that would just have been my experience and, and the birth might have been perfectly safe and normal and natural. And I would have done my hypno birth and, the baby might have come out and now I think, I think it's put an extra worry into me, about the size. The physical size of this thing coming out of me. Which I was worried about anyway. I think it's increased that and I don't think that's good for my labour.

Part of her would have liked to not have known the risk of a big baby as she will now worry excessively

Wants to deny the risk

G: Does it make the risk any, when I, when I, when you look back and I first spoke about you being high risk does that make it any more, does that make it more real now? When you've read about the association between a higher BMI, a bigger baby does that make/

[redacted] Yeah/

G: The risk more real now in your head?

[redacted] Definitely.

Having to recognise the risks now makes labour more fearful

G: Yeah. How does that make you feel?

[redacted] I feel torn about it, because. I feel that the risk could increase because of my perception of the risk. Does that make sense? So because I'm more worried about

Now that she knows the risks she will worry excessively and that again might increase her risks

Is she trying to ignore and deny the risks?

the birth, that could cause me to be more tense during labour, which could then lead to more complications. Because if I can't. What I want to do is be able to relax in the labour and breathe through it and blah de blah de blah. But now I think, because I've got that risk. Or that sense of increased risk in my head. That's affected my level of fear about the birth. Which I think in itself could add to complications

G: Now that increased fear of risk now is that only been because of when you've had the scan or/

[redacted] Yeah.

G: Was it because I'd mentioned it earlier on. Was it the scan that/

[redacted] No it/

G: made it more real/

[redacted] It's the scans made it more real thinking he's, I've just got it in my head now he's massive.

G: (LAUGHS)

[redacted] I'm sure he's not massive, and he's not, there's nothing to say, the weight of him or whatever is big, I don't know

The evidence of the scan has now impacted on her perception of risk

Her scan has made it all seem more real now

Not that the scan has detected a big baby, it is more real now

She is now worrying excessively about the birth now that she knows that she has a large baby

515 I've just got it in my head thinking that the births going to

516 be more complicated. Which may be the case but it may

517 not be the case but the fact that I think it is, I think makes

518 it more likely to be complicated. Which I'm no very happy

519 about, but at the same time I'm happy that they're,

520 monitoring it, and that if there is a real risk, as in there is a

521 real concern that maybe the baby won't come out of me

522 that actually they are aware of that, and it can be more

523 planned. But I don't know if those are. Real options or not.

524 I don't know if I'm just telling myself that in my head to

525 make me feel better. Thinking oh they'll not let me push

526 that baby out if it's too big. (LAUGHS)

527 G: (LAUGHS)

528 [redacted] But, do they know, I don't know if they know the

529 weight. Can they tell me what weight they think it is?

530 G: They can do an estimated weight/

531 [redacted] Can they?

532 G: They probably have done an estimate.

533 [redacted] Oh I just don't know.

534 G: No all right/

Realises that there are risks now, associated with a large baby- causing utter turmoil with her thoughts

Feeling of fear , in recognition of the complications of giving birth to a large baby

She appears to relinquish control of her birth to medical staff

Happy to relinquish control of her birth

[redacted] Oh right okay.

G: Did they mention?

[redacted]No they never mentioned/

G: They can do an estimated weight but there is a margin, there is a margin of error in the estimated weight. But unfortunately a lot, that's where a lot of decisions are made is round about the estimated birth weight/

[redacted] And the other thing she did say, she said, when I was, well I was 33 weeks last week, she said my uterus was measuring 36 weeks/

This is the first indication that she has, that she is measuring larger than her dates

G: Right so/

[redacted]So it's bigger/

G: It is kind of bi/

[redacted]And it's been, it was like an, an inch, or a centimetre. I think it's been a centimetre longer than my week. And they were saying to me, they were saying, is your dates right? But my dates are, I know my dates are definitely right because I was monitoring it closely.

553 G: How did that make you feel when they said, when even

554 like abdominally you were measuring 3/

555 [redacted] Bigger.

556 G: Bigger?

557 [redacted] Aye that's made me think oh he's bigger and he needs

558 more room, or/

559 G: Did you start to make connections about being higher

560 risk with BMI?

561 [redacted] I also thought as well, because, the other thought that

562 went through my head was, am I remember the midwife

563 saying to me at one point as well. Obviously because

564 she says like, because there is more of me to begin with,

565 because I've got like fat here anyway and I would have

566 had, under here I've got fat here. I thought, that must

567 make it a bit harder for them to get it more accurate, you

568 know if you had a flat stomach, you'll be able to feel that a

569 lot easier than through layers of fat. So I guess the margin

570 of errors/

571 G: In there as well.

572 [redacted] In there as well. Aye.

Making the connection with her body size , and the difficulties to assess that baby

She is now equating her excess weight with the difficulty that the midwife might have feeling the baby and measuring the fundal height

Recognises the difficulty on the midwifes part, measuring the fundal height accurately when she is overweight/obese

Actively seeking information but not from the midwife

573 G: Yes, well we say to midwives, student midwives, it
574 should roughly correlate with dates, give or take 3
575 centimetres.

576 [redacted] Aye. I had read it and that's what I had read, and so
577 that it never worried me because that's what they were
578 saying that's like one centimetre out but when she kind
579 of said 3. I was thinking Oh that sounds a bit much.

She has sourced her own information and been reading up on this.

580 G: How did, how did you feel? Deep down.

Emotional turmoil- panic

581 [redacted] Just panicky I guess.

panic

582 G: Panicking.

583 [redacted] It's massive, that's all that kept going through my head,
584 this baby's massive. He's too big, I kept thinking, he's too
585 big.

She is starting to really panic now over the size of the baby

586 G: And what about when the met, they tested you for
587 gestational diabetes?

588 [redacted] Mmmm.

589 G: Did that increased risk, go through your head again?

590 [redacted] Yes. Yeah. It was just, and I spoke to my sister about
591 that and she was saying. Just, Just stuff and I was

She is now starting to share her health /risk concerns with her family

thinking as well about. Like after the birth she was saying they do more heel prick tests, and then you'll be, she's like, not horribly, but she was saying they'll force you into feeding him midday. It's, like the hours, make sure you get this, where in that I was thinking, oh that's horrible, it just takes the naturalness out of it and I didn't ever want to be in the kind of, you must feed this, you know I just thought no, you feed when the babies wanting the food so that was really putting me off. Thinking, aye I was just thinking, Oh, well I read that you're more at risk then of developing, was it type 2/

Now more aware of the implications of a large baby, particularly on the birth experience and link to type 2 diabetes

G: Type 2, uh huh.

The risks are real, realisation of her increased risk, making connections with her own health status

[redacted] Later on I was just thinking, oh god, that's no good for me. And then I don't actually know if it, I don't think it does cause diabetes in the baby but I wasn't sure. I don't think it does. But obviously their, blood sugar will need to be monitored closely and stuff. So I kind of thought aye, it's kind of interfering more with a natural/

She is now starting to connect her increased BMI, with her own health status

Making vital connections with her increased BMI and health risks

G: Mmhmm.

[redacted] Process.

G: Mmhmm.

613 [redacted] I didn't like the idea of that at all. Or having him taken

614 off me for tests or things like that. I thought no/

615 G: I, I'm assuming you know it's a boy?

616 [redacted]: Yeah it's a boy. Aye, Aye. (LAUGHS)

617 G: (LAUGHS)

618 [redacted]: I found out at the 20 week scan it's a boy.

619 G: (LAUGHS)

Now associating the risks of her increased BMI more with health risks to herself/ baby rather than the complications of birth

620 [redacted]: I was laughing at that I was thinking, oh wait to see it

621 will come out and it'll be a girl. So that'll be the next thing

622 that will happen. I was like, we'll paint it a room blue and

623 then it will be a lassie. But that doesn't actually bother me.

624 I think well, oh if it's a girl and they got it wrong then that's

625 fine. But yes, so I kind of thought. Yeah. And the more it, I

626 don't know if we're kind of. I, I wasn't really thinking about

627 risks for, birth or anything I was more just thinking, like to

628 do with the diabetes specifically, I wasn't thinking about

629 anything to do with that. I was more thinking about, longer

630 term health things for me, and, the immediate kind of

631 concerns there would be for him with his blood sugar.

She appears to be making the long term health connections with her increased BMI

Making the link with increased BMI and long term health implications,

especially diabetes

G:What, do you think that, that all of this will make a difference to you post-natally?

[...]

[redacted]: Once he actually appears?

[...]

G: Does it make you think, what about like beyond being pregnant?

[redacted]: I suppose it makes me think, I still think a bit a bit about my diet. But that's, I'm not sure that's any different to before I was pregnant. I think my diet was something I would be thinking wasn't the best anyway. It's something I know I need to change but. I tend to have it in my head. I. What was I going to say? Something about not. I know fine well I wouldn't do to him what I would do to myself. Does that make sense?

Accepts that her diet is a problem and she needs to change this

Recognises that her own diet is an issue

Would definitely ensure that her own baby has a good diet

Is aware that her own diet is detrimental to her health

Accepts that what she is doing to herself is risky, wants to protect her son from this

Accepts that her diet is a concern/ health risks

G: Mmhmm. Yeah.

[redacted]: Like I'm not, If I fancied a McDonalds I wouldn't go and, I wouldn't take us both to McDonalds. I would, I wouldn't do that. I would be feeding him what I know he needs to, obviously some mums don't believe me but. No I wouldn't/

652 G: Maybe not. (LAUGHS)

Sees breastfeeding as doing the best for her baby

653 [redacted]: (LAUGHS) I know eh? I, I think I would, I'm very aware
654 that I want to breastfeed. For as long as I can and do
655 things like that properly so I think, in terms of looking after
656 him, no. In terms of looking probably yes, because I think,
657 well, the thought is as well your second baby is bigger
658 anyway because they have more room to move about. So
659 it's making me think about my second pregnancy.

Wants to breast feed her baby for as long as she can

Now that she is aware of the risks, she is starting to think of the implications on a second pregnancy

660 G: How you'd change for your second pregnancy?

Would be prepared to make dietary modifications for her next pregnancy

661 [redacted]: Yeah, thinking maybe, I would try and be a more of a
662 healthier weight maybe, before I start, whether that, I
663 don't know whether that'll influence it or not but, I thank
664 Christ am I going to have a 15 pound baby for my next
665 one (LAUGHS). But I was asking my mum, because she
666 had the twins, the twins were 7 and 8 pounds. Aye/

Her knowledge now of the risks makes her want to change in preparation for a second pregnancy

667 G: (LAUGHS) That's/

668 [redacted] So basically she had 15 pound in her.

669 G: That's good weights for twins.

[redacted]Aye for twins. And I think I was, I can't mind I think I was 7 pound something. I had been asking Danny's mum what weight was he and he was 8 pound 3.

G: So that's/

[redacted]Aye fairly healthy sized babies. But I was thinking I don't really want to comb, I don't really want to add the 7 pounds and 8 pounds baby's together but I, (LAUGHS) I suppose it's made me think about my, second pregnancy more, and thinking, I wouldn't, I wouldn't, I would hopefully not have as many takeaways but then. You don't know what your life's going to be like, because you'll already have a baby but, Aye it's certainly made me think I want to try and be a bit more of a healthier weight before I start the next time.

G: So do you think starting off in this, in this research project. Did it plant seeds about whether you, you thought you were high risk or not at the beginning? Has that changed now?

[...]

[redacted]I think I'm maybe more aware of, how the risk factors come into play. Even if that had been laid out to me at the

The study has increased her awareness of risk. This has now influenced how she would approach her second pregnancy

She is starting to think more and more about her diet and a second pregnancy

Risk awareness has made her think more and more about her present diet

start, which it kind of was, and I, I could read about it myself. I, I kind of knew what they were saying. But. I don't know if I just didn't believe it or I just didn't think. I don't know.

She is stating that she was aware of the risks but was not really sure if she believed them

Is she trying to deny the associated risks ?

G: That was you/

[redacted]Aye I don't know. It's hard to, it's hard to think back now and think about it but, I think definitely, it made, being part of it I think made me more aware of the risk factors

She was aware of the risks but until she started to experience complications, she did not believe it

[redacted]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.

It was easier to deny the risks, until it became very real

G: So, do you, do you believe that there's a connection now. That something that you have, that you have had a scan.

[redacted]Yeah.

G: Yeah so you can see a connection now?

Still appears confused ?

[redacted]Yeah. Yeah. I don't know. Yeah. I don't know if I blame that. More on. My own. I was going to say my own

710 lifestyle but I suppose that's where your BMI comes from

711 is your own (LAUGHS)

712 G: (LAUGHS)

Emotions – self blame

713 [redacted] Lifestyle. But aye I suppose. Rather than, rather than

714 see it as these were the risk factors. I'm probably thinking

715 more, what like my role in it, like, like that I should have

716 been more healthy or something to start off with or, aye

717 that being, that probably being healthier. I can see the

718 benefits of being healthier before you fall pregnant more

719 than I probably could at the time, at the time I just

720 probably wanted to get pregnant and knew that I should

721 be healthy, but the pregnant bit was more important than

722 the healthy bit. And I think I had to weigh that up as well

723 with my age. Because I'm, well I'll be 36 next week.

Is she starting to blame herself and her lifestyle

Aware of the risks associated with obesity but is weighing up her own risks versus age

724 G: Mmhmm. So do you, do you see your age more of a

725 risk than your BMI then?

726 [redacted] Aye.

She feels that her age puts her at more of a risk

727 G: Do You?

She is weighing up and calculating her own risks

728 [redacted] I do, but in a way that, in a way that, I worry that I'll

729 struggle to get pregnant because I'm older.

G: So more a conception risk, Rather/

[redacted] Yeah more a conception risk. So I think part of me kind of weighed that up because I had lost, like before I got pregnant. I had lost like, 2 and a half stone, and then I think I'd put on about a stone again. Maybe in about the year before, like, as in last, well over last year and the year before I'd maybe put back on a stone. So I'd lost about a stone and a half and I think probably I would have liked to have kept focussing more one that but, but, my focus changed to getting pregnant and then, aye, I never really thought about it as much as I thought of what if I can't get pregnant and that. That plays on my mind for the second baby as well because I think. I feel like I don't want to wait years before I try, start trying again because then I'll be. I'll be 37 before I start trying anyway at the very earliest. And I don't even think I'm going to want to try even after a year.

Talking about her previous weight loss, fertility versus age. Sees this as more of a risk than her weight

Is she implying that she can control her weight if she wants to but cannot control her fertility ?

G: (LAUGHS)

[redacted] But I think in my head. I probably will, because I think I, I, feel like every year that goes past. There's more of a risk that I'm not going to conceive so I think, even though

Age versus her weight

Calculating her own risk status

751 I'm sitting here now saying I'd like to be healthier, I think
752 that, would overtake again. My age would rule, my age
753 would

She feels that her age is a far greater risk than her weight poses

754 G: Overtake the, the risk of the higher BMI.

755 [redacted] So any kind of, if I wanted to lose weight or whatever,
756 waiting on that would be ruled out by my age or whatever,
757 I would try and conceive

758 G: Quickly.

759 [redacted] Aye

760 G: Definitely.

Does not prioritize her weight over her age with regards to the risks

761 [redacted]Regardless of whether I had managed to lose the
762 weight because I would think that's more of a risk.

Age present more of a risk to her

She is prioritizing her own risks

763 G: Would it make you, more, more aware though
764 going into your second pregnancy if, if your BMI was still
765 high?

Her increased risk awareness has influenced her thoughts around her diet

766 [redacted]Yes. Definitely. Definitely. And probably, just now
767 because I've been more aware of the gestational diabetes
768 stuff I would probably pay more, even though I've not got
769 it I'd probably pay more attention to my sugar intake at
770 times in the day and I probably would, though that's not

She is more aware of the risk of gestational diabetes and would make more of an effort to reduce the sugar intake in her diet now.

More aware of the obesity associated risks now, links to gestational diabetes

actually what's happened but because I'm more aware of it now I'd probably pay more, more attention to that part of my diet. I think, yeah.

G: And you were saying no other health professionals mentioned you about increased risks or anything like that? What about when you were, you know just before your scan. Have you, because you said maybe your scans changed the way you thought/

[redacted] Mmhmm

G: What, what kind of birth choices were you, were you thinking of? Doing your birth plan, what were your choices going to be?

[redacted] Well, I had, I've already kind of decided I'm not going to do a birth plan. Just because, I have a feeling, rightly or wrongly, that anybody I've ever spoken to, have not, followed through their birth plan. For, for one reason or another. Either they've changed their mind, or something's happened in the labour or the birth that's changed what happened. So what I kind of decided to do was just speak through with Danny what I would like to happen, just so that he knows, for me, when I'm in labour

792 what, what I want to happen. But I kind of just thought I

793 would, practice the hypno birthing, and the only kind of

794 choice that I was thinking about was, that I wanted to give

795 birth, like vaginally and that I would use whatever

796 painkillers I thought I needed but try and avoid an

797 epidural. Just because, then, well obviously I thought I

798 could move around more and that, that's better for

799 bringing the baby out, and, because of the effects that the

800 epidural can have on the baby after I thought it might

801 make it more difficult to initiate breast feeding and stuff so

802 I kind of thought if I, If I can I want to avoid having an

803 epidural, but that's, that's all I've kind of planned for, and

804 now, more in my head now I'm thinking that I'm going to

805 need an epidural. Just because of the size of him.

806 (LAUGHS)

807 G: (LAUGHS) How does that make you feel?

808 [redacted]Terri, well, well it doesn't make me terrified, because

809 actually, I think there's something quite nice about

810 thinking well it's all going to be numb and I'll not be feeling

811 anything. (LAUGHS)

812 G: (LAUGHS)

Although she does not want to write a birth plan, she does have an idea of what she wants to try in labour

Wants to avoid an epidural but the size of her baby and possible pain of birth has made her change her mind and

Associates the size of her baby with a painful birth

terrified

Becoming terrified, fearful of birth

Now excessively thinking about giving birth- fear

[redacted] But, thinking about then, like for the breastfeeding bit and that after it. The fact that I would be lying down and it can slow it all up and everything I'm not keen on it at all, and I think that's why part of me thinks, if it's going to go down that route I'd maybe rather just have a caesarean. Rather than have that, those kind of complications with it. But. It's hard. It's hard to weigh that up. It's hard, hard to weigh that up.

Starting to think more and more about giving birth

G: It's certainly sort of, made you think now hasn't it!

(LAUGHS)

[redacted] All that's in my head now is I'll just have to, I'll just have to cope with the pain the best way that I can, it's now made me think about being induced and caesareans and all that, that I never, I mean obviously she went over it at the antenatal class but I still thought. These are just options. I don't really need to consider them, and now I'm thinking, but I don't know if half of that's just in my own head. If these are options that are going to be, given to me or not. I don't know. But yes it's certainly made me start thinking about it a lot more than what, what would be the best thing. This thing or this thing and what. You don't even know if that's going to be your choices. It's just

Thinking more and more about the choices that has in childbirth

The complication of a large baby, feels like she is losing her control over this experience

Although it is her birth, she is starting to think does she really have any choice in this ?

Does she want someone else to take control ? relinquish her control

weird, it's very strange. It's like trying to guess something you don't even know is going to happen. And the other, the other concern I have now, which I never had before is that I'm just going to go into labour. I just think, oh he's just going to come, that's what's going to happen, he's going to come out of me now because that's him fully grown. Whereas, in my head before I always thought, no I'll go to my, due date, or he'll be late. Because that's what happens with first babies. So I kind of thought. I wasn't, I wasn't worried about any time I had off my work before it. I thought I've got plenty of time, and now I'm more aware that actually no. Babies don't normally come on, I knew babies don't come on their due dates but, I'm much more aware of that now. Thinking, no he could come at any time.

Feeling that she does not know what is going to happen – no control over this

Thinking about the implications of having a large baby.He needs to be born now , he is ready now, fully grown

Realises that birth is imminent

Feeling that she cannot control any of this now.The baby is controlling time of birth

Feeling the loss of control of her own birth

G: So it's, it's kind of turned your mind into a turmoil now hasn't. (LAUGHS)

[redacted] Aye. Absolutely. I'm totally on, thinking through all these things that could happen. Aye.

G: Do you think, anywhere along the line there has been a missed, a missed opportunity with health professionals

to maybe get the message over about increased BMI and the associated risks?

[...]

I think there has been opportunities where they could have said it. What difference it would have made. I don't know, and part of me thinks, would it just have made me worried more. Like all the way along. Yeah, would, would it just have actually made me more. Or, if I had been more aware of it at the start, I might have, eaten better or, exercised more, or whatever. Yeah. I don't know. I think there has been, well I'm saying there has been opportunities, but actually in the time they've got their appointments, no I think the systems wrong with that though I think the system could be better built into the system. It's funny because I was looking at my, notes the other day, and just looking like. There's a whole questionnaires bit about like things that you discussed or didn't, and I was just looking thinking of all the bits that she said no to and stuff and I know some of that's because they give you like a DVD about breast feeding and things like that. But I think what a shame actually

She feels that there has been opportunities where health professionals could have spoken about the risks, they didn't . Although she feels had they discussed the risks then she would have worried more.

Midwives restricted time with women might have influenced the amount of information that the midwives could give reference risks

She feels that the time factor probably reduced the midwives ability to discuss the risks

Missed opportunities for the midwives to discuss risks. Avoided the discussion altogether

Feels she would like more time for discussion with the midwife

because; to me it should be the health professional that's sitting and able to go through all that with you.

Did not like the idea of a breastfeeding DVD, Midwives should have discussed this

G: Uh huh. Not a DVD.

[redacted] Aye not giving you a DVD. Cos I think, it's just about, the breast, the whole breast feeding stuff and, I can't mind what the other bits were. I can't mind that. But aye, there was just big bits and I was thinking that's, that's a bit of a shame. Thinking that you don't get that face to face. You don't get to have a discuss, well you could have a discussion if you asked but, I'm, I'm maybe conscious because I'm a health professional as well. I think the more questions I ask, the more I'm eating into her next appointment (LAUGHS) I'm just, I'm just making her more delayed when I can just go and Google it myself but. Aye, I suppose it would, I think it would be better speaking about it than just giving, because I've not watched the DVD's yet.

Really wanted a relationship with the midwife

Again she feels that time factor restricts what the midwives can discuss

Lack of face to face discussion , when the relationship with the midwife is what matters

Would have preferred a conversation and relationship with the midwife

G: So you're more inclined to just go, just go onto the internet or something like that and look up information for yourself?

Time factor – forced to self search for information

[redacted] Aye.

Knows how to search the internet for information

898 G: Yeah.

899 [redacted] Definitely. Definitely. Just other things as well, maybe
900 just kind of, other things like, I suppose knowing things
901 through friends or other people or you know things like
902 they don't, they tell you, I don't know things like, folk will
903 say oh don't use Rennies if you've got heartburn.
904 Gaviscon's the best thing. But it's actually just because
905 they've not been any trials done with Rennies so they
906 can't say whether it's safe or not. Things like that I tend to
907 balance up myself so. I took Rennies before I was
908 pregnant. I still, I take Gaviscon now, sometimes, but I
909 can't, I'm not going to rock up at my work with a bottle of
910 Gaviscon. Going in to do patient groups.

911 G: So you've got to weigh up the risks yourself?

912 [redacted] Yeah, myself. And I think well, aye, so I, I probably do,
913 a bit more of that myself, than maybe other people, other
914 people would rely on. Or, for example, things like, I've
915 taken the odd ranitidine tablet because I know somebody
916 would go and make an appointment with their GP and
917 discuss that. I feel a bit more able to just decide, no that's
918 the best thing for me just now. But/

Using the internet, friends and family to assess her own risk

She will construct her own risks, socially constructs her own risks

Socially constructing her own risks

Balances her own risks and makes her own decisions

Balancing her own risks without relying on others. Feels that she takes more control over her own care than others.

919 G: And do you think that's because you've got kind of a

920 health professional background?

Lack of time with the midwife ,which makes any meaningful discussion

921 [redacted] I do. I think that's what makes the difference with that.

922 But I still think I would, Aye it would be nice to be able to

923 discuss these things with your midwife but I just don't

924 think there's time.

Feels that she would like to discuss things with the midwife but the midwife was too busy

Lack of time to discuss what matters with the midwife

925 G: Time to do it. No. When are you back to the

926 consultant?

927 [redacted] I'm back, tomorrow.

928 G: Tomorrow.

929 [redacted]And then Friday, and I never heard them saying

930 Tuesday and Friday I just heard them saying twice a

931 week, but my sister was there with me and she said no

932 they said a Tuesday and a Friday. So I think now every

933 Tuesday and Friday I will be at the Royal Infirmary. Until,

934 whatever happens. Yeah. I think until the growth scan.

935 And then I think, I do, I'll either be in or out. I think/

936 G: So when's your next growth scan? Are they going to

937 growth scan you?

[redacted] Aye so it's, they've not give me a date for it but she said it, I don't know what the junior doctor was going by some kind of guidelines. She said she was away to check some, manual or something, because initially she was saying to me, what did she say to me initially? Initially she said something like, either there would be no follow up or like one appointment but she said I'll just go and check whatever it was, and then, this was the doctor, and then she came back and she said, no actually we need to see, It was like a total opposite when she came back and say no actually we need to monitor you twice a week. So aye. Tuesday, I think it's a Tuesday and a Friday and then that's, so last week she said. And every 3 week they'll do a growth scan. So I/

She is recalling what happened at the hospital appointment that day. Given conflicting advice

G: Do you know what it is? I think there has been a, there's a new study. I think that, and I think that's what the guidelines are on a new study now. Where any woman with reduced foetal movement/

[redacted] This is what they've got to follow.

G: Aye this is what they've got to follow.

Her concerns about the risks for her baby are different to what is concerning the health professionals

[redacted]Aye. Because I kind of got the impression. They were more worried about the reduced movements than the size of him, I think the monitoring more for the reduced movements. Whereas, I'm more concerned about the size. (LAUGHS)

G: (LAUGHS)

Health professionals seem more concerned with the reduced fetal movement ,but she is more concerned with the size of her baby.

Reassured with increased technology and closer medical surveillance

[redacted]Aye, Aye totally because I, I could hear his heart, I wasn't that, the movements didn't bother me so much because I heard how strong his heart was and I seen him moving on the ultra sound thing, so I feel happier about that but they were basically saying, aye they don't want to miss the baby that's got the reduced movements for whatever reason. So I kind of think. And that's a way of thinking, that's the way I thought as well thinking they're monitoring me for something they're concerned about that I'm not concerned about. I'm concerned about something else.

Feels reassured that she has seen him on the scan, health professionals were concerned with the reduced fetal movements but she is not quite sure why

Feel more reassured with closer medical surveillance

She is more concerned with the size of her baby, pre occupied with this

Feels much safer with closer monitoring

G: Babies birth weight?

[redacted]Aye, but, but, but I'm still glad they're monitoring me.

Feels safer being monitored

G: (LAUGHS)

Curious but contradictory in what she feels

[redacted]So in some respects I'm thinking, well it's a waste of a bloody trip twice a week but at the same point I'm dying to see what the growth scan says in 3 weeks. (LAUGHS) to see if he's going to be massive.

G: (LAUGHS)

[redacted]So, aye. Yeah. So aye, tomorrow. So I've got a bit, aye, I've had you today and then I've got that tomorrow morning. Patricia tomorrow afternoon and then Friday. I've got them back up at the Royal and I'm fine.

G: So are there any questions you want to ask me just now?

[redacted] I don't think so. When, do you see me again before he's here?

G: No. Afterwards

[redacted] After.

G: After.

[redacted]: Afterwards.

G: Afterwards aye. I was going to say once you've had him/

Contradiction as she feels that it is a waste of her time going to the hospital but at the same time she wants to know what his growth scan is saying

First time that she has ever mentioned the midwife by name

There does not appear to be a relationship here

998 [redacted]: Aye.

999 G: Maybe about 2 weeks later. I'll let you get settled in

1000 your routine.

1001 [redacted] Will somebody tell you when I've had him?

1002 G: Well, I'm, I'll probably rely on you to give me. You've

1003 got my number eh?

1004 [redacted] Yes. It's in my phone. I do.

1005 G: Aye. Just drop me a text and say you've had him/

1006 [redacted]: He's born/

1007 G: Could you maybe wait until a period after that, give you

1008 time to/

1009 [redacted] get my kind of sense (LAUGHS)

1010 G: (LAUGHS) Aye. Get your sense. Give you time to be a

1011 bit normal.

She is definitely preoccupied with the size of her baby

Knows the increased risk of a large baby and this has now become the focus of her pregnancy- living in fear now

1012 [redacted] Just send you a message saying. 13 pounds.

1013 You'll know (LAUGHS)

The baby's weight appears to be the main focus of concern, from her growth scan

1014 G: (LAUGHS). I'll wait till maybe, Until maybe 2 weeks

1015 after you've had the baby and I'll come back out and do

1016 your, your last interview.

1017 [redacted]: It will be interesting to see what's he's actually/

1018 G: I've/

1019 [redacted]: What's going to happen.

1020 G: I've already had one woman actually who's/

1021 [redacted]: Have you?

1022 G: Who's just finished. Aye.

1023 [redacted] Very good

1024 G: She had a boy as well

1025 [redacted] Did she? Do you in the antenatal class there was 7

1026 couples, one for who was having twins. There's only one

1027 girl that's having a girl. Everybody knew, they're all boys!

1028 G: They're all boys, aye. (LAUGHS)

1029 [redacted] Aye, I don't know what's going on with that. It's very

1030 strange.

1031 G: So. It's quite nice to come back and see actually what

1032 you've had (LAUGHS)

1033 [redacted] I know aye. If it's a girl. I'll be repainting a pink room.

1034 G: Just hearing all your experiences.

1035 [redacted]: Oh I know. Aye.

1036 G: Anything else you want to ask?

1037 [redacted]: No. I don't think so.

1038 G: Right so I'm just going to stop this right now.

Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist (answers provided in red) Appendix 17

No	Item	Guide questions/description
Domain 1: Research team and reflexivity		
Personal Characteristics		
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group? None but BM and JMcA were investigators in the original study. Interviews were performed by a research assistant (RA)
2.	Credentials	What were the researcher's credentials? *E.g. PhD, MD N/A*
3.	Occupation	What was their occupation at the time of the study? N/A
4.	Gender	Was the researcher male or female? Female
5.	Experience and training	What experience or training did the researcher have? N/A
Relationship with participants		
6.	Relationship established	Was a relationship established prior to study commencement? No
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? e.*g. personal goals, reasons for doing the research N/A*
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? e.g. *Bias, assumptions, reasons and interests in the research topic N/A*
Domain 2: study design		

No	Item	Guide questions/description
Theoretical framework		
9.	Methodological orientation and Theory	What methodological orientation was stated to underpin the study? *e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis* *IPA*
IParticipant selection		
10.	Sampling	How were participants selected? *e.g. purposive, convenience, consecutive, snowball* *Purposive sample*
11.	Method of approach	How were participants approached? e*.g. face-to-face, telephone, mail, email* *eMAIL*
12.	Sample size	How many participants were in the study? N=58
13.	Non-participation	How many people refused to participate or dropped out? Reasons? No info available
Setting		
14.	Setting of data collection	Where was the data collected? e*.g. home, clinic, workplace At clinical settings*
15.	Presence of non-participants	Was anyone else present besides the participants and researchers? No
16.	Description of sample	What are the important characteristics of the sample? *e.g. demographic data, date specialty and setting*
Data collection		
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested? Yes
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many? No

No	Item	Guide questions/description
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data? Audio
20.	Field notes	Were field notes made during and/or after the interview or focus group? No
21.	Duration	What was the duration of the interviews or focus group? Up to 1 Hr
22.	Data saturation	Was data saturation discussed? yes
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction? No
Domain 3: analysis and findings		
Data analysis		
24.	Number of data coders	How many data coders coded the data? 3
25.	Description of the coding tree	Did authors provide a description of the coding tree? yes
26.	Derivation of themes	Were themes identified in advance or derived from the data? Derived from data
27.	Software	What software, if applicable, was used to manage the data? None
28.	Participant checking	Did participants provide feedback on the findings? No
Reporting		
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.*g. participant number* *Yes*
30.	Data and findings consistent	Was there consistency between the data presented and the findings? Yes

No	Item	Guide questions/description
31.	Clarity of major themes	Were major themes clearly presented in the findings? Yes
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes? No deviant or negative cases were fount

Appendix 17.

Appendix 18 Dissemination Strategy

	Poster Presentations	
May 30th 2016	Edinburgh Napier Postgraduate Research Conference	"Labelled high risk "Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2
15th June 2106	Edinburgh Napier University Research Conference	Labelled high risk "Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2
Sep 2016 conference	Maternity Mother and Baby -Manchester – Focus on Public Health	Labelled high risk "Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2
March 2016	Toronto Canada, International Confederation of Midwives Conference	Labelled high risk "Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2

Year of Study	Date of Conference	Form of Presentation	Title of Presentation
Year 1 Edinburgh Napier University Postgraduate Conference	26.3.15	Seminar Presentation	Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2
Year 2 Health & Social Inequalities UWS Paisley	29.5.15	Seminar Presentation	Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2
Year 3 Edinburgh Napier University	20.4.16	Seminar – Presentation	Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2
Year 3 Maternity Mother and Baby Sep 2016 conference – Focus on Public Health	27.9.16	Seminar Presentation	Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2
Glasgow Caledonian University	19.5.17	Seminar Presentation	Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2

HEAVA Switzerland	29.8.17	Seminar Presentation	Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2
Division of Health Psychology Annual Conference Newcastle	6.9.18	Seminar Presentation	Exploring perception of risk during childbirth in women with an increased BMI > 35kg/m^2