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Discourses pertaining to, and lived experiences of, 'Maternal Obesity' (Body Mass Index (BMI) 30) and Gestational Diabetes Mellitus/Type Two Diabetes Mellitus in the pregnancy and post-birth period.

Jarvie, Rachel Juliet

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**DISCOURSES PERTAINING TO, AND LIVED EXPERIENCES OF,
'MATERNAL OBESITY' (BODY MASS INDEX (BMI) \geq 30) AND
GESTATIONAL DIABETES MELLITUS/TYPE TWO DIABETES
MELLITUS IN THE PREGNANCY AND POST-BIRTH PERIOD**

By

RACHEL JULIET JARVIE

A thesis submitted to Plymouth University in partial fulfilment for the degree of

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Rachel Juliet Jarvie

Discourses pertaining to, and Lived Experiences of, 'Maternal Obesity' (Body Mass Index (BMI) \geq 30) and Gestational Diabetes Mellitus/Type Two Diabetes Mellitus in the Pregnancy and Post-Birth Period

Abstract

This thesis reports on a qualitative exploration of the experiences of 30 women designated as 'high risk' due to the co-existence of 'maternal obesity' (BMI \geq 30) and Gestational Diabetes Mellitus (GDM)/Type Two Diabetes Mellitus (T2DM) in pregnancy. This is examined in the context of medico-scientific/public health/popular media discourses pertaining to 'maternal obesity'/GDM/T2DM in pregnancy. 'Maternal obesity'/GDM/T2DM in pregnancy are increasingly prevalent and clinically associated in manifold ways. Increasing prevalence is linked to the 'global epidemic' of 'obesity'/diabetes: now commonly referred to as 'diabesity'. Current biomedical knowledge asserts 'maternal obesity' and diabetes ('maternal diabesity') synergise in causing adverse pregnancy outcomes, have long term health implications for the offspring and contribute to an 'intergenerational cycle' of 'obesity'/diabetes.

This is the first qualitative study to consider pregnancy/post-birth experiences of women with co-existing 'maternal obesity' and GDM/T2DM in pregnancy from a sociological perspective. Participants undertook a series of auto/biographical narrative interviews. Longitudinal engagement provided nuanced psycho-social insight into women's perceptions/experiences and the socio-cultural context of their lives. Analysis of pertinent 'pregnancy' Internet fora postings augmented interview data and was utilised for comparative/corroborative purposes.

Participants were predominantly of low socio-economic status, congruent with epidemiological data. The concept of pregnancy 'planning' was not resonant and few women accessed/felt predisposed to access preconception care. Women did not identify as 'obese', and knowledge/perception of risks associated with the medical 'conditions' was low. Women perceived themselves to be stigmatised due to their weight in society and specifically within healthcare. Many participants were experiencing acute/chronic stress which appeared to have mediated risk perceptions/compromised diabetic regimen adherence. Expense of 'healthy' eating/diabetic diet was considered prohibitive. Women's material circumstances/socio-cultural milieu may militate against ability to minimise risk and effect lifestyle change. Policy and practice, for the most part, fails to take this into account.

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Author's Declaration

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award without prior agreement of the Graduate Committee.

Work submitted for this research degree at Plymouth University has not formed part of any other degree either at Plymouth University or any other establishment.

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Signed.....

Date.....

Chapter One: Introduction

1.1 Introduction

I begin by summarising and explicating the biomedical issue considered in this thesis: co-existing 'maternal obesity' (Body Mass Index (BMI) ≥ 30) and Gestational Diabetes Mellitus (GDM)/Type Two Diabetes Mellitus (T2DM) in pregnancy. This issue is asserted to be of pressing public health concern, and the reasons for this are presented. I discuss the manifold clinical and epidemiological associations between the medical 'conditions' 'maternal obesity'/GDM/T2DM. Next, the key foci of the research and the contribution to knowledge my thesis makes are explicated. I then highlight the auto/biographical practise of writing myself into the text and the rationale for doing so. Finally, the research aims and structure of the thesis are delineated.

1.2 Summarising the Biomedical Issue: 'Maternal Obesity' (BMI ≥ 30) and Gestational Diabetes Mellitus (GDM)/Type Two Diabetes Mellitus (T2DM) in Pregnancy

Following the obesity epidemic is a diabetes pandemic including growing numbers of women with GDM and type 2 diabetes in pregnancy (including undiagnosed type 2 diabetes). (Simmons, 2011, p.28).

Diabesity – the biggest epidemic in human history (Zimmet, 2007, p.39).

There is increasing prevalence of 'maternal obesity' ('obesity' in pregnancy) (Heslehurst *et al.*, 2007b; Kanagalingam *et al.*, 2005), GDM (Lawrence, 2011; Sela *et al.*, 2009) and T2DM in pregnancy (Feig & Palda, 2002; Temple &

Murphy, 2010). UK national datasets indicate a twofold increase in first trimester 'obesity' over two decades (Heslehurst *et al.*, 2012). It is estimated that 22% of women in the UK are currently 'obese' at the start of their pregnancy (Heslehurst *et al.*, 2007a). According to the National Institute for Health and Care Excellence (NICE, 2008b) 2 – 5% of pregnancies in England and Wales are to women with diabetes. Of this figure, 87.5% have GDM and 5% have T2DM. Bhake and Dayan (2010) suggest average prevalence of GDM in England and Wales is approximately 3.5%. The UK is said to have experienced a dramatic increase in prevalence of GDM/T2DM in pregnancy largely due to increasing prevalence of 'overweight'/'obesity' (Abayomi *et al.*, 2013). The Northern Diabetes Pregnancy Survey (England) found an approximate four-fold increase in T2DM in pregnancy between 1996 and 2006, with 88.2% of women 'overweight'/'obese' (Coulthard & Hawthorne, 2008). Rising incidence of GDM is considered to closely parallel rising prevalence of T2DM (Nolan, 2011). Co-existence of the associated 'morbidity' T2DM and 'obesity' is now often referred to by the neologism 'diabesity'. According to the UK National Diabesity Forum (2013) there is a rapidly rising incidence of 'diabesity', although this is not confirmed through quantitative data. Co-existing 'maternal obesity' and GDM/T2DM or 'maternal diabesity' (Harder *et al.*, 2012) is likely to complicate increasing numbers of pregnancies in the UK and globally.

The medical 'conditions' 'obesity', GDM and T2DM are considered to be interrelated/have multiple clinical associations. 'Obesity' and T2DM are linked in terms of pathophysiology (Bailey, 2005; National Diabesity Forum, 2013; Rajeswaran, 2012). 'Obesity' is purported to be the main aetiological cause of

T2DM (Astrup & Finer, 2001) (see McNaughton, 2013, for a critique of this). 'Obesity' and T2DM are often constituted in biomedical/popular media discourse as 'twin/parallel epidemics'. 'Maternal obesity' confers high risk of development of GDM (Ramsay *et al.*, 2006; Torloni *et al.*, 2009). Simmons (2011, p.28) asserts, '...the majority of those with GDM are obese and a significant proportion of those who are obese have GDM'. Insulin resistance and hyperinsulinemia are 'hallmark features of GDM and obesity' (Langer *et al.*, 2005, p.1775). Women with previous GDM have a high risk of subsequently developing T2DM (Osgood *et al.*, 2011), particularly if they are 'obese' (Kwak *et al.*, 2013). Dabelea *et al.* (2005) suggest that as many as 50% of women with GDM may develop T2DM within five years of the index pregnancy. According to Nolan (2011, p.38), GDM and T2DM, 'share the same underlying pathogenic mechanisms. They are essentially different phases of the same disease' (see also Agarwal *et al.*, 2005).

Pregnancies complicated by 'maternal obesity' and/or GDM/T2DM are associated with many adverse maternal and fetal outcomes and are therefore designated 'high risk'. For instance, these 'conditions' are associated with increased risk of congenital abnormality, hypertension, accelerated fetal growth (macrosomia) and increased instrumental interventions at birth (Simmons, 2011). Recent medico-scientific research emphasises that 'obesity' and diabetes have independent and cumulative effects on obstetric complications and require management (Catalano *et al.*, 2012; Roman *et al.*, 2011; Simmons, 2011; Yessoufou *et al.*, 2011). According to Nolan (2011, p.42), 'obesity and diabetes synergise in causing adverse pregnancy outcomes'. Langer *et al.*'s (2005) large US study (n = 4001) showed that 'obese' women who developed

GDM had a higher risk of adverse perinatal outcome than 'normal' weight women with GDM. Recent scientific research in the field of 'developmental origins of adult disease' indicates long term consequences for the offspring of pregnancies complicated by 'maternal obesity' and/or GDM/T2DM. It is asserted that an 'obese' and/or diabetic 'intrauterine milieu' may 'epigenetically programme' the fetus to 'obesity' and/or diabetes later in life (Battista *et al.*, 2011; Dabelea & Crume, 2011). This is considered to be a key factor in the intergenerational transmission of 'obesity'/diabetes and the perpetuation of the 'worldwide pandemic of obesity and type 2 diabetes' (Nolan, 2011, p.38).

In the UK, attempts to reduce the risks of 'obesity' and T2DM in pregnancy involve initiation of preconception care for women with these 'conditions'. NICE advises women with a BMI ≥ 30 to lose weight and prevent conception until weight is within the 'healthy' BMI range (2010a). Women with T2DM are advised to avoid pregnancy until appropriate glycaemic control is achieved (NICE, 2008b). Women with previous GDM are advised to be screened for T2DM prior to becoming pregnant (NICE, 2008b). Women with pregnancies complicated by 'maternal obesity' and GDM/T2DM in pregnancy are expected to undergo increased surveillance, make requisite lifestyle changes, and adhere to strict diabetic regimen in order to ameliorate risks to themselves and their fetus/offspring.

1.3 My Research: Foci and Contribution

I was motivated to carry out research which considered the socio-cultural, structural and political context of the medical 'conditions' as well as the lived experiences of women classified as having pregnancies complicated by

'maternal obesity' and GDM/T2DM in pregnancy. 'Maternal obesity'/GDM/T2DM in pregnancy and their conjunctions have not previously been examined in depth from a sociological perspective. The research on which this thesis reports entailed a Foucauldian Discourse Analysis (FDA) of medico-scientific, public health and popular media discourses pertaining to these medical 'conditions'. This informed the design and analysis of a longitudinal qualitative study with 30 women diagnosed with 'maternal obesity' and GDM/T2DM in pregnancy. Interview data was augmented by a further FDA of pertinent internet fora postings on 'pregnancy'/'parenting' websites. Data from the internet fora analysis are utilised in this thesis for comparative/corroborative purposes.

I was interested in exploring the discursive configuration of the medical 'conditions' 'maternal obesity'/GDM/T2DM in pregnancy at this socio-historical juncture. From a social constructionist/Foucauldian perspective any medical 'condition' is not simply 'real' but the product of socio-cultural and political practices and reasoning. In this thesis I show how medico-scientific, public health discourses and popular media representations presently construct and present 'maternal obesity'/GDM/T2DM in pregnancy in particular ways which are hegemonic, and have implications for the subjective experience of women classified as having these medical 'conditions'. A focus of the research was to critically appraise/deconstruct dominant discursive representations of these conditions and to consider how women perceived, negotiated and positioned themselves with respect to these discourses.

My research was also driven by a feminist concern that women with 'maternal obesity' and GDM/T2DM may find themselves in 'moral jeopardy' (Copelton, 2007; Murphy, 2000). 'Obesity', T2DM and, to some extent, GDM are considered to be/configured as 'lifestyle diseases' with an associated negative moral valence. As I show in Chapter Three, there is imputation of responsibility in medico-scientific, public health and popular media discourses for 'excessive' adiposity which is considered to have 'caused' the development of GDM/T2DM and subsequently compromised maternal health, and the short and long term health of the fetus/child. Women's diet in pregnancy is currently surveilled to an unprecedented extent with the consumption of 'junk' food often conflated with drinking alcohol or smoking tobacco (see, for instance, *Misbehaving Mums to Be*, 2011). In addition, I indicate how implicit and explicit opprobrium is expressed with respect to additional medical care women with 'obesity' and diabetes require. This is said to place a financial burden on already stretched maternity/health services. In interviews I considered where women engaged in 'accountancy talk' (Stapleton & Keenan, 2009) in order to defend against the moralised construction of the medical 'conditions' and to maintain a moral maternal identity.

Evidence shows similar epidemiological patterning of these medical 'conditions'. Lower socio-economic status/deprivation is shown to be associated with 'maternal obesity' (CMACE, 2010; Heslehurst *et al.*, 2009), GDM (Anna *et al.*, 2008; Cullinan *et al.*, 2012) and T2DM in pregnancy (CEMACH, 2007; Temple & Murphy, 2010). Associations with lower socioeconomic status/deprivation have received relatively little attention in the literature. I was thus motivated to obtain demographic data from women in my study group, and to consider the

possible impact of socio-economic status/material circumstances on women's experiences of pregnancy complicated by 'maternal obesity' and GDM/T2DM in pregnancy.

The bulk of research considering 'maternal obesity'/GDM/T2DM in pregnancy is clinical/epidemiological work considering morbidity/mortality. There is a relative paucity of qualitative studies. Some qualitative studies emanating from the field of midwifery have sought to elucidate women's experiences of being 'obese' and pregnant in order to improve care/effect changes in health status (see, for instance, Furber & McGowan, 2010b; Furness *et al.*, 2011; Heslehurst *et al.*, 2013a; Khazaezadeh *et al.*, 2011; Mills *et al.*, 2013; Nyman *et al.*, 2010). Smith and Lavender (2011) carried out a meta-synthesis of qualitative research pertaining to the maternity experience of pregnant women with a BMI \geq 30. Furber and McGowan (2010a) have discussed the psychological impact of 'obesity' during pregnancy, an area I suggest has received insufficient attention. A small number of qualitative studies have examined the experiences of women with GDM (see, for instance, Bandyopadhyay *et al.*, 2011; Carolan, 2013; Carolan *et al.*, 2012; Evans & O'Brien, 2005; Lawson & Rajaram, 1994; Persson *et al.*, 2010). Further qualitative studies of women with a history of GDM consider health behaviours/perceived barriers to health behaviours (e.g. Collier *et al.*, 2011; Evans *et al.*, 2010). Some recent qualitative research has explored experiences of pregnant women with pre-existing diabetes (T1DM and T2DM) (Lavender *et al.*, 2010; Letherby *et al.*, 2012; Stenhouse *et al.*, 2013). Nolan's (2011) study considered the experiences of eight women with GDM/T2DM. Stapleton and Keenan's (2009) (see also Keenan & Stapleton, 2010) longitudinal study of food and consumption practices among pregnant women

included women with diabetes (all types), 'normal' weight women and women with BMI \geq 30. Hitherto, no published qualitative studies have specifically considered experiences of women managing pregnancy complicated by co-existing 'maternal obesity' and GDM/T2DM. My study addresses this lacuna by exploring women's experiences of pregnancy delineated 'high risk', and thus intensely monitored, due to diagnosis of both these medical 'conditions'.

Aside from Stapleton and Keenan's (2009) and Furber and McGowan's (2010b) studies, the small number of qualitative studies which have focused on women's subjective experience of 'obesity' or GDM or T2DM in pregnancy appear to have entailed one-off interviews. My study was designed to augment and extend extant qualitative research and quantitative epidemiological data through prolonged engagement with, and prospective 'following' of, women experiencing pregnancy/the early post-birth period complicated by these 'conditions'. The repeat interview design enabled exploration of how women's experiences, subject positioning, beliefs and practices may/may not have changed over time and in response to diagnoses/medical regimen. Through longitudinal engagement a more nuanced understanding of women's psycho-socio-cultural milieu was possible, offering insights into how this may have impacted on the experience/management of pregnancy complicated by the medical 'conditions'. This enabled consideration of the 'fit' of policy and practice with the material realities of women's everyday lives.

1.4 A note on Auto/Biography

In this thesis I practice a reflexive methodology of writing myself into the text (Day, 2012). I have written in the first person to denote the intersection of my

subjectivity/personhood on the research at every stage of the process. Invoking the 'auto/biographical I' (Stanley, 1992) in writing up my research acknowledges my role in constructing rather than 'discovering' social reality and sociological knowledge (I return to these issues in Chapters 2.8 and 5.2.3).

1.5 Research Aims

- To qualitatively explore the pregnancy and post-birth (defined as approximately three months after birth) experiences of women with 'maternal obesity' and GDM/T2DM in pregnancy.
- To explore medico-scientific/public health/popular media discourses pertaining to 'maternal obesity' and GDM/T2DM in pregnancy, and women's perceptions of, positioning with respect to, and negotiations of these discourses.
- To explore the psycho-socio-cultural milieu of women with 'maternal obesity' and GDM/T2DM in pregnancy, with specific reference to the pregnancy/post-birth period.
- To explore sources of support and/or information for women with 'maternal obesity' and GDM/T2DM in pregnancy, with specific reference to the pregnancy/post-birth period.
- To consider implications for policy and practice in respect to 'maternal obesity' and GDM/T2DM in pregnancy, with specific reference to the pregnancy/post-birth period.
- To contribute to sociological knowledge and understanding of women experiencing pregnancy/post-birth period complicated by 'maternal obesity' and GDM/T2DM.

1.6 Thesis Structure

In **Chapter Two, 'Introduction to the Theoretical Approach'**, I explicate the hybrid theoretical framework adopted in this thesis, characterised as a 'poststructuralist feminist analytical framework that holds on fiercely to lived experiences' (Longhurst, 2008, p.8), and the social constructionist theoretical orientation which underpins this. The realism-relativism debate is briefly summarised, and attempt made to move beyond the impasse it generates. I critically consider FDA and show how it is applied and utilised in this thesis. I situate my work as material-discursive. Finally, I reflexively consider the role of my subjectivity in the research process and production of knowledge.

In **Chapter Three, 'Deconstructing Dominant Discourses'**, I provide a detailed introduction to, and genealogy of the medical 'conditions': 'maternal obesity'; GDM; T2DM in pregnancy. I draw on Foucauldian discourse analytic techniques to critically appraise/interrogate prevailing constructions of these 'conditions' in medico-scientific and public health discourses and popular media representations. I discuss the key discursive themes evinced in these bodies of knowledge/representations: risk, responsibility and intergenerational transmission of 'obesity'/diabetes.

In **Chapter Four, 'Conceptual Apparatus'**, I delineate the broadly Foucauldian conceptual apparatus that informs the thesis. I show how increasing prevalence of the associated medical 'conditions' 'maternal obesity'/GDM/T2DM in pregnancy are seen as a pressing biopolitical issue in urgent need of amelioration and government. I explicate how under neoliberal rationalities and the 'new public health' maintenance of health is deemed the responsibility of the

individual and risk discourse is drawn heavily upon as a tool of governance. Bourdieu's theory of habitus is posited as providing a more nuanced understanding of lifestyles amongst different social groups and as providing critique of the neoliberal rational actor model. Finally, drawing on feminist scholarship, I give a critical overview of the contemporary government of pregnancy.

In **Chapter Five, 'Design and Methodology of the Empirical Research'**, I give a detailed exposition of the empirical research design and underpinning methodology. The rationale for the qualitative longitudinal design and auto/biographical narrative interviewing technique is discussed. I provide detail of the research sites, the ethical strategy employed and the process of gaining ethical approval. Sampling technique and issues of recruitment and retention of participants are delineated. Participant mini-biographies are provided, followed by consideration of the social class composition of the study group. I explicate the use of pertinent internet fora data for triangulation purposes. Modes of transcription, coding and analysis of data are discussed. Finally I consider issues of validity and generalisation, and proffer evaluative criteria considered to be congruent with the methodology/ethos of the research.

Chapter Six, 'Responsibility, Risk and Resistance' is the first data chapter. I focus on study participants' negotiations of and positioning with respect to hegemonic medico-scientific, public health and popular media discourses. Internet fora data are utilised for comparative/corroborative purposes. I consider the resonance of/resistances to dominant discourses and women's 'accountancy talk'. Key topics explicated in this chapter are: pregnancy

planning; counter-identification/disidentification with the term 'obesity'; glucose tolerance testing and responses to diagnosis of GDM; diabetes causation accounts; perception/understanding of risks; the spectrum of compliance with/resistance to the diabetes regimen; induction of labour, caesarean section and sterilisation. The chapter concludes with a consideration of 'post-birth responsibilities', testing for T2DM, lifestyle change/weight loss, preconception care and infant feeding.

Chapter Seven, 'Stigmas, Stressors/Stress and Social Support' is the final data chapter. Here I focus on common experiences/perceptions of participants with particular emphasis on women's psycho-socio-cultural milieux and how this impacted/may have impacted on pregnancy/post-birth experiences. Key topics discussed are: childhood bullying; perceived stigmatisation in healthcare/maternity care; 'comfort eating', 'not eating'; histories of dieting, weight loss and weight cycling; expense of 'healthy eating'/dietary modification; housing stress/insecurity; social support; perceived physiological effects of stress during pregnancy.

In **Chapter Eight – 'Final Reflections'** I explicate the novel contributions to the field that my research/thesis makes. I discuss the key research findings and the possible implications for policy, practice and further research. I conclude by reflexively considering the research process and product.

Chapter Two: Introduction to the Theoretical Approach

2.1 Introduction

In this chapter I discuss the various theoretical/epistemological/methodological positions from which I have drawn and situate my work within them. First, I discuss the 'hybrid' position I deploy in the thesis. Second, social constructionism is explicated at some length, as this perspective underpins the overall theoretical orientation and is of particular import to the sociology of health and illness. Third, I briefly consider the realism-relativism debate and attempt to move beyond the impasse it tends to generate. Fourth, I discuss the 'interconnected triad' (Carabine, 2001) of Foucauldian concepts discourse/power/knowledge, before explaining how FDA is applied and utilised in this thesis. Fifth, I consider criticisms of FDA and the necessity of retaining some sense of the 'extra-discursive' and materiality in my work. In the final section I discuss the prerequisite of a reflexive awareness of the researcher's own personal, political and intellectual positioning for work within a feminist poststructuralist paradigm.

2.2 'Poststructuralist feminist analytical framework that holds on fiercely to lived experiences' (Longhurst, 2008, p.9)

It appears that most empirical research examines either the discursive constitution of a phenomenon and discursive positioning with respect to it, or participants' 'lived experience'. I found little work which set out to simultaneously consider discourse, experience and socio-cultural context (see Longhurst, 2008; Lupton & Barclay, 1997; Saukko, 2010; Yardley, 1997, for

exceptions to this). However, like Saukko (2010) I was convinced of the need to examine the interplay between discourses appertaining to the medical 'conditions', women's experiences and the socio-material context of their lives (see also Willig, 2000). It seemed to me that a synthesis of theories/methodologies was required. Drawing on poststructuralist insights, in particular the work of Foucault, I assert that 'maternal obesity'/GDM/T2DM in pregnancy (both discretely and in relation to each other) are discursively constituted in particular ways in this socio-historical moment which require detailed examination/deconstruction.

I suggest that 'expert' discourses of biomedicine and public health, and popular mediated representations, are hegemonic and will inevitably impact upon women's experience of pregnancies complicated by these 'conditions'. Health related discourses are shown to influence the way individual's experience their bodies and themselves (Saukko, 2010; Yardley, 1997). Medico-scientific and public health discourses regarding reproduction and childbearing can be said to constitute 'authoritative knowledge' (Jordan, 1997; Root & Browner, 2001), which '...supersedes and delegitimizes other potentially relevant sources of knowledge such as women's prior experience and the knowledge she has of the state of her body (Jordan, 1997, p.73). As a corollary, women's experiential knowledge of reproduction and mothering can be characterised as 'subjugated' (Beaulieu & Lippman, 1995; Marshall & Woollett, 2000; Root & Browner, 2001). Popular media representations are also key sites for the discursive configuration of these medical 'conditions'. Letherby (2002b) asserts that women cannot ignore dominant and authoritative discourses. Discourses contribute to the constitution of phenomenological experience and subjectivity

(Lupton, 2000). However, in this project I wanted to avoid sliding into 'discourse determinism': reducing experience merely to discourse (Letherby, 2002b; Ramazanoglu, 1993). It is important to consider the impact of other social relations and material circumstances (Benhabib, 1995; Ramazanoglu, 1993) on women's lives.

My research draws on the traditional interests of phenomenology: attempting to gain access to the 'lived experience' of participants through their own words and narratives (Lupton & Barclay, 1997). As Kvale and Brinkman (2009, p.26) explain, this involves 'an interest in understanding social phenomena from the actors' own perspectives and describing the world as experienced by the subjects, with the assumption that the important reality is what people perceive it to be'. In Longhurst's (2008, p.9) empirical study of pregnant women in New Zealand she says she developed: '...a kind of poststructuralist feminist analytical framework that holds on fiercely to lived experiences', which I found particularly resonant. Ussher's (1997) and Yardley's (1997) 'material-discursive' approach emphasises a move away from what they see as the binary divide between material and discursive analyses towards a more integrative approach, recognising their interaction and interrelationship. As Yardley (1997, p.2) states, 'the socio-cultural and material aspects of human experience are intimately linked and ...while each can be studied separately, it is also useful to explore their reciprocal influence'.

Fundamentally I concur with the feminist position of Marshall and Woolett (2000, p.351) that 'reproduction remains a key site for the regulation of women', and understand that taking this personal, political and intellectual position

inevitably influences the research process and product (Letherby, 2002a; Letherby & Ramsay, 1999). This issue is reflexively considered and addressed in the thesis.

Having briefly discussed the hybrid theoretical/methodological position I arrived at, I will now 'unpack' this further. First, I discuss the relevance of a 'social constructionist' perspective, particularly in respect to the sociology of health and illness. As a theoretical orientation social constructionism underpins FDA (Burr, 2003; Willig, 2000), which comprises the framework for analysing dominant medico-scientific/public health discourses and popular media representations of 'maternal obesity'/GDM/T2DM in pregnancy (see Chapter Three) and how women position themselves according to/negotiate these hegemonic discourses (see Chapter Six).

2.3 Social Constructionism

A social constructionist perspective argues that all knowledge, scientific or otherwise, is inevitably constructed through social and cultural processes (Lupton, 2003b; Lupton & Barclay, 1997) and is subject to change rather than fixed. This perspective emphasises the historical and cultural aspects of phenomena which are generally thought to be exclusively natural (Conrad & Barker, 2010). Whereas a medico-scientific model predominantly assumes disease entities to be universal and invariant to time and place, social constructionism argues that what is labelled as disease or qualifies as biological is historically and socially contingent. Constructionists problematise medical knowledge and the ostensibly neutral and objective 'natural science' paradigm on which it is based: questioning its epistemologically privileged status and

asserting that diseases are not simply 'real', but products of social practices and reasoning (Conrad & Barker, 2010; Lupton, 1993a; Nettleton, 1995). Therefore, medical 'discoveries' which imply that disease entities exist 'out there' waiting to be revealed are called into question (Nettleton, 1995). Instead, what constitutes 'disease' is considered to be established through certain types of investigation and as the product of historically and socially specific circumstances. Conrad and Barker (2010) suggest that a social constructionist approach to illness is an amalgam of different intellectual strands (see also Bury, 1986; Lupton, 2003b; Nicolson & McLaughlin, 1987). They suggest, however, that all social constructionists:

...share an eschewal of a strictly positivist conception of illness as the mere embodiment of disease. The approach foregrounds how illness is shaped by social interactions, shared cultural traditions, shifting frameworks of knowledge and relations of power. (Conrad & Barker, 2010, p.S69).

This thesis starts from the premise that 'maternal obesity'/GDM/T2DM are socially constructed disease categories. By asserting this I am not necessarily calling into question their reality as medical 'conditions' with potentially deleterious consequences for both woman and fetus. Despite the contention of its critics, most social constructionists acknowledge that illness/disease exist as biological realities (Lupton, 1993a; 1997a; 2003a; 2013; Nettleton, 1995). I argue that 'maternal obesity'/GDM/T2DM are objects which rather than being discovered, are constructed in the context of particular political and social conjunctures. This is not to say that as forms of knowledge they have no therapeutic value and are not functional in relation to the physical world (O'Farrell, 2005). This perspective does, however, emphasise that these 'disease' states are constituted and defined in discourse and are known and

interpreted via social activity and should thus be examined using social and cultural analysis (Lupton, 2003a).

A social constructionist perspective takes issue with a traditional history of medicine as a narrative of medical progress, suggesting instead that such knowledge is historically contingent and changes over time (Bury, 1986; Lupton, 2003b; Nettleton, 1995; Turner, 2004). In Chapter Three I show how the medical 'conditions' 'maternal obesity'/GDM/T2DM have been defined and constituted by medico-scientific knowledge (and to some extent popular media representations) and how this has changed over time, particularly in respect to diagnostic criteria. Furthermore, I indicate how certain female/maternal behaviour has come to be defined as pathological, and how this may function as a form of social control. Utilising a social constructionist framework can help to elucidate the cultural landscape of 'disease'. Certain medical conditions have particular metaphorical connotations and social and cultural meanings attributed to them which may have consequences for individuals diagnosed with those conditions and healthcare policy/provision. Barry et al (2009) examined common metaphors and beliefs about the causes of 'obesity' and empirically demonstrated how this affected support for public policy. They suggested the frequently used metaphor of 'obesity' as gluttonous may serve to block policy at macro level and/or encourage more punitive individualist responses. Drawing on Goffman (1990) and a constructionist standpoint it is possible to examine how medical conditions may become stigmatised and the impacts of stigma on those with the condition (see also Lupton, 2013). As Conrad and Barker (2010) assert: there is nothing inherent about a condition that makes it stigmatising, it

is the societal response to it, or the type of individuals who have it that result in a condition becoming stigmatised.

A social constructionist perspective sees all types of knowledge, whether experiential or based on rational science, to have validity (Nettleton, 1995). It is thus interested in accounts by lay people, which have often been treated as 'inferior' to those of medical professionals. Conrad and Barker (2010) suggest that constructionism draws on phenomenological underpinnings to understand the 'disease' experience as socially constructed. People have particular understandings of what it means to have a medical condition and may enact it/endow it with meaning. A constructionist approach can be said to take subjective experience seriously, examining how medical conditions are managed in different social contexts. In addition, focusing on the meanings of treatment regimens and medications in the context of everyday life may offer a different perspective to the clinical issue of 'non-compliance' (ibid 2010). 'Compliance' as a concept itself can be problematised from a constructionist perspective, for connoting a paternalistic/authoritarian relationship between healthcare professional and patient (Willig, 2000).

Constructionist approaches have, however, also been criticised for focussing on a macro-level and avoiding a detailed examination of the micro-context, such as people's everyday experiences (Lupton, 2003b; Willig, 2000). Social constructionist analyses have been criticised for losing sight of the influences of embodied factors and personal-social histories upon social situations and individual activity, and the ways in which the material world shapes social constructions (Bury, 1986; Cromby & Nightingale, 2011; Williams, 2001).

Turner (2004) suggests that it is important to differentiate between the social construction of the body and the phenomenology of embodiment. He argues that this approach enables the researcher to critique the official history of disease categorisation and also engage with the subjective experience of 'illness'. To illustrate he distinguishes between the social construction of diabetes as a medical condition and the everyday experiences of being diabetic (ibid 2004, p.45). Willig (2000, p.559) asserts that a social constructionist perspective of 'health' and 'illness' must consider '...how discourses of health and illness are interleaved with our material bodies, and how this is reflected in our subjective experience of these bodies'.

The most dogged critique of social constructionism is that due to 'a denial of an independent court of appeal to rationality or the scientific method' (Bury, 1986, p.151) it is nihilistic, and descends into the 'abyss of relativism' (ibid 1986, p.152). It is argued that as all knowledges are delineated as social products, social constructionist analyses themselves are called into question (Burr, 2003; Lupton, 2003b; Nicolson & McLaughlin, 1987). However, Lupton suggests (2003b, p.14):

...in response it may be argued that the intellectual purpose of social constructionist scholarship is to highlight these very difficulties, and that therefore their own analyses should not be regarded as attempts to define 'truth' but as alternative versions of events which may be placed against other versions and perspectives for comparison, and judged on their fruitfulness for insight rather than verisimilitude.

I concur with Nicolson and McLaughlin (1987) that as researchers we should be aware of our active role in the production of empirical evidence and sociological knowledge (I return to this point when I consider the issue of 'reflexivity' in 2.8).

Lupton (2003b) repudiates Bury's (1986) assertion that social constructionism is inherently nihilistic (see also Wetherell & Still, 1996). She argues that in recognising the social and cultural bases of medicine, disease entities and healthcare it may result in them becoming amenable to modification, negotiation and resistance. She further suggests that social constructionist analyses do not have to be apolitical, but can serve to challenge extant inequalities in health and healthcare provision (ibid 2003b).

2.4 The Realism-Relativism Debate

The line of argumentation discussed above is intrinsically linked to the wider 'realism-relativism' debate. Social constructionism, emphasising language/discourse as constitutive of 'reality', is accused of denying 'physical reality' or the existence of the 'real' world. Realism asserts that an external world exists independently of our representations of it. Relativism (certainly in its purest form) argues that any such external reality is inaccessible to us and thus need not be postulated or considered (Cromby & Nightingale, 2011). In my opinion Burr (1998) makes a germane point:

It seems to me that these intractable arguments over realism and relativism..., are intractable precisely because they are dichotomous constructions which have limited usefulness, a limited capacity to furnish us with useful ways of seeing the world and our place in it. (1998, p.22)

Lupton (2003b) suggests that adopting a social constructionist/discourse analytic approach does not make one uncompromisingly relativist. It is perhaps useful to see social constructionism as a continuum, with some constructionists (I include myself in this) maintaining some concept of reality outside of

discourse (see, for instance Burr, 2003; Cromby & Nightingale, 2011; Lupton, 2003b). This could be characterised as an adoption of a methodological/epistemological relativism whilst maintaining a realist ontology (Cromby & Nightingale, 2011; Willig, 2001). Best (1993) contends that the analytic constraints of 'strict constructionism' may be incompatible with empirical research. He recommends instead 'contextual constructionism': balancing substantive description of the empirical world against demands of theoretical consistency. Gill (1995) has expressed reservation about compatibility of relativism with feminism. She suggests that though 'epistemological scepticism' has a lot to offer feminism, there is a need to practice 'politically informed relativism' (1995, p.178), which does not eschew the question of values.

Burr (2003, p.23 original emphasis) asserts that one can: '...talk of things being at one and the same time socially constructed *and* real'. Similarly Nicolson & McLaughlin (1987, p.112) contend that 'it is possible to conceive of medical knowledge as simultaneously both realist and socially constructed'. I return to this argument when I discuss criticisms of FDA and consider the 'extra discursive' in 2.7).

2.5 Discourse/Power/Knowledge

According to Willig (2001, p.107) Foucauldian Discourse Analysis, '...asks questions about the relationship between discourse and how people think or feel (subjectivity), what they may do (practices) and the material conditions within which such experiences may take place'. Before I elucidate FDA further it is necessary to address what Foucault means by discourse, and consider the

key concepts: power and knowledge, which are crucial to his work (Carabine, 2001). Carabine (2001, p.267) suggests that discourse/power/knowledge should be understood as an 'interconnected triad' (see also Hall, 2003).

The concept of discourse can be seen (following Foucault) as a system of representation: to denote patterns of ways of thinking, understanding, talking about and visually representing phenomena (Lupton, 2003a). Foucault argued that discourses do not simply describe conditions of existence, but rather are productive of it (Carabine, 2001; Foucault, 2011; Murray, 2008b). As Hall observes, discourse:

...constructs the topic. It defines and produces the objects of our knowledge. It governs the way a topic can be meaningfully talked about and reasoned about. It also influences how ideas are put into practice and used to regulate the conduct of others. Just as a discourse 'rules in' certain ways of talking about a topic, defining an acceptable and intelligible way to talk, write or conduct oneself, so also by definition, it 'rules out', limits and restricts other ways of talking, of conducting ourselves in relation to the topic or constructing knowledge about it (Hall, 2001, p.72).

Discourses can be seen as groups of interrelated statements which cohere to produce both meanings and effects in the real world. They coalesce to represent a topic, whilst simultaneously excluding and rendering unintelligible other forms of reasoning. Discourses are both representational and constitutive. In offering 'ways-of-seeing' and 'ways-of-being' they are strongly implicated in the exercise of power (Willig, 2001, p.107). According to Foucault discourses are historically variable ways of expressing knowledges and truths (Carabine, 2001). In this schema knowledges are socially constructed, produced by power effects and constituted as 'truths' (Carabine, 2001; Hall, 2003).

The conception of power advanced by Foucault is radical: it is not uni-directional (from top to bottom) emanating only from sources such as the state/ruling class. Power is seen instead as something which circulates and is 'employed and exercised through a net-like organisation' (Foucault, 1980a, p.98). Relations of power are a feature of all levels of social existence (Hall, 2001), what Foucault referred to as the 'micro-physics' of power. Foucault's model of power is one of shifting and unstable relations. However, despite contestation of Foucault's conceptualisation of power by some feminists, others have argued that within this model it is still possible to talk of domination and oppression (see, for instance Bordo, 1993; Sawicki, 1996):

I would argue (not all feminists would agree) that this 'impersonal' conception of power does *not* entail that there are no dominant positions, social structures or ideologies emerging from the play of forces; the fact that power is not held by *anyone* does not entail that it is held equally by *all*. (Bordo, 1993, p.191 original emphasis)

Hall (2001) suggests that in a Foucauldian model the microphysics of power are primarily applied to the body, which is at the centre of struggles between different formations of power/knowledge.

Foucault conceived of an intrinsic linkage between knowledge and power: knowledge is always a form of power and is implicated in its application (Hall, 2001). In Foucault's work knowledge and power operate almost interchangeably; the hyphenated term 'power-knowledge' is sometimes used to delineate their nexus (O'Farrell, 2005). According to Foucault knowledge does not exist independently of networks of power and the exercise of power produces certain types of knowledge:

...power produces knowledge...power and knowledge directly imply one another...there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations. (Foucault, 1991a, p.27)

Foucault was particularly interested in how mechanisms of power produce different forms of knowledge aimed at examining people's activities and existence (O'Farrell, 2005). Such knowledge reinforces exercises of power and influences material practices. What is 'known' at a particular historical juncture about particular issues such as 'maternal obesity'/GDM/T2DM in pregnancy, will directly affect how they are controlled and regulated. Hall (2001; 2003) contends that knowledge linked to power takes on the authority of truth and moreover has the authority to make itself true. Foucault states, 'it is in discourse that power and knowledge are joined together' (1998, p.100). Discourse, power and knowledge are intrinsically interconnected with power operating in and through discourse as the other face of knowledge. Knowledge constitutes and is constituted through discourse as an effect of power. Hall (2003, p.294) asserts: 'The knowledge which a discourse produces constitutes a kind of power, exercised over those who are 'known'. When that knowledge is exercised in practice, those who are 'known' in a particular way will be subject (i.e. subjected) to it'.

However, we are always reminded in Foucault's work of the concomitance of power and resistance:

...discourse can be both an instrument of power, but also a hindrance, a stumbling-block, a point of resistance and a starting point for an opposing strategy. Discourse transmits and produces power; it reinforces it, but also undermines it and exposes it, renders it fragile and makes it possible to thwart it. (Foucault, 1998, p.101).

Resistance, conflict and struggle are always-already inscribed in discourse. However, as Henriques et al (1984, p.115) point out this: ‘...does not imply that resistance is necessarily equal or successful or indeed that it is fundamentally subversive’. Powers (2007) suggests that marginalised discourses are tolerated and of necessity to hegemonic discourse; providing alternative speaking positions of resistance that maintain the tension to sustain dominant discourse. Foucault himself refers to ‘subjugated’ or ‘popular knowledges’: ‘...that have been disqualified as inadequate to their task or insufficiently elaborated: naïve knowledges located low down on the hierarchy, beneath the required level of cognition and scientificity’ (1980a, p.82). Such ‘low-ranking’ ‘disqualified’ knowledges (such as experiential knowledge) are seen as generating resistance, criticism and struggle (ibid 1980a).

2.6 Applying Foucauldian Discourse Analysis

Willig (2000) suggests there are two main ways in which FDA have been applied to the study of health and illness. Firstly, it has been used to deconstruct expert discourses, and secondly as an analysis of non-expert texts in order to determine the extent to which dominant discourses are reflected in lay people’s talk. She suggests that the latter needs to be developed further (ibid 2000) in order to understand how particular health-related conditions may be experienced by those to whom they have been ascribed. This thesis incorporates both foci. In Chapter Three I employ insights from FDA to examine prevailing medico-scientific/public health/popular media discourses pertaining to ‘maternal obesity’/GDM/T2DM in pregnancy in an attempt to determine their ‘conditions of possibility’ (Arribas-Ayllon & Walkerdine, 2008) in this socio-

historical moment. I map the discursive terrain pertaining to 'maternal obesity'/GDM/T2DM in pregnancy and their conjunctions. In Chapter Six, I empirically explore how women comprehend, negotiate and/or transform/resist such discourses. In other words: how do women construct meaning in relation to discourses of 'maternal obesity'/GDM/T2DM in pregnancy? (Willig, 2001)

Lupton (2003a, p.61) states that:

Much scope remains for further inquiries into how lay people understand their bodies in relation to the dominant discourses emerging from such influential institutions as medicine, public health and the mass media. The relationships between these pre-existing discourses and the meaning developed through individuals' own life experiences of embodiment, illness and medical care has yet to be fully explored and understood.

I wanted to explore the relationship women have with 'expert' discourses pertaining to 'maternal obesity'/GDM/T2DM in pregnancy and the way they may take up and/or transform/resist such discourses. I aimed to deconstruct dominant discourses and institutional practices; considering how discursive constructions of the medical 'conditions' legitimate a particular version of reality and experience (Willig, 2000). Discourse analysis can be seen as '...a valuable way of understanding assumptions inherent in health professionals' communication with their clients, lay health beliefs and the messages and meanings about health issues disseminated in the popular media' (Lupton, 1992, p.149).

As articulated by a number of authors, there is no consensus on/definitive way of performing a Foucauldian inspired discourse analysis (Arribas-Ayllon & Walkerdine, 2008; Hook, 2001; Tischner & Malson, 2011). Some have

suggested that a genealogical analysis is required in order to interrogate discourses (Carabine, 2001; Hook, 2001). To some extent, the terms 'genealogical analysis' and 'FDA' appear to be interchangeable: Carabine (Op.cit. 2001) refers to 'genealogical discourse analysis'. It is suggested that genealogy is a lens through which to read discourse and produce a 'history of the present' (Weir, 2006). In examining discourses pertaining to 'maternal obesity'/GDM/T2DM in pregnancy I have traced development of these knowledges, including their discontinuities (Foucault, 1981). A genealogical analysis aims to document institutions, procedures and practices involved in the production of discourses and their power effects (Carabine, 2001).

Cheek (2004) has suggested that there has been poor reporting of studies purporting to use discourse analysis with little explanation of the underpinnings of research. I wish to elucidate the way that discourse analysis is understood and operationalised in my study. I have drawn upon the methodological guidelines for conducting FDA proposed by Arribas-Ayllon and Walkerdine (2008) as I found them to be most effective and pragmatic. Their schema indicates discourse analytic 'steps'. However, these are not intended to be prescriptive, and my analysis did not proceed exactly in the linear fashion delineated and was iterative.

The first step involved 'selecting a corpus of statements' relevant to the research. I asked the question: 'What counts as reasonable and qualified knowledge [pertaining to 'maternal obesity'/GDM/T2DM in pregnancy] within [this] socio-historical milieu' (derived from Hook, 2001, p.8)? Or to use Willig's (2000, p.553) words: 'What constitutes the 'discursive economy' in reference to

these medical 'conditions'? I selected exemplary 'expert' texts which constituted the discursive objects: 'maternal obesity'/GDM/T2DM in pregnancy. Texts selected were considered to constitute the 'conditions of possibility' (Arribas-Ayllon & Walkerdine, 2008) for the studied phenomena . This included relevant policy documents (e.g. NICE guidance), official publications, descriptions of institutional practices, intellectual texts/specialist literature and popular media sources.

It is important to acknowledge the subjective judgement involved in selecting texts for inclusion in the discourse analysis of medico-scientific/public health literature and popular media representations of the medical 'conditions'. A possible criticism of any discourse analytic work is that it is selective and subjective: reliant on the individual's selection and interpretation of texts and thus open to accusations of drawing on apposite extracts to support an argument (Carabine, 2001). Lupton (1992) asserts that individual scholar's interpretations of texts have always been a feature of humanistic disciplines such as history, politics and anthropology, to which discourse analysis is closely related; sharing a similar approach to investigating social, political and cultural processes. Using discourse analysis as a critical tool requires the commentator's role in selection of texts for analysis and subsequent theorisation be made explicit. The critical analysis of 'expert' medico-scientific/public health literature in Chapter Three was comprehensive, but did not constitute a systematic review. I started with a detailed analysis of pertinent NICE guidance. NICE makes evidence-based recommendations and defines standards of healthcare/public health in England, Wales and Northern Ireland. It is reasonable to expect NHS trusts to base their protocols and management

of the medical 'conditions' on relevant NICE Guidance. Guidance from other professional organisations such as the Royal College of Obstetricians and Gynaecologists (RCOG) was included. Pertinent self-help/self-management guides for women from the NHS and third sector organisations were also analysed. Scientific/medical databases were utilised to search for relevant peer-reviewed scientific/clinical journal articles: PubMed, ScienceDirect, Medline, Wiley Online Library. The medical 'conditions' were searched separately and in conjunction with each other. Leading from these initial searches I searched for articles related to the genetic/epigenetic transmission of 'obesity' and diabetes. This was accompanied by more general Internet searches and the use of Google Scholar. Often lines of investigation followed from references found in the sources discussed. An exhaustive search, review and analysis of relevant literature pertaining to 'maternal obesity'/GDM/T2DM in pregnancy was carried out between 2010 and 2012. However, no strict inclusion/exclusion criteria were utilised. Chapter Three presents what I consider to be an effective overview and genealogy of the medical 'conditions', review of the literature and a thorough and cogent analysis of the key discursive themes in evidence. It is not possible to make claims of objectivity in the selection and analysis of this material. Analysis of popular media representations/framing drew upon Foucauldian discourse analytic techniques but was carried out slightly differently and is summarised in detail in Chapter 5.9.1.

Medico-scientific and public health discourses carry authority in this socio-historical moment; they are the means by which the 'truths' about these medical 'conditions' are established (Foucault, 1980c; Lupton, 2013). Taking a

Foucauldian theoretical position involves scepticism about narratives of progress and an aim to reveal discourses as the medium through which claims to truth are made (McLeod & Thomson, 2009). The discursive field determines 'what can be said and by whom' (Tischner & Malson, 2011) (see also Cheek, 2004). As Hook (2001, p.12) notes discourse analysis must also consider: '...what cannot be said,...what is impossible or unreasonable within certain discursive locations.'

As Lupton (1998b) contends, discourses compete with each other; with new, radical or subjugated discourses challenging more established ones. Wherever possible I have included critical alternative/counter-discourses (for instance within the medical/scientific literature itself and from the critical 'obesity' and public health fields) (see Chapter Three). Given the historical dimension of Foucauldian work I have indicated how the discursive 'objects' have been transformed over time.

Arribas-Ayllon and Walkerdine (2008) contend that the discourse analysis must proceed by foregrounding where the discursive object(s) are made 'problematic'. I examined the problematisation and pathologisation of 'maternal obesity'/GDM / T2DM in pregnancy both individually and in conjunction with each other. This then drew attention to how aspects of behaviour were rendered problematic: creating moral domains and material practices (see also Rose, 2004). Elucidating problematisations is said to allow 'us to think differently about the present by taking up a position outside our current regimes of truth' (ibid 2008, p.101). Moreover problematisations give rise to technologies: practical forms of governmental rationality. Certain practices

become legitimate forms of behaviour from within particular discourses. With reference to 'maternal obesity'/GDM/T2DM in pregnancy, expert discourses demonstrate how technologies of power/discipline seek to govern women's conduct whilst simultaneously fostering technologies of the self (see Chapter 4.3 for a detailed exposition of this). In considering links between problematisations and subsequent instigation of governmental technologies, interdependency between discourses, institutions and social practices is demonstrated.

Intrinsic to FDA is consideration of subject positions made available in discourse and implications for subjectivity. Discourses construct *subjects* as well as discursive *objects*; making available positions that speakers can take up (and place others within) (Willig, 2001). Foucault has been accused of presenting a 'thin' conception of the human actor/human agency (Arribas-Ayllon & Walkerdine, 2008; Miller, 2008; Sarup, 1996), where the subject is constructed in discursive practices and moves mechanically through discourse (Kendall & Wickham, 1999). This apparent lack of agency has proved to be a sticking point for some feminists. However, Weedon (1997, p.121) contests this view, stating:

Although the subject in poststructuralism is socially constructed in discursive practices, she none the less exists as a thinking, feeling subject and social agent, capable of resistance and innovations produced out of the clash between contradictory subject positions and practices. She is also a subject able to reflect upon the discursive relations which constitute her and the society in which she lives, and able to choose from the options available.

As Willig (2000, p.556) notes, “‘Positioning theory’ is by no means a unified account of self and personal agency: rather it provides a set of conceptual tools with which to explore the relationship between discourse and subjectivity’.

In respect to medico-scientific/public health/popular media discourses pertaining to ‘maternal obesity’/GDM/T2DM I asked the question: *What possible subject positions are made possible within such texts?* Investigating the cultural repertoire of discourses pertaining to ‘maternal obesity’/GDM/T2DM in pregnancy throws into relief subject positions available to speakers. Women can be said to take up subject positions offered in discourse by being ‘interpellated’ (Althusser, 1971) or ‘hailed’. This entails the discursive representation affording resonance and them recognising themselves within it – ‘yes, that’s me’ (Woodward, 2003). ‘Expert’ medical/health promotion discourses in particular offer preferred subject positions. However, because discourses may have regulatory intentions does not mean they necessarily result in acceptance of subject position(s) proffered. Women may position themselves ‘*in relation to*’ hegemonic discourses but not necessarily ‘*in accordance with*’ them (Willig, 2000, p.552). Discourses offer more than one subject position, for instance in discursive offering of a preferred subject position there is always the possibility of reversal (Weedon, 1997). Armstrong (2007) suggests acceptance is likely when the advocated subject position is compatible with an individual’s interests. However, as Weedon (1997, p.109) argues, ‘where there is a space between the position of subject offered by a discourse and individual interest, a resistance to that subject position is produced.’

Pêcheux (1982) (see also Montgomery & Allan, 1992) indicates three processes of subject positioning/meaning construction: identification, counter-identification and disidentification. Identification is the modality of 'good subjects', where the image of self/meaning projected by the dominant discourse is accepted.

Counter-identification rejects the subject positioning, it is the mode of 'bad subjects' who refuse to be interpellated: yet even in opposition accept the terms of the dominant discourse. Disidentification involves taking up a non-subjective position in such a way that threatens to rearrange/overturn the dominant discourse. Henwood (2009) used Pêcheux's schema with reference to patients' relationship to dominant 'obesity' discourse (see also Harris *et al.*, 2010).

Henwood (2009) suggests that those who identify with the dominant discourse can be understood as informed patients, generally following advice from healthcare professionals (HCPs). Those who counter-identify can be understood as rejecting/resisting taking up the patient identity, but offer nothing in its place. Finally, those who disidentify question hegemonic discourse: attempting to create alternative meanings /understandings around health/'obesity', including perhaps questioning what constitutes expertise with respect to this.

Data from interviews and internet fora (see Chapter Six) indicate the extent to which prevailing medico-scientific/public health/popular media representations of 'maternal obesity'/GDM/T2DM in pregnancy are accepted/transformed or resisted in lay discourse.

Willig (2001) suggests that taking up a subject position has direct implications for subjectivity. Davies & Harre (cited in Willig, 2001, p.111) posit:

Once having taken up a particular position as one's own, a person inevitably sees the world from the vantage point of that position and in terms of the particular images, metaphors, storylines and concepts which are made relevant within the particular discursive practice in which they are positioned.

The final stage of FDA considers consequences for a woman's subjective experience of taking up a particular subject position.

2.7 Foucauldian Discourse Analysis – Critiquing and Moving Forward

One of the most pervasive criticisms of Foucault's work is that it is culpable of 'discourse determinism' (Henriques *et al.*, 1984; Kendall & Wickham, 1999; Lupton, 1993a): that it privileges discourse and allows for no appeal to anything outside of it, since anything 'outside' can only be specified in some discourse that always-already constructs it in a particular form (Henriques *et al.*, 1984). In many respects this returns to the 'realism-relativism' debate which was characterised as an unhelpful dichotomy earlier in the chapter. As Foucault himself pointed out, it is not a fruitful line of argumentation to pursue:

You are attributing to me the idea that the only really analysable element, the only one which is available to us is discourse. And that, as a consequence, the real doesn't exist. Only discourse exists...In fact it doesn't make any sense to say that only discourse exists (Foucault (1974), cited by O'Farrell, 2005).

However, a major critique of Foucault's work is the absorption of too much into discourse, which is said to have resulted in his followers neglecting the influence of material, economic and structural factors (Hall, 2001). In many cases Foucauldian inspired work seems to confine itself to critical

deconstructions of dominant discourses (Willig, 2000). As Lupton (1997b, p.103) asserts:

...there is little discussion in many Foucauldian accounts of the phenomenological body, or how people respond to the external discourses and strategies that attempt to discipline them. Nor is there much discussion of how these responses are mediated through such factors as gender, age, social class, sexual identity and ethnicity.

In the empirical project on which this thesis is based I wished to deconstruct dominant 'expert' discourses pertaining to 'maternal obesity'/GDM/T2DM in pregnancy and to consider how women position themselves and negotiate these discourses. Additionally I wanted to be able to make some critical commentary about women's: pregnancy and post-birth experiences; perceptions; psycho-socio-cultural milieux and material circumstances. This, it seemed to me, was crucial from a feminist perspective and could be characterised as a 'material-discursive' approach (Ussher, 1997; Yardley, 1997).

Attempting to hold on to the 'extra-discursive' may result in criticisms of epistemological incompatibility with FDA. On this point I concur with Best (1993) that qualitative researchers must balance substance against the demands of theoretical consistency. Strict constructionists remain in the realm of the textual, with little reference to real, embodied human beings or 'actual' lives. Interpreters of Foucault attribute to him the rejection of extra-discursive categories such as 'the body' or 'lived experience' (Miller, 2008). However, this thesis, like the work of Longhurst (2008, p.9) is poststructuralist but 'holds on fiercely to lived experience'. Bury (1998, p.19) suggests that recourse to 'lived experience' is necessary for a sociology of health and illness to 'come back into

view' after effacement by postmodernist writings. This is not a naïve foundationalist privileging of 'experience' as authoritative and true knowledge, or to suggest that interview data provides a 'true' picture of women's lives and experiences. It is to assert that the women who took part in this project are real and embodied, and that spending sustained periods of time with them in their homes and talking to them about their experiences generated points of connection with the material realities of their everyday lives. I concur with Hollway and Jefferson (2000, p.3) that although there is not a direct correspondence, there is 'a relationship between people's ambiguous representations and their experiences'. In concurrence with Mauthner and Doucet (2003), I suggest that it is possible to grasp something of respondents' articulated experience and subjectivity through a research encounter. Moreover, I argue that to become further subsumed by issues of authenticity and representation could result in inertia and the risk of not being able to say something useful about women's experiences/to HCPs working with women with these 'conditions' (see, Lawton *et al.*, 2007, for a discussion of this).

I discuss the analysis of the empirical interview data further in Chapter 5.10 as it incorporates FDA but entails additional levels of analysis.

2.8 Feminist Poststructuralist Research and Reflexivity

According to a poststructuralist/Foucauldian perspective all forms of knowledge are constructed through discursive practices. As a corollary, this thesis can be seen as a discursive construction and can make no claim to objectivity or universal truth. According to Willig (2001, p.121): '[a] reflexive awareness of the problematic status of one's own knowledge claims, and of the discourses used

to construct them, is, therefore, an important component of discourse analytic research'. Both the poststructuralist and feminist movements have had the effect of challenging researchers to consider their positions of power and claims-making in the research and writing process (Lupton, 1993a).

Mauthner and Doucet (2003, p.416) have referred to the 'reflexive turn' in the social sciences. In the positivist paradigm and previous 'moments' (Denzin & Lincoln, 2000) of qualitative research reference to the embodied, situated and subjective researcher was expunged from research reports/theses; sometimes referred to as the phenomenon of the 'missing researcher' (Smyth & Shacklock, 1998). It was the view that social scientific research could be objective and uncontaminated by bias/the researcher's role by careful adherence to certain procedures. As Finlay (2003, p.5) states (see also Finlay, 2002b; 2002a):

As qualitative researchers, we now accept that the researcher is a central figure who actively constructs the collection, selection and interpretation of data. We appreciate that research is co-constituted – a joint product of the participants, researcher and their relationship. We realise that meanings are negotiated within particular social contexts so that another researcher will unfold a different story. We no longer seek to abolish the researcher's presence...

In explicitly interrogating the role of my subjectivity in the research process this is not an attempt to somehow affirm validity and bring me closer to representing 'reality' or the 'truth' (see Finlay, 2003; Pillow, 2003, for a discussion of this).

Poststructuralism posits that there is no objective means of ascertaining 'truth'/authenticity. The process of being reflexive about my decision making and role in the research has been to facilitate creative interpretation and critical analysis, particularly in attempting to militate against overly determined interpretation/analysis. I hope that in paying attention to my discourse as a

researcher this will enable a more vibrant form of writing as opposed to an unreflexive 'flat' description (Gough, 2003a). Moreover I contend that it is important to attempt to contextualise the research, informing the reader of how one's biography/subjectivity may have influenced aspects of it. Although this does not 'prove anything' (Finlay, 2002a), this can be borne in mind when the material is evaluated. Reflexivity is also an attempt to identify and acknowledge the limitations of the research and its historical and cultural specificity (Smyth & Shacklock, 1998). Fundamentally I concur with Mauthner and Doucet (2000, p.121) that:

Reflexivity means reflecting upon and understanding our own personal, political and intellectual autobiographies as researchers and making explicit where we are located in relation to our research respondents. Reflexivity also means acknowledging the critical role we play in creating, interpreting and theorising research data.

This chapter has functioned in part to make explicit where I situate my work politically/theoretically/epistemologically. Reflexive consideration of how drawing on such political/theoretical/epistemological positions will inevitably affect the process and product of the research (Letherby, 2002a; Letherby & Ramsay, 1999) is an intrinsic part of this thesis.

However, a philosophical commitment to comprehensive reflexivity does not necessarily translate easily into practice. From a psychoanalytic perspective it is impossible to be completely reflexive since unconscious motivations and drivers may remain impossible to access (Doucet & Mauthner, 2008; Gough, 2003b). A social constructionist/postmodern perspective suggests that the subject is fragmented, multiple and incomplete (Jackson, 1998); thus the notion of uncovering underlying personal influences is problematised (Gough, 2003a;

Pillow, 2003). This line of argumentation entails being reflexive about being reflexive and could ultimately lead to infinite regress (Bonner, 2001; Day, 2012; Finlay, 2002b). Finlay (2002b, p.209) refers to 'negotiating the swamp' of 'interminable deconstructions, self analysis and self disclosure'.

Situating oneself personally and politically and considering the effects of this positionality on the research process and product also brings attendant ethical issues. Arguably it is necessary to control which aspects of one's subjectivity enter the public domain. Inclusion of aspects of the researcher's auto/biography throws up issues of whether it is necessary to seek informed consent from family and friends who may be implicated (DeVault, 1997): unlike respondents they are not protected by anonymity. In addition it is possible to be/be perceived as too subjective or solipsistic. In the empirical research and this thesis I aimed 'to use personal revelation not as an end in itself but as a springboard for interpretations and more general insight' (Finlay, 2003, p.8) (see also DeVault, 1997). I return to these issues again in Chapter 5.10.2.

2.9 Chapter Summary

In this chapter I introduced the theoretical framework that informs this thesis. I explained the 'poststructuralist feminist analytical framework that holds on fiercely to lived experiences' (Longhurst, 2008, p.8) adopted. Underpinning this is a social constructionist theoretical orientation which was discussed with particular reference to the sociology of health and illness. The interconnected conceptual triad of discourse/power/knowledge was elucidated in order to clarify how FDA is applied and utilised. FDA was critiqued for its tendency to discourse determinism and I discussed how this thesis moves towards a more

material-discursive analysis. The necessity for ongoing reflexive consideration of the researcher's role in the research process and construction of knowledge was asserted as intrinsic to a feminist poststructuralist position. Finally, reflexivity was discussed with respect to the specific function it served in the research and serves in this thesis.

Chapter Three: Deconstructing Dominant Discourses

3.1 Introduction

This chapter encompasses a genealogy of the medical ‘conditions’, ‘maternal obesity’, GDM and T2DM in pregnancy; entailing a critical historical overview and problematisation of the discursive constitution and pathologisation of these ‘conditions’. I draw upon Foucauldian discourse analytic techniques to delineate and interrogate prevailing constructions of these ‘conditions’ in medico-scientific/public health literature, and popular media representations. With reference to policy documents I consider the government/management of these ‘conditions’ at this socio-historical moment. Key discursive themes identified within medico-scientific/public health discourses and popular media representations are: myriad risks of ‘maternal obesity’/GDM/T2DM, women’s personal responsibility to ameliorate risk, and intergenerational transmission of ‘diabetes’ (where women with ‘maternal obesity’/GDM/T2DM are strongly implicated in the perpetuation of the ‘obesity’/diabetes ‘epidemic’). Counter discourses emanating from anthropology/sociology/critical ‘obesity’ studies/critical public health are also identified and discussed.

The chapter begins with a detailed introduction/genealogy of ‘maternal obesity’/GDM/T2DM in pregnancy. Identified as a key priority in bio-medicine and public health, the issue of preconception care for women with ‘maternal obesity’ or/and T2DM is critically considered. The following section entails a detailed examination of management/surveillance of pregnancies complicated by ‘maternal obesity’/GDM/T2DM as delineated in guidance from organisations

such as NICE and RCOG. Attention is drawn to material practices which render these 'conditions' manageable and governable. Recommendations for neonatal care of infants born to women with 'obesity'/GDM/T2DM, and post birth management of women, are briefly explicated. Next, purported 'intergenerational transmission' of 'obesity' and T2DM is examined.

Genetic/epigenetic medico-scientific theories pertaining to the aetiology of 'obesity', GDM and T2DM are critically considered. I then discuss popular media representations of 'maternal obesity' and situate this within a wider analysis of media framing of the 'obesity epidemic'. I show how GDM/T2DM in pregnancy have been discussed in the popular media predominantly as co-morbidities of 'maternal obesity' and their increasing prevalence presented as driven by the 'obesity epidemic'.

The chapter concludes by reviewing prevailing discursive motifs evidenced in medico-scientific/public health literature and popular media representations. These discursive themes are overlapping and in many respects (certainly in respect to risk and responsibility) mutually constitutive: Petersen (1999) refers to the 'discursive link between risk and responsibility'.

3.2 Introducing the Medical 'Conditions'

In the following sections I provide a critical overview and genealogy of the following medical 'conditions': 'obesity', 'maternal obesity', GDM, T2DM and T2DM in pregnancy. I discuss 'obesity' and T2DM generally before presenting an exposition of these 'conditions' in pregnancy. 'Maternal obesity'/GDM/T2DM in pregnancy are discussed as discrete entities, but also in terms of manifold associations between them. I consider the neologism 'diabesity': propounded

as it encapsulates what are considered to be fundamental links between rising levels of 'obesity' and T2DM. I explicate how these 'conditions' are defined in medico-scientific and public health literature and the diagnostic criteria utilised. The pathophysiology and purported aetiology of the 'conditions' is explained/critically considered. Epidemiological patterning of 'maternal obesity'/GDM/T2DM in pregnancy is discussed.

3.2.1 'Obesity'

NICE guidance suggests that when HCPs use the term 'obesity' with a patient they should stress that it is 'a clinical term with health implications, rather than a question of how you look' (NICE, 2006, p.39). Demonstrably there is an expectation that the term will be utilised.

I approach the term 'obesity' tentatively, hence my use of inverted commas: recognising it as a problematic biomedical category (cf Campos *et al.*, 2006; Gard & Wright, 2005). I agree that 'the O word' (Cohen *et al.*, 2005), whilst having a specific clinical definition, has become imbued with value judgements. However, I utilise the term in order to reflect medico-scientific discourses, whilst simultaneously critically engaging with these discourses.

'Obesity' is generally classified using body mass index (BMI):
weight (kilograms) /height²(metres)² = kg/m² (Fraser & Chan, 2003).

The World Health Organisation (WHO) defines BMI of ≥ 30 as 'obese'.

Designation of 30 as a BMI cut-off point for obesity is derived from a risk based model: the level at which adiposity became associated with significantly

elevated disease risk within studied populations (Brewis, 2010). 'Obesity' is divided into further subcategories (WHO, 2011a):

BMI	Classification
30-34.99	Class 1: Obese
35-39.99	Class 2: Morbid Obesity
≥40	Class 3: Extreme Obesity

Table 1 - WHO BMI Classification

BMI was developed by Quetelet during the nineteenth century. In the 1970's it was noted an effective proxy for adiposity and weight related health problems (Heymsfield & Shen, 2011; Keys *et al.*, 1972). BMI is now commonly used for diagnosing 'obesity' and is the basis of anti-obesity policies (Evans & Colls, 2009). The efficacy of BMI as a measurement of adiposity/links drawn between BMI and health in biomedical research have been extensively problematised (e.g. Campos *et al.*, 2006; Gard & Wright, 2005; Rich & Evans, 2005). BMI is the most commonly used tool to correlate risk of health problems with weight *at population level* (my emphasis) (WHO, 2011c). However, the National Obesity Observatory (NOO) suggests that BMI 'may not be an accurate tool for assessing health status at an individual level' (NOO, 2009, unpaginated) (see also Evans & Colls, 2009; Jutel, 2006). According to Monaghan & Hardey (2009, p.342) it offers only 'a (crude) proxy of visceral and total body fat.' Moreover, it fails to differentiate between fat and other body mass (muscle, bone etc) (Keenan & Stapleton, 2010). Cut-off points defining 'overweight' and

'obesity' have been declared 'arbitrary' (Brewis, 2010; Evans & Colls, 2009), for example, when the 'overweight' category was lowered from 29 to 25 in the US in 1998, millions of people were instantly pathologised even though their body weight had not changed (see, for instance, Lupton, 2013). BMI classification is age, gender and ethnicity independent and may not reflect the same degree of adiposity in different populations (Torloni *et al.*, 2012). Nevertheless, BMI charts are now commonly presented to the public as the way to assess health in relation to their weight (Rich & Evans, 2005).

'Obesity' has historically been seen as a 'risk factor' predisposing a person to illness (Coveney, 2008; Keenan & Stapleton, 2010) such as T2DM (Thompson & Kumar, 2011). It is increasingly defined as a chronic disease (Allison *et al.*, 2008; Jutel, 2006; 2009; Kerrigan & Kingdon, 2010). WHO officially recognised 'obesity' as a disease in the 1990s (Murray, 2008b), despite being diagnosed using BMI and without reference to experienced illness (Evans & Colls, 2009). Vaz & Bruno (2002, p.280) contend it is a 'virtual disease' with asymptotically ill patients. The prevalence of 'obesity' is said to constitute a 'global epidemic' (WHO, 2000). Causes of 'obesity' are considered to be multi-factorial. Murray (2008b, p.17) criticises the 'vague medical renderings of the actual causes of 'obesity' (genetics, environmental factors, lifestyle changes, compulsive overeating, personal irresponsibility, poor food choices, inadequate exercise)'. However, the thrust of medico-scientific discourse emphasises that 'obesity' is caused by energy intake exceeding expenditure (WHO, 2011c). According to Mills (2010, p.6) 'the primary driver of the rise in obesity over the last two decades is thought to be changes in our lifestyles and surroundings which have altered food intake and decreased physical activity creating an 'obesogenic

environment'. Arguably medico-scientific discourse predominantly attributes causation of 'obesity' to deficient 'lifestyle' behaviours and, as a corollary, individuals are deemed responsible for ameliorating this.

Strong association between adiposity and socioeconomic status is evidenced in contemporary Western societies, particularly for women (see for example Broom & Warin, 2011; Marmot, 2010; NOO, 2012). As Clarke (2011) has observed, for the first time in history 'obesity' is a marker of poverty. 'In epidemiological terms, the direct gradient (heavier people were generally better off economically) at the beginning of the [twentieth] century had, by the end of the century, reversed, and heavier people came to be concentrated among those who are less educated and poorer' (Broom & Warin, 2011, p.454). It is argued that the association of socioeconomic status with 'obesity' has received relatively little attention (see, for instance Broom & Warin, 2011; Wardle *et al.*, 2002).

Links between rising levels of 'obesity' and increasing prevalence of T2DM are emphasised in medico-scientific literature (see, for instance Department of Health, 2007; Diabetes UK, 2005; Rajasingham & Rickard, 2010). Nolan (2011, p.38) refers to the 'worldwide pandemic of obesity and type 2 diabetes' and O'Neill, (Diabetes UK) to 'the obesity fuelled type 2 diabetes epidemic' (Carter, 2010, unpaginated). It has recently been mooted that as 'obesity' is the main aetiological cause of T2DM the term 'diabesity' should be adopted (Astrup & Finer, 2001). McNaughton (2013) strongly criticises the increasing use of a 'weight-causes-diabetes framing' and the use of the term 'diabesity' in Australian popular, academic and public health discourses. She suggests that

'obesity' and T2DM are portrayed primarily as self-inflicted and the 'complexity and multiplicity of causes associated with the disease [T2DM] are lost or rendered invisible' (ibid 2013, p.284). Increasing prevalence of GDM is also considered to be directly related to increased maternal BMI/'obesity' (Chu *et al.*, 2007; CMACE/RCOG, 2010; Royal College of Midwives, 2008).

3.2.2 'Maternal Obesity'

The Health Survey for England (2010) reported an increase in the proportion of women who are 'obese' from 16% in 1993 to 24% in 2009. 'Maternal obesity' is defined as 'obesity' during pregnancy (NOO, 2010). There is no pregnancy-specific BMI: criteria for the general population are used to define 'obesity' in pregnancy as there is considered to be minimal weight gain in the first trimester (Bell *et al.*, 2011b). NICE guidance (2010b) states that a pregnant woman's BMI should be calculated at first antenatal booking appointment (and should not rely on self-reported measures of weight and height (NICE, 2010a)). There is increasing prevalence of 'maternal obesity' (Heslehurst *et al.*, 2007a; Siega-Riz & Laraia, 2006; Walters & Taylor, 2009), with an estimated 22% of women currently 'obese' at the start of their pregnancies (Heslehurst *et al.*, 2007a). It is contended that women are more likely to retain gestational weight gain with each pregnancy (Siega-Riz & Laraia, 2006), and women who are overweight before pregnancy are most likely to experience excessive gestational weight gain (Venter, 2010).

Throughout the 1970s and 80s UK nutrition advice during pregnancy focused on sufficient weight gain in order to prevent under-nutrition/low birth weight babies (Venter, 2010). Antithetical to this, contemporary focus is on reducing

overconsumption/overweight and health risks to mother and fetus (ibid 2010). In the past robust 'bonny' babies of high birth weight were considered to exemplify good health (Keenan & Stapleton, 2010). Recently, increasing 'obesity' and diabetes prevalence has made the large baby a target of governmental concern. Advice to 'eat for two' is now deemed entirely inappropriate (NICE, 2010a; Simmons, 2011). However, unlike the USA (Institute of Medicine, 2009), there is no official guidance on appropriate weight gain in pregnancy in the UK. Heslehurst (2011b) contends that advice in the UK regarding pregnancy weight gain is often ad hoc and inconsistent. Concomitant with change in emphasis on maternal nutrition is proliferation of interest and consternation over 'maternal obesity'. The earliest reference to 'maternal obesity' I found was in *The Lancet* (Sheldon, 1949) (see also Gilbert, 1949). Over the subsequent 40 years few articles referred to 'maternal obesity'. However, since the discursive inception of the 'obesity epidemic' in the late 1990's (see Murray, 2008a; Warin *et al.*, 2011a) there has been a proliferation of writing on the subject.

'Maternal obesity' is associated with increasing age, multiparity, black ethnic groups (Heslehurst *et al.*, 2009) and in particular with lower socio-economic status and deprivation (CMACE, 2010; Heslehurst *et al.*, 2009; Smith & Lavender, 2011). According to Heslehurst (2011b) women living in areas of highest deprivation are almost two and a half times as likely to be 'obese' than counterparts living in areas of lowest deprivation. Using the Index of Multiple Deprivation score the study 'Maternal obesity in the UK' (CMACE/RCOG, 2010, p.1) indicated that 34% of pregnant women in the UK with a BMI ≥ 35 were in the most deprived quintile, compared to 27.6% for all maternities.

'Obese' pregnant women are considered to be a high risk group. According to Jarvie and Ramsay (2010) there is a linear increase in risk of pregnancy complications associated with degree of 'obesity'. 'Obesity' in pregnancy is associated with increased risk of adverse outcomes including: miscarriage, congenital anomaly, thromboembolism, pre-eclampsia, postpartum haemorrhage, wound infections, stillbirth and neonatal death (CMACE/RCOG, 2010). 'Maternal obesity' is also associated with a fourfold increase in risk of GDM and increased risk of fetal macrosomia (regardless of diabetic status) (Ramsay *et al.*, 2006). Macrosomic infants have somatic growth (involving mainly fat and abdominal organs) in excess of head growth. The term 'macrosomia' is sometimes used interchangeably with 'large for gestational age', defined as birthweight > 90th centile for gestational age (Mills, 2010). Evidence indicates that macrosomia increases risk of complications during labour/delivery such as shoulder dystocia, obstructed labour, perinatal hypoxia-ischaemia, birth injury (ibid 2011) and postpartum haemorrhage (NICE, 2008b). Women with 'maternal obesity' and/or GDM/T2DM in pregnancy undergo regular obstetric ultrasound scans to screen for macrosomia: when suspected women may be offered early induction of labour/delivery by caesarean section. However, studies indicate that clinical and ultrasonographic prediction of fetal macrosomia is inaccurate (Chauhan *et al.*, 2005; Sadeh-Mestechkin *et al.*, 2008). Abdominal circumference is considered to be the most relevant measure of diabetes-related macrosomia (NICE, 2008b). Medico-scientific discourses increasingly emphasise that negative health implications of macrosomia continue beyond the perinatal period. Epidemiological studies have reported a strong association between being large at birth and 'obesity' in adolescence and adulthood (Mills, 2010; Satpathy *et al.*, 2008). Where a baby

displays 'asymmetric macrosomia' (thoracic and abdominal circumference relatively larger than the head circumference, mainly related to maternal diabetes) it is suggested that there may be an increased risk of coronary heart disease, hypertension and T2DM later in life (NICE, 2008b).

Increased physical activity in pregnant women with high BMI is said to reduce risk of GDM and improve outcomes for mother and child (Ramsay *et al.*, 2006). 'Obese' women are shown to be at increased risk of hypertensive disorders of pregnancy (Mills, 2010). The Confidential Enquiry into Maternal and Child Health (2004) (see also Centre for Maternal and Child Enquiries (CMACE), 2011) found association between 'maternal obesity' and mortality: 35% of maternal deaths between 2000 and 2002 occurred in women with a BMI > 30. Women with BMI > 30 also have higher rates of induction of labour and caesarean section (Kerrigan & Kingdon, 2010).

Increasingly evidence is cited suggesting that 'maternal obesity' heightens risk of 'obesity'/diabetes in the offspring (Simmons, 2011; Walters & Taylor, 2009) (I return to this in greater detail in section 3.7.2). There is also evidence that 'obese' women are less likely to breastfeed than 'normal' weight counterparts (Amir & Donath, 2007). Most large studies show 'obese' women are less likely to initiate and sustain breastfeeding (de Rooy & Hawdon, 2010). Some studies have indicated delayed lactogenesis (onset of copious milk supply) and mechanical difficulties in attaching baby to the breast (Amir & Donath, 2007). Socio-cultural explanations emphasise that women who are 'obese' are more likely to be from lower socio-economic groups who are less likely to breastfeed, and are less likely to have been breastfed themselves (ibid 2007).

Breastfeeding rates among 'obese' women are considered a public health issue: evidence suggests that breastfeeding may reduce post birth weight retention in the mother and confer a reduced risk of 'obesity'/T2DM in the infant (see de Rooy & Hawdon, 2010). McNaughton (2011) contends that 'obese' women who do not breastfeed may have to work particularly hard to secure identity as a good mother.

Increasingly research indicates that 'obesity' and diabetes have independent and cumulative effects on obstetric complications (Roman *et al.*, 2011; Yessoufou *et al.*, 2011). According to Nolan (2011, p.42), 'obesity and diabetes synergise in causing adverse pregnancy outcomes.' (see also Catalano *et al.*, 2012). The term 'maternal diabetes' (Harder *et al.*, 2012) has also been instigated with respect to coexisting 'obesity' and diabetes in pregnancy and the purported 'developmental programming of the offspring' (see section 3.7.2) induced by these 'conditions'.

Keenan and Stapleton (2010, p.380) do not contest that 'maternal obesity' conveys what they refer to as, '(a debatable but nevertheless significant) degree of heightened health risk to women and the developing child'. However, I would concur with their assertion that biomedical risk discourses pertaining to 'obesity' in pregnancy serve to 'medicalise and moralise the larger maternal body' and that this has implications for women's subjectivity (ibid 2010, p.380) (see also Wray & Deery, 2008). McNaughton (2011, p.185) goes further to argue:

Framing fat as an avoidable disease and a disease causing agent assists in characterising fat women of childbearing age as irresponsible and dangerous to themselves, to their offspring and to society. They are bad citizens and bad mothers.

3.2.3 Gestational Diabetes Mellitus (GDM)

In the 1950s the term 'gestational diabetes' was applied to what was thought to be a transient condition that brought about adverse fetal outcomes, but abated after pregnancy (Hoet & Lukens, 1954). In the 1960s, O'Sullivan proposed criteria for the interpretation of oral glucose tolerance tests in order to diagnose glucose intolerance during pregnancy (Buchanan & Xiang, 2005; Knopp, 2002). However, Osgood *et al* (2011) suggest that GDM was not broadly diagnosed until the 1980s.

GDM is currently defined as any degree of glucose intolerance with onset or first recognition during pregnancy (Barned *et al.*, 2010; Lawrence, 2011; Reece *et al.*, 2009). However, pregnancy itself is recognised as a diabetogenic state, with progressive deterioration of insulin resistance and glucose tolerance that become more pronounced in the third trimester (Stokowoski, 2010). 'Maternal obesity' (BMI \geq 30) is shown to be a significant risk factor in development of GDM (Kim *et al.*, 2010; Lawrence, 2011). NICE (2008b) recommends screening for GDM by risk factor (see 3.4.3). However, NICE (2012) states that there is currently geographical variation in which risk factors are used to determine testing of GDM. For diagnosis NICE guidance (2008b) advocates the use of the 2 hour 75 g Glucose Tolerance Test (GTT) using WHO diagnostic criteria (fasting plasma glucose \geq 7.0 mmol/L or two hour plasma glucose \geq 7.8 mmol/L). However, there are at least six different criteria for GDM diagnosis internationally (Agarwal *et al.*, 2005; NICE, 2008b).

There is ongoing international controversy over diagnostic criteria and treatment of GDM (cf Bentley-Lewis, 2009; Moses, 2010). The Hyperglycaemia and

Adverse Pregnancy Outcomes (HAPO) Study (2008) indicated the relationship between maternal glucose levels, and fetal growth and neonatal outcome 'seemed to be a basic biologic phenomenon, and not a clearly demarcated disease state, as had previously been thought' (Stokowoski, 2010, unpaginated). International Association of Diabetes and Pregnancy Study Groups (IADPSG) reviewed the data in order to compose new international criteria for diagnosis of GDM. The threshold had to be: '...somewhat arbitrary, because no inflection points were apparent in the linear relationships between maternal glucose concentrations and outcomes' (Stokowoski, 2010, unpaginated). According to Moses (2010, p.690) new diagnostic criteria proposed would diagnose 18% of all women in pregnancy as having GDM (about double the proportion hitherto designated). Concern has been raised that identifying a greater number of women at risk of adverse pregnancy outcome could cause iatrogenic harm: increased interventions; earlier delivery; increased caesarean section rate; higher numbers of babies admitted to special care (ibid 2010).

Nevertheless, GDM is considered a growing public health issue with prevalence increasing over the past 20 years (Lawrence, 2011; Sela *et al.*, 2009; Simmons, 2011). Increased incidence of GDM is believed to parallel rises in T2DM and 'obesity' (Dabelea *et al.*, 2005; Hunt & Schuller, 2007; Nolan, 2011). GDM and T2DM are thought to share the same underlying pathogenic mechanisms. Women who develop GDM during one pregnancy have increased risk of GDM in subsequent pregnancies (Collier *et al.*, 2011; NICE, 2008b; Osgood *et al.*, 2011), and high risk of developing T2DM after the index pregnancy (Kim *et al.*, 2002; Lawrence, 2011; Nolan, 2011). It is claimed that approximately 4-10% of

GDM cases proceed to T2DM within the first nine months after pregnancy (Osgood *et al.*, 2011, p.173). Public health discourses emphasise that if requisite 'lifestyle' changes (e.g. diet and exercise programs (ibid 2011)) can be effected in women with previous GDM it may be possible to delay/prevent onset of T2DM (see, for instance: Bentley-Lewis, 2009; NICE, 2008b). Nolan (2011, p.38) suggests that GDM provides an opportunity for timely intervention in 'mothers and their families' to assist in turning the T2DM 'pandemic' around.

GDM is generally asymptomatic (Buchanan & Xiang, 2005; Evans & O'Brien, 2005). According to Evans and O'Brien (2005, p.66) 'the clinical significance of GDM in terms of its level of risk for mother and anticipated child remains a debatable issue'. However, GDM is associated with adverse pregnancy outcomes such as macrosomia, neonatal insulinism, pre-eclampsia (Osgood *et al.*, 2011), increased perinatal mortality (Reece *et al.*, 2009) and congenital abnormality (Hunt & Schuller, 2007). Early breastfeeding has been shown to facilitate glycaemic stability in infants born to women with GDM (Chertok *et al.*, 2009). Breastfeeding may also confer protection against subsequent risk of diabetes in both mother and child (Bentley-Lewis, 2009; Osgood *et al.*, 2011; Taylor *et al.*, 2005). Women with GDM have increased rates of caesarean delivery (Bentley-Lewis, 2009) and neonatal complications which may compromise breastfeeding rates (Taylor *et al.*, 2005). Lower socioeconomic status has been shown to be associated with GDM (Anna *et al.*, 2008; Cullinan *et al.*, 2012; Lega *et al.*, 2011). Soltani and Arden (2009) showed that maternal BMI and socio-economic status were significant contributing factors affecting breastfeeding practices in women with GDM/T2DM.

3.2.4 Type 2 Diabetes Mellitus (T2DM)

The contested nature of type 2 diabetes – its causal and diagnostic flexibility and moral ambiguity – complicates its presentations and perceptions. Type 2 diabetes is not a single entity with consistent meaning across times and contexts: it can be constructed as an illness in and of itself, or as one of the many risk factors contributing to a burgeoning meta-diagnosis of metabolic syndrome (Gollust & Lantz, 2009, p.1091-1092).

T2DM is characterised by impaired insulin production by the pancreas or increased insulin resistance, either of which may predominate (Dunstan *et al.*, 2001; Simmons, 2011). Biomedical evidence indicates, alongside family history, major risk factors for developing T2DM are excessive weight gain, ‘obesity’, physical inactivity (WHO, 1999), low fibre diet with a high glycaemic index (Hu *et al.*, 2001), and history of GDM (Reece *et al.*, 2009). According to WHO T2DM is, ‘largely the result of excess body weight and physical inactivity’ (2011b, unpaginated) (see also Diabetes UK, 2005). T2DM is perceived as a ‘lifestyle disease’ (Al-Maskari, 2010; Fullagar, 2009) carrying attendant negative moral valence (Gollust & Lantz, 2009). It is epidemiologically associated with socioeconomic disadvantage (Gollust & Lantz, 2009; ImKampe & Gulliford, 2010).

T2DM was formerly known as ‘adult onset diabetes’ or ‘non-insulin dependent diabetes mellitus’ (NIDDM) (WHO, 2011b). WHO recommended that the term NIDDM no longer be used in 1999 due to confusion and classification, ‘based on treatment rather than pathogenesis’ (WHO, 1999, unpaginated). Until recently T2DM was almost solely observed in adults, but is now increasingly seen in child/adolescent populations (Diabetes UK, 2010; Haines *et al.*, 2007).

Diagnosis of T2DM is made if fasting plasma glucose is > 7.0 mmol./L (Diabetes UK, 2000; WHO, 2006). Diagnostic criteria have changed considerably over time: suggested to have variable and sometimes large effects on prevalence in different populations (see, for example Borch-Johnsen, 1998; Shaw *et al.*, 1999). Recent WHO changes in diagnostic criteria could result in a 30% increase in people diagnosed with T2DM (Anekwe, 2011). Those diagnosed with T2DM are told to make 'lifestyle' modifications consisting of regular exercise, 'healthy' eating and weight loss for those who are in BMI categories 'overweight' and 'obese' (see, for instance Home *et al.*, 2008; NICE, 2008a). Medication to reduce blood glucose levels such as hypo-glycaemic agents may also be required (NHS Choices, 2010a; NICE, 2008a).

3.2.5 T2DM in Pregnancy

Prevalence of T2DM has rapidly increased in the general population (Diabetes UK, 2010; Home *et al.*, 2008) with a notable rise in women of childbearing age (Stenhouse, 2008). Concomitantly prevalence of T2DM in pregnancy has rapidly increased (Feig & Palda, 2002; Lawrence, 2011; Murphy *et al.*, 2010b; Temple & Murphy, 2010). The first study to include pregnancies in women with T2DM was published in 1988 (Temple & Murphy, 2010) with discussion in medical literature only becoming relatively common in the 2000s. In some urban areas of the UK T2DM is the most common form of diabetes in pregnancy, probably due to high levels of 'obesity' and ethnic minority groups (Rajasingham & Rickard, 2010). Worldwide T2DM is now the most common type of diabetes to complicate pregnancy (Temple, 2011). It is thought that

many women diagnosed with GDM may actually have undiagnosed T2DM (Dabelea *et al.*, 2005; Feig & Palda, 2002; Reece *et al.*, 2009).

Recent evidence deems pregnancies complicated by T2DM to be 'high risk' (CEMACH, 2007; Stenhouse, 2008; Temple & Murphy, 2010), for both mother and fetus. Maternal and fetal risks include pre-eclampsia, congenital abnormality (Feig & Palda, 2002), recurrent hypoglycaemia (CEMACH, 2007), hypertension, miscarriage, postpartum haemorrhage, operative delivery (Dunne, 2005), macrosomia, birth trauma, induction, shoulder dystocia (NICE, 2008b), stillbirth and perinatal mortality (Coulthard & Hawthorne, 2008; Dunne *et al.*, 2003).

T2DM in pregnancy is strongly associated with: increased maternal age; multiparity, Black, Asian and other ethnic minority group; lower socio-economic background/deprivation and obesity (CEMACH, 2007; Dunne *et al.*, 2003; Temple & Murphy, 2010). A recent large cohort UK study of women with T2DM in pregnancy found 60% lived in socially disadvantaged areas and 90% were 'overweight'/'obese' (Murphy *et al.*, 2011). A strong association was also found between maternal social disadvantage and large for gestational age infant (ibid 2011). Lega *et al.*'s (2011) study indicated that women with T2DM and past history of GDM constituted a particularly deprived group.

Women with T2DM are less likely to breastfeed than women without diabetes (Taylor *et al.*, 2005) (see also Stenhouse & Letherby, 2010, for a discussion of this). Citing evidence from their systematic review, Taylor *et al.* (2005, p.320) assert that women with T2DM should be 'strongly encouraged to breastfeed' as it is shown to improve subsequent glucose tolerance in mothers and may

reduce the risk of T2DM in children. However, higher rates of pregnancy and neonatal complications amongst women with T2DM can pose significant challenges to breastfeeding (ibid 2005).

3.3 Preconception Care

Increasingly preconception care for all women of childbearing age is emphasised in the UK (Department of Health, 2011). Women are advised to prepare their bodies for motherhood and maximise chances of conception. Preconception care can be seen as indicative of the practice of 'surveillance medicine' (Armstrong, 1995): 'offering anticipatory care, and attempting to transform the future by changing the health attitudes and health behaviours of the present' (ibid 1995, p.402). It is considered to be of particular import for women with 'conditions' such as pre-existing 'obesity' and T2DM. CMACE (2011, p.8) recommends that women with 'obesity' or diabetes should be 'proactively offered advice about planning for pregnancy and the need to seek pre-pregnancy counselling whenever possible'.

Initiation of preconception care for women with these 'conditions' has undoubtedly brought about advances in healthcare for women and protection of fetuses (see, for instance Murphy *et al.*, 2010b). However, I would argue that concomitant with healthcare advantages of engaging in preconception care and ensuring one's body is fit for childbearing, is the moral obligation to do so. Preconception care is predicated on the notion that the woman poses a risk to her future potential fetus(es) and has a duty to ameliorate this risk. Women are encouraged to acknowledge the 'risky self' (Nettleton, 1997; Ogden, 1995), activate self control and use it to modify the risk they pose to their 'not as yet

conceived' child(ren). Acting in ways that decrease the chance of having a healthy baby, or not availing oneself of information that could increase these chances, is morally problematic. It is clear that 'maternal responsibilities have expanded from the care and nurturance of children and childhood socialization to the monitoring of childbirth, pregnancy and into the prepregnancy period' (Markens *et al.*, 1997, p.353) (see also Lupton, 2003b).

Preconception care encompasses the notion that pregnancy should be efficiently planned, and that women who are not able/willing to fulfil pre-pregnancy criteria should abstain from reproducing until able to do so. As Ruhl (1999, p.105) suggests:

The logic of insurance dictates that a woman begin to police her life for possible risks to fetal health well before pregnancy occurs. Prudent lifestyle changes implemented before conception occurs, as added insurance to ensure fetal health, are incorporated into the liberal ideal of the willed pregnancy.

The target population for preconception care is women from menarche to menopause. Some authors have suggested that HCPs should consider every visit with women of childbearing age to be a preconception visit (Mortagy *et al.*, 2010): arguably endorsing the idea that childbearing is inevitable for women and thus encompassing an implicit pronatalism (Smajdor, 2009; see also Stapleton & Keenan, 2009). It is estimated that 50% of pregnancies are unplanned (Centre for Maternal and Child Enquiries (CMACE), 2011). However, there is assumption that the planning of pregnancy should not be a private matter but a target of governmental intervention. It can be also be argued that attempting to responsabilise (Rose, 2010) women to ensure pregnancy planning and fitness by engaging with healthcare providers negates to consider the role

of structural and environmental factors which may constrain women's reproductive and health choices (Bell *et al.*, 2009). There is some evidence to suggest that lower income women are less likely to plan their pregnancies (see, Barrett & Wellings, 2002; Hughes *et al.*, 2010, for a discussion of this)

In the following sections I show how policy documents pertaining to preconception care for women with 'obesity' and T2DM indicate that HCPs should opportunistically broach the subject of weight management or/and diabetes control with all women of childbearing age. A key premise is that women should be informed of all risks involved in becoming pregnant. Implicit within this is the assumption that awareness of risks will result in the adoption of responsible behaviour. Ability to comprehend clinical risk and wherewithal to manage and reduce risk by lifestyle change and adherence to strict diabetic regimen is assumed.

3.3.1 Preconception Care for Women with 'Obesity'

Prior to conception women are advised to achieve and maintain a 'healthy' weight ('normal' BMI), eat a balanced nutritious diet, and take supplements (Keenan & Stapleton, 2010, p.371). Body weight/eating habits of women of childbearing age are increasingly under scrutiny because of suspicions this could influence the future survival and health of their offspring (McNaughton, 2011). Women who do not have a 'normal' BMI (especially those defined as 'obese') are a target of governmental concern (Jette & Rail, 2013).

NICE advises that HCPs: '...should use any opportunity, as appropriate, to provide women with a BMI of 30 or more with information about the health

benefits of losing weight before becoming pregnant (for themselves and the baby they may conceive). This should include information on the increased health risks their weight poses to themselves and would pose to their unborn child' (2010a, p.9-10) (see also NICE, 2011a). The CMACE/RCOG Guideline (2010, p.4) details the risks of which women are to be made aware: miscarriage; gestational diabetes; pre-eclampsia; venous thromboembolism; induced labour; caesarean section; anaesthetic complications; wound infections; stillbirth; congenital abnormalities; prematurity; macrosomia; neonatal death. It also states: 'intrauterine exposure to maternal obesity is also associated with an increased risk of developing obesity and metabolic disorders in childhood' (CMACE/RCOG, 2010, p.4).

NICE contends that women should be advised and offered a weight loss support programme involving diet and physical activity in order to reduce weight before becoming pregnant. Furthermore, it should be explained that losing 5-10% of their weight (allegedly a realistic target) would have significant health benefits and that once achieved they should aim to achieve a BMI within 'the healthy range' (2010a, p.10). Women with a BMI ≥ 30 wishing to become pregnant should also be advised to take a higher daily dose (5mg) folic acid supplementation in the preconceptional period and continuing through the first trimester of pregnancy as this reduces the risk of neural tube defects which are more prevalent in women with 'obesity' (CMACE/RCOG, 2010; NICE, 2010a).

A recent large national population based survey in France (Bajos *et al.*, 2010) indicated that 'obese' women were less likely to use oral contraceptives and seek healthcare services for contraception, and more likely to report an

unintended pregnancy than 'normal' weight counterparts (see also 2005). There were a number of popular media reports pertaining to this issue which are discussed in section 3.8.1.

3.3.2 Preconception Care for Women with T2DM

It is asserted that many complications of T2DM in pregnancy can be ameliorated by 'optimising maternal health in the preconception period' (Wahabi *et al.*, 2010, p.64). Glycaemic control, folic acid supplementation, smoking cessation and discontinuing teratogenic medications in the preconception period are considered to be a priority (ibid 2010). Wahabi *et al.*'s (2010) systematic review indicated that preconception care was effective in improving maternal and fetal outcomes (see also Murphy *et al.*, 2010a). Temple (2011) suggests that preconception care is associated with a significant reduction in congenital malformations but has little effect on perinatal morbidity and macrosomia.

Studies have suggested that women with T2DM have low levels of access to preconception care (Cheung *et al.*, 2005; Temple & Murphy, 2010) and display a lack of preconception planning (CEMACH, 2007; McIntyre *et al.*, 2009). NICE lists preconception care as a 'key priority' to improving pregnancy outcomes in women with diabetes (NHS Diabetes, 2011, p.2). A CEMACH (2007) report found that preconception care for women with diabetes (particularly those with T2DM) tended to be poor and uncoordinated, with most women not taking folic acid, not receiving preconception counselling, advice about contraception, glycaemic control and healthy eating (RCOG, 2007) (see also Mortagy *et al.*, 2010; NICE, 2008b).

NICE guidance states that women with pre-existing diabetes who are planning to become pregnant should be informed: 'that establishing good glycaemic control before conception and continuing this throughout pregnancy will reduce the risk of miscarriage, congenital malformation, stillbirth and neonatal death'(NICE, 2008b, p.10). NICE asserts that it should be made clear that 'risks can be reduced but not eliminated' (ibid 2008b, p.10). What is not emphasised here is that: 'despite the risks involved, women of reproductive age with diabetes can become pregnant and give birth to healthy infants' (Harris & White, 2005, p.167).

Prior to becoming pregnant it is recommended that women (and their families) should be informed of the following in respect to how diabetes affects their pregnancy and vice versa (NICE 2008b, p.10):

- the role of diet, body weight and exercise
- the increased risk of having a large for gestational age baby which increases the likelihood of birth trauma, induction of labour and caesarean section
- the importance of maternal glycaemic control during labour and birth and early feeding of the baby to reduce the risk of neonatal hypoglycaemia
- the possibility of transient morbidity in the baby in the neonatal period, which may require admission to the neonatal unit
- the risk of the baby developing obesity and/or diabetes in later life

This final point is of particular significance in that women are to be informed *before becoming pregnant* that they can be held responsible for the health and well-being of their (even adult) children (Jackson & Mannix, 2004). NICE Public Information booklet 'Diabetes in Pregnancy' (2008c, p.6) informs women that

preparing for pregnancy is important because they: '...are at high risk of serious health problems for themselves and their babies'. In addition it states, 'your baby may be at risk of' (ibid 2008c, p.6):

- not developing normally
- being stillborn or dying shortly after birth

Importance of contraception use/avoidance of unplanned pregnancy is emphasised and should: 'be an essential component of diabetes education from adolescence for women with diabetes' (NICE, 2008b, p.10). Furthermore, women who are planning to become pregnant should be advised (ibid 2008b, p.10-11):

- that risks associated with pregnancies complicated by diabetes increase with the duration of diabetes
- to use contraception until good glycaemic control has been established. Women should aim to maintain their HbA1c < 6.1%, and be informed that any reduction in HbA1c towards this is likely to reduce risk of congenital malformations. (Chappell and Germain (2008, p.717) suggest that HbA1c < 6.1% 'seems particularly optimistic' given that two thirds of pregnant women with pre-existing diabetes in the Confidential Enquiry into Maternal and Child Health had a HbA1c > 7% in the first trimester.) Women with HbA1c > 10% should be 'strongly advised' to avoid pregnancy (NICE, 2008b, p.11)
- that glycaemic targets, glucose monitoring, medications for complications of diabetes will need to be reviewed before and during pregnancy
- that additional time and effort, together with frequent contact with HCPs, is required to manage diabetes during pregnancy.

NICE advises that women who are planning to become pregnant should be offered a 'structured education programme' (NICE, 2008b, p.11) and 'individualised dietary advice' (ibid 2008b, p.10). Women with diabetes and a BMI > 27 should be offered advice on how to lose weight prior to pregnancy. Women planning a pregnancy should be advised to take a higher daily dose of folic acid (5 mg), until 12 weeks gestation to reduce the risk of neural tube defects (ibid 2008b, p.10).

Patient documents designed for women with diabetes also delineate requirement for preconception care. 'Are you thinking of having a baby?' (NHS Diabetes, 2011) advises women to 'stop and think ahead' before becoming pregnant. Risks to the baby's development and of miscarriage are stated and women are informed that they should: 'reach targets' for their HbA_{1c} by testing blood glucose frequently; take folic acid; assess their medications; maintain a healthy weight/lose weight; use effective contraception until it is safe to become pregnant; ask to be referred to specialist diabetes preconception team. Diabetes UK guidance (2008) informs women of the need for 'thought and careful planning' as pregnancy 'requires a lot of work and dedication on your part'.

3.4 Management & Surveillance of Pregnancy/Birth complicated by 'Maternal Obesity' and GDM/T2DM

Although my project is concerned with the pregnancy/post-birth experiences of women with/who have experienced 'maternal obesity' and GDM/T2DM, guidance/policy often deals with these 'conditions' separately (though clear links are made between them) and this is reflected here. As I have shown,

pregnancies complicated by these 'conditions' are deemed 'high risk'.

Guidance indicates that women should be fully apprised of the risks to themselves and their unborn child, and given advice on appropriate ways to ameliorate this. Additionally, women are informed there will be increased surveillance of their pregnancy, and that there is an expectation they will attend/undergo supernumerary: clinic appointments, ultrasound scans and tests in addition to routine antenatal care. Risk reduction is considered to require extensive behavioural and self-care modification (Armstrong Persily, 1996). Medico-scientific and public health advice emphasises responsabilisation of women involving inculcation into: lifestyle changes (dietary regulations, regular exercise); diabetic regimen (e.g. frequent blood glucose monitoring, taking oral hypo-glycaemic agents and /or insulin).

3.4.1 Antenatal Management and Surveillance of Women with 'Maternal Obesity'

According to the CMACE/RCOG Joint Guideline 'Management of Women with Obesity in Pregnancy': 'all pregnant women with a booking BMI \geq 30 should be provided with accurate and accessible information about the risks associated with obesity in pregnancy and how they should be minimised' (2010, p.6) (see also NICE, 2010a). This guideline advises that at the earliest juncture information about risks and management of risks attributed to 'obesity' in pregnancy should be provided 'sensitively' and in a way that 'empowers the woman to actively engage with health professionals' (ibid 2010, p.6). 'Obese' pregnant women are to be informed of increased risks of pre-eclampsia, GDM and fetal macrosomia, and that this will require increased maternal and fetal

monitoring. Furthermore, CMACE/RCOG delineates that women with 'maternal obesity' should be informed that ultrasound visualisation and intrapartum fetal monitoring may be compromised, and that anaesthesia and caesarean section would require senior obstetric involvement and antenatal assessment (ibid 2010, p.6).

The CMACE/RCOG guideline states that 'obese' pregnant women are to be advised about the importance of 'healthy eating' and 'appropriate exercise' in order to prevent 'excessive weight gain and gestational diabetes' (ibid 2010, p.6). NICE asserts that women should be offered dietetic advice, including (for women eligible) how to use 'Healthy Start Vouchers' to increase fruit and vegetable intake and that it is not necessary to 'eat for two' (2010a, p.12). In addition 'obese' pregnant women are to be advised to take 10 micrograms of vitamin D supplementation daily during pregnancy and while breastfeeding, as they are at risk of vitamin D deficiency (CMACE/RCOG, 2010, p.5). According to NICE women are also to be informed that they should aim for 30 minutes per day of 'moderate exercise' (2010a). However, NICE guidance emphasises that women should be informed not to attempt to manage the risk 'maternal obesity' poses by dieting whilst pregnant, and that the risk will be managed by HCPs (ibid 2010a, p.13).

The CMACE/RCOG guideline states that women with 'maternal obesity' should be assessed throughout pregnancy for thromboembolism/pre-eclampsia, and screened for GDM (ibid 2010, p.7, 9 & 10). It also advises that women with BMI ≥ 40 should have an antenatal consultation with an obstetric anaesthetist and assessment for manual handling requirements (ibid 2010, p.7). If an 'obese'

woman requires a larger arm cuff for blood pressure measurements this, it states, 'should be documented in the medical records' (ibid 2010, p.9). Finally, the guideline asserts that: 'Women with a booking BMI \geq 30 should have an informed discussion...about possible intrapartum complications associated with a high BMI, and management strategies considered' with a consultant obstetrician (ibid 2010, p.10).

Women with 'maternal obesity' are provided with a 'mini guide' from the charity 'Tommy's' entitled, 'Managing your weight in pregnancy' (McLeish *et al.*, 2010). This was produced as part of a campaign to provide resources and information about 'maternal obesity', with the aim of making women aware of risks and strategies for managing their weight during pregnancy (Tommy's, 2010). I contend that the mini guide exemplifies the individualisation of risk and responsibility; key discursive themes in evidence in medico-scientific and public health texts pertaining to 'maternal obesity'. The guide informs women they need to manage their weight during pregnancy in order to reduce risk of pregnancy complications listed as: GDM; pre-eclampsia; complications in labour; stillbirth; long and short term health problems for the baby (such as 'obesity' later in life). They are told that 'everything you eat and drink reaches your baby in some way and influences your baby's health' (McLeish *et al.*, 2010, p.7) and they must make 'smart choices' and 'shop smart' to 'help yourself and your baby achieve a healthier diet' (ibid 2010, p.13). A number of tips are offered for managing weight in pregnancy, an example being: 'Be aware of emotional eating' by asking the questions: 'Am I really hungry? Or is something bothering me?' (ibid 2010, p.27). It suggests taping an ultrasound scan picture to the fridge/food cupboard door: 'So you always think about making a good

choice for you both' (ibid 2010). Women are advised on the benefits of keeping physically active with examples such as keeping busy round the home: 'Vacuuming or doing the laundry will give you a good workout, as long as you keep moving' (ibid 2010, p.19). Women are also advised about benefits to the baby and themselves of breastfeeding and informed: 'If you *choose* not to breastfeed, your body is left with this unnecessary store of fat which many women find really hard to shift' (ibid 2010, p.30 my emphasis). Arguably these extracts exemplify individualisation of risk and somewhat patronising attempts to responsiblise 'obese' pregnant women.

3.4.2 Antenatal Management and Surveillance of Women with GDM/T2DM in Pregnancy - Screening and Diagnosis of GDM

NICE recommend screening for GDM at the booking appointment using risk factors (see Table 2):

Risk factors for screening for GDM
<ul style="list-style-type: none">• BMI above 30kg/m²• Previous macrosomic baby weighing 4.5kg or more• Previous GDM• First-degree relative with diabetes• Family origin with a high prevalence of diabetes (South Asian, black Caribbean and Middle Eastern)

Table 2 - Risk Factors for GDM (NICE, 2008d, p.9)

According to Chappell & Germain (2008) screening by clinical risk factor alone is controversial and lacks sensitivity and specificity compared to universal screening. It is alleged that it may miss 'nearly half the women with gestational diabetes' in some groups (2008, p.717).

It is advised that if a woman has had previous GDM she should be 'offered' early self-monitoring of blood glucose or a GTT at 16-18 weeks, followed by a GTT at 28 weeks if the first test was normal. Women with any other risk factors should undergo a GTT at 24-28 weeks (NICE, 2008d). Before screening is undertaken women should be advised: about risk of birth complications if GDM is uncontrolled; that GDM will respond to changes in diet and exercise in most women; oral hypoglycaemic agents or insulin injections may be needed if diet and exercise do not control blood glucose levels; extra monitoring and care may be needed during pregnancy and labour.

NICE (2008c, p.12) informs women diagnosed with GDM that they 'are at risk of serious health problems for themselves and their babies'. When a diagnosis of GDM is given women should be given information/advice on risks (see table) and how to reduce them with good glycaemic control.

Risks of GDM (risk to women and babies include):
<ul style="list-style-type: none">• Fetal macrosomia• Birth trauma (to mother and baby)• Induction of labour/caesarean section• Transient neonatal morbidity• Neonatal hypoglycaemia• Perinatal death• Obesity and/or diabetes later in the baby's life

Table 3 - Risks associated with GDM (NICE, 2008d, p.9)

Women are to be informed: of the importance of maternal glycaemic control during labour and birth; that early feeding of the baby is necessary in order to reduce risks of neonatal hypoglycaemia; that transient morbidity in the baby may require admission to a neonatal unit (NICE, 2008b, p.77). Women should

be given advice on diet, weight and exercise. They are to be informed that they should consume carbohydrates from low glycaemic index sources, lean proteins including oily fish and a balance of polyunsaturated and monounsaturated fats. Women with a BMI > 27 should be advised to restrict calorie intake to 2500kcal per day or less and to exercise for at least 30 minutes per day (NICE, 2008b, p.77): weight loss is supported in this population (NICE, 2008d) (counter to advice given to 'obese' women in NICE guidance elsewhere (2010a)).

Information must be provided on self-monitoring of blood glucose and individualised targets set. Hypoglycaemic therapy should be considered if blood glucose targets are not maintained over a period of 1-2 weeks, or if ultrasound shows incipient fetal macrosomia (abdominal circumference above the 70th percentile). Hypoglycaemic therapy may include hypoglycaemic agents (metformin and glibenclamide), rapid-acting insulin analogues and/or regular insulin (NICE, 2008b, p.77).

3.4.3 Antenatal Care for Women with GDM/T2DM in Pregnancy

NICE guidance (2008b) states that women who are pregnant and have diabetes should be offered immediate referral to a joint diabetes and antenatal clinic. Contact with the diabetes care team should then take place every 1-2 weeks throughout the antenatal period to assess glycaemic control and offer 'information and education'. Women should test fasting and 1 hour postprandial blood glucose levels after every meal (aiming for fasting glucose of 3.5 - 5.9 mmol/litre and 1-hour postprandial glucose < 7.8 mmol/litre). Women taking insulin should be advised to test their blood glucose before going to bed and be informed of risks of hypoglycaemia. Furthermore, women with GDM/T2DM

should be advised to give birth ‘in a hospital with advanced neonatal resuscitation skills available 24 hours a day’ (2008b, p.10). The following table shows specific antenatal care for women with GDM/T2DM in addition to routine antenatal care that they receive.

Specific antenatal care for women with diabetes (derived from NICE, 2008b)
<p>First appointment (joint diabetes and antenatal clinic)</p> <ul style="list-style-type: none"> • Offer information, advice and support on glycaemic control • Take clinical history • Review medications
<p>7-9 weeks</p> <ul style="list-style-type: none"> • Confirm viability of pregnancy and gestational age
<p>Booking appointment (ideally by 10 weeks)</p> <ul style="list-style-type: none"> • Discuss information, education and advice about how diabetes will affect pregnancy, birth and early parenting (such as breastfeeding and initial care of the baby)
<p>16 weeks</p> <ul style="list-style-type: none"> • Early testing of blood glucose or GTT for women with history of GDM
<p>20 weeks</p> <ul style="list-style-type: none"> • Offer four-chamber view of the fetal heart and outflow tracts (in addition to routine scans for detecting structural anomalies offered at this time)
<p>28 weeks (women diagnosed with GDM from routine screening enter care path way)</p> <ul style="list-style-type: none"> • Offer ultrasound monitoring of fetal growth and amniotic fluid volume
<p>32 weeks</p> <ul style="list-style-type: none"> • Offer ultrasound monitoring of fetal growth and amniotic fluid volume
<p>36 weeks</p> <ul style="list-style-type: none"> • Offer ultrasound monitoring of fetal growth and amniotic fluid volume • Offer information and advice about: <ul style="list-style-type: none"> – timing, mode and management of birth – analgesia and anaesthesia (including anaesthetic assessment for women with co-morbidities such as obesity) – changes to hypoglycaemic therapy during and after birth – initial care of the baby – initiation of breastfeeding and effect of breastfeeding of glycaemic control – contraception and follow up
<p>38 weeks</p> <ul style="list-style-type: none"> • Offer induction of labour/caesarean section, if indicated • Offer tests of fetal wellbeing for women waiting for spontaneous labour

Table 4 - Specific Antenatal Care for Women with Diabetes (derived from NICE, 2008d).

Chappell & Germain (2008) suggest there is limited clinical evidence for the recommendation to offer delivery to women at 38 weeks gestation. They also express consternation about a caesarean section rate three times higher for women with pre-existing diabetes than the general maternity population (ibid 2008) (see also CEMACH, 2007). This is considered to be of particular concern in 'obese' women, given the risks of the procedure (Chappell & Germain, 2008).

3.4.4 Intrapartum Care for Women with 'Maternal Obesity' and GDM/T2DM

GDM/T2DM in pregnancy are considered to confer increased risk to mother and baby during or shortly after labour and it is recommended that birth takes place in an obstetric unit (NICE, 2007; NICE, 2008b). Irrespective of diabetes, women with obesity (BMI \geq 35) should be advised to give birth in a consultant-led obstetric unit, with an individual risk assessment recommended for women with BMI of 30-34 regarding place of birth (CMACE/RCOG, 2010).

Women with GDM/T2DM in pregnancy should receive information on risk/benefits of vaginal birth, induction of labour, and caesarean section if fetal macrosomia has been identified (NICE, 2008d, p.14). Women with 'morbid obesity' (BMI \geq 40) should receive continuous and close surveillance in established labour (CMACE/RCOG, 2010). Fetal heart rate monitoring may require fetal scalp electrode or ultrasound assessment (ibid 2010). Due to increased risk of postpartum haemorrhage women with 'maternal obesity' should have 'active management of the third stage of labour' (CMACE/RCOG, 2010, p.12). Women with diabetes should have their blood glucose monitored hourly with the aim of maintaining a level of 4 - 7 mmol/litre (NICE, 2008d,

p.14); if this is not maintained intravenous dextrose and insulin should be considered. 'Obese' women having a caesarean section are at increased risk of wound infection and should receive prophylactic antibiotics at the time of surgery (CMACE/RCOG, 2010).

3.5 Neonatal Care for Babies of Women with GDM/T2DM in Pregnancy

It is recommended that, 'the baby should stay with the mother unless extra neonatal care is required' (NICE, 2008d, p.15). The baby should be admitted to a neonatal unit if there is, for example: hypoglycaemia with abnormal clinical signs; cardiac decompensation; if intravenous fluids/tube feeding is required. Babies of women with GDM/T2DM in pregnancy are at increased risk of neonatal hypoglycaemia and may need frequent early feeding to establish and maintain normoglycaemia (NICE, 2008b, p.142). Women are advised to feed their babies as soon as possible (within 30 minutes of birth) and then at frequent intervals (two/three hours) until pre-feeding blood glucose levels are maintained at 2mmol/litre or more (NICE, 2008d, p.15). NICE (2008d) advises that baby's blood glucose should be tested two to four hours after birth. Tube feeding/intravenous dextrose is recommended if baby has blood glucose below the requisite level on two consecutive readings, has abnormal clinical signs or will not feed orally effectively (NICE, 2008d, p.15). It is advised that babies should not be transferred into community care until they are at least 24 hours old, maintaining their blood glucose levels and feeding well (ibid 2008d).

3.6 Postnatal Care, Management and Surveillance

It is recommended that women diagnosed with GDM should discontinue hypoglycaemic therapy immediately after birth and have blood glucose tested before being transferred into community care (NICE, 2008b). Women with GDM/T2DM should be advised on the importance of contraceptive usage and need for preconception care when planning future pregnancies (NICE, 2008d). Women with a BMI ≥ 30 should be informed of the increased risk 'obesity' poses to them and their unborn child if they become pregnant again (NICE, 2010a). Women who have had GDM should be advised of the risk in subsequent pregnancies and the importance of screening and talking to HCPs when planning pregnancy (NICE, 2008d; NICE, 2008c). Women with 'obesity' and GDM should receive lifestyle advice (on diet and exercise) and be offered a structured weight-loss programme (CMACE/RCOG, 2010; NICE, 2008d; NICE, 2010a). It is recommended that 'obese' women diagnosed with GDM should have a test of glucose tolerance approximately six weeks after birth. They should thereafter receive annual screening for T2DM/cardio-metabolic risk factors and ongoing 'lifestyle and weight management advice' (CMACE/RCOG, 2010, p.15).

3.7 Intergenerational Transmission of 'Obesity' and Diabetes "Diabesity"

A prevalent and pervasive discursive theme evidenced in medico-scientific and public health literature pertains to the clustering of 'obesity' and associated 'co-morbidities' such as diabetes within families. This is commonly and evocatively referred to as a 'vicious intergenerational cycle' of 'obesity' and diabetes

requiring immediate intervention (see for example: Battista *et al.*, 2011; Dabelea, 2007; Ferraro & Adamo, 2008; Harder *et al.*, 2012). Academics and policy makers have focused on intergenerational relations as a means to make sense of causes, experiences and prevention of 'obesity' and related 'conditions' (Pollard *et al.*, 2011). Particular consternation has been expressed about associations (statistical links) some studies have found between maternal and child 'obesity' (for example Durand *et al.*, 2007; Perez-Pastor *et al.*, 2009). Research considers: endogenous factors such as transgenerational genetic transmission and in utero effects on later adiposity and disease risk; and exogenous 'environmental' effects such as infant feeding practices and parental/carer modelling of food intake and physical activity (ibid 2011).

3.7.1 Genetic Transmission

There has been a recent genome wide approach to elucidation of genetic traits to both 'obesity' and T2DM (see for instance Rankinen *et al.*, 2006; Sladek *et al.*, 2007; Voight *et al.*, 2010). Dabelea & Crume (2011, p.1852) suggest that: 'a strong body of literature suggests that BMI variability within a population is largely due to heritable genetic differences' and that T2DM 'is a disease with familial clustering and clearly has a genetic component' (2011, p.1851). Numerous gene variants have been located for both 'obesity' and T2DM (Rankinen *et al.*, 2006; Sladek *et al.*, 2007; Voight *et al.*, 2010). However, having gene variants does not mean that genes will be expressed.

LeBesco (2009, p.65) has critiqued the search for the 'fat gene', which she says has been widely embraced by scientists and fat acceptance activists. She suggests that such biologically deterministic explanations may offer moral

respectability for 'obese' people, but also provide 'proof of pathology' (ibid 2009, p.70) and could have eugenic implications (see also Saguy & Riley, 2005).

Some medico-scientific literature suggests that the genetic contribution to 'obesity' may be relatively small and is thought to be expressed in association with the 'obesogenic' environment (see Pollard *et al.*, 2011; Wells, 2011).

Benton (2004) asserts that more research is required into how genetic predisposition to 'obesity' interacts with environmental factors. Recent work by Perez-Pastor *et al* (2009) asserted that associations between parental and child 'obesity' are likely to be environmental rather than genetic (see also Lean, 2010). In addition, scientific research on heritability of T2DM suggests that much of it remains unexplained and effective genetic screening remains impossible (NHS Choices, 2010b). Arguably, current hegemonic scientific framing of the intergenerational transmission of 'obesity' and diabetes ('diabesity') is as the result of fetal/developmental programming mechanisms rather than genetic propensity, and is discussed in the following section.

3.7.2 'Fetal/Developmental Programming' of 'Obesity'/Diabetes or 'Diabesity'

Children who are exposed to maternal diabetes and/or obesity during pregnancy are at increased risk of becoming obese and developing type 2 diabetes at young ages. Many of these female offspring are already obese and have diabetes...by the time they reach their childbearing years, thereby perpetuating the cycle. Across generations, this cycle is likely increasing the risk and/or accelerating the onset of obesity and type 2 diabetes. (Dabelea & Crume, 2011, p.1854)

According to Warin *et al* (2011b, p.455) acceptance of the 'fetal origins of disease' hypothesis was a critical turning point in the 'conditions of possibility'.

Work conducted from the late 1980s onwards by Barker and colleagues

proposed that adverse intrauterine conditions can result in resetting of physiological systems predisposing the individual to chronic disease in later life (Moore & Davies, 2001). This process, termed 'fetal programming,' was originally suggested to be linked to susceptibility to conditions such as cardiovascular disease and diabetes mellitus. Maternal nutrition prior to conception, gestational weight gain and diet during pregnancy were purported to be significant in 'programming' the fetus and a theory of 'maternal-fetal conflict' was propounded (Barker, 2001). At this point focus was on ramifications of fetal undernutrition/low birth weight. Warin *et al* (2011b) suggest that during the 1990s strength of scientific evidence for the hypothesis continued to be questioned, but by the end of the decade the new scientific paradigm had been legitimised. Furthermore, with discursive 'ramping up' of the 'obesity epidemic' the 2000s saw a change of emphasis to implications of maternal/fetal over-nutrition (Warin *et al.*, 2011b; Warin *et al.*, 2012). The fetal over-nutrition hypothesis pertains to the development of fat rather than muscle in the offspring of mothers who are 'obese' or develop GDM (Heslehurst, 2011b). This is thought to irrevocably change appetite control, neuroendocrine functioning or energy metabolism in the developing fetus and lead to 'obesity' later in life (ibid 2011b). Tolwinski's (2010) discourse analysis of medico-scientific literature pertaining to gestational weight gain discerned a clear change of emphasis from 1990s to 2000s. Initially risks associated with under-nutrition were of concern, but by 2000s the focus shifted to risks associated with excessive weight gain and 'programming' of childhood 'obesity'.

The last few years has seen a proliferation of scientific research emphasising effects of 'maternal obesity' and/or diabetes in pregnancy on predisposition of

offspring to 'obesity' and/or diabetes later in life. The 'obese' and/or diabetic intrauterine milieu is purported to bring about epigenetic changes in the fetus, contributing to an intergenerational 'cycle' of 'obesity' and diabetes (Battista *et al.*, 2011; Fall, 2011; Yessoufou *et al.*, 2011), increasingly referred to as 'diabesity'. Indeed some argue that exposure to an 'obese intrauterine environment' is the causal mechanism in programming offspring 'obesity' risk (Oken, 2009). Medico-scientific literature reports that 'maternal obesity' and maternal diabetes both independently and cumulatively affect propensity of the offspring to become 'obese' and diabetic later in life. Despite assertions that: '...the mechanisms by which excess maternal weight and/or diabetes during pregnancy may lead to disease in the offspring at childhood and adulthood are not fully understood' (Yessoufou *et al.*, 2011, p.unpaginated) and leave, 'numerous unanswered questions' (Dabelea & Crume, 2011, p.1853), discourse has had material effects. For instance, NICE guidance (NICE, 2008b, p.10) states that women with GDM/T2DM should be told of risks of their baby developing 'obesity' and/or diabetes later in life. McNaughton (2011, p.183) suggests that some commentators acknowledge that: '...many of the findings are contradictory, based on animal studies or too weak to show any clear relationship between maternal overweight, fetal or infant obesity and long-term health effects'. Wilding and Frayling (2012) assert there is little evidence for a causal pathway between maternal intrauterine environment and the permanent switching on/off of genes in humans. However, it appears that: '...deterministic understandings are in danger of becoming entrenched as current research agendas pursue links between maternal BMI in pregnancy and the metabolic health of infants over the lifecourse' (Keenan & Stapleton, 2010, p.372).

I suggest that this body of scientific literature objectifies the pregnant woman as the 'intrauterine environment' (cf. Maher, 2008). Women who are 'obese' and/or have GDM/T2DM are reconfigured as a 'toxic intrauterine environment', increasing susceptibility of offspring to 'obesity' and T2DM in later life. This is considered to be a key mechanism in intergenerational transmission of 'obesity'/diabetes, perpetuating the 'diabesity' epidemic. Urgent interventions and increased surveillance are called for to prevent 'maternal obesity', fetal over-nutrition, and control the diabetic intrauterine milieu (see, for instance Battista *et al.*, 2011; Harder *et al.*, 2012; Plagemann, 2011). Moreover, it is increasingly accepted that women's body weight, nutrition status and levels of exercise prior to conception and during gestation may influence fetal wellbeing and the health of their offspring throughout the life course. The timeframe in which women are positioned as a risk to their unborn child/ren, and concomitantly held responsible to ameliorate this, has been extended further back in time and encompasses all women of childbearing age.

3.8 Popular Media Representations of 'Maternal Obesity'/GDM/T2DM in Pregnancy

The media is a key contributor in the shaping and defining of public health issues as social problems (Maher *et al.*, 2010). News media's power to frame health and illness is based on evoking 'expert' opinion, scientific 'evidence' and claims of realism and 'truth' (Lupton, 1998b). Additionally, reality based media focusing on 'lifestyle' and health operate as 'pedagogical sites' which encourage surveillance of bodies (both self and other), particularly in respect to the putative 'obesity epidemic' (Rail & Lafrance, 2009; Rich, 2011; Warin, 2010). Media

texts may have intended meanings; aligning themselves with public health/health promotion discourses. Saguy and Almeling (2008) stress the interconnected role of medical science/news reporting in shaping the way 'obesity' is framed as a social problem. The notion of 'framing' is utilised by media scholars '...as a theoretical and methodological perspective to the end of examining the effects of mediated representations' (Shugart, 2011, p.637). The aim is to identify and assess pervasive patterns characterising the representation of a given issue in the media.

I was interested in how women position themselves according to/negotiate popular media discourses pertaining to 'maternal obesity'/GDM/T2DM in pregnancy (see Chapter Six). Audience reception may include acceptance of intended meaning, but also active selection, negotiation and rejection of media representations (Chapman & Lupton, 1994; Lupton, 1999d; Petersen, 1994). The focus of media representations has been on 'maternal obesity' as part of a wider 'epidemic of obesity', with increasing prevalence of GDM/T2DM in pregnancy predominantly referred to as a 'co-morbidity'/caused by rising 'obesity' rates. Popular media frequently present the 'obesity epidemic' as 'fuelling/driving' a concomitant epidemic of T2DM (see, for example Borland, 2011; Henley, 2011; Mirror Online, 2012). Gollust and Lantz's (2009) comprehensive analysis of print news media coverage of T2DM in the US clearly demonstrated that the predominant explanation given for T2DM were behavioural factors and 'obesity'. Although there have been a number of incisive social scientific analyses of the portrayal of 'obesity' in the popular media (see, for instance, Boero, 2007; Monaghan *et al.*, 2010; Saguy & Almeling, 2008), there has been no specific analysis of 'maternal obesity' in the

UK despite the proliferation of media coverage in the last few years. However, there has been trenchant criticism of the media portrayal of the ‘developmental origins’ of ‘obesity’ hypothesis and women’s purported role in its intergenerational transmission (Warin *et al.*, 2011b; 2012) which I discuss in section 3.8.5.

I searched the online ‘LexisNexis’ newspaper database and the internet for UK news media using the search terms: “maternal obesity”, “obesity and pregnancy”, “gestational diabetes”, “maternal obesity and GDM”, “type 2 diabetes and pregnancy”, “T2DM and pregnancy”, “maternal obesity and T2DM”; “big babies”; ‘fetal macrosomia’ for the years 2002-2013. I undertook a Foucauldian Discourse Analysis of pertinent news media items found. Articles analysed came from national UK daily and Sunday newspapers: ‘serious’ (formerly broadsheet) newspapers, ‘mid-market’ newspapers and ‘tabloids’; thus encompassing a range of readership profiles and political orientations (Hilton *et al.*, 2012). I also reviewed television schedules for relevant programmes during the timeframe of the project, and searched ‘Youtube’ for relevant programmes shown over the delineated time period. Key discursive themes of risk, personal responsibility and intergenerational transmission identified in medico-scientific discourses were also clearly evidenced within popular media representations. In the following sections I discuss what I consider to be the key areas of UK media framing of ‘maternal obesity’/GDM/T2DM in pregnancy: pre-conceptual responsibilities of ‘obese’ and/or diabetic pregnant women; risks of ‘obesity’ and diabetes in pregnancy; risks of ‘giant babies’; ‘burden’ on the NHS of these ‘conditions’ and implication

of civic (ir)responsibility; women's 'responsibility' for intergenerational transmission of 'obesity' and diabetes.

It is first expedient to briefly consider key findings of previous analyses of 'obesity' in the popular media in order to situate my work within this corpus. As many authors have noted there has been increasing prevalence of reporting on 'obesity' in the media (De Brún *et al.*, 2012; Monaghan *et al.*, 2010; Rich, 2011). According to Lawrence (2004, p.64) '...the growth in real-world obesity has been mirrored, though with some delay, in the growth of news coverage of obesity'. Hilton *et al.*'s (2012) analysis of UK newspapers reported a sharp rise in coverage from 1996-2010. Saguy and Almeling (2008; 2005) note links between rising coverage in US medical publications and newspapers, arguing that media reporting of research tends to be alarmist/sensationalist. Proliferation of 'obesity' discourse is said to constitute a moral panic (Monaghan *et al.*, 2010; Rich, 2011) with the media acting as 'amplifiers/moralizers' (Monaghan *et al.*, 2010, p.50). Boero (2007) asserts that the media is integral in the construction of the 'obesity epidemic', drawing heavily on discourses of morality and risk. Melodramatic use of terms such as 'epidemic' and projections of future trends construct a public health crisis which justifies regulatory intervention (Monaghan *et al.*, 2010; Saguy & Riley, 2005).

Numerous authors have documented the media's predominant use of a behavioural frame in assigning responsibility for causes of and solutions to the 'obesity epidemic' (Atanasova *et al.*, 2012; De Brún *et al.*, 2012; Heuer *et al.*, 2011). Despite recent evidence of a slight shift towards environmental/socio-structural explanations the role of personal responsibility remains markedly

more ubiquitous (De Brún *et al.*, 2012; Hilton *et al.*, 2012; Kim & Willis, 2007). Shugart (2011, p.636) interestingly observes a shift away from the 'individual/environmental attribution binary' to a predominant theme of fatalism towards 'obesity' in the US news media. She suggests news representations are increasingly: '...crafting a cultural understanding of obesity as an inevitable by-product of our everyday lives' (ibid 2011, p.645). Hilton *et al.*'s study of UK newspapers (2012) indicated an emphasis on the economic cost of 'obesity' to the NHS and society as a whole.

Saguy and Gruys (2010, p.244) assert that American news reporting often stereotypes 'obese' people as '...gluttonous, slothful and ignorant' (see also Boero, 2007). Photographic portrayals of 'obese' people that accompany news stories tend to be stigmatising and degrading (Heuer *et al.*, 2011; McClure *et al.*, 2010). Arguably many reality-based television programmes are patronising and victim-blaming; presenting 'obese' people as abject (see, for instance Rail & Lafrance, 2009; Rich, 2011).

Findings of extant research examining media representations of 'obesity' are corroborated and reinforced by my analysis of 'maternal obesity' (and GDM/T2DM in pregnancy as 'co-morbidities'). In the following sections I indicate how UK popular media representations stigmatise women/mothers who are 'obese' and develop diabetes as culpable of multiple moral failures: transgressing accepted societal standards of femininity and bodily control; exposing themselves and their fetuses to manifold risks because of poor 'lifestyle' choices; draining the NHS of scarce resources due to additional care

they require, passing 'obesity' and/or diabetes onto the fetus and future generations.

3.8.1 Preconceptual Responsibilities of 'Obese' and/or Diabetic Women

Recent news media coverage of both 'maternal obesity' and diabetes in pregnancy has stressed the need for women to be targeted in the preconceptual period; suggesting women should be informed of the risks of these 'conditions' and responsabilised into taking appropriate prophylactic action before becoming pregnant. *The Daily Mail* quotes Dr Heslehurst of Teeside University: 'A lot of women get pregnant without thinking of the consequences of being obese while pregnant (Mail Online, 2011a, unpaginated). A number of newspaper articles were produced in response to the NICE Guidance about weight management in the pre-conceptual, antenatal and postnatal periods (NICE, 2010a). Lucilla Poston, Director of Maternal and Fetal Research at King's College London is quoted, saying there is: 'an epidemic of obesity' among pregnant women putting them at increased risk of 'almost every complication in the book' (Williams, 2010, unpaginated) . Headlines indicate that responsible women must ensure they reach an appropriate weight before embarking on pregnancy: 'Mothers must lose baby weight before getting pregnant again' (Blake, 2010); 'Mothers who lose weight before further pregnancy 'reduce risks'' (Williams, 2010). Similar headlines offer directives such as 'Obese women 'should lose weight' before having a baby' (Smith, 2011b) in response to guidance from RCOG (see also Campbell, 2010b).

In popular mediated dissemination of medico-scientific research there are warnings of the need for women with T2DM to engage with pre-conception care

(BBC News, 2006b; BBC News, 2012a; Campbell, 2012). Concern is expressed over increasing prevalence of T2DM: ‘...often linked to diet’ (BBC News, 2012a). It is asserted that women must be fully apprised of the risks of diabetes in pregnancy and stresses pre-conceptual responsibilities to: obtain good glucose control; engage with healthcare providers; take 5mg of folic acid per day; use contraception to ensure pregnancies are not unplanned (BBC News, 2006b; BBC News, 2012a; Campbell, 2012). It is reported that women are offered pre-conception care but ‘...women from ethnic minority groups, socially deprived areas, and with Type 2 diabetes are less likely to attend’ (Campbell, 2012, unpaginated).

A large epidemiological study carried out in France (Bajos *et al.*, 2010) generated headlines such as: ‘Obese single women are four times more likely to have an unplanned pregnancy’ (Mail Online, 2010) (see also Mirror Online, 2010). *The Daily Mail* adopted an explicitly moral stance suggesting ‘...obese women need more advice on sex and contraception if we are to halt the rise of Vicky Pollards’ (2010, unpaginated), accompanied by a photograph of Vicky Pollard (from BBC comedy show ‘*Little Britain*’) with a pushchair containing six children. Working-class women who are ‘obese’ are presented as abject irresponsible breeders in need of curtailment (see also Allen & Osgood, 2009; Tyler, 2008). Ironically this runs counter to newspaper reports emphasising that ‘obese’ women are likely to compromise their fertility and may be denied IVF treatment (see, for example BBC News, 2006a; Devlin, 2009; Smith, 2012b).

3.8.2 Risks of 'Maternal Obesity' and GDM/T2DM in Pregnancy

Increasing prevalence and risks of GDM/T2DM are reported in the UK news media, with explicit links made to the causative effect of the 'obesity epidemic' (for example Boseley, 2005; Devlin, 2010). The main media focus is on the trend to greater levels of 'maternal obesity': 'Expectant mums 'getting too fat', referred to as a 'public health time bomb' (BBC News, 2007c, unpaginated) which 'poses one of the biggest risks to the unborn child' (Rose, 2007, unpaginated) (see also Barrett, 2010). There is a clear behavioural frame for much of the reportage around this issue. Arguably *The Daily Mirror* headline 'Is your weight putting you and your baby at risk?' (Titchener, 2009) is indicative of the framing of 'maternal obesity' in UK popular media as irresponsible and risky to both mother and baby. According to media representations, risks of the 'condition' are legion and in urgent need of addressing.

The press reported on the National Obesity Forum's (NOF) calls for greater surveillance of women's diet, levels of exercise and weight during pregnancy: 'Pregnant women should be weighed regularly to protect babies from danger of obesity' (Cockcroft, 2010) (see also Campbell, 2010a). Pregnant women are warned of risks of excessive consumption/weight gain in pregnancy which is said to result in lifelong weight retention, 'obesity' (Hardy, 2002; Hope, 2011) and cancer (Day, 2002). The reality television programme *'Misbehaving Mums to be'* (2011) featured pregnant 'obese' women harangued by midwives about their diet of 'junk food' and risks they posed to themselves and their fetus. It was suggested that their BMI status was likely to lead to GDM and/or pre-eclampsia. 'Obese' women were portrayed as ignorant and irresponsible,

excessively consuming 'bad' foods which their fetuses were also forced to consume. The programme featured a computer-generated ultrasound image of a fetus eating a pizza, smoking a cigarette and drinking beer: clearly equating eating 'inappropriate' foods, with smoking and drinking alcohol in pregnancy.

Numerous news media reports focus on 'obesity' and heightened risk of maternal death, miscarriage, stillbirth and neonatal death (for example BBC News, 2007d; BBC News, 2007a; Daily Mail, 2011; Mirror Online, 2011; The Daily Express, 2007). CEMACH director Gwyneth Lewis is quoted as saying, 'Obese pregnant women are probably at four or five times greater risk of suffering maternal death than a woman of normal weight – and the same for their babies dying' (BBC News, 2007d, unpaginated). The BBC interviewed 'Maria Thornton' who discussed guilt about her 'obesity', entitled 'My weight was linked to my baby's death' (BBC News, 2007a). 'Obese' pregnant women are also reported to be at risk of more complicated births, with higher rates of induction and caesarean section (Smith, 2011a), and more at risk of having a premature baby (Smith, 2010) and of being 'overdue' (Lister, 2009; Smith, 2011a).

In addition popular mediated explication of medico-scientific research links 'maternal obesity' with: fetal heart, kidney and urinary tract defects (Rose, 2007); low IQ's, eating disorders and psychosis in children (Donnelly & Farrar, 2011). Recent research published in the journal '*Pediatrics*' (Krakowiak *et al.*, 2012) was reported in the news media with headlines such as: 'Babies of obese mothers 70% more at risk of autism'(The Daily Telegraph, 2012) (see also Smith, 2012a). The BBC suggested that both 'obesity' and T2DM in pregnancy

could result in autism or other 'developmental disability' in children (BBC News, 2012b).

3.8.3 Rise and Risks of the 'Giant' Baby

Analysis of UK media coverage of the phenomenon of the 'big baby' reveals a shift and problematisation over the course of the last decade. In 2003 *The Sunday Times* headline read: 'Better British diet gives birth to mega baby' (Harlow & O'Reilly, 2003). The article discussed increasing prevalence of 'big babies' with a predominantly positive tone. However, it was mooted that there are two different types of 'big baby': one that is 'healthy' and one that is 'padded with fat' and prone to 'obesity'. Readers are then informed: 'Often "fat" babies are born into families where obesity and diabetes is a problem' (ibid 2003, unpaginated).

Over time increasing concern has been expressed over the high birth rate of 'big babies'. *The Guardian*, problematising increasing prevalence of 'big babies', states: 'We are having larger babies. There are several reasons, the biggest of which is the global epidemic of obesity and diabetes' (Williams, 2013). In 'Why are today's babies born so BIG?' (Porter, 2011), 'maternal obesity' is said to put women at risk of GDM, '...another factor in the rise of 'super-sized babies' (2011, unpaginated). Women with GDM who have 'excessive weight gain' in pregnancy are said to: 'almost double the chance of having a heavy baby' (Mail Online, 2008, unpaginated). An inventory of risks associated with a 'mega-baby' is provided, such as 'potentially life-threatening' shoulder dystocia and stillbirth (Mail Online, 2008; Porter, 2011). Framing of this issue suggests that historically 'big babies' were good, but in the age of

'obesity' this is no longer the case. Big babies are presented as unhealthy and 'obesity-prone' (Bates, 2011; BBC News, 2005b; Mail Online, 2008; Revill, 2005). The 'documentary' *'Superhuman: Britain's Biggest Babies'* (2008) featured women (invariably working-class) such as 'Karen', 'obese' (23 stone) with GDM in her first pregnancy, whose baby Shane was the size of 'an average Christmas turkey'. The programme was introduced with the commentary:

Britain's babies are getting bigger. Some are so big that their collarbones and arms are getting broken to get them out. Just two decades ago a big baby was a healthy baby; now it's a sign of Britain's growing obesity epidemic. The bigger the mums, the bigger the equipment. Supersize mums are giving birth to big babies who are staying big. Is junk food addicted Britain producing junk food addicted babies?

In this media framing, as Warin *et al* suggest: '...plump babies are now a literal embodiment of the wrong choices and failed mothering' (2011b, p.458).

Recent media focus has centred on: 'Drug to stop babies from being born fat' (Sky News, 2012) (see also Macrae, 2011; The Daily Telegraph, 2011). This refers to 'controversial' drug trials where 'obese' pregnant women are given Metformin, a 'diabetes drug' (Macrae, 2011, unpaginated) to halt the rise of the 'sumo baby' (Barnes & Macrae, 2012; Sky News, 2012). It is suggested that if successful the treatment could soon be widespread, with: 'tens of thousands of overweight...mothers-to-be drugged each year' (Barnes & Macrae, 2012, unpaginated).

3.8.4 'Maternal Obesity' – a 'Burden on the NHS'

A study carried out by Heslehurst *et al* (2007b) inspired a number of headlines with respect to 'maternal obesity' as a 'burden on the NHS' (BBC News; Hope, 2007; The Daily Telegraph, 2007; The Independent, 2007). All the reports emphasise the 'major impact' of 'obesity' in pregnancy on the NHS in terms of cost and resource implications. Heightened expenditure was said to be required for: one-to-one care impacting on waiting times for other patients; consultant-led care; extra scans and tests; increased caesarean deliveries; specialist equipment such as reinforced theatre tables, beds, wheelchairs; increased postnatal care due to higher rates of infection and more support with breastfeeding. These articles imply that 'obese' pregnant women demonstrate civic irresponsibility; taking up much-needed and scarce resources and impacting on other patients.

3.8.5 Women's Responsibility for Intergenerational Transmission of 'Obesity' and Diabetes

Here I draw on Warin *et al*'s (2011b; 2012) insightful analyses of Australian print media representations of scientific research on 'developmental origins of adult disease.' It has been argued that, 'a reductive account of the fetal origins of disease is gold for scientific journalists, for obesity is both individualised and gendered, and characterised in the popular press as 'a mother of a problem'' (Parker (2009) cited in Warin *et al.*, 2012, p.5). News reporting positions women and mothers as: '...causal agents in the reproduction of obesity across generations' (Warin *et al.*, 2011b, p.453).

A key UK media focus is on 'fetal overnutrition' as the cause of 'obesity' and/or diabetes in childhood/adulthood. Women are portrayed as responsible for passing on 'obesity' and/or diabetes to their children through poor 'lifestyle choices' (see, for instance Connor, 2011; Gallagher, 2011; Mail Online, 2011c; Sample, 2011). No reference is made to socio-economic constraints which may affect pregnant women's nutritional status. As Warin et al (2012, p.10) note, 'in reducing scientific understandings to genetic determinism, the interplay between bodies and their socio-cultural context is entirely overlooked.' 'An expectant mother's diet during pregnancy can alter her baby's DNA in the womb, increasing its risk of obesity...and diabetes later in life' (The Independent, 2011, unpaginated). 'Bad diet in pregnancy raises diabetes risk for child' (Collins, 2012). 'Obesity DNA' triggered by poor pregnancy diet'' (Adams, 2011). 'Junk food mums have fat children' (Morton, 2008). Some tabloid headlines adopt an explicit mother-blaming stance: 'Obesity blamed on mum' (The Sun, 2004). This potent moral discourse of gendered blame is even extended through successive generations: 'Diabetes risk may be set by gran' (BBC News, 2005a); 'Poor diet during pregnancy can give your future grandchildren diabetes, researchers say' (Mail Online, 2011b).

Increasingly UK news media portray the intergenerational transmission of 'obesity' and diabetes as a 'vicious cycle': 'If overweight or diabetic mothers have children who become obese, those children are, in turn, likely to have children prone to obesity and so on' (Thomas, 2007, p.48). 'Overweight/Obese' women are pilloried for 'passing on' 'obesity' to the next generation: 'How an overweight mother could be making her baby obese' (Derbyshire, 2008). 'Overweight pregnant woman are 'condemning children to lifetime of obesity'

(Mail Online, 2009) (see also Rose, 2005). Photographs accompanying these news stories frequently feature 'obese' women (sometimes with 'overweight' children), often utilising the phenomenon of the 'headless stomach' (Heuer *et al.*, 2011, p.983). These stigmatising images unnecessarily emphasise excess weight with the isolation of the abdomen and buttocks (Heuer *et al.*, 2011; Lupton, 2004).

3.9 Chapter Summary

In this chapter I have reviewed pertinent medico-scientific/public health literature and popular media representations of 'maternal obesity', GDM and T2DM in pregnancy. I have drawn on Foucauldian discourse analytic techniques (elucidated in Chapter Two) to interrogate the prevailing construction of these 'conditions.' Key discursive themes identified are risk, personal responsibility, and intergenerational transmission of 'obesity'/diabetes. I presented a critical historical overview/genealogy of the discursive constitution of 'maternal obesity'/GDM/T2DM in pregnancy in medico-scientific/public health discourses. The issue of preconception care for women with 'obesity' and T2DM was then critically considered. I argued that prioritising and emphasising preconception care brings about concomitant moral obligations and responsibilities for women. This was followed by detailed examination of antenatal and postnatal management and surveillance of women with 'maternal obesity' and GDM/T2DM in pregnancy; highlighting material practices which render these 'high risk' pregnancies manageable and governable. I suggest that medico-scientific and public health discourses interpellate women as 'risky

self' (Ogden, 1995), who must be responsabilised into self-regulating, conscientious pregnant subject.

Medico-scientific literature was discussed with respect to the purported genetic and epigenetic intergenerational transmission of 'obesity' and diabetes.

Paradigmatic scientific research in the field of 'developmental origins of adult disease' was examined, with the contention that pregnant bodies of women with 'obesity' and/or diabetes ('maternal diabetes') are reconfigured as 'adverse/toxic intrauterine environments'.

Finally, I analysed popular media representations of 'maternal obesity'/GDM/T2DM in pregnancy. My findings corroborate and extend extant analyses of the representation of 'obesity' in the mass media. I showed how UK popular media frames 'maternal obesity' as 'epidemic' and the cause of increasing prevalence of GDM/T2DM. Women with 'maternal obesity' are portrayed as placing themselves and their fetuses at serious risk through deficient 'lifestyle'. In addition I demonstrated how women are held responsible for burdening the NHS, and passing 'obesity' and/or diabetes onto the next generation. I asserted that some of this reportage is blaming and stigmatising, particularly of working-class mothers. Such moralistic representations are liable to have implications for women's subjectivity.

I posit that the Foucauldian discourse analytic lens utilised has been effective in deconstructing hegemonic discourses and critically considering the government/management of 'maternal obesity'/GDM/T2DM in pregnancy.

Chapter Four: Conceptual Apparatus

4.1 Introduction

I would like my books to be a kind of tool box which others can rummage through to find a tool which they can use however they wish in their own area...I would like [my work] to be useful to an educator, a warden, a magistrate, a conscientious objector. I don't write for an audience, I write for users not readers. (Foucault (1974) quoted in O'Farrell, 2005, p.50).

In this chapter I explicate the conceptual apparatus utilised in this thesis, situating my work as broadly Foucauldian. I would agree with O'Farrell (2005) that it is most effective to use several of Foucault's tools, rather than attempt to carry off the whole box. I start this chapter by showing how the interrelated conceptual lenses of biopower/governmentality have utility in analysing the biopolitical issue of pregnancies deemed 'high risk' due to 'maternal obesity' and GDM/T2DM and the concomitant governmental technologies assigned to ameliorate this. Next, I summarise the distinct governmental rationality known as 'neoliberalism' or 'advanced liberalism' drawing on the work of post-Foucauldian governmentality scholars. I consider and evaluate neoliberal health rationalities: predicated on an individualised risk model and the responsabilisation of the neoliberal citizen. Later I suggest that Bourdieu's (1990) theory of habitus can act as a critique of neoliberal individualist approaches and provide a more nuanced analysis of why certain social groups may be less likely than others to adopt lifestyle changes asserted to improve health and increase longevity. Finally, I give an overview of the contemporary government of pregnancy drawing on the work of feminist scholars.

4.2 Biopower/Biopolitics

As Lemke (2011) notes, Foucault's use of 'biopower/biopolitics' is inconsistent and the terms are used seemingly interchangeably (see also Rabinow & Rose, 2003). Nevertheless, I argue that the concept(s) has/have conceptual utility for this thesis. Here I delineate Foucault's exposition of biopower/biopolitics, its development by Foucauldian scholars and demonstrate pertinence for understanding the discursive framing and government of 'maternal obesity'/GDM/T2DM in pregnancy.

Foucault (1998; 2003) discerns an historical shift in technologies of power from that of the authoritarian sovereign to a predominantly biopolitical power in Europe. He argues that during the seventeenth and eighteenth centuries '...the ancient right to *take* life or *let* die was replaced by a power to *foster* life or *disallow* it to the point of death' (Foucault, 1998, p.138) (see also Dreyfus *et al.*, 1983). Using the example of proliferation of discourses pertaining to sexuality he demonstrates how biopower came '...to control and normalize individuals, behaviour and the population' (2003, p.278). This was a *vital* politics: focused on management of life in terms of the well-being of the population and individuals that comprised it. The concept of 'biopower' links the macro and micro and is utilised:

...to designate forms of power exercised over persons specifically in so far as they are thought of as living beings: a politics concerned with subjects as members of a *population*, in which issues of individual sexual and reproductive conduct interconnect with issues of national policy and power (Gordon, 1991, p.4-5).

Foucault delineates biopower as bipolar: consisting of the 'anatomy-politics of the human body' and the biopolitics of the species body/population. He argues that starting in the seventeenth century:

One of these poles – the first to be formed, it seems – centred on the body as a machine: its disciplining, the optimization of its capabilities, the extortion of its forces, the parallel increase of its usefulness and its docility, its integration into systems of efficient and economic controls, all this was ensured by the procedures of power that characterized the *disciplines*: an *anatomy-politics of the human body*. (Foucault, 1998, p.139).

This technology of power, outlined in '*Discipline and Punish*' (Foucault, 1991a) is characterised by the use of: hierarchical observation/surveillance; normalizing judgement; examination. As an instrument of power normalization imposes homogeneity: classifying and differentiating the 'good' and the 'bad' subjects in relation to one another (ibid 1991a). Through the examination an individual '...may be described, judged, measured, compared with others,' and delineated as one who needs '...to be trained or corrected, classified, normalized, excluded, etc' (1991a, p.191). I suggest that for instance, in the instigation of preconception care, the use of BMI and risk factors to classify pregnant women and the surveillance and management of women with 'maternal obesity' and GDM/T2DM (outlined in Chapter Three) anatomy-politics is instantiated. Discipline is thus one of the technologies of power in the governance/management of these 'conditions'.

The second pole, a regulatory technology which was superimposed on the first and 'linked together by a whole intermediary cluster of relations' (Foucault, 1998, p.139) came into effect from the eighteenth century onwards (Foucault, 1980b; 2002; 2003). This:

...focused on the species body, the body imbued with the mechanics of life and serving as the basis of the biological processes: propagation, births and mortality, the level of health, life expectancy and longevity...Their supervision was effected through an entire series of interventions and *regulatory controls: a biopolitics of the population*. (Foucault, 1998, p.139).

By 'population' Foucault is referring to an independent biological corpus, a 'social body' (Lemke, 2011, p.36), characterised by processes such as birth and death rates, health status and lifespan. Biopolitical technologies are employed to prevent or compensate for risks that result from the existence of a population as a biological entity (ibid 2011). According to Foucault, the eighteenth century saw the emergence of the health and physical well-being of the population as a central political objective: '[t]he imperative of health: at once the duty of each and the objective of all.' (Foucault, 1980b, p.170).

Demography, epidemiology and public health sciences are utilised to examine and manage populations (Turner, 2006). Regulatory mechanisms draw on explicit calculations, statistical estimates, forecasts and prescription of quantifiable norms (Foucault, 1998; 2003; Garland, 1997; Tremain, 2005). The norm is integral to the processes of both discipline and regulation, articulating at individual and population level (Harwood, 2009). Foucault argued that ordering around the norm became the predominant means of classifying/individualizing people, who came to be understood and to understand themselves scientifically (Tremain, 2005). In *'Making Up People'* Hacking (2006) illustrates how the BMI instigated weight normalcy, with 'obesity' as deviation from the norm.

Biopolitics entails 'bioregulation by the State' (Foucault, 2003, p.250); concerning itself with processes that sustain/retard optimisation of the life of the

population and dividing populations into subgroups to this effect (Dean, 2010). Epidemiological data clearly indicates increasing prevalence of 'maternal obesity'/GDM/T2DM, particularly in some social groups. 'Obese' pregnant women with GDM/T2DM are considered to be a high risk group implicated in a 'vicious cycle' of intergenerational transmission of 'obesity' and/or diabetes and perpetuation of the national/global 'epidemic'. Epidemiological strategies identify and seek to reduce aggregate levels of risk across a population, therefore permitting prophylactic interventions in clinically classified sub-populations.

Assessment of women's reproductive capacities and regulation of women in order to maximise these capacities is a key biopolitical objective. Women's reproductive capacities are '...at the heart of "biological responsibility" with regard to the species (Simons, 1996, p.191). Rabinow and Rose (2003, p.21) suggest that reproduction is a 'biopolitical space par excellence' (see also Jette & Rail, 2013; Rose, 2001b; Sawicki, 1991). Asserting that since the 1970's: 'The question of reproduction gets problematised, both nationally and supra-nationally, because of its economic, ecological and political consequences – over-population, limits to growth etc.' (Rabinow & Rose, 2003, p.21). State organised strategies for managing reproductive decisions/capacities in the name of population health played out in the medico-biological politics of many liberal democratic societies in the twentieth century (Rose, 2001a).

The concept of biopower has been taken up by a number of authors in ways germane to my research. Weir (2006) has empirically demonstrated that a significant biopolitical shift occurred in the 1950s with the displacement of birth

as the threshold of the living subject. She suggests that population politics, specifically the reduction of the infant mortality rate was resultant in the novel concept of 'perinatal mortality'. The collection of statistics relating to the death of either the fetus or the newborn just prior to, during, or after birth was instrumental in conferring human status on the fetal subject. Barker (1998) argues that progressive medicalisation of pregnancy through scientifically determined prescriptions for healthy pregnancy outcome over the course of the twentieth century constituted biopower (see also Fox *et al.*, 2009a; Lupton, 2012a; 2012b). Murphy (2003) contends that state attempts to influence infant feeding practices can be seen as a biopolitical initiative (cf. Kukla, 2005). In addition Gastaldo (1997) asserts that health education, promoting behaviours that should be adopted by the entire population such as 'healthy lifestyles' represent an exercise of biopower. Recently, Harwood (2009) and Evans (2010) have characterised the construction and governance of the 'obesity epidemic' as biopolitical: simultaneously addressing the individual and social body (see also Crossley, 2004; Guthman & DuPuis, 2006; Heyes, 2011; Lupton, 2013). Wright & Harwood (2009) have drawn upon Foucault's concept of biopower to conceptualise 'biopedagogies'; disciplinary and regulatory strategies enabling the governing of individuals and population with respect to 'obesity'.

The conjoining of biopower and pedagogy allows us to suggest a framework for the analysis of 'biopedagogical practices'. These practices produce the truths associated with the obesity epidemic and include for example, the 'strategies for intervention', the power relations and modes of instruction across a wide range of social and institutional sites, enacted in the name of the 'obesity epidemic'. Biopedagogies can be understood as urging people to work on themselves (Wright, 2009, p.8-9).

Such biopedagogies enjoin the population to monitor themselves through increasing knowledge of 'obesity' risk and instruct on healthy diet and levels of activity (Harwood, 2009) (see also, McPhail, 2013; Rail, 2012; Rail & Lafrance, 2009). Modes of subjectification, by which individual's can be brought to work on themselves (Rabinow & Rose, 2003) are to be addressed further in the next section on 'government/governmentality'.

4.3 Government/Governmentality

As Gordon (1991) has noted, when Foucault reintroduced the themes of biopower/biopolitics in his 1978 lectures, he linked it intimately with the theme of government (see also Miller, 2008; Tremain, 2005). 'The analytical perspective of "governmentality" is not therefore a break with Foucault's work with regard to his earlier analysis of power, but is inserted into the space opened up by the problem of biopower' (Senellart, 2009, p.382). Foucault made clear that the biopolitical issue of population was fundamental to a new art of government:

...population comes to appear above all else as the ultimate end of government. In contrast to sovereignty, government has its purpose not the act of government itself, but the welfare of the population, the improvement of its condition, the increase of its wealth, longevity, health etc.; and the means that the government uses to attain these ends are themselves all in some sense immanent to the population; it is the population itself on which government will act either directly through large-scale campaigns, or indirectly through techniques... (Foucault, 1991b, p.100).

Foucault states that 'we live in the era of a 'governmentality' first discovered in the eighteenth century' (1991b, p.103). He argued that a certain mentality had become the basis of modern forms of political thought/action (termed governmentality) (Rose *et al.*, 2006). However, he cautioned against seeing

sovereignty, discipline and government as replacing each other across time, but instead suggested they should be seen as an interconnected triangle 'sovereignty-discipline-government' (Foucault, 1991b, p.102) (see also Barry *et al.*, 2005a; Nadesan, 2008). I will return to this point of 'governmentality' as art of government in respect to Neoliberalism in section 4.4.

Foucault's brief writings 'sketched out' the concepts of 'government/governmentality' (Miller & Rose, 2012b, p.8) (see also Petersen, 2003, p.188). Burchell (2005, p.35) suggests that Foucault was not always consistent in his use of the terms (see also Brockling *et al.*, 2011, p.7). However, Foucault's work and the post-Foucauldian literature on governmentality have proved extremely influential in the medical humanities and, as I will indicate, has particular conceptual utility for this thesis. As Nadesan (2008) has done, I refer to the terms government/governmentality interchangeably.

What Foucault meant by the term 'government' is aptly summarised by the phrase the 'conduct of conduct' (Dean, 2010, p.17). While the word 'government' today has a solely political meaning Foucault utilises it more comprehensively to mean the rational attempt to shape human conduct (ibid 2010; Lemke, 2001, p.191). According to Foucault 'to govern':

...covers a very wide semantic domain in which it refers to movement in space, material subsistence, diet, the care given to an individual and the health one can assure him [sic], but also the exercise of command, of a constant, zealous, active and always benevolent prescriptive activity. It refers to control one may exercise over oneself and others, over someone's body, soul and behaviour. (Foucault, 2009, p.122).

Government then, ‘...designated the way in which the conduct of individuals or of groups might be directed...To govern, in this sense is to structure the possible field of action for others’ (Foucault, 1983, p.221). This perspective posits that no single body such as the state is responsible for managing the conduct of individuals: a vast array of authorities govern in different sites, in relation to specific objectives (Rose *et al.*, 2006).

Foucault suggests that ‘to govern’ may mean ‘to impose a regimen’ on a patient. He states that the doctor governs the patient, or the patient in self-imposing the regimen, governs her/himself (2009, p.121). To manage conduct is an evaluative, normative and moral activity; it presumes a set of standards/norms of conduct by which behaviour can be judged and acts as an ideal to which individuals and groups should aspire (Dean, 2010). Government can be said to be moral ‘...because the policies and practices of governments, whether of national governments or of other governing bodies, presume to know...using specific forms of knowledge, what constitutes good, virtuous, appropriate, responsible conduct of individuals and collectives’ (ibid 2010, p.19).

Government encompasses, as illustrated in the above example, not only the exercising of authority over others, but also how individuals subject themselves to self-regulation/govern themselves. Indeed this indicates somewhat of a departure in Foucault’s work; he intimated that he may have previously placed too much emphasis on ‘technologies of domination’ with insufficient attention to ‘technologies of the self’ (Foucault, 1988, p.19). He says it is crucial to take into account:

...the points where the technologies of domination of individuals over one another have recourse to processes by which the individual acts upon himself [sic]. And conversely...the points where the techniques of the self are integrated into structures of coercion or domination. The contact point, where the individuals are driven by others is tied to the way they conduct themselves, is what we call, I think, government (Foucault, 1993, p.203).

Technologies of the self encompass ways in which individuals come to understand/act upon themselves within certain regimes of authority/knowledge and with the aim of self-improvement (Rose *et al.*, 2006) (see also Foucault, 1994). Foucault conceived the arena of government of the self/individualised forms of self-regulation as 'ethics'. 'Ethical self-formation concerns practices, techniques and discourses of the government of the self by the self, by means of which individuals seek to know, decipher and act on themselves (Dean, 1994, p.156). Dean (2010, p.20) gives the example of individuals problematising their eating habits and body size/shape in the self-governmental practice of dieting. This is ethical inasmuch as it is considered good to be slim and fit, to have bodily self-control, to curtail the intake of 'unhealthy' foods, to reduce risk of 'lifestyle' diseases, and improve chances of longevity.

Technologies of the self are both suggested/imposed by social context but also offer up the possibility of agency (Armstrong, 2007; Foucault, 1991c; McNay, 1999). Though rules of personal conduct are recommended by the social context individuals are 'free' to interpret, negotiate and resist such rules (Dean, 2010; Petersen, 2003). Foucault (2009) designates the term 'counter conduct' to resistances/refusals to being conducted in a certain way. This is a counterpart to Foucault's oft-quoted maxim: 'where there is power there is resistance' (Foucault, 1998, p.95). Foucault emphasises that counter-conduct and resistance are intrinsic to their respective fields of action, not merely

negative or reactive phenomena (Davidson, 2009, p.xxi). Petersen (2003) suggests that governmentality scholars have paid too little attention to the study of counter-conduct/resistance. The interplay between government of pregnancies complicated by 'maternal obesity'/GDM/T2DM and resistance to this is one of the foci of this thesis. Governmentality as a perspective acknowledges that any governmental project is always incomplete and partial in respect to the objects and practices it governs (Petersen, 1997a).

Lupton (1995) has shown how governmentality provides a means of analysing coercive/non coercive strategies the state and other institutions such as the mass media impress upon individuals for the sake of their own interests. She argues that it is thus an effective means of examining the socio-political role of public health discourses and practices (see also Ayo, 2012). Miller and Rose (2012a) suggest a means of theorising governmentality which, I argue, can be applied empirically to the government of women with 'maternal obesity' and GDM/T2DM. As they assert: if the conduct of individuals/groups is thought to require conducting, this is because something about it appears problematic. In Chapter Three I showed how the conduct of women of reproductive age with 'obesity' and T2DM and pregnant women with 'maternal obesity' and GDM/T2DM has been problematised in medico-scientific discourses and popular media representations. Women of reproductive age/pregnant women's: body size; consumption practices; levels of exercise; level of diabetic control is considered to require government prior to, during and after pregnancy.

Miller and Rose (2012a) designate two distinct, but intrinsically linked aspects of governmentality: 'rationalities' or 'programmes' of government and

'technologies', thus linking representation and knowledge of a phenomenon with techniques delineated to transform it. Rationalities are defined as, 'styles of thinking, ways of rendering reality thinkable in such a way that it was amenable to calculation and programming' (ibid 2012a, p.16). In Chapter Three I presented a genealogy of 'maternal obesity', GDM and T2DM in pregnancy, discussing the corpus of epidemiological/medico-scientific knowledge constructing them as medical 'conditions' requiring management. Particularly significant was the paradigm shift in scientific knowledge with respect to 'fetal/developmental over-nutrition' and its purported role in the 'diabesity' epidemic. Women of reproductive age with 'obesity'/T2DM/previous GDM and pregnant women with these 'conditions' are designated 'high risk' to their own health, that of their fetus and future generations and they have become a 'targeted population' (Dean, 1997, p.220) (see also Nadesan, 2008, p.212).

The other dimension of governmentality is technological. Technologies include institutions, instruments, devices, tools, techniques, personnel, materials and apparatuses that enable action on the conduct of person's (Miller & Rose, 2012a). Governmentality incorporates both external government in the form of surveillance and regulatory activities and practices of self-government. Both disciplinary technologies and technologies of the self are at work in the government of women with these medical 'conditions'. Women of reproductive age are expected to adopt appropriate self-care regimes prior, during and after pregnancy. Women with 'obesity' and GDM/T2DM are considered to be failing in requisite levels of self-care. Disciplinary technologies of surveillance and normalisation are instigated which are believed to be in line with aspirations and aims of rational and responsible reproductive subjects invested in minimising

risk and maximising their own health and that of their fetus/child.

Biopedagogies encourage adoption of requisite technologies of the self such as dietary control and strict diabetic regimen. Non compliance with technologies aimed at improving women's health and minimising risk to the offspring is seen as morally reprehensible. Examples of governmental technologies utilised in the management of women with 'obesity' and GDM/T2DM include (as discussed in Chapter Three):

- guidance from institutions such as NICE and RCOG
- self-help/management guides, for example from Tommy's, Diabetes UK
- HCPs: midwives; nurses; dieticians; doctors; consultants etc
- dedicated pre-conception care/antenatal clinics
- diagnostic instruments such as the BMI
- risk factor profiling
- tools/devices such as glucometers
- additional fetal ultrasound imaging
- medical/diabetic regimen including diet/weight control, exercise, monitoring of blood sugar levels, medications

Thus increasing prevalence of 'high risk' pregnancies complicated by 'maternal obesity'/GDM/T2DM are linked to the wider 'diabesity epidemic' and considered to be an urgent biopolitical issue requiring the assigning of governmental technologies to ameliorate this.

4.4 Neoliberal/‘Advanced Liberal’ Governmentality

The development of Foucault’s work on neoliberal governmentality by neo-Foucauldian scholars (for example: Barry *et al.*, 2005b; Burchell, 2005; Dean, 2010; Miller & Rose, 2012b) I suggest is particularly apposite for this thesis. The ‘rationality of rule’ known as neoliberalism or ‘advanced liberalism’ (Rose, 1993; 1996) became increasingly dominant in the latter part of the twentieth century/early twenty-first century (Petersen *et al.*, 1999). This can be seen at least in part as a response to criticisms of the ‘state of welfare’ (Rose, 1996, p.40) instigated during and after the Second World War in Western democracies. From the 1980s citizenship was no longer construed in terms of solidarity and welfare, but was active and individualistic (Miller & Rose, 2012b). Notions of individual choice, autonomy and freedom are fundamental to ‘advanced liberal’ governmental rationalities. Programmes of government enhance personal choice and ‘empower’ individuals to be active in their own self-government. In ‘advanced liberal’ democracies technologies act upon individual’s self-regulating propensities allying them with economic and socio-political objectives (ibid 2012b). As Rose (1992, p.147) suggests this ‘...means governing *through* the freedom and aspirations of subjects rather than in spite of them’. Subjects become *responsibilised actors* (Garland, 1997; Peters, 2001; Rose, 2010), conducting themselves freely, rationally and with a desire to take responsibility for their own life management. Neoliberalism is characterised by indirect techniques for controlling individuals without concomitantly being responsible for them (Lemke, 2001).

The key feature of the neo-liberal rationality is the congruence it endeavours to achieve between a responsible and moral individual and

an economic-rational actor. It aspires to construct prudent subjects whose moral quality is based on the fact that they rationally assess the costs and benefits of a certain act as opposed to other alternative acts...the consequences of the action are borne by the subject alone, who is solely responsible for them. (Lemke, 2001, p.201).

Neoliberal subjects seek to 'enterprise themselves', to maximise their quality of life through acts of choice, but as Rose (1996, p.59) argues, '...such lifestyle maximisation entails a relation to authority in the very moment as it pronounces itself the outcome of free choice'. This is a 'regulated autonomy' where individuals are morally obliged to adopt technologies of the self in respect to their bodies, their minds, their conduct and that of the members of their own families (ibid 1996).

A range of social and cultural technologies such as medicine, psychiatry, social work, the mass media, advertising and marketing support and inculcate responsibilised self-government. Soap operas, documentaries and more recently 'reality TV' perform key self-management/lifestyle pedagogical functions. Ouellette and Hay (2008b; 2008a) posit that reality TV is an important neoliberal technology, publically harnessing the technical knowledge of experts to help individuals overcome personal 'shortcomings' and difficulties (see also Warin, 2010), which was discussed in Chapter 3.9.3.

It is asserted that increasingly technologies of risk are deployed across wide-ranging areas of social life, enabling monitoring and management of populations and individuals (Lupton, 1999c; O'Malley, 2006). Whereas welfarist regimes provided social insurance, under neoliberalism it is morally incumbent on subjects to manage their own risk. This privatisation of risk management has been termed the 'New Prudentialism' (O'Malley, 1996; Rose, 1996)

...we witness the 'multiple responsabilisation' of individuals, families, households and communities, for their own risks – of physical and mental ill health, of unemployment, of poverty in old age, of poor educational performance of becoming victims of crime...the responsibilities of risk minimisation become a feature of the choices that are made by individuals, households and communities, as consumers, clients and users of services. (Dean, 1997, p.218).

The role of government is seen to be provision of advice/assistance for self-management of risks and risk avoidance rather than financial support (Lupton, 1999a; 1999c). However, it can be argued that 'the lack of interest in the biography or motivation of the 'at risk' individual deflects attention away from the socioeconomic under-pinnings of risk (Lupton, 1999c, p.101). Risk is problematised: rendered calculable and governable by a plethora of experts, institutions, knowledges and practices (ibid 1999c). Discourses construct certain phenomena as risky and thus requiring management by individuals/institutions. Rose (2000, p.332) refers to the 'risk gaze'; mapping the distribution of risk across the social terrain. Dean (1997, p.219) says it is possible to ascertain a division between *active citizens* (seen as capable of managing their own risk) and *targeted populations* (the 'at risk', the 'high' risk) requiring intervention in risk-management (see section 4.3). Lupton (1999c) contends that how risk discourses are taken up, resisted or negotiated by those designated 'at risk' has been under-examined, but it is a focus of this study.

4.5 Neoliberalism and the Government of Health

Since the mid 1970s, in Britain and many Western countries, there was an ideological shift away from the view that the state should protect the health of individuals to the view that individuals should take responsibility to protect their own health and wellbeing (Petersen, 1996; Petersen & Lupton, 1996). A

relative retrenchment of health service provision by the state was accompanied by an emphasis on self-care and self management of health risk. Neoliberal rationality is underpinned by what sociologists have referred to as 'healthism'; the assumption that everyone should work and live to maximise their own health for their own benefit and that of society as a whole (Ayo, 2012; Cheek, 2008; Crawford, 1980). According to Crawford (1980) health has been elevated to a 'super value' (see also Rose, 2001b); considered to be the primary focus for the definition of well being. Healthism is premised on the view that health can be attained by the assumption of personal responsibility and modification of lifestyles.

Larsen (2012) suggests that since the 1970s in many Western democracies it came to be accepted that investment in acute therapeutic technology or traditional public health measures such as sanitation and vaccination would bring about no further health gains. Instead public health policy became predominantly concerned with promoting 'healthy' individual lifestyle choices (ibid 2012). In contemporary neoliberal democracies adoption of a 'healthy lifestyle' has become a predominant concern, acquiring a unique prominence in public health policy and practice (Bell *et al.*, 2011a; Petersen *et al.*, 2010). What has been termed the 'new public health' (NPH) marked a shift in emphasis to individual lifestyle regulation. In the 'new public health': '...everyone is called upon to play their part in advancing 'the public's' health through attention to lifestyle, healthy eating, attention to exercise, preventive testing...and other measures. This is promoted as a means of establishing control over one's life, as a path to freedom and 'wellbeing' (Petersen *et al.*, 2010, p.394). Health promotion messages about being active, eating 'healthily' and losing weight are

ubiquitous and vigorously promulgated. Neoliberal health promotion involves inciting the desire within individuals to choose to follow the imperatives of governing health bodies and adopt appropriate technologies of the self to ensure health/longevity. Although the NPH ostensibly recognises the social and environmental impacts on health it has been noted that the emphasis is placed on the responsabilisation of individual's to make informed 'healthy' choices and maximise their lifestyle (Bell *et al.*, 2011a; Lupton, 1995; Petersen & Lupton, 1996). The regulation of lifestyles such as: maintaining a 'healthy' weight; blood glucose and cholesterol levels; not smoking and so forth is encouraged in order to avoid 'lifestyle diseases' (Fullagar, 2009) such as 'obesity', diabetes and cancer. The neoliberal premise that individuals can select their ways of living is fundamental to the claim that disease results from behaviours associated with 'faulty' lifestyle choices (Galvin, 2002).

The last few decades has seen a burgeoning market of industries facilitating 'healthy lifestyles' that health conscious neoliberal citizens are encouraged to buy into, such as gymnasiums, organic food, diet and weight loss programmes, dietary supplements, fitness DVDs and ranges of sports clothing. Lupton (1995) contends that in a secular age, for many people exerting self-control over lifestyle choices has become an alternative to prayer and righteous living (see also Rose, 1994). The concept of lifestyle dovetails into Gidden's (1991) view of the self as project, in what he refers to as 'high modernity' (see also Shilling, 2010). Individuals are encouraged to adopt body regimes as part of their lifestyle: programmes of behaviour relevant to the cultivation of body traits (Shilling, 2010). Technologies of the self in respect to health and fitness are means by which individuals can demonstrate agency, achieve physical capital

(Shilling, 2004) and differentiate themselves as successful. The fashionable taut and toned body achieved through fitness regimes and dietary control is perceived as a manifestation of good health. This is particularly the case for women and is well summarised by Petersen and Lupton (1996, p.80):

The feminine 'healthy' citizen, it is suggested, should seek both soundness of body and physical allure through the self-care techniques proffered by the new public health. In these discourses there is an elision between the ideals of commodity culture and public health, for both promote the slim, attractive, healthy, physically fit, youthful body as that which women should seek to attain.

Furthermore, as Nettleton (1996) argues, women are not just held personally responsible for their own health, they are also held responsible for the health of others; particularly children. This is what Foucault (1998, p.104) identified as women's 'biologico-moral responsibility' for the health and welfare of children. The 'healthy' female citizen is regarded as a resource for the reproduction and maintenance of further 'healthy' citizens (Petersen & Lupton, 1996). Nettleton (1996) suggests that because of this there is potential for women to be stigmatised, shamed and blamed if there is perceived to be dereliction of duty in this respect. This is evident in media discourses pertaining to the intergenerational transmission of 'obesity'/diabetes discussed in Chapter 3.8.5.

The NPH has seen the privatisation of health risk (Joyce, 2001). Ogden (1995) refers to the contemporary formulation of the 'risky self' (see also Nettleton, 1997). Whereas previously risk had been seen as external to the self for instance in the form of viruses and pollution, now:

The risk to health is conceptualised as an internal, malleable and manageable self. The risk to health comes from the individual's

presence or absence of self control which manages and masters the changeable drives which expose the body to threats. (Ogden, 1995, p.413).

A key element in the deployment of risk in contemporary medicine was the invention and use of risk factor epidemiology; producing statistical correlations between illness and various behaviours. The selection of risk factors and evidence about causal links may be equivocal, but risk factors hypothesised to be linked to diseases may become seen as 'diseases to be cured' (Nettleton, 1997, p.215). 'Lifestyle risk discourse' with its emphasis on behavioural change and self-control in order to minimise risk of succumbing to disease has gained particular cultural resonance (Lupton, 1993b). This discourse stresses the responsibility of individuals to become knowledgeable about/avoid health risks for their own sake and from a utilitarian perspective. A language of individual empowerment in controlling risks to health is deployed, with a manifest benevolent aim to improve standards of health. Nevertheless, lifestyle risk serves as an effective technology of neoliberal governmentality: incorporating surveillance, control and inculcation into risk averting behaviours.

Petersen (1997b) asserts that enacting 'healthy' (risk averting) behaviours has become a signifier of moral worth, with conversely those engaging in risky health behaviours met with opprobrium and distaste. As Galvin (2002) argues, individuals with chronic illnesses are increasingly perceived as culpable in the face of known risks and failing in their duties as a citizen. If an individual demonstrably fails to regulate their lifestyle or alter risky behaviour this is seen as '*...a failure of the self to take care of itself*' (Greco, 1993, p.361, original emphasis). The discourses of the NPH identify deviant subject positions such as 'risk taker' and 'non compliant individual' (Petersen, 1997b). Individuals who

do not regulate risky health behaviours are considered to be a drain on the social body, utilising scant health resources. Neoliberal citizens are increasingly expected to keep to a minimum their access to healthcare and healthcare costs by adopting appropriate preventative practices (Joyce, 2001; Petersen, 2003).

There are a number of criticisms and issues that have been raised with respect to healthism and the neoliberal government of health through risk discourse which are germane to this thesis. Criticisms reflect the wider structure – agency dialectic. Government of health under neoliberalism is predicated on the agentic individual who is a rational and autonomous consumer of health information, invested in and having the wherewithal to make lifestyle adjustments and reduce health risks. This pervasive view of the neoliberal citizen, it is argued, may obscure the socio-structural determinants of health (Lupton, 1995; Petersen & Wilkinson, 2007; Petersen & Lupton, 1996). Crawford (1980, p.384) argues:

Those most able to make individual adjustments are more likely to be middle class. Middle-class people not only possess more personal resources for changing lifestyle...but also have acquired fundamental notions about themselves as social actors from work situations (and all the supporting socialising patterns) which are individually competitive. They are already predisposed toward seeing their achievements as a result of personal effort alone.

Neoliberal governmentality can be criticised for failing to take into account material/structural factors which may preclude/constrain individuals from making what are considered to be 'good choices' with respect to their health.

In this section I have indicated how healthcare has, to a large extent, become 'risk management' (Petersen & Wilkinson, 2007). In Chapter Three I demonstrated how risk is a pervasive theme in medico-scientific, policy and media discourses pertaining to 'maternal obesity'/GDM/T2DM in pregnancy. Women are to be informed of myriad risks of having these 'conditions', based on the neoliberal rationality that awareness of risk will result in behaviour change/attempts to minimise such risks. As Petersen (2003, p.195) contends, the emphasis in healthcare is on an individual's 'right to know' about risks, prevention, care, treatment, with little or no discussion about the 'right not to know' (see also Lupton, 1993b). Lupton (1993b, p.433) further suggests that, 'the inducement of anxiety and guilt in those who have received the message about the risks but do not change their behaviour, might be said to be unethical'. Individuals who do not or cannot for whatever reason minimise health risks may experience shame, which may further undermine the exercise of autonomy and responsibility around health decisions (Fullagar, 2009). The action of being labelled 'at risk' may in itself result in iatrogenesis; raising anxiety levels and affecting quality of life (Nettleton, 1996; Oakley, 1992). As I discuss in section 4.7, issues around risk are particularly sensitive during pregnancy, with fetal rights considered to take precedence over the mother's.

A number of factors may impact on health risk perception and inclination/ability to minimise risks. Level of socio-economic resources available may constrain capacity for risk reduction. The concept 'risk environment' is based upon the notion that risk is relative and situated socially and culturally (Rhodes, 2009) (see also Tulloch & Lupton, 2003). Moreover, it considers the interplay between structure and agency in shaping response to risk; acknowledging that structural

forces can impact differentially on the lived experience of risk. Thus, reinforcing the need for 'emic' perspectives on risk experience and rationality (Rhodes, 2009, p.198). Armstrong (2005) suggests that the governmentality perspective on risk is in danger of placing too much emphasis on discourses/strategies employed to discipline individuals, with too little attention given to how they respond to these. The study on which this thesis is based explored the lived experience of women designated as having: 'high risk' pregnancies; children at 'high risk' of developing 'obesity' and T2DM later in life; an elevated personal risk of developing T2DM. It further considered how women positioned themselves according to risk discourses and how their socio-cultural milieu might have mediated risk perception/experience.

Government of health risks requires experts to impart information about risks, treatment and possibilities for risk minimisation and prevention. However, as Petersen suggests (1997a, p.201) (see also Petersen, 1996; Tulloch & Lupton, 2003):

Although one of the underlying assumptions of health promotion is that science can discover objective, ultimate truths about risk and provide a basis for making ethical decisions about conduct, it is evident that scientists themselves cannot agree on the 'facts' about risk.

Diet/nutrition and pregnancy are two areas of particular pertinence in this thesis and both are subject to ongoing, conflicting and changing advice about risk. It may be the case that the ubiquity of information about risk and its contradictory nature mean that individuals become somewhat inured to risk messages. Lay perceptions of risk are not straightforwardly influenced by 'experts' such as public health policy makers, healthcare professionals or other sources such as

the media (Lupton & Chapman, 1995; Nettleton, 1997). It is suggested that 'lay epidemiology' is often utilised (Davison *et al.*, 1991): people construct understandings of health and the incidence of ill health through the experiences of those around them.

4.6 Habitus

In this section I focus (following Williams (1995) and Cockerham (2005)) on how Bourdieu's theory of 'habitus' (1990; 2010) may help to provide a more nuanced understanding of the relationship between lifestyle, health and social class.

Bourdieu's (2010) notion of the 'habitus' may be useful in conceptualising how individual's lifestyle 'choices' and even bodily presentations may be shaped and constrained by their social positioning, particularly their gender and class position (Lupton, 1995) and possibly also ethnicity/'race' (Reay, 1995; 2004). It may go some way to elucidate reasons why informing individuals of the necessity of adopting more 'healthy' lifestyles may result in relatively little/no behaviour change, perhaps particularly more so for some social groups.

Bourdieu's used habitus predominantly with respect to class, which I will focus on here. The concept of the 'habitus' enables an analysis of social class as complex sociological and psychological processes that extend beyond material and structural location (Reay, 1997). Bourdieu was critical of the view that everyday behaviour of individuals could be understood in terms of rational, calculative decision making, or on the other hand as determined by macro social structures (Jenkins, 2007; Williams, 1995). The notion of habitus can be seen as a way to understand the agency/structure relationship in terms of everyday practices/lifestyles.

According to Bourdieu (1990, p.53):

The conditions associated with a particular class of conditions of existence produce *habitus*, systems of durable, transposable dispositions, structured structures predisposed to operate as structuring structures, that is, as principles which generate and organise practices and representations that can be objectively adopted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations in order to attain them.

Cockerham (2008, p.70) suggests that this refers to the habitus serving as a 'cognitive map' or set of perceptions: guiding and assessing an individual's choices and options as a matter of routine. This entails enduring, 'durable' dispositions to act a certain way, appropriate for that person in particular social situations/settings. According to Bourdieu: '...when habitus encounters a social world of which it is the product, it is like a fish in water...it takes the world about itself for granted' (Bourdieu, cited by Wainwright & Turner, 2003, p.4). These are habitual ways of acting that are carried out unconsciously/unreflexively and are 'not immediately amenable to self-fashioning' (McNay, 1999, p.102). In Bourdieu's words (2010, p.468), 'the schemes of the habitus...function below the level of consciousness and language, beyond the reach of introspective scrutiny or control by the will'.

Habitus is at the same time both specific to the individual and an expression of the collective to which that individual belongs. According to Reay (1995, p.355), '[a] person's individual history is constitutive of habitus but so also is the whole collective history of family and class that the individual is a member of'. Habitus is acquired by individuals predominantly through early socialisation, experience and acculturation. It is internalised and enduring. It is the product of individual experience and collective history of past practices of previous generations

(Jenkins, 2007). The habitus is formed within the structural positions which people are located but is not determined by them (Lupton, 1995). The habitus is generative. It is reflective of the social position in which it was constructed, but also capable of generating different responses and transcending the social conditions that produced it (Cockerham, 2008; Crossley, 2001; Lawler, 2004; Reay, 1995). Although trans-generational reproduction does occur, it will not occur perfectly and is not a *fait accompli*.

Bourdieu discusses the internalisation of class conditions and how this is translated into personal dispositions for action. The aspirations and everyday practices of individuals are said to correspond to those inculcated under the formative conditions of their habitus (Swartz, 1997). 'Though it is impossible for *all* members of the same class (or even two of them) to have the same experiences, in the same order, it is certain that each member of the same class is more likely to have been confronted with the situations most frequent for members of that class' (Bourdieu, 1977, p.85, original emphasis).

Cockerham (2008) suggests that it is for this reason there may be affinity of health lifestyle choices among members who share the same social class background. Swartz (1997, p.107) asserts that the habitus circumscribes choices: 'Not all courses of action are equally possible for everyone; only some are plausible, whereas others are unthinkable' (see also Reay, 1995).

The habitus is expressed through a myriad of everyday practices such as: the way people dress, consume commodities, gesture and talk; their taste and consumption practices (Lupton, 1995). However, one of the crucial features of

habitus is that it is embodied (Reay, 1995). Bourdieu shows how there are classed differences in the shape, comportment and presentation of bodies:

...the body is the most indisputable materialisation of class taste, which it manifests in several ways. It does this first in the seemingly most natural features of the body, the dimensions (volume, weight, height) and shapes (round or square, stiff or supple, straight or curved) of its visible forms, which express in countless ways a whole relation to the body, i.e., a way of treating it, caring for it, feeding it, maintaining it, which reveals the deepest dispositions of the habitus (2010, p.188).

This 'universe of class bodies' (ibid 2010, p.191) is said to reflect class tastes in food and bodily presentation. Bourdieu asserted that the middle class have the power to define and construct what constitutes 'good taste' in terms of food/bodily presentation (amongst other things) and this is done in opposition to working class taste (see also Pampel, 2011). To summarise succinctly: Bourdieu found that the middle class tended to prefer light and delicate food whereas the working class had a taste for heavy, fatty and filling foods (Bourdieu, 2010) (see also Crotty & Germov, 2005; Lupton, 1998a). He also suggested that the working classes were less concerned about the need to maintain a slender body, with working class women being less likely to invest time, effort and money in body cultivation (see also Crossley, 2004; Saguy, 2013; Shilling, 2010). However, as Crotty and Germov (2005) rightly argue, whilst Bourdieu's work is insightful it should not be adopted uncritically, not least because the data was collected over 30 years ago and in a particular place. They suggest that differences in food tastes between social classes are diminishing. However, there is some evidence to the contrary (for example Bolton-Smith *et al.*, 1991; Darmon & Drewnowski, 2008).

Warin et al's (2008) ethnography of 30 'obese' women in Adelaide, Australia is of particular significance and influenced both the data collection and theorisation of this study. They show how gendered and class based habitus shaped women's experiences of food, family provisioning and body size/shape. Furthermore, they assert that gendered and class based experiences of embodiment are ignored in health promotion practices and policies, and that the theory of habitus can help to fill this lacuna (see also Broom & Warin, 2011; Evans *et al.*, 2008).

I argue that the concept of habitus has conceptual utility in this thesis for understanding the social milieu, experiences, lifestyles and behaviours of women with 'obesity' and GDM/T2DM. However, Bourdieu's theory has been criticised in a number of ways which should be discussed. It is asserted that Bourdieu's approach is overly reproductionist (Shilling, 2004) and ultimately determinist (Crompton, 2010; Jenkins, 2007). Crompton (2010, p.102) states that: '[i]ndividuals and groups are described... as being locked into cycles of deprivation and disadvantage, as well as their opposite'. Both Williams (1995) and Cockerham (2005) (see also Cockerham *et al.*, 1997; Crossley, 2001; Lawler, 2004) argue that Bourdieu's theory allows for individual agency despite the fact that the habitus is constraining and predisposes people towards certain choices. They assert that the concept of habitus facilitates an understanding of the relationship between social class, lifestyle and helps in providing '...an important counter-weight to those more recent perspectives which see these issues simply in terms of personal choice and reflexive control (Williams, 1995, p.601) (cf Frohlich *et al.*, 2001).

4.7 The Government of Pregnancy

Feminists have long recognised and discussed implications of increasing medicalisation of pregnancy and childbirth (see, for instance: Barker, 1998; Marshall & Woollett, 2000; Oakley, 1980; 1984; Rothman, 1993; Young, 1984). As Fox et al (2009b) note, though there has been some backlash against this with, for instance, the promotion of home/natural birth, there has also been a steady rise in medical interventions such as induced births and caesarean sections in the UK.

Kukla (2005; 2006) asserts that cultural, technological and medical practices have constituted the pregnant body as a public space subject to surveillance and concern: it is taken as a seat of civic rather than merely personal responsibilities. It is suggested that over the latter half of the twentieth century with the introduction of the concept of 'perinatal mortality', fetal personhood was discursively constituted (Weir, 2006). Modes of fetal representation, particularly the use and proliferation of ultrasound imagery are argued to have reinforced the personification of the fetus and contributed to demands for fetal rights (Duden, 1993; Kukla, 2008; Oaks, 2000). Petchesky (1987, p.277) refers to a 'panoptics of the womb', used to determine normative fetal behaviour and maximise medical control over pregnancy. Lupton (2012a, p.5) suggests that visualising technologies '...have contributed to an ontological separation of the preborn body and its needs from that of the woman who is gestating it'. The imposition of fetal rights, it is contended, amounts to an assault on pregnant women's autonomy: effectively reducing women to fetal containers (Bordo, 1995; Young, 1984). Women in the US have been prosecuted, for example, for

drug and 'excessive' alcohol use in pregnancy (Pollitt, 1998; Roth, 2003). Though these examples are extreme, in the twenty-first century women's consumption practices in pregnancy have come under greater levels of scrutiny and surveillance. Medico-scientific literature and popular culture constructs women as responsible for maximising babies' health. Having a deficient diet in pregnancy is considered to recklessly compromise the health of the fetus (Lupton, 1998a). Women's consumption of 'junk food'/poor dietary practices are now equated with drinking alcohol and smoking whilst pregnant (Bell *et al.*, 2009; Misbehaving Mums to Be, 2011) (See Chapter 3.9.3).

Advice/injunctions given with respect to consumption practices act as a tool of surveillance, moral obligation (Furedi, 2008; Longhurst, 1999) and neoliberal governance over women's pregnant behaviour (Fox *et al.*, 2009b). 'Pregnant women have thus become a prime target for neoliberal governmental strategies directed not only at the 'care of the self', but even more importantly, 'the care of the (fetal) other': the valuable potential child' (Lupton, 2012b, p.336). According to a neoliberal problematic, the central issue is how pregnant women can be governed 'from a distance' and in accordance with their autonomy and freedom (Weir, 1996). Women are co-opted into strictly monitoring their own behaviour during pregnancy with the aim of fetal perfection and in order to demonstrate a conscientious pregnancy (Kukla, 2005). They are inducted into a specific 'technic' of pregnancy: demonstrating requisite self discipline and bodily regulation (*ibid* 2005, p.128). This self-regulation has been referred to as 'reproductive ascetism' (Ettorre (2009), p246 cited in Lupton, 2012a, p.4). Women are subjected to a battery of advice from the media, healthcare professionals, partners, family members, work colleagues and even strangers

with respect to diet, exercise, birth, medical procedures, prenatal screening, lactation and so on. People acting as societal supervisors of, and interjecting in, pregnant women's behaviour are increasingly referred to as 'the pregnancy police' (Fox *et al.*, 2009a; 2009b; Taylor, 2006) (see also Furedi, 2008).

Longhurst (1999) suggests that if women refuse to take notice of such advice then they are likely to be positioned as antagonistic to their fetus.

Research suggests that many women do significantly alter their behaviour when pregnant particularly with respect to smoking, drinking alcohol and adhering to a more 'healthy' diet. Markens *et al* (1997) considered women's degree of accommodation to dietary prenatal recommendations in the US. They found that women strongly internalised norms of biomedical knowledge regarding nutrition, even if they did not adhere to them strictly. In addition they suggested that some women's limited financial resources affected the degree to which they could make dietary changes. Root & Browner (2001) found a spectrum of resistance and compliance to biomedically normative prenatal behaviour in their study, with women drawing on both authoritative medico-scientific and experiential knowledge in their decision making (see also Fox *et al.*, 2009a).

Lupton's (2011) research in Australia indicated that many women became vigilant about their consumption practices in pregnancy (see also Harper & Rail, 2012; Lupton, 1999b). However, Lupton did remark on social class differences in ways that women responded to questions about their habits in pregnancy: '[w]omen with high levels of education and income, living in well-off suburbs, tended to be more vigilant in ensuring they conformed to guidelines concerning diet, exercise, vitamin supplementation and avoidance of drugs such as alcohol and tobacco' (*ibid* 2011, p.642).

Risk discourse is central to the contemporary government of pregnancy. It is pervasive and powerful; as Lupton (1999b) suggests it would be difficult for women not to be drawn into the discourses of risk that surround them. The pregnant women's body: '...is constructed as doubly at risk and she is portrayed as doubly responsible, for two bodies' (1999b, p.63). The main focus of risk reduction however, is not the pregnant woman but the fetus, to which maternal behaviour is seen to pose a risk. Pregnant women are seemingly presented with a series of 'choices' during pregnancy, however these 'choices' are highly circumscribed by discourses of risk (Ruhl, 1999). Any maternal behaviour which appears to increase the risk to the fetus, however small that risk may be, is deemed morally reprehensible (Lee *et al.*, 2012; Lysterly *et al.*, 2009; Murphy, 2000). This is an individualised risk model of pregnancy: enlisting co-operation of the 'responsible' pregnant woman to engage in intense risk minimisation (Kukla, 2010). It may engender in women a burden of guilt and responsibility for fetal health which is difficult to bear. Furthermore, this maternally mediated risk model ignores the socio-structural risks to the health of the woman and the fetus such as: poverty, poor housing, domestic abuse, lack of social support and environmental pollutants. How risk is perceived by pregnant women may be very different to the biomedical/epidemiological paradigm with its focus on risk factors. Rapp (cited by Ruhl, 1999) suggests that when evaluating risk in pregnancy women may use an 'experience near' and 'experience far' framework. An example pertinent to this thesis would be: a woman's risk of being able to guarantee her own physical safety from domestic abuse may be perceived as presenting greater risk than potentially delivering a macrosomic baby due to 'maternal obesity' and/or GDM/T2DM. As Ruhl (1999) contends, the regulation of pregnancy is structured by class: middle class, educated

women are most invested in appearing responsible, and most able and willing to assume personal responsibility to ameliorate risk. Lupton's (2012b, p.332) research with mothers of young children in Sydney, Australia, found that lifestyle changes and risk avoidance strategies in pregnancy was: '...largely a middle-class phenomenon...suggesting working-class women may not subscribe to the ideal of the risk-avoiding subject or are not able to because of socioeconomic disadvantage'. A systematic review by Lee *et al* (2012) showed that although lower socio-economic status was associated with increased risk in pregnancy, women with higher socio-economic status were more likely to be concerned about risk.

There is increasing emphasis on identifying and managing 'risk pregnancies' through the use of testing and technologies. However, research has indicated that the acquisition of a 'high risk' label in pregnancy may adversely affect women's psychological state, stress levels and her own and her family's sense of well being (see, for instance Hatmaker & Kemp, 1998; Lyerly *et al.*, 2007). Ironically, pregnant women are increasingly informed to avoid stress in pregnancy due to the risk it poses to the gestating fetus (see, for example Ward, 2007).

It has previously been mooted that pregnancy may be a time where women experience less pressure to conform to normative ideals of feminine attractiveness and may provide one of the few opportunities when it is deemed socially acceptable to be 'fat' (Bailey, 1999; Wiles, 1994). Wiles (1994) and Fox & Yamaguchi (1997) found evidence from their research that most women who were 'overweight' experienced a positive change in body image during

pregnancy. However, women of 'normal' weight in Earle's (2003) study indicated that they maintained normative concerns about their physical appearance and worried about being perceived as 'fat' during pregnancy. Arguably women are under increasing pressure with respect to body maintenance and conforming to ideals of normative femininity in terms of body size and shape during pregnancy. Longhurst (2008, p.51) contends that pregnancy now takes place much more in the public sphere and entails an additional form of surveillance over the pregnant body:

Increasingly pregnant women are being expected to look attractive, well groomed, fashionable, and 'sexy' and for some women this has added up to what are already heavy expectations on pregnant women. Today not only are pregnant women expected to eat healthy and nutritious food, give up alcohol, drugs and smoking, and exercise gently but regularly, they also shoulder expectations (their own and others) to look like the glamorous celebrities featured in the latest glossy magazines. Rather than opening up possibilities, 'pregnancy chic' represents for some women a new set of pressures to perform the self in yet another tightly prescribed manner.

Fox et al (2009a) considered intergenerational changes in the experiences of motherhood between new mothers and their own mothers. The 'my mother' generation predominantly claimed that they had not been concerned about their weight during or after pregnancy and that it had not been an issue then. Fox et al (ibid 2009a) suggest that the growing concern for body size and shape has been influenced by the expansion of consumer culture surrounding pregnancy. Harper & Rail (2010; 2012) assert that very recently there has been an increased expectation to uphold a relatively slim shape and size during pregnancy and to 'bounce back' quickly after childbirth. Women in their study discussed gaining 'excess' weight as irresponsible; a discourse of moral failure was utilised with respect to failing to control calorific intake during pregnancy

(Harper & Rail, 2012). They express concern about the engendering of anxiety in pregnant women about weight gain and how this may lead to dangerous weight control strategies (ibid 2010; 2012).

Nash (2011) contends that in the current neoliberal, socio-political context women must literally embody maternal responsibility: pregnant women are obliged to continuously work on their bodies through a commitment to physical exercise. Based on an interview study carried out in Australia she says:

Adherence to a structured exercise regimen...becomes a means by which pregnant women in the middle-classes in particular can uphold the appearance of a tightly managed, middle-class self, one that is a good mother, or a yummy mummy, an image of motherhood predicated on economic privilege, whiteness and bodily discipline (ibid 2011, p.54).

4.8 Chapter Summary

I have delineated the predominantly Foucauldian conceptual apparatus which informs and contextualises this thesis. I have explicated how increasing prevalence of 'maternal obesity'/GDM/T2DM in pregnancy is seen as a pressing biopolitical issue in urgent need of amelioration and government. I have shown how under neoliberal rationalities of rule, health is deemed the responsibility of the individual, and risk discourse is heavily drawn upon as a tool of governance. I discussed the use of Bourdieu's theory of habitus to provide a more nuanced understanding of health lifestyles amongst different social groups and to serve as a critique of the neoliberal individualist rational actor model. Finally, I provided a critical overview of the government of pregnancy in this socio-historical moment.

Chapter Five: Design and Methodology of the Empirical

Research

5.1 Introduction

In this chapter I give a detailed exposition of the empirical research design and underpinning methodology. I start by considering the rationale for a qualitative longitudinal design. Next, the use of an in-depth semi-structured narrative interviewing technique is discussed; this includes a summary of topics covered in each wave of interviews and the collection of demographic data. I then discuss the methodological position adopted with respect to interviewing. The use and function of fieldnotes/field journal is briefly considered. This is followed by a summary of the research sites. The pro-active ethical strategy/process of ethical approval for the project is then detailed. Sampling technique and issues around recruitment and retention are delineated and discussed. Participant mini-biographies are provided followed by a discussion about the social class composition of the study group. I consider the triangulation of empirical interview data with data from internet parenting fora pertinent to the medical 'conditions'. This includes reflection on the ethics of passive analysis of internet data. I follow this up with a discussion of further research issues/dilemmas and ethical considerations arising from the empirical research process. Towards the end of the chapter data I explicate modes of transcription, coding, and analysis of data. I discuss the importance of analysing the dataset cross-sectionally and longitudinally, with iteration between the two. I then consider issues of validity and generalisation. I conclude by putting forward evaluative criteria which are considered to be compatible with the methodology and ethos of my research.

5.2 Data Collection

5.2.1 Qualitative Longitudinal Research (QLR)

Though a small number of qualitative studies have focused on women's subjective experience of 'obesity'/GDM/T2DM in pregnancy, this has predominantly entailed 'snapshots' produced from one-off interviews/focus groups. My study was designed to augment and extend extant qualitative research and quantitative epidemiological data through longitudinal prospectively 'following' women experiencing pregnancy/the post-birth period complicated by these medical 'conditions'. The research took the 'long view', considering temporality; how women's experiences, positioning, beliefs and practices may/may not have changed over time and in response to diagnoses/medical regimen. Through prolonged engagement a more nuanced understanding of women's socio-cultural milieu was possible, indicating how this may have impacted on managing pregnancy complicated by the medical 'conditions'. It thus enabled consideration of the 'fit' of policy and practice with the material realities of women's everyday lives.

There is no consensus about what constitutes 'long' in longitudinal research (Farrall, 2006; Holland *et al.*, 2006; Saldaña, 2003). All QLR involves data collection at more than one point in time, but the overall time period can differ widely, as can the number of points of data collection (Corden & Millar, 2007a). 'Tracking' of individuals may be done intensively over the short term to capture processes of change or/and a lifecourse transition such as pregnancy and early mothering (Neale, 2012a; Neale *et al.*, 2012). 'Qualitative enquiry conducted through or in relation to time' (Neale *et al.*, 2012, p.4), though not new, has

recently received growing interest within the social sciences, and social policy research (McLeod & Thomson, 2009; Neale, 2012b; Thomson, 2007). A QLR design offers an opportunity to study participants' accounts over time: it is possible to consider ongoing, processual sense-making about lived experience, allowing insight into the 'interior logic' of people's lives as they unfold (Neale *et al.*, 2012, p.6). It also facilitates an understanding of how social, cultural and contextual processes interact to produce different individual outcomes. It is suggested that QLR can provide insights into the relationship between structure and agency, and the social and psychological processes that underpin behaviours (McLeod & Thomson, 2009; Thomson, 2007; Thomson *et al.*, 2003). Successive interviews whilst not revealing the 'truth' about a person, do offer a better understanding of the individual (Thomson & Holland, 2003). According to Saldaña (2003, p.28), '...the longer you engage with participants, the more likely you will become knowledgeable about their personal matters'.

The processual interview series considered continuity and change, for instance, if women were able/not able to adopt more 'healthful' practices (Willig, 2000). Some suggest that interviewing people on a number of occasions may facilitate the move from a 'public' to a 'private' account (Cornwell, 1984) (see also Cotterill, 1992; Murray *et al.*, 2009). Public accounts may be those given during initial interviews; for instance presenting normative views about health and illness, congruent with medical ideas. Private accounts may emerge in latter interviews perhaps enabling people to reflect on experiences and express opinions without the same 'moral' constraints. Thus:

...longitudinal interviews construct a specific type of research relationship characterised by sharing personal and private experiences

over a long period of time...this type of research relationship may involve acts of self disclosure, where personal, private experiences are revealed to the researcher in a relationship of closeness and trust (Birch and Miller, 2000). It is precisely the quality of such a relationship that can provide access to the rich, deep data, that the qualitative researcher seeks (Birch & Miller, 2008, p.91).

However, the notion of movement from a public to more private presentation of self over time can be problematised. Individuals may be inclined to reveal more in a one-off interview when they know they will not see the researcher again. Irrespective of repeat interviewing, what is 'shared' in interviews may be circumscribed by normative expectations, for instance, women may be constrained in how they portray themselves as mothers.

Willig (2000, p.560) suggests that it is insufficient to examine the extent to which individuals position themselves with respect to dominant discourses in a one-off interview: a longitudinal design incorporating personal history is required. In this study I used information gleaned from each wave of data collection to inform the next.

Thirty women took part in a total of 70 interviews. Initially it was planned that women would undertake a series of three interviews at (approximately) the following intervals:

- Second Trimester (14th to 27th week gestation)
- Third Trimester (28th week gestation to delivery)
- Three months post birth

However, due to a range of factors (discussed in greater detail in section 5.6), 25 women undertook a series of interviews, with five women interviewed once. 15 women were interviewed three times (twice during pregnancy and once post birth) and 10 women were interviewed twice (one antenatal interview and one post birth). Fieldwork took place from 2011-2012 and women remained in the study over the course of six to nine months. Besides the 'formal' interviews I often had telephone conversations, text messages and chats with women at diabetic antenatal clinics. This served to maintain the sample (see 5.6) and provided valuable additional data.

5.2.2 In-depth Semi-structured Narrative Interviews

Qualitative interviewing techniques elicit rich and detailed data or 'thick description' (Geertz, 1973), which is rooted in participants' first hand experiences. I used in-depth, semi-structured interviews to facilitate the sharing of women's auto/biographical narratives pertaining to pregnancy/post-birth experiences complicated by 'maternal obesity' and GDM/T2DM in pregnancy. Nyman et al (2010, p.424) assert that women should be given the opportunity '...to tell their own story'. Qualitative interviewing allows women to set their own agenda for the interview as much as possible, enabling the emergence of issues that are of importance to them (Rubin & Rubin, 2005). This is particularly pertinent when discussing potentially sensitive subjects. Whilst encouraging a 'participatory atmosphere', I encouraged women to leave unanswered questions they would rather not address (Jewkes & Letherby, 2001, p.43). However, participants were very forthcoming and did not articulate a desire to avoid any issues under discussion. My interviewing technique was flexible and

responsive: often involving 'following participants down their trails' (Riessman, 2004, p.709). I encouraged women to talk at length about their experiences and opinions with minimum interruption from me. The average duration of interviews was one and a half hours, but often much longer. All interviews were recorded on a digital voice recorder (with the permission of participants). Mason & Davie's (2011, p.36) description of their interviews as 'encounters' or 'ethnographic events' is resonant in that I observed the interactions, situational dynamics, setting, and physical and non-verbal components.

I am interested in the purported 'narrative quality of lives' which has been increasingly discussed within the social sciences (Holstein & Gubrium, 2000; Miller & Glassner, 1997; Miller, 2000; 2005). It is asserted that individuals pick and choose from what is experientially available to articulate their lives and experience (Holstein & Gubrium, 2000), and present themselves in particular and strategic ways to others (Miller, 2005). The focus on narrativity has contributed to debates about how the self is constituted and maintained (Hollway & Jefferson, 2008; Miller, 2005). Furthermore, it is claimed that personal narratives can elucidate the intersection of structure and agency (Laslett, 1999). Individuals are suggested to actively and inventively construct their narratives (Miller, 2005), but are also constrained by what is culturally available in respect to hegemonic discourses (Holstein & Gubrium, 2000; Laslett, 1999). Somers (1994, p.614) refers to 'an ultimately limited repertoire of available social, public and cultural narratives'. According to Jackson (1998, p.47), 'narratives and discourses articulate with each other: we draw on discourses culturally available to us in order to construct narrative accounts,

enabling us to tell particular stories at particular times. Hence there are often discursive regularities to these stories’.

The study of narratives has been shown to have particular efficacy in seeking to understand how individuals make sense of transitional or disruptive life events (Riessman, 1990). It has been demonstrated that the trajectory of pregnancy and motherhood is particularly amenable to being encapsulated as a narrative (Choi *et al.*, 2005; Miller, 2000; 2005; Sevon, 2005). Murray *et al* (2009) assert that serial qualitative interviews allow narratives to unfold, revealing the complexity of individual situations. Nevertheless there have been criticisms of this approach: for example, it may require people to produce reflexive narratives that they otherwise would not do (Ribbens McCarthy & Edwards, 2000, cited in Miller (2005 p.20)) and/or it might blur the distinction between social research and therapeutic work (Birch & Miller, 2000). I discuss this issue in further detail in section 5.10.2.

A focus of the interviews was on eliciting women’s experiences of pregnancy complicated by the medical ‘conditions’. Interviews could be thus be described as ‘phenomenologically inspired’ (Finlay, 2009). I wanted to ascertain women’s socio-cultural milieu and material circumstances. Specific demographic questions were utilised for this purpose. Interviews also aimed to discern how women positioned themselves according to hegemonic medico-scientific/media discourses (informed by the FDA, See Chapter Three) and their views on, levels of ‘compliance’ with, and resistance to, ‘healthy’ lifestyle injunctions/medical regimens. The reasons and context for participants’ beliefs and actions were explored. In addition, I was aware of the implicit moral imperative for women to

recognise and represent themselves as: adopting appropriate technologies of the self; demonstrating a conscientious pregnancy; 'good' mothers. Utilising the notion of governmentality, it can be argued that interviews can function to 'invite' people to take up subject positions which can function in regulatory and normalising ways (Alldred & Gillies, 2008). During data collection and analysis I was attuned to talk that was demonstrative of this and women's possible use of 'accounts' (Orbuch, 1997; Scott & Lyman, 1968; Sykes & Matza, 1957). 'Accounts' can be defined as linguistic devices used 'to explain untoward behaviour and bridge the gap between actions and expectations' (Scott & Lyman, 1968, p.46), when an individual's behaviour is subjected to valuative enquiry. I found Hollway and Jefferson's (2000; 2008) notion of the 'defended subject' useful to take into consideration when interviewing/analysing data. They argue that people are invested in particular subject positions in order to protect vulnerable aspects of self and may be motivated, largely unconsciously, to disguise the meaning of some of their feelings and actions. To summarise, I was interested in how narratives might elucidate: how women made sense of their experiences; women's psycho-socio-cultural and material circumstances; acceptance/negotiation of, or resistance to medico-scientific discourses and popular media representations; how women may have presented themselves in particular and perhaps strategic ways.

I utilised a semi-structured interview format which meant that I had a number of questions/topics prepared in advance, but much of the interview was improvised. I concur with Wengraf (2002) that although semi-structured interviewing may be perceived as 'easier' than other forms of interviewing, it actually requires a great deal of planning and preparation before the session,

combined with discipline and creativity within it. I carried out the analysis of medico-scientific/media discourses (See Chapter Three) prior to planning the interviews and was aware that policy advocated women be made aware of the risks to themselves and their pregnancy of 'maternal obesity'/GDM/T2DM. Though perception/understanding of risk was obviously a key issue I refrained from any direct questions about risk. I agree with Keenan and Stapleton (2010) that there are both ethical and recruitment/retention issues at stake in introducing a discussion of health risks with respect to pregnancy and the medical 'conditions'. Another pervasive discursive theme in evidence in medico-scientific/public health/popular media discourses is the purported intergenerational transmission of 'obesity'/diabetes. Though I listened for any reference to this in interviews, I did not instigate a discussion about it. I was concerned about 'putting this idea in women's heads' and the potential for self blame that this may have entailed. For similar reasons I did not instigate use of the term 'obesity' with participants as evidence suggested that they may find it offensive (Heslehurst *et al.*, 2011; McLeish *et al.*, 2010; Wadden & Didie, 2003). Following Warin *et al.*'s (2011a) and Monaghan's (2007) approach I listened to how participants described their bodies and took their language of representation as my cue. I did refer to 'BMI' in interviews as this is commonly used by HCPs and I was interested to see if this was a term women understood/were familiar with. The Participant Information Sheet (PIS) clearly stated that the study was about women with a BMI ≥ 30 , but I was unsure if participants understood this as constituting 'obesity' according to biomedical definitions.

In the first interview I utilised a loosely structured 'interview guide' focussing on:

- demographic information
- life trajectories/routes into and experiences of pregnancy and motherhood
- pre-conception 'planning'/care
- diagnosis/experience of: 'maternal obesity'; GDM; T2DM and its intersection with pregnancy/motherhood
- perceptions of causation of medical 'conditions', e.g. I asked the question; 'have you any ideas about why you might have got diabetes?'
- compliance/adherence to and opinions of diabetes regimen/lifestyle changes/'health promoting' practices short and long term
- perceptions of social support
- perceptions of relationships with HCPs and care receiving/received during pregnancy and early motherhood
- perceptions of popular media representations of 'maternal obesity'/GDM/T2DM in pregnancy, e.g. I asked, 'Have you seen anything relevant in the media, on television, in newspapers for instance?'
- implications of medical 'conditions' for management of
- labour/anaesthesia/birth
- infant feeding intentions
- perceptions of long term prognosis (for those with GDM), e.g. I asked, 'do you know if there are any long term implications of diabetes in pregnancy?'

In addition, demographic information was sought, particularly with respect to ethnicity and in an attempt to ascertain socio-economic status (the latter is discussed in section 5.8).

The second and third interview schedules were informed by themes emerging from the first wave of interviews. They were also recursive (Neale, 2012b): the longitudinal aspect of data collection allowed interviews to be tailored to the participant based on previous discussion, providing rich data and revealing changes and continuities in narratives. The third interview reflected on women's pregnancy/childbirth experiences whilst managing 'maternal obesity' and GDM/T2DM, and discussed present and future considerations in respect to these 'conditions'. I was particularly interested to ascertain whether women were intending/inclined to continue lifestyle changes, or instigate some, post birth. Interviews were also improvisatory: giving women space to express themselves and discuss issues that were important to them. All interviews were concluded by asking the participant if there was anything else that I should have asked them, or that they wished to add.

5.2.3 Methodology of Interviews

Conventionally the use of the interview in social research has emphasised the requisite building of rapport by the interviewer, in order to facilitate the candid imparting of information by the respondent. In addition researchers have been advised to be mindful of potential distortion and bias from bringing their influence to bear on the research relationship, as this could affect the validity of their 'findings' (see Gubrium & Holstein, 2003; Oakley, 1993, for discussion of this). Constructionist, feminist and poststructuralist writers have fundamentally challenged the traditional conception of the interview: as producing a text which is precisely referential to the life and experiences of the interviewee. The narrated life story does not directly correspond to the life as experienced

(Plummer, 1995): it is always mediated and strategically presented to different audiences. It is also 'an occasion for purposefully animated participants to construct versions of reality interactionally rather than merely purvey data' (Gubrium & Holstein, 2003, p.32). Knowledge is collaboratively produced in the interview by the interviewee and the researcher (Mishler, 1986). The 'traveller metaphor' is germane (Kvale, 1996; Kvale & Brinkmann, 2009); the interview is seen as a journey where the researcher travels with the interviewee developing and interpreting the 'stories' collectively.

Feminist epistemology has been influential in asserting the intertextuality of autobiography and biography. Acknowledgement of the disruption of the conventional binary divisions of self/other and public/private has led to its re-conceptualisation as 'auto/biography' (Cotterill & Letherby, 1993; Stanley, 1992; 1993). I recognise the auto/biographical nature of the interview process, the intersubjective construction of interview data and knowledge emanating from it.

Thus:

As feminist researchers studying women's lives, we take their autobiographies and become their biographers, while recognising that the autobiographies we are given are influenced by the research relationship. In other words respondents have their own view of what the researcher might like to hear. Moreover, we draw on our own experiences to help us to understand those of our respondents. Thus, their lives are filtered through us and the filtered stories of our lives are present (whether we admit it or not) in our written accounts (Cotterill & Letherby, 1993, p.74).

The choice of subject, the questions I 'chose' to ask, and the verbal and non-verbal cues that I have given all disclose elements of my 'self' (Jewkes & Letherby, 2001). I have also 'tried out' my developing ideas on the women

participating in the study; the interviews have developed iteratively (Mauthner & Doucet, 2000). I concur with Letherby (2002a, p.9):

...that it is better to acknowledge our involvement rather than pretend to objectivity... whilst at the same time being aware that within auto/biography some voices (not least by virtue of power of editorial control) are more prominent.

In carrying out my research I acknowledge my role in constructing rather than 'discovering' social reality, and that the knowledge produced from it is contextual, situational and specific (Stanley, 1992, p.49). I do not believe that my research will generate the 'true story' (Letherby, 2002a, p.5) about women's experiences of 'maternal obesity' and GDM/T2DM in pregnancy at this socio-historical moment. Reaching immutable truths is not possible, but this does not mean that something important cannot be learnt about issues under consideration. I agree with Rosenblatt (2001, p.894) who states, 'I do not consider the truths I learn to be unambiguous, invariant, the whole truth and nothing but the truth. But I still feel I am doing the right thing in making something out of what I hear from interviewees'. As discussed in Chapter 2.7 – 2.8, I believe that by becoming further subsumed by issues of authenticity and representation there is a risk of 'not saying something useful about women's lived experience' (Frost, 2008, p.16). Furthermore, it would be a disservice to women who gave a considerable amount of their time to take part in the study. As McLeod and Yates (2006) contend: 'refusing the possibility of full truth does not cancel meaning, does not remove the possibility of learning something new, of gaining insight while being mindful of the construction and limits of the research encounter' (cited by McLeod & Thomson, 2009, p.68).

5.2.4 Fieldnotes/Field Journal

Interview data was supplemented by detailed, reflective fieldnotes written (in the first instance) shortly after each interview and augmented over time. Fieldnotes included written perceptions and observations of: access, non-verbal communication, setting, appearance of surroundings, circumstantial incidents and emergent themes. I heeded Saldaña's (2003, p.31) advice of using fieldnotes in a 'stream of consciousness manner', with frequent 'maintenance checks' to generate coding and analytical/theoretical ideas. I systematically reflected on the aims of the research, initially straight after an interview and then as part of the ongoing 'maintenance checks'.

Additionally, I sought to document the personal impact I thought the research process was having on me as well as the impact I perceived it to be having on participants. This provided useful contextual data and a way of attempting to understand the impact of QLR methodology on those involved (Holland *et al.*, 2006). Using a field journal was personally helpful in providing somewhere to off-load about difficult/challenging incidents, and gain some 'distance' from them (Bloor *et al.*, 2007; Hubbard *et al.*, 2001).

5.3 Research Sites

Women were recruited into the study via two NHS hospital trusts in the South West of England. One hospital is located in a large urban centre and the other is rurally located and smaller. Health Profiles (Network of Public Health Observatories, 2012) for the relevant geographical areas show that the urban location has significantly higher levels of deprivation than the England average.

Both locations have levels of adult 'obesity' and adults diagnosed with diabetes either similar to or significantly higher than the England average.

5.4 Ethical Approval and Considerations

It is useful to consider the distinction between what have been termed pro-active and re-active ethical strategies (Neale & Hanna, 2012). The pro-active strategy (under discussion here) entailed developing a bespoke ethical protocol for the project which was based on pre-existing principals and was contractual. As recruitment into the study took place in two NHS sites a rigorous process of submission to an NHS Research Ethics Committee was requisite. Ethical approval for the study was given in August 2011 after minor amendments clarifying the protocol with respect to researcher lone working. The role and protection of the researcher is a key concern, which was not sufficiently considered when drafting the protocol (see, for example Neale & Hanna, 2012; Wiles, 2013, for discussion of this). The research complied with the British Sociological Association's Statement of Ethical Practice (2002) and the Code of Practice for the Safety of Social Researchers (The Social Research Association, 2001).

In section 5.10 I discuss the re-active strategy employed in the field and afterwards in response to unforeseen, situated and emergent ethical issues. Arguably there is a higher likelihood of unanticipated ethical dilemmas given the extended time period of involvement with participants (Neale & Hanna, 2012). Ethical practices cannot be fully envisaged a priori as they are context specific and require sensitive ongoing appraisal (De Laine, 2000; Neale *et al.*, 2012; Wiles, 2013).

Many authors argue that whilst the core issues and principles are the same as any qualitative research, the process of conducting qualitative research longitudinally heightens ethical issues (Corden & Millar, 2007a; Holland *et al.*, 2006; McLeod & Thomson, 2009). It is considered good practice in a QLR study to adopt a processual approach to obtaining informed consent (Birch & Miller, 2008; Corden & Millar, 2007a; Holland *et al.*, 2006). In the study on which this thesis reports consent was an ongoing process, treated as provisional and renegotiated before each interview. In reference to informed consent however, I concur with Wiles (2013, p.29) that, 'the ability to give comprehensive information at the beginning of a study about what participating will involve for an individual and what will happen to the data is often impossible'. The researcher's interest in the material/orientation may change as the study proceeds (Josselson, 2007). This may be a particular issue in a qualitative longitudinal study, where each wave of data collection informs the next and research has a flexible, iterative character (Hammersley & Traianou, 2012).

Women were informed that the aims of the research were to consider their experiences of pregnancy and early motherhood complicated by BMI ≥ 30 and GDM/T2DM. Participants were told of the aim to carry out a series of three interviews (two antenatally and one post birth), but assured that they did not have to remain in the study, and that they were free to choose not to participate in subsequent interviews (Neale & Hanna, 2012). As I discuss in section 5.6, all participants were given a period of consideration from the time they were first approached and given a PIS, to when they were contacted to arrange a time and date for interview. Interviews were carried out in a place most convenient

to participants and in all but one case this was their own home. The exception was a series of three interviews which took place in the house of the interviewee's mother-in-law. Two follow-up interviews also took place by telephone at participants' request. Participants were assured anonymity via pseudonymisation and confidentiality of their data, which was encrypted and stored on a password protected computer. They were also asked if they would like to receive a summary report of the findings of the research project.

A guiding principal of ethical research is non maleficence and the project protocol set out a number of ways to militate against this. Hammersley and Traianou (2012) suggest that in any research there is inevitably the potential for causing both harm and benefit; what can be reasonably expected of researchers is that they try to avoid serious harm. It is important to acknowledge that a person may respond emotionally when revealing life experiences. Emotional responses are part of life and are, therefore, not absent from the research situation (Gray, 2008). As Lee-Treweek & Linkogle (2000) argue, it is important not to avoid research topics because they may evoke an emotional response, and that emotional expression can be data in itself. Even if participants find aspects of an interview distressing or uncomfortable, the overall outcome may be cathartic and/or personally beneficial to them (Arksey & Knight, 2009; Hammersley & Traianou, 2012; Josselson, 2007; Mishler, 1986). I took contact details of local/national counselling services, the NCT and Diabetes UK to interviews to give to participants should the need have arisen/they have requested this. Any participants with concerns about a health related issue were advised to contact their GP/Midwife/Health Visitor.

Considering the 'high risk' designation of pregnancies/childbirth complicated by 'maternal obesity' and GDM/T2DM I considered it appropriate that I liaise with relevant healthcare professionals in order to ascertain if there had been an adverse maternal or pregnancy outcome before contacting women to schedule follow-up interviews. None were reported to me and I was able to contact participants as planned.

5.5 Sampling

Purposive sampling (non-probability sampling based on selecting women who meet the inclusion criteria, rather than statistical methods) was used to recruit a total of 30 participants. Guest *et al* (2006, p.60) suggest that data 'saturation has...become the gold standard by which purposive sample sizes are determined in health science research'. The concept of data saturation emanates from grounded theory (Glaser & Strauss, 1967) and refers to the point in data collection where no new information or themes are observed in the data and therefore further sampling is redundant. I did not employ a mode of sampling until data saturation in this study for the following reasons. Firstly, NHS research ethics requires one to estimate the sample size in the project protocol. Researching until saturation is achieved would mean that it would be impossible to specify the number of interviews a priori (Baker & Edwards, 2012). Secondly, it has been indicated that studies frequently claim to have reached 'saturation', but have poorly operationalised the concept/provided no description of how saturation was determined (see, Charmaz, 2007; Mason, 2010, for discussion of this).

I do not make claims of data saturation, but do assert that data from this study was rich and meaningful, enabling in depth analysis and the generation of theoretical insights.

5.6 Recruitment and Retention of Participants

Participants were recruited through diabetic antenatal clinics at the two hospitals. This entailed ongoing discussions with clinical staff about the aims of the study as they had a key role in screening and approaching potential participants. Dr Elizabeth Stenhouse (a member of the supervisory team) is a midwife and was able to introduce me to relevant HCPs, though I had to initiate some relationships myself. The majority of HCPs were supportive/facilitative of the research. I attended diabetic antenatal clinics every two weeks for nine months and waited for staff working in the clinics to refer patients to me. Usually this entailed lurking as unobtrusively as possible in order for women fulfilling the inclusion criteria to be introduced to me. I often felt very uncomfortable as a non-clinician in a busy clinic; creating more work for HCPs already working extremely hard. I was conscious of the necessity of creating and maintaining a relationship with HCPs running the clinics in order for the study to progress/to maximise recruitment. Gatekeepers can be defined as, 'those who provide – directly or indirectly – access to key resources needed to do research, be those logistical, human, institutional or informational' (Campbell *et al.*, 2006, p.98). Gatekeepers may or may not be accepting of the research/researcher and can potentially block access (Miller, 1998; Miller & Bell, 2008). Most HCPs were keen to help and brought women to me after appointments for a discussion about the research. A small minority

demonstrably considered me to be a nuisance, resulting at one point with me being banished from the clinic for 'getting in the way'. It was clear that though there was cooperation from gatekeepers, there was also some filtering of potential participants as I was sometimes told that if women were particularly uncooperative, truculent or receiving 'bad' news then it was not considered appropriate for them to be asked to speak to me. I did not question the judgements made about this. Gaining access to participants was an ongoing process and relations with gatekeepers had to be maintained throughout (Reeves, 2010). At various points in the fieldwork period and certainly towards the end I felt that there was some fatigue on the part of HCPs who perhaps viewed having to liaise with me as increasingly onerous. I made beverages and brought cakes with me to try to ingratiate myself and was relieved when I had reached target recruitment.

Women often declined to speak to me, perhaps due to clinic attendance taking up to four hours and after potentially seeing a consultant, sonographer, diabetes nurse/midwife, dietician etc they did not wish to see anyone else. If they were introduced to me I had a brief discussion about the research and gave them a PIS. They were asked if they were happy to give me their contact details and if I could contact them in a week/two weeks to arrange an interview. Forty women agreed to take part but only 30 were actually interviewed. I suspect that recruitment was compromised by the focus on 'maternal obesity'. Women may have known that a BMI ≥ 30 is labelled as 'obese', been aware of the associated stigma and/or wished to avoid discussing such a sensitive subject. A number of authors have discussed difficulties recruiting 'obese' pregnant women into their studies (see, for instance Furber & McGowan, 2010b; Mills *et*

al., 2013; Tierney *et al.*, 2010; Weir *et al.*, 2010). Ten women did not answer the telephone number they provided/were not there when I have called at their house at the arranged time. Tierney *et al* (2010) suggest that being reminded of an 'obese' status may be a barrier to involvement and participating in a face-to-face interview may be perceived as threatening if women think the researcher may see their physical status/behaviours negatively (ibid 2010).

Women were asked to take part in a series of interviews, though five women were interviewed only once. One dropped out of the study due to severe psychiatric issues, one woman experienced the death of both her parents during her pregnancy and so we agreed to a post birth interview only. One woman went into labour before an antenatal interview could take place, one declined further interview after traumatic birth and the other asked to do a single post birth interview only. The need for flexibility in the number of interviews women committed to and the timing and spacing of the interviews became apparent early on. Many participants were dealing with a number of issues, for instance: caring for multiple children; housing problems; high frequency of clinic appointments, which took precedence over scheduling an interview. Not all women were happy to commit to undertaking all three interviews at the outset. As diagnosis of GDM often happens late in a pregnancy, there was sometimes insufficient time to fit in two antenatal interviews and 10 women undertook a series of two interviews.

Sample attrition is a feature of any longitudinal study and it was clear from the outset that strategies for sample maintenance were required (see Corden & Millar, 2007b; Hemmerman, 2010). A midwife advised me that she used texts

as an effective means to communicate with women, particularly those considered to be less compliant/experiencing 'difficult' circumstances. I used a designated study phone and often texted participants to ask them how they were getting on/to arrange interviews. Women sometimes texted to update me on their progress, or give me extra details they felt were relevant. It is suggested that there is an inherent tension between minimising attrition and encouraging people to make decisions about whether and how to take part (Corden & Millar, 2007b; Neale & Hanna, 2012) . After the second interview I sent women a £5 gift voucher from *Mothercare* to thank them for taking part (they were not informed of this prior to the interview). There is some discussion over whether the giving of, for instance, gift vouchers to participants would be seen as recompense for time given to take part in research or incentives to continue to take part (see, for example McKeganey, 2001; Morrow, 2009). Neale and Hanna (2012, unpaginated) argue, 'given the time commitments needed from participants in QL research, some reward is often justified, particularly where participants are lacking in resources: indeed an equally important ethical principal is that participants should not be economically exploited through their involvement in research'. I sent cards congratulating women on the birth of their baby and usually took a present for the baby in post birth interviews.

I return to ethical issues/dilemmas which arose during the research in sections 5.9.1 – 5.9.4.

5.7 Participant Mini Biographies (at Time of Interview)

Names utilised are all pseudonyms.

Louise was 28 and was diagnosed with GDM which was treated with Metformin. She had hypertension in pregnancy for which she was hospitalised. The hypertension continued postnatally. She is married and this is her first child. She worked as a hairdresser, but does not intend to go back to work as wants more children soon. Her husband is a farmer and they live on his parents' farm.

Aysel was 30 and is originally from Turkey. She was diagnosed with GDM: treated with Metformin and insulin. She is married. She works with her husband running a convenience store and they live in the flat above the shop. She has two children aged six and nine.

Shaynie was 26. She had GDM which was diet controlled. She is a single parent with a daughter aged six. She has no contact with/maintenance from previous partner. She used to work as a mealtime assistant in a school and is now a full-time mother. Shaynie lives in a privately rented house.

Nikki was 29 and has T2DM: treated with Metformin and insulin. There is family history of diabetes. Nikki has ongoing psychiatric problems, for which she was hospitalised during pregnancy. She is married and has two daughters aged 11 and six from a previous relationship. She does not live with her current partner, who is unemployed. She had previous jobs as a cleaner and care

assistant, but is now too unwell to work. She has recently moved into Local Authority housing in an isolated, rural area with little infrastructure.

Jacqui was 36 and is American. She recently moved to the UK. She was diagnosed with GDM which was diet controlled. Her sister had also recently had GDM. She is married with two children aged five and three. She has an undergraduate degree in business, and now works remotely for an American company.

Cherry was 19 and was diagnosed with GDM which was treated with insulin. There is a family history of GDM/T2DM. Cherry was doing a Beauty Therapy course, but left when she got pregnant. Her father died during her pregnancy. Her partner works as a carpenter. At the start of the study she was living with her mother and was given a council flat after the baby was born. Cherry would like to go back to college, but presently does not feel she can. She self-diagnosed post-natal depression.

Sherry was 30. She had a twin pregnancy and was diagnosed with GDM: treated with Metformin. She had GDM in at least two previous pregnancies. Her Grandmother and Mother both have T2DM. She has four children with a previous partner (primary/pre-school age). Her previous partner seldom sees children/does not pay maintenance. Her current partner is long term unemployed and frequently absconds. He is in trouble with the police and she fears he has a drug problem. Sherry recently experienced a stillbirth. She previously worked as a care assistant and is now a full-time mother. The family were evicted from their rented first floor flat shortly after Sherry gave birth and

placed in temporary bed and breakfast accommodation. Sherry had a wound infection after her caesarean section.

Sarah was 30 and was diagnosed with GDM which was controlled by diet. She recently got married. She has two children (aged 11 and two) with two previous partners. She has previously worked in retail, and is now a full-time mother. Her partner works as an IT administrator. They receive Working Tax Credits.

Rebecca was 42 and has T2DM for which she was prescribed Metformin and insulin in pregnancy. Her mother and sister have diabetes. She has two children with a previous partner (aged 22 and 16). Rebecca experienced a stillbirth before having a daughter with her current partner (now 11). Her daughter is currently home schooled due to recurrent bullying. Rebecca has worked as a Healthcare Assistant and is now a full time mother. She is married, but does not live with her partner. He works part-time teaching a vocational subject. Rebecca was evicted from her rented house during her pregnancy and lived temporarily in bed and breakfast accommodation with two of her children until she secured another privately rented property.

Samantha was 27 and has T2DM. She was prescribed insulin in pregnancy. She has Polycystic Ovary Syndrome (PCOS). She has no other children. Samantha has a partner whom she met on the Internet. She co-habited with him temporarily, but they separated after she found evidence of his infidelity. Samantha previously worked as a hairdresser. During her pregnancy she was unemployed and was living with her mother and her mother's partner in their rented house. Samantha's sister and father died in an accident a few years

ago. She moved into privately rented accommodation just before the birth of her baby and was considering reconciliation with the baby's father.

Andrea was 36 and was diagnosed with GDM which she managed by diet. She is married with a nine year old son. She previously experienced a stillbirth due to a suspected placental abruption. She has worked part-time as an administrator and a childminder and her partner is a courier. They receive Working Tax Credit. Andrea had symphysis pubis dysfunction (SPD) and was admitted to hospital postpartum with suspected pulmonary embolism.

Judith was 32 and was diagnosed with GDM which was diet controlled. She also had hypertension, for which she was hospitalised in her previous pregnancy. She is married and has a daughter who is 18 months old. Judith has an undergraduate degree and now works part-time as a Human Resources Supervisor. Her partner is an agricultural labourer. They own their own home.

Nat was 27 and was diagnosed with GDM which was treated by diet. Her (estranged) mother and grandmother have T2DM. She was put into care as a child. She has depression, for which she is receiving treatment. Nat is married with two children aged six and 11 months. Her baby was born prematurely and she had a postpartum haemorrhage. She works as a care assistant, but her employer did not pay her maternity leave. Her partner is a mechanic and is often on-call in the evening/night. They receive Working Tax Credits.

Ruby was 32. She is a 'Black African' woman, originally from Central Cameroon. She said they had to leave because of 'trouble'. She was diagnosed with GDM which was treated with insulin. She is married with an 11

year old daughter. Ruby works part-time as a care assistant and her partner worked in security, but was made redundant during the pregnancy. They live in a privately rented house. Ruby had a wound infection after her caesarean section.

Tracey was 34 and was diagnosed with GDM which was controlled by diet. She also had GDM in her previous pregnancy. She has PCOS. There is family history of T2DM. Her father had a myocardial infarction during her pregnancy. Tracey is married with a 16 month old son. She currently works part-time as an administrator and her partner has an internet business. They own their own home.

Kylie was 31 and was diagnosed with GDM which was diet controlled. She is currently co-habiting. She has two children aged eight and 11 from a previous marriage and a four year old son with her current partner. Kylie has previously worked in catering and as a care assistant and is now a full-time mother. Her partner is a bus driver. They receive Working Tax Credit.

Joanne was 30 and was diagnosed with GDM which was diet controlled. She is married with a three year old daughter. Joanne previously worked in a call centre, but was made redundant. Her partner works as a delivery driver. They receive Working Tax Credit.

Caroline was 21 and was diagnosed with GDM which was diet controlled. She had GDM in her previous pregnancy. Mother, father and brother have diabetes, but she is unsure of the type. She is co-habiting and has a 19 month old daughter. Caroline has depression and is receiving treatment for this. She has

previously worked as a care assistant and is now a full-time mother. Her partner works night shifts in a factory. They receive Working Tax Credit. They live in a first floor Local Authority owned flat.

Melanie was 32 and was diagnosed with GDM: treated with Metformin and insulin. She is co-habiting and has a 12 year old daughter from a previous relationship. Melanie works as a care co-ordinator and her partner works as a supervisor/delivery driver. She had SPD during the pregnancy, which was debilitating. They live in a privately owned maisonette.

Claire was 30 and was diagnosed with GDM which was diet controlled. Her partner has T2DM. She has PCOS. She is currently co-habiting and this is her first child. Her partner is in the armed forces and she used to work at a holiday camp and later in customer services. She was recently made redundant.

Emese was 27 and is originally from Hungary. She was diagnosed with GDM which was treated with Metformin. She is co-habiting and has a daughter aged two. Her partner works in hospitality as a manager and she works part-time as a cleaner. They receive Working Tax Credit.

Lucy was 32 and was diagnosed with GDM which she had in her previous pregnancy. She controlled GDM by diet. She is married with a two and a half year old daughter. She trained as a chef, but now works part-time as an administrator. Her partner works in financial software. Lucy had SPD in both her pregnancies. They are home owners.

Tina was 39 and was diagnosed with GDM which she had in a previous pregnancy. She was prescribed Metformin in this pregnancy. Her Dad has T2DM. She is married with three children aged six, four and two. She has worked in administration and is now a full-time mother. Her partner is a builder. They own their own home.

Gemma was 23 and was diagnosed with GDM, for which she was prescribed Metformin. There is a family (second degree relatives) history of T2DM. She is co-habiting. Gemma and her partner work as care assistants for children with learning disabilities. They live in privately rented accommodation.

Sapphire was 23 and was diagnosed with GDM, which she also had in her previous pregnancy. In both cases this was treated by diet. Her grandmother had T2DM. She is a single parent and has a two year old son. Sapphire used to be a hairdresser and is now a full time mother. She lives in a Housing Association property.

Susie was 30 and was diagnosed with GDM, which she also had in her last pregnancy. This was treated by diet. She is married and has a child aged six. Susie completed 'A' levels and now works part-time as an administrator. Her partner is a scaffolder.

Lorraine was 35 and was diagnosed with GDM: treated with Metformin. She is married with a daughter aged three. Both Lorraine's parents died during her pregnancy. She works as a part-time administrator and her partner is a bus driver. They recently bought a house.

Danielle was 30 and was diagnosed with GDM which was controlled by diet. She is co-habiting and has a seven year old son. Danielle has an undergraduate degree in food safety and works part-time as manager of a coffee shop. Her partner works at the Jobcentre. They are home owners.

Bernice was 43 and is originally from the Phillipines. She was diagnosed with GDM: treated with Metformin. She also had hypertension, for which she was admitted to hospital towards the end of the pregnancy. She is married with a seven year old son. Bernice works as a nurse and her partner is a care assistant. They live in a privately rented house.

Fiona was 27 and was diagnosed with GDM which was treated by diet. Fiona has chronic hypertension and changed her medication prior to pregnancy. She is married and this is her first pregnancy. She works as a factory engineering planner and her partner is an electrician.

5.8 Social Class Composition of the Study Group

I utilised a multi-dimensional approach in an attempt to discern participants' social class (cf Ribbens McCarthy *et al.*, 2003) which considered:

- interviewees' occupation and educational qualifications
- current partner's occupation and educational qualifications
- neighbourhood (using postcode to ascertain Index of Multiple Deprivation status)
- current social networks
- housing tenure (when data available)

When considering women's and their partner's occupation/education I took the 'best'/highest in attempting to determine social class status (cf Ogden & Thomas, 1999).

Demographic data collected indicated the possibility of classifying women as either middle or working class. Four women (Jacqui, Danielle, Judith and Bernice) had undertaken higher education and had professional occupations (albeit part-time) and were thus considered to be middle class, although two of these women had partners in unskilled/semi-skilled manual occupations. Lucy was also designated as middle class due to her husbands' occupation and home ownership. Multi-dimensional evidence suggested that the remainder of the sample could be categorised as working class. Dichotomising social class can be seen as problematic as it can lead to neglect of within category variability (Perrier, 2012). Indeed there was variation within the 25 women considered to be working class. Seven women/families had an income derived solely from benefits. However, I do not feel comfortable using the categorisation of 'underclass' for instance, due to its pejorative connotations. In addition six women discussed being in receipt of Working Tax Credits. There were eight single-income families with the majority in low-paid occupations. Recent class analysis (Savage *et al.*, 2013) has discerned a sizeable (15%) 'precariat' class characterised by low levels of economic, cultural and social capital. Although this schema was not utilised in this study it does have some resonance. Members of the precariat are unlikely to have attended university and occupationally are over-represented amongst, for example: the unemployed; cleaners; care workers; van drivers; carpenters; shopkeepers. I suggest that the categories 'middle class' and 'working class' remain

meaningfully indicative and analytically useful in this study, whilst being mindful of in-class variation.

Social class dimensions of the findings were quite striking and should be contextualised and read alongside the sociological/epidemiological literature which evidences a strong association between lower socio-economic status/deprivation and 'maternal obesity'/GDM/T2DM in pregnancy.

5.9 Internet Fora Data Collection and Analysis

Between 2010 - 2012 a number of UK based parenting/pregnancy internet fora/discussion boards were searched for pertinent posts by women experiencing pregnancy complicated by 'maternal obesity' and GDM/T2DM in pregnancy. This data enabled me to ascertain the type and range of relevant online fora available and frame interview questions about women's use of this as a source of information.

The internet is widely recognised as a source of health information, with parents forming a high proportion of those seeking healthcare advice (O'Connor & Madge, 2001). Hardey (1999) suggests that the internet forms a site of lay health knowledge which may challenge medical expertise (see also Conrad & Barker, 2010). User-generated websites such as Netmums and Mumsnet offer peer support and advice on pregnancy, parenting and health related matters (see, for instance Gambles, 2010; Longhurst, 2008). In so-doing they could be said to emphasise the importance of lay knowledge/expertise (ibid 2010) on such issues. According to Fox et al (2009a, p.560) this represents:

...a new space in which the politics of pregnancy are played out in the twenty-first century, through the virtual community of internet chat rooms and health sites, which are used to replace or supplement more traditional forms of pregnancy advice from mothers, grandmothers or medical professionals. Such disembodied spaces construct their own ways of 'doing' pregnancy which are in turn re-embodied in the actions and dilemmas of pregnant women in everyday life.

Internet data was analysed to consider how women in online fora position themselves with respect to dominant medico-scientific discourses and media representations. This data is presented in Chapter Six (see also Chapter 7.11) in order to augment interview data and for comparative purposes. This enabled empirical data from interviews to be triangulated with pertinent data from internet fora. By analysing comments posted on internet fora by women with 'maternal obesity' and GDM/T2DM in pregnancy it is possible to examine the views of women over a wider geographical area and possibly from different socio-economic backgrounds than those respondents involved in face-to-face interviews. Mumsnet co-founder Justine Roberts has claimed that 73% of members are educated to degree level or above (cited in Gambles, 2010, p.38). Furthermore, Brownlow and O'Dell (2002) indicate that online discussion groups tend to be dominated by people with high status. Despite the proliferation of information technology, internet access still tends to be skewed to more socially advantaged groups (Murthy, 2008).

All the websites utilised for analysis are open-access websites which do not require login and can be read by anyone with internet access: *prima facie* 'public spaces'. The research involved a passive analysis (Eysenbach & Till, 2001) of archived postings to threads on internet forums. The British Psychological Society (2007) has suggested caution when using postings in discussion groups for research purposes on the grounds that people may not

have been aware of the extent to which what they say would be publically available. It is further suggested that any requirement for consent to use the data must be tempered by the nature of the research, the intrusiveness and privacy implications, and possible harm caused by the research (ibid 2007). Eysenbach & Gill (2001) assert that the number of users of an online community determines how 'public' the space is considered to be. I contend that there is a very low level of potential harm caused by the utilisation of data from these internet fora; they are open access, have high numbers of users and a high turnover thus arguably making them 'public' spaces. In order to ensure I engaged in ethical 'netnography' (Kozinets, 2010) I put a series of measures in place: the name of the particular internet community/forum is not be mentioned in conjunction with a posting from that site (the generic term: 'online posting' will be utilised, though a list of fora analysed is provided in the Appendix); no direct quotations are used which could be directly traced via a search engine (posts are paraphrased). These measures encompass what Kozinets (2010, p.154-155) refers to as a 'medium/maximum cloaked identity', deemed acceptable where there is 'miminal-to-moderate risks to participants.'

5.10 Further Research Issues/Dilemmas and Ethical Considerations

In the following sections I consider issues/dilemmas and further ethical considerations that arose during the process of conducting research, transcription, analysis and writing up. In a qualitative interview study the primary research instrument is the researcher herself (Pezalla *et al.*, 2012). Perhaps inevitably, the overriding issue and cause of dilemmas was my role in and the impact/possible impact I had on the research process and product, and

the effect of undertaking research on myself/sense of self. I discuss issues pertaining to my auto/biography, including difficulties in deciding the extent to which I should include myself/experiences when writing up. I then consider my role in research relationships, including worries over the notion of 'participation' and emotional labour and stress with respect to the conduct of the research and the transcription/analysis/interpretation of data.

5.10.1 Dilemmas over Auto/Biography/Reflexivity

Due to reservations about the ethics of including reference to my family (who have not consented to be written about in this thesis), and a desire not to indulge in/be perceived as indulging in solipsistic self-reflection, I have refrained from a detailed exposition of how my autobiography/life experiences intersect with the research. As Letherby and Ramsay (1999, p.40) note: '...respondents do not tell us everything about themselves and we do not include all aspects of ourselves in our research writings' (see also Letherby, 2003). There are salient demographic details however, which may/are likely to have influenced the course of the research and research relationships. I am a white woman from a working class background. Though by virtue of education I am now middle class I still consider myself to be attuned to working class 'habitus'. The concept of 'habitus clivé' (Silva, 2012) or divided habitus resonates with me. Bourdieu said he had a divided habitus, due to contradictions he experienced as a result of his original low social class position and subsequent high academic achievement (Bennett, 2007). I have often felt caught in a 'No (Wo)Man's land of dis-identification with both my social class of origin and the middle class habitus of the class I now reside in. I consider myself to be

somewhat of a 'class chameleon': I find myself adopting different class personae and fitting in with my surroundings.

I am 42, married and have three children (one of whom is from a previous relationship). I often felt that during interviews there was a sense of 'bonding' over 'shared' experiences of pregnancy/mothering/family life. In this respect I perceived myself to be positioned as an 'insider'. However, as a woman with a 'normal' BMI who has never experienced screening/testing for diabetes due to 'risk factor(s)' or diabetes in pregnancy I was also aware of my 'outsider' status (cf Tischner, 2012). The 'interviewer effect' has long been theorised, particularly in respect to age, sex, class, ethnicity, but little has been written about in respect to 'weight'. Chrisler (1996) delineated the difficulties of discussing issues around 'obesity' stigma and weight 'problems' with women, which she had not personally experienced. McKenzie *et al* (2002) found interviewers' BMI had no impact in their quantitative study of reporting of energy intake in 'obese' women. More recently Throsby and Gimlin (2010, p.109) have posed the question: 'in relation to...interview research...what difference does it make when the interviewer is slim? Or fat?' (ibid 2010, p.109). They proceed:

We want to suggest that there is a silence surrounding the acknowledgement of the role of our embodied selves on the research process and products, and that there is considerable discomfort around the fact that bodily appearances and practices matter in the research process in ways which are impossible to escape, but very difficult to write about (ibid 2010, p.109).

I do not think my 'normal' BMI status adversely affected relationships with women participating in the study. I did however, experience considerable discomfort in asking about weight/'obesity' in interviews, which I discuss in

5.9.4. A number of women in the study referred to thin women as 'sticks', which made me feel uncomfortable. Like Throsby (Throsby & Gimlin, 2010) I was described by some of my participants as 'normal' and 'slim' and sometimes informed: 'You don't need to worry about your weight', all of which made me feel awkward and change the topic of conversation.

5.10.2 Considering Myself in Research Relationships

Two issues are of import when considering my relationships with participants. Firstly, I have been influenced by feminist writings about striving to have open, fair and friendly relationships with women I interview. Oakley's dictum, 'no intimacy without reciprocity' (1993, p.235) has always resonated with me (see also Cotterill, 1992, for a discussion of this). Secondly, I think that I am a candid, friendly, empathetic and emotional person. I took my cue from participants about how 'friendly' to be and how much to reveal about myself (see Ribbens, 1989, for a discussion of this), rather than assume a connection based on shared gender (Oakley, 1993) or that all women want a reciprocal relationship. During fieldwork I spent protracted periods of time in women's homes, often playing with their children and drinking tea and chatting. This was often enjoyable for both parties (from what I could gauge), and brought about fairly intimate scenarios with them talking openly about personal issues and on occasion me behaving similarly. However, for a number of reasons during the fieldwork and latterly I felt a sense of unease about my role in these relationships. Ribbens (1989, p.587) refers to her experience of interviewing women that I identify with:

...there is a process in which I listen empathetically; the woman who is talking can feel the empathy and exposes herself with some intimacy; she interprets the empathy as caring and assumes that I do care; and because she makes this assumption I do start to care for her as an individual.

Finch (1984) articulated her reservations about the possible vulnerability of women in interview scenarios and their potential for exploitation. Like women in her studies, many women I interviewed spent most of their time at home with small children and some lacked social support. These women in particular seemed very keen for me to revisit them and I was concerned that they mistook friendliness in a transient research relationship for genuine friendship. I felt caring towards women I interviewed and sometimes sympathetic/concerned, particularly when women were 'struggling' with children/having financial and/or housing difficulties.

Similar to Duncombe and Jessop (2008) I was aware of using charm in order to secure an interview and worried about what they refer to as 'fake friendship' that might be induced by 'doing rapport' in interviews. According to Duncombe and Jessop (2008, p.119), 'this kind of blurring of boundaries between real and faked friendship seems more likely to occur in research where the interviewing process involves repeated visits'. Though in my interactions I did not feel I was conniving to bring about self-disclosure and instrumentally 'using' participants in order to obtain good data (see Bloor *et al.*, 2007, for a discussion of these issues), these concerns did arise afterwards. A focus of the study was to consider counter-discourses/disidentifications with hegemonic discourses/subject positioning and possible 'non-compliance' with 'healthy' lifestyle injunctions/medical regimen. I was conscious of deliberately providing a non-judgemental and sympathetic forum where women could express this and

'giving permission' (Birch & Miller, 2000) for them to voice 'negative' experiences/opinions. The combination of the popularisation of therapeutic culture encouraging emotional expression, and the use of narrative style interviewing, may result in the blurring of the boundary for participants between counselling/therapy and interview (ibid 2000) (see also Bloor *et al.*, 2007; Cotterill & Letherby, 1994). I was aware of the importance of not slipping into 'quasi-therapeutic relationships' (Bloor *et al.*, 2007; Lowes & Gill, 2006) that I was not suitably trained for. I was also concerned about ramifications of encouraging women to engage in reflexive consideration of their lives/circumstances and that they may later regret being so candid (Corbin & Morse, 2003; Dickson-Swift *et al.*, 2007). None of them expressed any regrets/concerns about this.

Maintenance of boundaries was a particular issue I struggled with. I had given insufficient thought to how much/what personal information I was willing to disclose (Dickson-Swift *et al.*, 2006; 2007) which occasionally left me feeling vulnerable. I also drove a participant to pick up her children from school as she told me she felt too unwell to walk and on another occasion only just managed to extricate myself from taking a woman's partner to Accident and Emergency (I later found out that he was wanted by the police). Gilbert (2001 cited by Dickson-Swift *et al.*, 2006, p.854) suggests:

The combination of highly charged topics, an in-depth and long term contact with the phenomenon and the evolving emotional environment of the researcher's own social world may result in a lack of clarity or "fuzziness" in boundaries. These boundaries must be negotiated and renegotiated, an ongoing part of the research process, as a balance is sought between the dangers of being too far in or too far out of the lives of the researched.

Another issue I had given insufficient thought to was exiting the field. Dickson-Swift et al (2006) discuss difficulties of exit at conclusion of a qualitative study when researchers have spent a considerable amount of time with participants. I was concerned that for some women there was expectation that the relationship might continue after fieldwork had been completed and I did not explicitly disabuse them of this. Josselson (2007, p.545) suggests that 'multiple interviews over time are more likely to encourage the fantasy of a continuing relationship'. One participant invited me to her child's Christening which I accepted. However, on the day one of my children was unwell and I was unable to go, and then felt very guilty about letting her down. I was also asked to go on a 'girls' night out' to 'wet the baby's head'; after expressing thanks for the invitation I declined. Subsequent to fieldwork some women have texted to update me on details of their lives (for example passing their driving test), to which I have replied. I assured participants that they would receive a summary of research 'findings' at the end of the study, but have not engaged in further contact.

After fieldwork I reflected on the notion of 'participant' which threw up tensions with respect to how I managed the research process. In interviews I felt that there was mutual respect/co-operation between myself and women interviewed. The participant focused 'emic' research strategy generated 'in-depth, experiential, meaningful and contextually and culturally sensitive knowledge' (Henwood, 2008, p.47). However, participation was limited merely to the data collection phase. Birch and Miller (2008) contend that the necessity of meeting academic deadlines and completing their PhD's precluded 'real' participation in their studies. As Josselson (2007) suggests, there is often heated debate about

whether interviewees should be given transcripts/interpretations to comment on. In principle I agree that this 'should' happen if participants would like/feel able to extend their participation in this way. In subsequent interviews (as discussed in section 5.2.2) I asked women to reflect on issues they had previously spoken about and incorporated this into my analysis/interpretations. However, it is difficult to see how it would have been practicable for me to extend participation further given time constraints and difficulties experienced maintaining the sample. I was also anxious about the prospect of engaging in detailed discussion of my interpretations/theorisation when this was a work in progress. I concur with Letherby (2003, p.78) that, 'we do 'take away their words' and then analyse the data from our own political, personal and intellectual perspective'. The final balance of power could be said to rest with the researcher who 'walks away with the data' (Cotterill & Letherby, 1994, p.127). This issue has resulted in some disquietude for myself and others (see, for example Birch & Miller, 2008), as has the concern that those who participated in the study may read what I have written, recognise themselves and possibly not like my interpretations (Holland, 2007). However, I have somewhat reconciled these issues ethically by: stressing that this thesis is *my interpretation/understanding/representation of the data/issues*; being sensitive to issues of power and control throughout the research process (Letherby, 2002a); presenting data/issues with sensitivity and ethical awareness; assessing that there is no chance of serious harm arising from reporting of the research (Josselson, 2007). I will give greater consideration to the issue of ongoing participation when planning future research. However, I find Josselson's comments thought provoking (2007, p.549, original emphasis):

The task of the narrative researcher is to relate the meanings of an individual's story to larger, theoretically significant categories in social science, a task distinct from the individuals' specific interest in their own personal story (Smythe and Murray, 2000). While the task of the researcher in the data-gathering phase is to clarify and explore the *personal* meanings of the participant's experience, the task in the report phase is to analyse the conceptual implications of these meanings to the academy. Thus, at the level of the report, the researcher and the participant are at cross-purposes, and I think that even those who construe their work as "giving voice" and imagine the participants to be fully collaborative with them in the research endeavour are in part deluding themselves.

5.10.3 Emotional Labour

Reflexive consideration of issues/dilemmas that arose during fieldwork and afterwards have involved considerable emotional labour (Hochschild, 1983) on my part. Increasingly emotional labour and emotional risk are recognised as issues which are particularly pertinent for qualitative researchers (Bloor *et al.*, 2007; Hoffmann, 2007; Holland, 2007; Hubbard *et al.*, 2001).

Addressing issues around women's BMI/weight in interviews was particularly stressful for me. Only once did a woman become visibly upset when discussing BMI and pregnancy, but I constantly felt I was 'treading on egg shells'. I was aware of morally loaded issues around weight/health/body size and 'attractiveness' and importance of dealing with these sensitively (see also Keenan & Stapleton, 2010). I took care to use language that reflected the preferences of participants (Watts, 2008). According to Brannen (1993, p.553), allowing participants to discuss an issue in their own terms, 'is especially important where the research topic is seen as problematic, either socially or psychologically, and is likely to prove stigmatising'.

I became quite anxious about trying to ascertain participants' social class in case I offended them. In some of the interviews I 'forgot' to ask about housing tenure, but in retrospect I think this was probably an omission due to my fears/embarrassment that women may have known what I was alluding to/using this as a proxy for. Concerns around using class as an analytic concept were also pertinent: I worried about issues of representation/the potential for stereotyping/how the research may be read.

During the course of the interviews women discussed/disclosed numerous emotive events/issues including: miscarriage, stillbirth, abandonment, bereavement, rape, child abuse, domestic violence, depression/mental health problems, bullying and stigmatisation. Recounting their experiences did not appear to cause them undue distress, indeed many women seemed to find it helpful. Josselson (2007, p.546) suggests that in interviews where people articulate sensitive areas of their lives the '...interpersonal dynamic requires that we be good containers, that we can listen empathically but non-judgementally, feeling from within the participant's emotional space'. The psychoanalytic notion of 'containment' was resonant inasmuch as I felt that I had to support women emotionally and psychically when discussing these issues. I tried to ensure that women were comfortable with what had been discussed and ascertain that they would experience no post interview trauma after disclosures had been made. Sometimes after such interactions I did feel emotionally affected (Hallowell *et al.*, 2005), and had some (fairly low level) experience of 'vicarious trauma' (Sampson *et al.*, 2008; Seear & McLean, 2008). On these occasions I texted women to 'check in' and see if they had any concerns. Invariably they told me they did not have any. I consider it inevitable that in

becoming fairly intimately involved in the lives of 30 women that some traumatic events would be shared with me. Though I expected to engage in emotion work in the research process, and saw my emotional responses as forming part of the data to be reflected upon/analysed, there was no way of knowing the affect that this would have on me. I believe the use of my research diary may have helped mitigate against more deleterious effects of this on my psyche.

During transcription and analysis (see section 5.11) I listened to digital recordings of interviews a number of times. Surprisingly to me, listening back to participants' narratives was sometimes an emotional experience. I probably experienced more of an emotional reaction listening back to the recordings, when I was less contained and more able to reflect on the detail/nuances of the interaction (see also Lowes & Gill, 2006). As Dickson-Swift et al (2007) note, transcription may be overlooked when considering issues research may raise.

5.11 Transcription, Coding, Analysis and Presentation of Data

Interviews were transcribed verbatim as soon as possible after the interview. All names were pseudonymised and geographical details removed from transcripts. Coding/analysis of interview data happened contemporaneously with data collection. As Morse *et al* (2002, p.18) note, 'collecting and analysing data concurrently forms a mutual interaction between what is known and what one needs to know'. As Thomson and McLeod (2009) observe, collecting new data and coding simultaneously is laborious; it was challenging to keep analysis ahead of fieldwork.

Analysis proceeded both deductively and inductively. There were multiple readings of each participant's interview transcript with each reading/coding informed by the project aims and the FDA of medico-scientific/public health/popular media discourses. The interview transcripts were imported into QSR NVivo 9 which facilitated cross-sectional analysis of the dataset. Each reading of the transcript focused on key areas congruent with research aims:

- pregnancy and post birth experiences of women with 'maternal obesity' and GDM/T2DM
- negotiation/subject positioning with respect to dominant medico-scientific and popular media representations/consideration of lay or counter-discourses
- discursive strategies and 'accounting' used by the participant
- material and socio-cultural circumstances
- relationality, social support and sources of information

Analysis was also inductive; I read the transcripts open-mindedly and carefully to discern frequent, dominant or significant themes arising from the raw data. Cross-sectional analysis enabled the data to be interrogated, the breadth of data to be mapped, and similarities and differences to be noted. A longitudinal dataset requires analysis in two directions: cross-sectionally (synchronically) and longitudinally (diachronically) (McLeod & Thomson, 2009; Neale & Hanna, 2012). Diachronic analysis was initiated by compiling a case profile for each participant after the initial interview; this was then updated after each successive interview. Thus, I was able to examine each case through time, considering continuity and change. Cross sectional analysis continued after

each wave of interviews, accompanied by the building of in-depth biographical longitudinal case profiles. This enabled a thematic 'chunking of data' as well as maintenance of the integrity of individual narratives. Arguably both modes of analysis and an articulation of the two are required in order to gain a more coherent and nuanced understanding of the data (Thomson & Holland, 2003).

5.12 Validity, Generalisation and Evaluative Criteria in Qualitative Research

Qualitative researchers contest criteria espoused by the quantitative paradigm for assessing their work such as reliability and validity (see, for instance Finlay, 2006; Guba & Lincoln, 1985). Skeggs (2002) proposes an alternative conception of 'validity', which I found resonant and aimed for in my work. She contends that empirical research can be deemed valid if it is: '...convincing, credible and cogent in which the analysis made can be evaluated as rigorous and responsible and the account given substantial and satisfactory' (ibid 2002, p.32). Similar to Skeggs (2002) I have engaged in prolonged contact with participants and critical reflexivity, I also have a sense of responsibility to the women involved in the research. Whilst recognising that my own subjectivity is an intrinsic part of the research I am undertaking, I endeavour to give an accurate, trustworthy and plausible account that is grounded in the empirical data.

Although claims cannot be made that findings from my study are statistically generalisable to the experience of all women with 'maternal obesity' and GDM/T2DM in pregnancy, the research has illustrative and explanatory value and the experiences reflected may have meanings for others in similar

situations (Clyde Mitchell, 1983). Williams (2000) and Payne and Williams (2005) suggest that qualitative research often infers from specific instances to the characteristics of a wider social milieu. They suggest that generalisation is possible from qualitative research as long as it is limited, moderate and speculative: *moderatum* generalisation. Such *moderatum* generalisations 'resemble the modest, pragmatic generalisations drawn from personal experience' (2005, p.296) and are testable propositions that might be confirmed/disputed through further evidence. Qualitative analysis/interpretations/findings from my study are rigorously contextualised within extant medical, sociological and psychological literature (See Chapter Six and Seven). In particular I make tentative generalisations with respect to the medical 'conditions', women's experiences and socio-economic status. The study generated 'thick description' of the lives of 30 women with 'maternal obesity' and GDM/T2DM in pregnancy, 25 of whom multi-dimensional evidence indicated were working class. As I discussed in Chapter Three these conditions are shown to be much more prevalent amongst women with lower socio-economic status. I propose that it is a reasonable *moderatum* position to suggest that other working class women with these medical 'conditions' might plausibly share some similar experiences. In addition to this, the reader of the research may generalise on the basis of correspondence between the research findings and their own personal or professional experiences.

Finlay (2006) suggests that rather than avoiding the issue, it is incumbent upon qualitative researchers to explicitly highlight evaluative criteria that are acceptable to them/they consider fit for purpose. She argues, 'being clear about criteria adds to the transparency of the research, enabling readers better

to understand the researcher's values and interests' (ibid 2006, p.320). There has been a proliferation of attempts to propose quality criteria for qualitative research (see, for instance Guba & Lincoln, 1985; Mays & Pope, 1995; 2000; Spencer & Britain, 2003). However, delineation of evaluative criteria remains somewhat contentious (see, Bochner, 2000, for a discussion of this).

Readers of this thesis are at liberty to assess the empirical research in any way that they see fit. However, I would like to put forward five dimensions ('5 Cs'), as evaluative criteria which I believe compatible with the methodological framework and ethos of my research (derived from Finlay, 2006, p.322).

- Clarity: Does the research make sense? To what extent is it systematically worked through, coherent and clearly described?
- Credibility: To what extent do findings match the evidence and are they convincing? Are interpretations plausible and justified?
- Contribution: To what extent does the research add to debate and knowledge of the issue? Does it offer guidance for future action/future research?
- Communicative resonance: Are findings sufficiently vivid/powerful? Do findings resonate with readers' experiences/understandings, or alternatively challenge unthinking complacency?
- Caring: Has the researcher shown respect and sensitivity to the participants' safety and needs? To what extent is there reflexivity with respect to how meanings are elicited? Does the research demonstrate ethical integrity?

5.13 Chapter Summary

In this chapter I gave a detailed exposition of the empirical research design and underpinning methodology. A rationale for the use of QLR was given, followed by a discussion of the use of in-depth semi-structured narrative interviews. A detailed consideration of ethical issues and pro-active and re-active ethical strategies was presented. I then discussed purposive sampling and issues around recruitment and retention of participants. Participant mini-biographies were compiled and the social class composition of the study group discussed. I explained how empirical interview data was augmented using pertinent internet fora data to enable comparisons. Transcription, coding, analysis and presentation of data were explicated. I concluded by discussing issues of validity/generalisation and offering evaluative criteria which I consider to be congruent with the research aims/ethos.

Chapter Six: Responsibility, Risk and Resistance

6.1 Introduction

In this, the first of the data chapters, I focus on how women positioned themselves according to hegemonic biomedical discourses/injunctions and popular media representations. In particular I consider women's perceptions of/positioning with respect to the key discursive themes in evidence in medico-scientific/public health literature and popular media representations (see Foucauldian Discourse Analysis (FDA), Chapter Three): risk, responsibility and intergenerational transmission of 'obesity'/diabetes or 'diabesity'. FDA was also applied to internet fora data and this data is utilised where pertinent in this chapter for comparative/corroborative purposes. I consider resonance of/resistance to dominant discourses and rhetorical accounting strategies utilised by women in response to them. I start by examining how women positioned themselves in terms of discourses of responsible pregnancy planning. I then discuss women's resistance to and counter-identification/disidentification with the term 'obesity', problematisation of the BMI and accounts of body size/weight. Responses to glucose tolerance testing and diagnosis of GDM are explicated, followed by discussion of women's diabetes causation accounts. Consideration is given to perception of risks associated with 'maternal obesity' and GDM/T2DM in pregnancy. The issue of risks associated with/responsibility for having a 'big baby' is examined. I then explicate the spectrum of compliance with/resistance to the diabetes regimen the data evinces. Induction of labour/caesarean section were pertinent issues for many participants and this, along with sterilisation, is considered with

respect to dominant discourses of risk reduction/reproductive responsibility.

The chapter ends with consideration of how women positioned themselves with respect to post-birth 'responsibilities': testing for T2DM, lifestyle change/weight loss, future reproduction/preconception care and infant feeding.

6.2 Pregnancy Planning/Intention

Desirability of 'planned' pregnancies is 'an accepted tenet of family planning and maternal and child health policy in Britain' (Barrett & Wellings, 2002, p.545).

There is increasing focus on women's nutrition and lifestyle in the preconceptional period as key to healthy fetal development (Inskip *et al.*, 2009). It is recommended that women of childbearing age with pre-existing 'conditions' T2DM/'obesity' should be offered advice about planning pregnancy and encouraged to engage with HCPs prior to pregnancy in order to minimise maternal and fetal risks (Centre for Maternal and Child Enquiries (CMACE), 2011; NICE, 2008b) (See Chapter 3.3 – 3.3.2). Women with previous GDM should be offered screening for diabetes: 'when planning future pregnancies' (NICE, 2008b, p.29). 'Pregnancy intention' may be a predictor of pregnancy-related maternal behaviour (Joyce *et al.*, 2000; Kost *et al.*, 1998). Hughes *et al* (2010) report that women who do not plan pregnancies are less likely to alter 'risk taking behaviours'. I wanted to ascertain how women positioned themselves with respect to discourses of responsible pregnancy 'planning'. Participants sometimes volunteered information about this, but usually I raised the issue. I also endeavoured to find out if women had made lifestyle modifications and/or been given/sought information from HCPs prior to their current pregnancy.

It was clear from the empirical data and the literature that ‘pregnancy planning’ cannot be delineated as a dichotomous variable: ‘planned’/’unplanned pregnancy (Barrett & Wellings, 2002; Griffiths *et al.*, 2008; Holing *et al.*, 1998). Earle’s (2004) four-fold typology provided a more nuanced conceptualisation of pregnancy planning/intention which was useful in considering experiences of women in my study. Earle devised four categories from interview data with 19 primagravidae: the planned pregnancy; the laissez-faire pregnancy; the recalcitrant pregnancy; the accidental pregnancy.

I characterised nine of the pregnancies as ‘planned’ in an unambiguous sense and approximating the approach advocated by HCPs and public health discourses. The concept of ‘planning’ pregnancy was meaningful to these participants though this was not a term many of them used. As Earle (2004) suggests, women in this category could be described as ‘trying’ for a baby, though only a minority had discussed pregnancy intention with HCPs . It is interesting to note and perhaps significant that three women delineated as middle class are characterised as planning pregnancy. In addition, none of the three women with T2DM for whom pregnancy planning/preconception care is deemed essential can be found in this category.

I asked Judith, ‘Did you have a plan of when you would have babies?’ To which she suggested that women always plan their fertility and that her planning was in negotiation with her partner (see also Letherby *et al.*, 2012):

I think that as a female you always have a bit of a plan in the back of your mind don’t you? But I mean I’ve only been with my husband for six years, so literally we’ve been together, we got married and you know now we’re having the children...We definitely wanted two children, but

no more after that so...I think it's more about the partner you are with and discussing it to understand where you both are really.

Lorraine explicitly discussed planning her pregnancies:

They were both planned, but you never know how long it's going to take to get there from when you start trying...It was sort of assumed because [three year old daughter] took a while, that this one would take a while.

Louise explained that her partner had wanted a baby, but she insisted on marriage first. She discussed cessation of contraception with a nurse when planning pregnancy and had been advised to take folic acid. Only two other women discussed engaging with HCPs prior to attempting to become pregnant. Fiona recognised the necessity of changing to a nonteratogenic medication for hypertension:

I've got high blood pressure and I had to go to my doctors to change my medication before we wanted to get pregnant because I had to be on the ones safe for pregnancy. My doctor advised that it's better to try and lose the weight beforehand and I did lose some weight beforehand.

Fiona was given exercise vouchers by her GP, but still found going to the gym prohibitively expensive and had limited success losing weight. She discussed her concern that her weight/her partner's weight may have adversely affected their fertility:

We were both thinking there were several things against us, um obviously both being overweight...Apparently you have less chance of conceiving if you are overweight. I saw that on the internet.

Andrea sought help from her GP in an attempt to lose weight prior to pregnancy; she described feeling unsupported and was ultimately unsuccessful:

I went to the doctors and I said, 'Look I've tried all these different diets and nothing's working, I need some help'... 'There's a diet sheet for a week, fill out exactly what you eat'. And I thought, 'Right I'm going to, and I will fill out everything that I eat'. I went back in and she said, 'Well I don't see why you're not losing weight.' And I'm like, 'Really, thanks for that', you know. Just, 'Watch what you eat'... I wanted to do it before I got pregnant. I knew if I was pregnant I was going to put on more weight anyway and the more you put on, the more you've got to get back off again.

Andrea discussed trying to become pregnant and being referred to a consultant due to previous experiences of miscarriage, stillbirth and difficulties conceiving. She had been advised to take folic acid and prophylactic aspirin preconceptually. Other women in the study who had experienced miscarriage did not suggest that this had been a driver to engage with HCPs prior to another pregnancy.

'The laissez faire' pregnancy is described as reflecting: 'the experiences of women who stop using contraception but adopt a more relaxed approach to pregnancy planning' (Earle, 2004, p.39). Women in this category were not using/consistently using contraception, but the concept of 'planned' pregnancy was not resonant with their experiences (see, Santelli *et al.*, 2003, for a discussion of this). Eleven participants can be placed in this category. Most could be characterised as having an 'if it happens, it happens' approach (cf Gerber *et al.*, 2002; Shawe, 2008). They did not engage with HCPs prior to becoming pregnant or suggest they had made any preconceptual lifestyle modifications, even if, like Caroline, they had previously been diagnosed with GDM. In her first pregnancy she had not realised she was pregnant until 25

weeks gestation because she was taking the contraceptive pill and her doctor: 'was just telling me I was fat and to go on a diet'. I attempted to ascertain if her current pregnancy was planned:

C: Well it was just if it happened it happened. I was two days late and he said [partner], 'I bet you £10 you are'. I said 'no, no', and the test come back and now I'll never live that down...

R: Did you speak to any healthcare professionals about planning to have another baby?

C: No. I suppose when you want one you don't really think about that. Well I suppose some people might, but I didn't think anything of it.

Additionally Caroline informed me: 'you can't plan when you are going to get pregnant I'm afraid. It don't work like that'. Similarly I asked Aysel if she had spoken to any HCPs before becoming pregnant:

A: No. I never knew I was pregnant with none of my pregnancies

R: Oh so you haven't planned pregnancies as such?

A: No, no...No, I will probably be pregnant again and I won't know. That is just what happens to me.

Aysel does not believe she has control over her fertility. Gerber *et al* (2002, p.40) suggest that 'women who do not believe that they have much control over whether pregnancy occurs may be less likely to use contraception successfully, and more likely to have unintended pregnancies'. Women in this category tended to be fatalistic about pregnancy, exemplified by Melanie's comment: 'I thought 'well let's just see if we get caught'. Then we got caught and I thought, 'You know it's meant to be', so...'

The recalcitrant pregnancy' is more ambiguous and describes: 'experiences of those who want to be pregnant but for whom it would be socially unacceptable to plan a pregnancy' (Earle, 2004, p.39) (see also Holing *et al.*, 1998). Earle (2004) suggests recalcitrant conception is common amongst women in unstable relationships or those who consider they may be discouraged from pregnancy. Two of the three women with T2DM could be categorised as 'recalcitrant pregnancies'. These women were in precarious financial situations and their pregnancies may be considered problematic for a number of reasons.

Nikki told me she sometimes struggled to control her diabetes. She was living in social housing with her two daughters and her partner was living elsewhere. She had previously experienced 10 miscarriages. Nikki was suffering from depression and debilitating panic attacks; she disclosed that she had attempted suicide a number of times. She was taking antidepressant and benzodiazepine medication:

Yeah, to be honest I've been on them really since [eldest daughter] was about eight months old, and she's nearly 12 now so that whole time...The antidepressants, the ones I'm on at the moment, are ok in pregnancy, but there is a really small chance that the baby could be born with a heart defect, but because I was so ill, I've checked with three different people and the risk is really, really low and it's not worth me coming off them because of the state that I was in before.

She said that she wanted to have a baby with her current partner despite things being 'complicated' between them. They both had children from previous relationships. Despite this, she intimated that pregnancy was a shock and she knew it would be problematic:

Oh yeah, like after I've been pregnant or I'm getting pregnant or whatever you know they said, 'Get in contact with us as soon as you think'. They also said to make sure to keep the levels low if I'm planning. This time was a bit of a shock...because obviously the last miscarriage I had was in January and nothing since and obviously I've been really unwell, I've been on the tablets, so I haven't been eating or anything, and I haven't been having proper periods and I get the problems because of my polyistic [sic] ovaries so, when I found out I was pregnant I was like, 'Oh my God!'

Samantha met her partner when he approached her on Facebook. She had been unemployed for some time, depressed and unable to leave the house. During this time she said she had lost weight and, counter to medical advice, stopped taking her diabetes medication. Living with her partner had not worked out so she had moved in with her mother and mother's partner. She had sporadically seen her partner, but discovered evidence of his infidelity with other women on the internet. She was adamant that she had not planned to have a baby, saying: 'it just happened'. She described how she had been unable to get pregnant previously which she attributed to her weight and PCOS:

It wasn't planned but there was no way I was going to get rid of it because with my last partner I was trying for six years.

Samantha had experienced little control over her fertility and seemed to find the concept of pregnancy planning risible, saying: 'Oh yeah you can plan a baby...I'm going to have a baby – Thursday!'

Eight participants were emphatic about pregnancies being unplanned and unintended: 'the accidental pregnancy' (Earle, 2004). Women in this category were definitely not trying for a baby and pregnancy had come as a shock. Most

had experienced contraception failure and some stated they did not agree with termination:

Rebecca, 42 with T2DM, explained she had been told/was convinced she could not get pregnant:

So I went and saw the doctor then...and said, 'Am I on the change?' He said no, I might be pregnant, so that was a shock. I was told that I've got fibroids and that pregnancy was just a no-no, it wasn't going to happen, so we didn't think, we didn't need contraceptives because it wasn't going to happen.

Some women discussed at length that they did not want to be pregnant and how this had caused/exacerbated their depression. Nat said:

I didn't plan to have three children. I just wanted two. She [one year old daughter] was only eight weeks old when I found out I was pregnant...I didn't want another one. I said to my husband at the time, 'I don't want another one'. He said, 'It will be fine, we will love it the same and everything else.' I was like, 'Yeah, but you are not home dealing with it'.

The concept of planned pregnancy was not resonant with the experiences of the majority of women. This concurs with Finlay's (1996) findings that 'planned pregnancy'/'unplanned pregnancy' were not emic categories for the young women studied (see also Shawe, 2008, for a discussion of this). Consonant with Collier *et al's* (2011) findings, very few women in my study planned pregnancy or engaged with HCP's preconceptually. No women with previous GDM reported being offered/seeking screening for T2DM prior to their current pregnancy. Women in my study were mainly non-compliant (to use biomedical terminology) with general preconceptual nutrition and lifestyle recommendations

(Inskip *et al.*, 2009). Participants could not be characterised as rational, reproductive neo-liberal subjects responsabilised into planning and preparing their body for pregnancy.

The social class composition of the study group may be pertinent. Evidence suggests women from lower socio-economic groups/with lower levels of educational attainment are less likely to plan pregnancies (see, for instance Barrett & Wellings, 2002; Gerber *et al.*, 2002; Holing *et al.*, 1998). Layte (2007) suggests that ambivalence with respect to pregnancy in working class women may be because mothering is a more attractive role than unskilled/low paid work.

6.3 'The O Word' (Cohen *et al.*, 2005), BMI and Accounting for Body Size/Weight

According to Richens (citing no empirical evidence) pregnant women 'are aware that they are obese' (2008, p.17). Counter to this assertion, none of my participants referred to themselves or identified as 'obese' (see also Cameron, 2013; Keenan & Stapleton, 2010; Warin *et al.*, 2008), as exemplified by Claire:

If someone came up to me and said, 'Oh my God you are obese', I would be like, 'Actually I don't think I am'.

Like 'overweight' men in Monaghan's research (2006), women in my study expressed that they found the word offensive and avoided/rejected it. This corroborates a growing body of work indicating that the term 'obesity' is perceived negatively/intensely disliked (e.g. Gray *et al.*, 2011; Volger *et al.*,

2012; Wadden & Didie, 2003). Rebecca said: 'Obese makes me offended. Fat I can do. Overweight I can do...but not obese, that is a swear word to me'. Several women recounted experiences of being referred to as 'obese' by clinicians: a label they did not feel was personally applicable/were not interpellated by. Nikki was distressed by terminology in a letter from a consultant:

...she was explaining that I've got diabetes...and then she had on there, 'She's morbidly obese' and all this and I just thought...It's not nice is it to put a tag on someone like that? I know I'm overweight and that but I don't think them tags are nice...It's a horrible word isn't it?...I want help from these people and they talk like that.

Rebecca discussed feelings of hopelessness such a label engendered:

I don't want to hear I am 'severely obese'. It sounds like there's absolutely no hope. It sounds like a disease like cancer and you are not going to recover...it's like they've given me a sentence and there's nothing I can do about it.

In 'Adoption and Management of a 'Fat' Identity' Degher and Hughes refer to: 'the degree to which a person, who possesses certain objective status characteristics, is *aware* that a particular status label applies to them' (1999, p.15 original emphasis). Women in my study, to use Pecheux's (1982) term, counter-identified (see also Henwood *et al.*, 2010): rejecting/resisting subject positioning as 'obese'. Degher and Hughes (1999) use 'fat identity' and 'obese identity' interchangeably, but I suggest a requisite differentiation. Participants in my study usually accepted they had a large(r) body size/referred to issues with weight and some could be considered to have adopted a stigmatised 'fat identity'. However, adoption of an 'obese' identity (defined by them as

'extremely' fat) was resisted (see also Monaghan & Hardey, 2009). Degher and Hughes (1999) suggest that even when an individual adopts a 'fat' identity, they attempt to make distinctions about how 'fat' they are. Samantha referred to herself as 'a chunky monkey' but repudiated the label 'obese' and putative health risks: 'It's not like I'm definitely obese you know, it's not like I'm going to drop dead tomorrow'. Like Warin et al's study (2008) women were shocked to find that they might be labelled as 'obese' and intimated that this was not congruent with their own self-image. Claire was unusual in referring to a level of health risk associated with 'obesity' but argued:

I think on some scales it's a little bit wrong because I am classed as 'obese' but if you actually look at me you wouldn't think I was obese. But obviously it is an important factor in your life, because obviously the more obese you are the more health problems.

Participants did not identify with biomedical or cultural representations of the 'obese' body. Most pregnant women in Khazaezadeh et al's study (2011) did not understand that their BMI classified them as 'obese'. Though some women in my study did not know about/understand the BMI, others recognised their BMI defined them as 'obese', but rejected this subject positioning (see also Lewis *et al.*, 2010). 'Obesity' was seen as physically extreme, a grotesque 'Other' whose size represents physical impairment (Monaghan, 2008; Warin *et al.*, 2008). Johnson et al (2008) suggest media reports often use extreme images which may give a false impression of what constitutes 'obesity'.

I suppose really you look at obese [sic] people as being very big, and then you look at me, I know I am big but I wouldn't class myself as being obese [Shaynie].

You say 'obese' and you think of these 50 stone people who need reinforced beds...you think of these humongous people who can't walk because they are so huge [Lorraine].

Women often asserted that their weight was 'normal', for instance, citing their dress size as being consonant with the UK average for women:

I am big but I wouldn't say I am obese. I find it really offensive because I am a size 16-18 which is average. I should not go to the doctors and get told 'you are obese, lose a couple of stone. [Lucy].

Joanne told me that she believed her BMI had been measured incorrectly by the midwife at her booking appointment. She sought reassurance from her friends and family that her BMI was not really high and had compared herself to a pregnant friend who she thought was bigger. She refused categorisation as 'obese':

I just think there are people out there who are fatter than me. Like big, big people who aren't pregnant that are waddling about...and I think 'if I'm obese, then they have got to be dead!

Cordell and Ronai (1999) characterised the construction of a 'fat continuum' as a strategy of narrative resistance used by 'overweight' women in their study. Women compared themselves to other overweight women and sought solace in positioning themselves as less fat. Joanne used the fat continuum to position herself as 'big' but eschewed an 'obese' identity. By sizing other women and deciding they were more overweight she constructed a more positive body image and distanced herself from the 'obese' 'Other' (see also Lewis *et al.*, 2010).

Evidence indicates lay definitions of 'obesity' differ to the biomedically measured BMI and there is a tendency for weight to be underestimated (Howard *et al.*, 2008; Johnson *et al.*, 2008; Macleod *et al.*, 2013). Johnson *et al* (ibid 2008) suggest increasing adiposity in the population may have normalised overweight/obesity (see also Keightley *et al.*, 2011; Leslie *et al.*, 2013). In Schmied *et al*'s (2010, p.426) research in Australia, midwives discerned 'a creeping normality', with what once considered 'obese' now accepted as normal amongst pregnant women because 'it is so common' (see also Heslehurst *et al.*, 2007b; Singleton & Furber, 2013).

McLaren and Kuh (2004) note social class stratification of body size, with women from socially disadvantaged classes displaying lower levels of body dissatisfaction (see also Ogden & Thomas, 1999). According to Howard *et al*'s research (2008) people with lower socio-economic status were most likely to perceive weight status as 'a little overweight' when biomedically 'obese'. Given the relative homogeneity in my study group in terms of social class these issues may be pertinent.

Similar to men in Monaghan's research (2007) some women rejected biomedical definitions of 'obesity' by critiquing the BMI. This could be characterised as 'disidentification' (Henwood *et al.*, 2010; Pêcheux, 1982): a mode of working on and against 'obesity' discourse by creating alternative understandings and meanings. Monaghan (2006; 2007; 2008) draws on the sociology of 'accounts' (Scott & Lyman, 1968; Sykes & Matza, 1957) to consider men's 'justificatory' accounts, constituting 'vocabularies of accommodation for bodies that could be labelled too heavy or too fat' (Monaghan, 2007, p.587) and

thus repudiating biomedical classifications. In utilising justifications: 'the social actor challenges the normative order by admitting no wrongdoing' (Copelton, 2007, p.474) (see also Scott & Lyman, 1968).

Susie argued that BMI was no longer fit for purpose: 'I do think people are generally bigger now. I don't know maybe the BMI's need to change slightly to show how people are these days'. Some women, like Lucy, suggested that the standardised BMI unreasonably categorises people and does not reflect heterogeneity in size/weight. She also drew on an argument used by a number of participants; that it is possible to have a high BMI, but be healthy (see also Tischner, 2012; Tischner & Malson, 2012):

It just seems no matter what size you are, you are fat, your BMI's too high, you've got to lose weight. I can't understand how one person who is five foot two and weighs ten stone is wrong if it fits their body and fits their shape and they don't look like they are carrying too much weight and they're healthy. This whole BMI thing seems, well you can't just put a loop round everybody and say 'you're all the same', because nobody is the same.

Women cited, for instance, that cholesterol levels and blood pressure were within acceptable parameters, and thus resisted 'the culturally prominent subject (im)position of the unhealthy fat person' (Tischner & Malson, 2012, p.55).

Three women considered the BMI to not really be applicable to them as they were short. Bernice cited the relevance of ethnic differences in stature: 'I read something that us, the Asian people, the BMI shouldn't be with height or something to do with measurement of height and weight because we are very short and BMI is mostly for taller people.' The most common repudiation of

BMI constituted a 'denial of injury' (Monaghan, 2007; Scott & Lyman, 1968; Sykes & Matza, 1957). Women argued that attaining a normal BMI was unrealistic, it would make them look ill, and that they were 'naturally' supposed to be bigger (cf Monaghan, 2007). Whilst many women suggested that they would like to lose some weight, none of them expressed intention to personally achieve the biomedical weight norm delineated by the BMI. Joanne expressed that she felt it impossible to achieve a 'normal' BMI, even when going to the gym and before having children:

I had a high BMI then really, I was 30...that's five over 25 and I was thinking, 'How the hell can you get to 25?' Because I'm not only short as well I've got boobs and an ass and stuff like that. I am not petite in that sense...Maybe my body is too big for my height in a sense, but I don't look out of proportion. I know that sounds like...but I couldn't imagine being that size, I'd probably look ill.

Women justified having a weight which exceeded medically recommended levels and discussed alternative weight levels personally acceptable to them:

I don't like those charts at all because when I got down to my lowest which was 11 stone I was really thin in the face...I was a size 10 and I thought my recommended was nine and a half, so good God. I would be bone, just literally bone walking around. I just think you know yourself what your body feels comfortable with personally. [Melanie].

Only Judith explicitly expressed being happy/comfortable with her body/weight. She situated herself within a particular habitus, where being large is not pathologised and food is enjoyed: 'me and my husband come from an agricultural background where you work quite hard regardless of what size or shape you are anyway, so there's a lot more to life than having the 'right' weight I think'. Louise, also from a farming background, discussed her body size in

reference to other women in her family: 'it runs in our family to be that way'. She explained that there was an expectation she prepare rich traditional food such as pastries and cakes. Unlike Judith, Louise accepted the pejorative status of her body weight, but resisted an 'obese' identity: 'Me, my Mum and my sister we are not massive...but we could do with losing a stone or whatever...similar body type...but again we are all fit and healthy'. Women often situated/understood their body size/shape within the context of their mother or grandmother's (cf Warin *et al.*, 2008): My Nan always called it big boned...she just said, 'You are big boned like me' [Sherry]. Sometimes discourses of genetic determinism/predisposition were drawn upon (see also Cordell & Ronai, 1999; Greener *et al.*, 2010; Temple Newhook *et al.*, 2013) to explain participants' large(r) body size/weight:

My auntie and grandma are all big, broad shoulders like me...and then the chunky thighs which she's [two year old daughter] already got now...I think sometimes they they tell you it's your own fault, but I think sometimes it can be genetic can't it? [Sarah].

Here Sarah alludes to and repudiates discourses of individual responsibility for the aetiology of 'obesity'. Familial tendency to largeness/overweight fits with prevalent discourses of intergenerational reproduction of 'obesity'. However, as Throsby (2007, p.1564) asserts, discourses of genetic determinism/predisposition frame "fatness" 'as a piece of implacable genetic "bad luck", rather than a signifier of moral failure'. Wang and Coups (2010, p.1) suggest that an individual's beliefs about the heritability of 'obesity' may correspond to more fatalistic perceptions and doubts about the efficacy of 'lifestyle behaviours essential to healthy weight management'. Genetic predisposition to being large/gaining weight was presented as compromising maintenance of a 'normal'

BMI. This could be characterised as an 'excuse account' (Monaghan, 2008; Scott & Lyman, 1968; Throsby, 2007), used here 'to refer to accounts where people accept the pejorative status of bodyweight or fat, and perhaps ways of living assumed to cause unwanted weight, but mitigate individual responsibility' (Monaghan, 2008, p.37). Using the concept 'excuse account' is not to suggest that these accounts were somehow fabricated or consciously used strategically.

Some women recalled childhood experiences perceived as instrumental in their size/weight, such as chocolate/'treats' used to induce good behaviour/lack of parental control over consumption. Unsurprisingly perhaps, due to prevalent gendered discourses of maternal blame with respect to childhood 'obesity'/the intergenerational reproduction of 'obesity', mothers were cited as particularly influential in participants' behavioural patterns with respect to dieting and food consumption (see also Kokkonen, 2009; Throsby, 2007; Tischner & Malson, 2012):

My Mum used to go from binge eating and then losing loads of weight. Then she'd go on these ridiculous liquid diets and stuff like that. I think I grew up with kind of a weird attitude to food anyway, because my Mum would insist we eat everything on our plate while she ate nothing. So I have quite a weird relationship with food. I am incapable of leaving anything on my plate. I cannot leave it. Even if I'm not hungry I have to finish it. I'm quite conscious about it with [3 year old daughter].
[Lorraine].

Women sought to understand/situate their own weight/body size within discourses of the aetiology of 'obesity' which most commonly emphasise personal responsibility. Narratives sometimes shifted between some acceptance of personal responsibility and a blame-absolving position (see also Greener *et al.*, 2010):

At the end of the day we put food in our mouths and make ourselves big, but people do it for a reason, it's not just because they are greedy and they overeat. [Nikki].

Here, Nikki alludes to psychological reasons for overeating. Throsby (2007, p.1570) contends that there is a 'limited vocabulary through which fatness can be intelligibly discussed and accounted for'. Similar to women in Throsby's study, participants deployed discourses of 'emotional eating' (see also Heslehurst *et al.*, 2013a) often in response to stress, depression or trauma. These accounts are blame-absolving; limiting the extent to which women could be held personally responsible for their weight. However, I do not wish to characterise this as merely an accounting strategy with no further discussion. 'Comfort eating' was a significant theme to emerge from the empirical data and warrants further consideration in Chapter 7.5.

6.4 Glucose Tolerance Test/ing (GTT) and Diagnosis of GDM

Participants could be said to be responsabilised pregnant subjects inasmuch as they accepted and took the GTT. Only Judith (educated to degree level) discussed deliberation over whether she would accept the GTT: 'I thought about declining the test, but my husband wouldn't have allowed me to do that anyway'. She discussed pressure from her 'responsible' partner and accession to expert knowledge of 'the professionals'. Only Judith and Tracey seemed aware the test was not mandatory. When told by HCPs that they should take the GTT, participants in my study accepted this information and were compliant. This may indicate acceptance of medicalisation of pregnancy/prenatal testing or a lack of information/understanding about women's right to refuse. Numerous internet fora threads such as: 'Can I refuse GTT?' seek peer advice to ascertain

whether the test is obligatory. This is invariably followed by posts delineating women's right to decline any test, but usually advising against refusal and stressing women's responsibility to avoid exposing their unborn child to risk. For instance, posts inform women to take the test as: 'It's only a couple of hours out of your day', that GDM is 'not something to mess around with', with risks such as stillbirth and neonatal intensive care admission cited. Data from internet fora show pregnant women attempting to 'police' each other's behaviour with respect to this issue. In her adherence Tracey, a participant in my study, positioned herself as more responsible than another woman she knew:

She's refused to have the gestational diabetes test...She said, 'well I didn't have it with my other two, so why should I have it with this one?' I thought, 'Well you are a bit older this time, you are a big girl and you do smoke', and I think her dad's got diabetes as well. So I thought, 'You should really'.

Most consternation is expressed in internet fora about women being referred for GTT with high BMI as their only risk factor. Women in online fora refer to: 'being pigeonholed due to their weight' and having to take 'the fat girls' test'. This is corroborated by Furness et al (2011, p.5): one of their study participants commented, 'I felt again like I was being penalised because I was fat. I used to say, 'Oh, I've got to do the fat girls' test again have I?'' Consistent with these findings, women in my study tended to more readily accept the GTT if they had a number of risk factors. Tracey acknowledged this:

Obviously I had the polycystic ovaries, BMI and Dad was a problem so I've got three factors behind me. If it was just BMI I think I would have still done it because of making sure the baby's ok, but again it might have been a case of, 'Oh well...' if that's the only reason you've been picked out on.

Women expressed more resistance to testing solely due to BMI. A number of women in the study and in internet fora suggested testing should be universal. Andrea's comments suggest she perceives herself to be stigmatised (see Chapter 7.3 – 7.4 for further discussion of perceptions of stigma) due to being tested for GDM based solely on high BMI:

I don't think they should immediately look at you and say, 'Well because you are like three stone overweight, you are more likely to have diabetes than someone else'. I think it should be across the board: everyone gets tested for diabetes when they are pregnant.

Judith alluded to widespread resistance to diagnosis of GDM by women whose only risk factor is high BMI:

I have spoken to three people now who've had to have it [GTT] because of their BMI and they actually in the surgery went to the toilet and made themselves sick. It's another way of almost defrauding the system so you don't have to go through with it.

A limited number of posts in internet fora present detailed biomedical evidence from clinical trials about the lack of efficacy of the GTT. A few posts strenuously caution against the risks of the GTT itself which, for example, is said to, 'drown the baby in glucose'. These are found on a site which is known to have a high level of graduate, middle class members. My participants did express some reservations:

You would think that blast of sugar would interfere with anybody's body really because it's such a...oh so sweet. So you would think that would interfere with anybody really. That's not 100% explained to you, you just kind of have to drink the drink and go back two hours later. [Tracey].

A number of studies have reported women reacting with shock and incredulity on receipt of GDM diagnosis (Carolan, 2013; Carolan *et al.*, 2012; Lawson & Rajaram, 1994). Persson *et al* (2010) use the metaphor 'struck by lightning' to describe their participants' shock in response to diagnosis. Ruby's response corresponded with this and was clearly mediated by cultural background:

Oh I cry all day. All day. I really cry all day you know. Because for me, like in Africa diabetes is a really bad illness. It is bad. I've seen people suffer. I mean here they've got it in control but not in Africa you know. Like I said I think I'm too young for that you know.

Other women said they had not expected GDM and were shocked, though this was not universally the experience. Congruent with women in Carolan's (2013) study some participants expressed incredulity, despite having clinical risk factors. Melanie described being 'upset and gutted' and saying to her mother 'oh my God, I've got gestational diabetes'. Despite a first degree relative with the condition Nat said: 'I thought they had got the wrong person when they said I had got diabetes'. Participants expressed reasons they thought they would not have GDM: 'I never really thought that it would be something that I would get...because I was quite active and everything, even though I was bigger. I was still very fit and healthy' [Sapphire].

Women in Nolan *et al*'s study (2011) described themselves as 'being in denial' when they were diagnosed. As Lawson and Rajaram (1994, p.544) note, due to the absence of physical symptoms, 'women were confronted with an elusive definition of an illness', which required them 'to accept a reality divergent from their subjective experiences'. Gemma said: 'I don't feel unwell at all, do you know what I mean? So I have questioned whether I have it or not.' Melanie

said: 'I have got no symptoms of gestational diabetes. I don't know what they are on about'. However, she later referred to feeling tired and thirsty, subsequently accepting diagnosis. Only a minority of women reported looking on the internet for information about GDM after being diagnosed (some had no internet access). Several recalled receiving a diagnosis then being disconcerted by no further information until a hospital appointment was scheduled.

Seven women said they were told their GTT results were 'borderline'; this resulted in questioning diagnosis/dismay that they then had to adhere to a strict diabetic regimen. Sarah said:

I was only just borderline, so maybe I was just having a bad reading that day. It does seem a bit odd, I was only just borderline if you see what I mean? Not everyone gets tested for it and there's probably lots of people out there who are getting a few high sugar readings without even ever knowing.

Women whose results were 'borderline' tended to express lower levels of anxiety with respect to diagnosis, particularly if their only risk factor was high BMI. Judith said: 'I was always sceptical whether I had it. Right from the word go. Even from when I took the drink I was sceptical'. Fiona's response to a borderline result was: 'Well does this mean I've got gestational diabetes or not?...I suppose feeling like maybe there's not a problem there, but still having to do it every day [blood glucose monitoring]'.

Women often referred to relatives/friends/acquaintances with GDM with no serious consequences; this gave them comfort and underscored the fact that it was not a particularly worrying condition. Increasing prevalence and changing

diagnostic parameters were sometimes cited suggesting a normalisation of GDM and perhaps an attempt to preserve a moral maternal identity:

It's really common now. I mean I have got three other friends who are pregnant around the same time and they had it...I mean they have reduced the threshold at which they class it, so I think more people are coming up with it now. [Lorraine].

Some women questioned whether the GTT had been carried out correctly.

Claire had 'passed' her first GTT, but was diagnosed after the second, she said, 'when I actually did the test it was more sugary, so I don't know if the amount was wrong or whatever'. Sherry said insufficient time had elapsed prior to being tested: 'I looked at the time when she had done mine...it wasn't dead on two hours to when I should have had the next blood taken, so I reckon that might have affected the results'.

Lawson and Rajaram (1994) state that for the majority of women in their study emotional reaction to diagnosis was intense and provoked fear, anxiety and depression about their own and their baby's health. Though some of my participants certainly experienced anxiety this did not appear to be the case across the board. Some women, like Tina, displayed a muted response to diagnosis: 'I sort of expected it really because I was overweight and my Dad is diabetic'. A number of women in my study were experiencing life stressors which are likely to have taken precedence over concerns about diagnosis of GDM (see Chapter Seven) This is congruent with Lawson and Rajaram's (1994, p.545) findings: women in their study who were 'exposed to innumerable stressors', 'expressed little emotion about diagnosis'. Furthermore, many of my participants appeared to have limited understanding of GDM (see also Collier *et*

al., 2011; Wazqar & Evans, 2012), for instance not being aware that it is often an asymptomatic condition.

6.5 Diabetes Causation Accounts

Unsurprisingly given the hegemonic discursive construction as self-induced 'lifestyle disease', two of the three women with T2DM in my study readily accepted personal culpability. Despite a strong family history Rebecca told me: 'I got it because I am fat, overweight, lazy'. Rebecca unequivocally accepted the spoiled identity associated with diabetes (Broom & Whittaker, 2004) blaming herself for 'eating all the wrong things', being inactive and taking insufficient responsibility for her health. Rebecca said she 'felt judged for being fat, diabetic and pregnant', but accepted the imputation of irresponsibility. Samantha eschewed a genetic causation account despite family history saying: 'No, I think I got diabetic because I got fat'. McNaughton (2013) argues that with the hegemony of the 'weight-causes-diabetes framing' other factors that are beyond individual control such as genetics, poverty and family history are given less emphasis/omitted (see also Lawton *et al.*, 2007). However, Nikki (unaware of different types of diabetes) questioned the level of personal accountability despite what she had been told:

I don't know they think it's down to my weight because I've always been heavy...The doctors said that was probably what caused it, being overweight. Does it have to be though, 'coz skinny people get diabetes?...It's not just about your weight is it? Clearly because skinny people, underweight people or whatever wouldn't have diabetes if it was all weight related.

GDM is often framed in biomedical/public health discourses/popular media representations as a 'condition' brought on by deficient lifestyle, with increasing prevalence linked to the 'maternal obesity epidemic'. The aetiology of GDM caused women consternation during and after pregnancy. Previous studies have indicated that women with GDM worried about culpability in developing the condition (Evans & O'Brien, 2005; Hjelm *et al.*, 2008; Lawson & Rajaram, 1994; Persson *et al.*, 2010). Narratives of women in my study were often demonstrative of grappling with the issue; sometimes indicating shifting subject positioning between acceptance and repudiation of personal responsibility for the 'condition'.

Four women reported having been informed by HCPs that GDM was directly attributable to their weight: 'Because I was overweight, that's what they said' [Susie]. Most of them accepted this, but Gemma argued:

I mean it's like 'this is pretty much your fault because you are overweight'. It all comes down to weight not, 'Oh it could just be that your body doesn't sort out sugar enough'. I mean anybody could have it.

Caroline was aware that high BMI was associated with GDM but also claimed there was a genetic component: 'I don't think just because of my BMI because diabetes runs in my family'. She had been informed that her weight was an issue but stressed that having several first degree relatives with diabetes made her more susceptible.

Women deliberated whether a diet high in sugar/consumption of 'junk' food before and during pregnancy may have resulted in the onset of GDM. Bernice

attributed it to: 'My lifestyle before I get pregnant, the way I eat cakes and desserts and sweets and at work when you are tired, you want chocolate'.

Fiona felt blamed for having a deficient diet by HCPs: 'I felt like straightaway they were saying because of the foods you are eating you have caused yourself to get gestational diabetes'. Claire was also troubled by possible culpability and defended herself:

You kind've think, 'Could I have avoided having this? Is it just the natural ability of my body? Have I ate the wrong food?' Because it's not like I have been pigging out on McDonald's, Pizza Hut or anything else because we tried KFC and the baby didn't like it.

Lucy, concerned about consumption of sugary drinks in pregnancy to alleviate sickness, had asked HCPs about ramifications of this:

Speaking to the dieticians and people...from what they say it's not your diet [causing GDM], it doesn't really help you once you've got it, but it doesn't really contribute to you getting it.

Four women had seen what they considered to be pejorative televisual representations implying 'obesity'/poor lifestyle were the cause of GDM. Only Aysel suggested that she adopted more 'appropriate' technologies of the self due to what she had seen: 'It was helpful because before I was eating junky sort of food like takeaways and things like that. After I watched the programme I stopped eating so much'. Louise was perturbed by the portrayal of GDM:

Well it come across to me that all people who have gestational diabetes are overweight...There was all these bigger women on there and it come across to me like you shouldn't be fat and having a baby because you've got the risk of diabetes.

She was very worried about how she might be perceived because of this and sought to distance herself from the abject '(M)Other' represented:

Because then I had started telling people that I got gestational diabetes and then I was thinkin', 'Oh my God', if they'd seen the programme then they would probably think I was like that then...like eating crap and you know and then they'd sort of put me in the same sort of category as the people on that.

Other women expressed similar concerns that people they knew assumed overweight/'obesity' was the cause of GDM. Sarah said her mother's response to her diagnosis was, 'I'm not surprised, you're like a tank': this was indicative of a general lack of support (see Chapter 7.10 for a discussion of 'Social Support').

Some participants referred to observing other women at diabetic antenatal clinics in an attempt to ascertain if they were predominantly 'bigger girls'. Tracey came to the conclusion that this was the case but others emphasised they had seen 'thin' women at the clinic. A moral identity was maintained/reinforced if women personally knew a woman/women of 'normal' weight who developed GDM. Several participants, like Melanie, attributed GDM to misfortune: 'I know someone who is very, very slim who has it, so it's pot luck I suppose'. This is consonant with the findings of Razee et al (2010, p.132): a minority of women in their study believed GDM was 'just one of those things that can happen'. Internet fora are replete with peer reassurances that women should not feel personally responsible for GDM, such as: 'You could not have caused it or prevented it. GDM is because of hormones and many skinny, fit women get it too'.

Sapphire, whose GDM was diet controlled, exonerated herself from personal responsibility and established her behaviour as more moral than her peers:

My friends have all had it way worse than me and they are really fit, you know size eight, size 10...Two of them were insulin dependent and the other one Metformin I think...One of them said that if she wanted cake she would have cake and she would eat the whole thing.

6.6 Risk and ‘Maternal Obesity’/GDM/T2DM in Pregnancy

Other than some participants’ consideration and mainly repudiation of high BMI as risk factor for developing GDM (See section 6.5), women in my study appeared to be largely unaware of other risks associated with being ‘obese’ and pregnant. A number of women dismissed possible association between high maternal BMI and size of the baby, with only one participant accepting a causal link (this issue is discussed in section 6.7). Fiona was unique in recounting experiences of being informed of risk specifically associated with her weight. She felt that this had been addressed repeatedly which had caused her some distress (I consider this in more detail in Chapter 7.4). She said:

You can understand them talking to you about your BMI because yeah it is high and yes it can cause problems with pregnancy and I understand that. I think two of the consultants have said about different problems it can cause. I do understand that there are problems if you are overweight, but there is no need to keep going on about it.

Fiona did feel her pregnancy was in jeopardy due to her weight and this caused her a great deal of anxiety. No other participants made reference to possible risks specifically associated with ‘maternal obesity’. Some studies report that ‘obese’ pregnant women understood their weight as a potential risk factor that

could impact on themselves and/or their baby (Heslehurst *et al.*, 2013a; Keely *et al.*, 2011; Mills *et al.*, 2013; Nyman *et al.*, 2010). Pregnant women in Keely *et al.*'s study (2011) with a BMI > 40 were aware of 'obesity' as a risk factor, but awareness developed only during the index pregnancy. Women felt they had not been apprised of risks associated with 'obesity' prior to/early in pregnancy. Other research suggests women are unaware of risks associated with excess adiposity in pregnancy (Furber & McGowan, 2010a; Heslehurst *et al.*, 2007b; Keenan & Stapleton, 2010). Accumulating evidence indicates HCPs may avoid discussions with pregnant women about 'obesity' and risk (Heslehurst, 2011a; Heslehurst *et al.*, 2013b; Keely *et al.*, 2011; Keenan & Stapleton, 2010). CMACE (2010) reports provision of information about risks associated with 'obesity' in pregnancy was documented in less than a fifth of audited cases. Macleod *et al.* (2012) found midwives fearful of addressing risks of 'maternal obesity' in case they caused offence (see also Singleton & Furber, 2013). Midwives expressed concern about highlighting risks without adequate support mechanisms/training (Heslehurst, 2011a; Heslehurst *et al.*, 2013b). Smith and Lavender's (2011, p.7) meta-synthesis of the maternity experience for women with a BMI \geq 30 asserts:

A lack of information from health professionals about the increased maternal and fetal risks associated with maternal obesity led the women to think that maternal obesity was acceptable, and that they were not an increased risk.

Several women in my study expressed that they had not been informed/did not understand why they had been referred for an anaesthetist consultation (requisite for women with BMI \geq 40). This caused Gemma distress:

Apparently it's just to look at how big you are to see if anything's going to be a problem is what I can gather...I couldn't work out why I had to see her because no one else I know who was pregnant had said that they had to see an anaesthetist so I was like, 'What? Why do I have to go?' When I was at work they were saying that's for someone who like gives you an epidural or something...I said, 'Why am I seeing you?' She was like, 'To just look at you and see if there's not going to be major problems with you' and that's all it was...It was like, 'For fuck's sake, I've come up here today, driven up, paid for parking for a ten minute appointment and all she did was look at me and say, 'Whatever you want it's fine''.

Two participants discussed being shocked/unprepared to receive low molecular weight heparin (LMWH) injections for prophylaxis of venous thromboembolism after a vaginal delivery, due to high maternal BMI. Melanie said:

The first I heard of it was when the midwife come in and said, 'Oh I've got to give you your Clexane injection' [LMWH]. I was like, 'What injection?' Knew nothing about it at all, no one said nothing. I was like, 'What's it for?' She was like, 'Oh it's to stop blood clots', so yeah that was a bit of a shock. I was like, 'Oh right, I didn't realise I potentially had blood clots'.

Samantha was angry to receive a course of LMWH and disregarded medical advice:

They sent me home with like eight injections or something because my 'BMI's high'. Well they went straight in the bin. If your BMI's high...you've got a risk of getting blood clots or something...They said, 'You've got to have them because your BMI's high' and I thought, 'What the fuck are you on about?'

Heslehurst et al (2013b) suggest avoidance of discussion about risk may increase anxiety and result in women not anticipating or preparing for aspects of their care.

Participants reported complex obstetric histories (in this or previous pregnancies, with and without GDM/T2DM) of conditions associated with 'obesity': SPD; wound infection post caesarean; shoulder dystocia; pregnancy-induced hypertension; pre-eclampsia; postpartum haemorrhage. Nine women had experienced miscarriages (sometimes recurrent) and three had experienced stillbirths. Figures for this study group appear higher than UK rates for miscarriage/stillbirth, which show one in eight recognised pregnancies end in miscarriage, with recurrent miscarriage affecting one in 100 women (NHS, 2011) and 3.5 stillbirths per thousand births (BBC, 2011). One participant was hospitalised for pulmonary embolism postpartum, but attributed this to 'bad luck'. None of the women stated/implied these obstetric problems either historically or currently may have been/be attributed to 'maternal obesity' or GDM/T2DM in pregnancy. These findings are similar to Keely et al's study (2011) where the majority of women did not acknowledge their weight could have been a contributory factor in their obstetric problems (see also Singleton & Furber, 2013).

The three women with T2DM in pregnancy indicated limited perception/ understanding of associated risks apart from potential for the baby to be big (see section 6.7). Nikki and Rebecca both experienced recurrent miscarriages but did not say they believed diabetes to be implicated. In the postnatal interview I asked Rebecca if she had felt 'at risk' in her pregnancy, she told me she had been uninformed about risks for the first two months of her pregnancy. HCPs had then discussed risks of congenital abnormalities/heart defects. She said:

I felt the baby was [at risk], once I knew about high sugars and what the possibilities could be for the baby. That frightened me to death. I thought, 'Oh my God'. I was so poorly controlled up until about eight weeks and a lot of the worst had already been done then. It was, 'Oh my God'.

Samantha was referred to another hospital for a fetal heart scan, she downplayed concerns about risk but expressed consternation that it had not been flagged up earlier:

They just said it was a precaution because the diabetes can bring on different defects and obviously if heart problems are in my family anyway. It was kind've a shock really, but I'm not bothered really...I was surprised they hadn't mentioned it before. They come up with this heart thing...

Murphy et al (2007) contend that women have a lack of awareness of risks associated with T2DM during pregnancy and it is often perceived as a relatively 'benign' condition.

According to Evans and O'Brien (2005, p.74) for their study participants, 'living with GDM changed the women's perception of their pregnancy from one progressing normally to one that was in immediate peril'. Similarly Lawson and Rajaram (1994) found women with GDM very fearful about their own and fetal health. Other than concerns about baby's size relatively few women with GDM in my study expressed worries about risk. Two women were aware and anxious about increased risk of stillbirth due to information from online sources: this made them particularly concerned to be compliant with the diabetic regimen. Several women said they had been told by friends/read online that GDM could cause the placenta to degrade. Sapphire was worried about this issue, said she had been designated 'a high risk case of pregnancy diabetes' by doctors, but

intimated she had received mixed messages about risk: 'Like one minute they are treating me like I'm diabetic and the next minute they are sending me home saying, 'You'll be fine, don't worry about the placenta'.

Some women, like Louise, said that they had been told by HCPs that GDM 'was nothing really to worry about'. In her post birth interview Joanne told me:

It didn't make me feel like I had a risky pregnancy, what worried me was that I would have to inject myself with insulin everyday...I didn't know nothing about it...I just thought there was a risk that I could have had a huge baby.

The majority of women did not seem to perceive GDM as constituting a high risk pregnancy/position themselves as 'at risk'. Congruent with this much of the internet fora data indicates women tend to be under the apprehension that the sole risk of GDM is a 'big baby'. Susie commented that she 'liked' having GDM due to additional attention and scans. Judith said she had been informed of associated risks, but told me:

I didn't really pay much attention to the risk stuff to be honest. I was more interested in what I had to do on a day-to-day basis, rather than the risk...I didn't take much notice of the risk really.

Seven women implied risk was used by HCPs as a tool of governance in order to ensure compliance: this sometimes resulted in questioning whether the information was factually correct or 'scare tactics'. Nat said:

To be honest I thought it was a bit of a joke. If you've got the diabetes side of it they try and scare you. Coz nobody would wanna hurt their unborn baby would they? So I think they would scare you into, 'Right you've got this, you better do this because your baby'll be ill'.

Gemma missed a diabetic antenatal clinic appointment and was telephoned by a diabetes nurse:

She said 'do you know how important it is to come to these meetings because there's gestinal [sic] diabetes, and then she started talking to me about the placenta and stuff and how it can age faster. I was like, 'You diagnosed me with this at 28 weeks, it's now 36, why are you telling me about this now?'...So then I got all worried and looked it up on the internet and stuff and I was like, 'Oh my God it does'. It says if it goes too far it can stop giving the baby stuff and then it will stop growing and all sorts of different things...So then I got really like, 'Oh my God!'... I kind've did feel like they had a bit of a go at me and how it was left on that day was, 'Well, we'll need to discuss this and we'll ring you back' and when they rang back I just didn't bother answering the phone 'til I could be bothered to speak to them in a couple of days time. Because it was like, 'Why are you telling me about this now? Why are you making such a big deal out of it now if you could have told me before?'

This is congruent with Nolan et al's (2011, p.614) reporting of their study of women with GDM/T2DM:

The women felt that healthcare providers used scare tactics such as telling them about potential infant problems to induce compliance with recommendations, 'Well, they scared the crap out of me...50% mortality rate for the fetus...'

Cherry, who perceived herself reprimanded for not adhering to lifestyle changes/diabetic regimen, was cynical when told by an HCP of the risk that her baby could develop 'obesity'/diabetes later in life:

They said she would be an obese kid, 'obese child' that's gonna have diabetes. You think, 'Really love or are you just saying it to scare me into sorting it out properly?'...I think she was a bit of a cow who was just trying to scare me into managing my diabetes.

Concern was expressed by a number of women about the possibility of diabetes being 'passed on' to the baby/child (see also Evans & O'Brien, 2005; Nolan et

al., 2011). In the main, participants had been informed that post birth the baby's blood glucose levels would be tested (for neonatal hypoglycaemia) but a minority of these were unsure if this meant the baby could have diabetes and whether this would be permanent. Melanie and Kylie experienced considerable anxiety because they had not been advised of neonatal blood sugar monitoring and were upset to realise there was a risk to the baby's health (see also Nolan *et al.*, 2011). Melanie said: 'I didn't even question the effects to the baby because as far as I was concerned all they were worried about were the effects to me and his growth.'

Unlike in Collier *et al.*'s study (2011), all participants with GDM had been informed that they had an increased risk of developing T2DM 'later in life'. Women acknowledged some increased risk and most were cognisant of preventative health behaviours (see also Barned *et al.*, 2010; Evans *et al.*, 2010; Razee *et al.*, 2010). However, there were differences in the extent to which they believed they were at risk and their perceived efficacy in ameliorating it. According to Lawson and Rajaram (1994, p.556) for women in their study, 'the perception that diabetes would result in long term chronicity and early death generated much distress'. This was certainly not the case for my participants. Women with no first degree relative/family history of T2DM expected (and often reported being told) that GDM was transient and would resolve after delivery (see also Hjelm *et al.*, 2008; Lie *et al.*, 2013). They tended to perceive their risk as low, even if they had been treated with insulin therapy (see also Carolan *et al.*, 2012). Only Gemma was really worried about developing T2DM. She personally knew women with previous GDM who latterly developed overt diabetes. She said she had been reassured by HCPs

that developing T2DM was 'very rare'. Fiona's sentiments were shared by a number of participants:

I mean why would you get it later in life? I haven't got a history of it in my family why would I suddenly have it now? It's not like, well I'm no different in size to my Mum or to how my Nan was, so why have I got a risk of getting it later on?

Counter to this, women with a close relative with T2DM showed concern about risk (Nolan *et al.*, 2011), but often tended to be somewhat fatalistic and resigned to developing the 'condition' (see also Lie *et al.*, 2013; Razee *et al.*, 2010). Risk perception may be an important determinant of behaviour change (Collier *et al.*, 2011; Kim *et al.*, 2007). Women with greater risk perception in this study group did not indicate they were likely to adopt preventative health behaviours. Some, like Sherry suggested that T2DM was not particularly serious:

I'll get it because my Mum and my Nan's got it...I tell you why it don't worry me right. Because they tell you, 'Oh if you do this, you do that, you'll get this and you'll get that', but I look at it like this, you get one shot at life, so what will be will be. The diabetes, oh yeah it's a big thing and all that lot, but people still live, just you've got to control things. I could go out tomorrow and get run over. I could have died having my c-section. Everything's a risk. Well if I get it, I get it. I can't really do nothing about it really. If it's meant to be, it's meant to be.

Kim *et al.* (2007) found women with previous GDM who had a moderate/high T2DM risk perception often had a family history of the condition. Recent studies show lower educational status impacts on comprehension/uptake of knowledge and appreciation of the seriousness of GDM (Carolan, 2013; Carolan *et al.*, 2012; Carolan *et al.*, 2010). This is likely to have been a factor influencing some women in my study's risk perceptions and understanding of GDM.

6.7 'Big Babies'

All participants reported being informed of the risk of having a 'big baby' (see also Collier *et al.*, 2011); no one used the clinical term 'macrosomia'. Two women with hypertension said they had been informed this could result in low birth weight and logically assumed that this would counteract the effects of GDM, resulting in a 'medium sized' baby. Women were vociferous on the topic of big babies, generating the most data of any issue. A number of women expressed they had no idea why a big baby was problematic. Participants discussed fears with respect to asking HCPs questions about this in case they were perceived as ignorant. Samantha said she did not ask questions because, 'I just don't want their lectures. I can't be arsed hearing anything else about my size'. Some women said they did not understand fetal growth charts and no one had attempted to explain them:

They say to you, 'You will have a big baby, but that's as far as it goes to be honest...They don't say 'Your baby will be bigger because of that' or 'This is going to happen if your baby is over this weight when it's born'.
[Nikki].

Many women expressed anxiety about giving birth to a large baby (see also Evans & O'Brien, 2005). Two participants had experienced shoulder dystocia in previous pregnancies, and one demonstrated awareness that a baby's shoulder may become dislocated or clavicle broken. Typically, women expressed worry about pain and injuries they might sustain rather than implications for the baby of having a high birth weight. As Claire said, 'that baby could damage me'. Cherry commented that she had been warned about this by an HCP: 'They said

if I don't manage it [diabetes] right then I'm going to have a really, really big baby and it's gonna hurt. I mean that is scary, your first kid'.

Women variously referred to their unborn child as a: porker; bloater; massive beast; monster; heifer; whale. Such terms are often replicated in internet fora, with women frequently seeking peer reassurance from others who have had a high birth weight baby. Narratives indicate a level of fear of the fetus; perhaps compromising the 'bond' women are expected to experience with their unborn child.

It was clear that for many women the prospect of being/being seen as culpable for making their baby 'big' represented a threat to a moral maternal identity. The issue of 'maternal obesity' causing a large fetus has been hotly debated on a number of internet fora, with questions such as whether 'high BMI equals bigger baby equals unhealthy baby equals bad mother?' Three women referred to pejorative comments received from friends/family/work colleagues imputing responsibility for a 'big baby'. Andrea told me:

'People joke and say, 'You could have a 15 pounder'. The conception is that because you are big yourself you are going to have a big baby'.

Women's accounts indicate attempts to exonerate themselves by various means such as 'denial of responsibility' (Sykes & Matza, 1957). In Foucauldian terms these are instances of resistance against the hegemonic discourse of causation. Some women, such as Fiona, denied personal accountability by drawing on discourses of genetic determinism:

It worried me that I'd have a big baby and that it would be my fault...I suppose it's also a bit like stigma isn't it? If you've got a big baby it's not seen as a good thing is it? The view is that you've been over-eating and stuff like that whilst pregnant. Genetically obviously me and my partner both of us are big and they do say it's in the genes don't they? So I mean regardless of what I ate in pregnancy if it was going to be a big baby it was going to be a big baby.

Sapphire was concerned about being perceived as gluttonous: selfishly prioritising her own needs over her baby's, and asserted that she had a 'healthy diet':

I think nowadays if you have a big baby I think people frown upon it, like 'oh God you've had a 9lb baby or whatever. I do think you get judged especially being a bigger girl...like I have a really healthy diet...I am worried that people just think I am sat eating cake and chips and crap all through my pregnancy.

Reference was made on a number of occasions to the 'documentary' 'Superhuman: Britain's Biggest Babies' (2008): participants sought to distance themselves from the representation of women on the programme. Claire maintained a moral maternal identity by 'Othering' (Thompson & Kumar, 2011; Wilkinson & Kitzinger, 1996) women not exerting control of their appetite:

A lot of people when they are pregnant stuff themselves with Dominoes, McDonald's and everything else and they don't think about what affect it has on the baby. Obviously decent mothers go, 'Right I only need an extra 150 to 200 calories'...I can understand why they say, 'Yes big babies' because I think a lot of people just don't look after themselves and the reason they get big babies is because of their diet.

Additionally women implicitly rejected personal blame by: normalising the 'big baby' asserting babies had just got bigger; citing examples of 'thin' women/women without diabetes who had big babies.

In Keenan and Stapleton's (2010) study they found, in line with traditional understandings of the 'bonny baby', bigness was often framed by participants as positive. This can be seen as 'denial of injury' (Monaghan, 2007; Scott & Lyman, 1968; Sykes & Matza, 1957). Women in my study sometimes declared a big baby preferable to a small one for instance, as it would feed better/sleep through the night. Judith remarked: 'I liked the fact that she looked more solid and she was definitely a proper baby with, you know, rolls on her, rather than a wimpy, vulnerable little one'.

Women challenged biomedical knowledge in a number of other ways, for instance by referring to: ultrasonographic prediction of the size of the fetus as inaccurate which should be taken 'with a pinch of salt'; women they knew who were informed they were having a big baby but it was erroneous, thus drawing on 'lay epidemiology' (Davison *et al.*, 1991); experiential knowledge from their own mothers, 'My Mum said they always say diabetes gives you big babies but it's not true' [Caroline].

Only Rebecca unequivocally accepted personal responsibility for a big baby; her quote indicates anxiety and a spoiled maternal identity:

I am just worried, what has the baby got to expect with a big tummy? Is he in pain? Is it stretched so big that he's in agony and he can't move? At the scans they said, 'Why's he in such a little ball?' I said, 'Well he's loaded with fat from me'. He's just fat all over him and around him. Straightaway I thought, 'I'm fat, there's bound to be less space'...I just think you are blaming yourself the whole time and thinking, 'Oh you fat cow...now you've made your baby fat'.

Narratives overwhelmingly indicated awareness that the 'big baby' is a site of maternal blame. Women engaged in reparative identity work in order to avoid a spoiled maternal identity.

6.8 Compliance with/Adherence to Diabetes Regimen

Women with GDM/T2DM in pregnancy are expected to adhere to a diabetic regimen involving (cf Armstrong Persily, 1996): dietary modification; blood glucose monitoring [BGM]; recording of blood glucose levels (BGLs)/food consumed (in handheld notes); attendance at additional and frequent clinic appointments; avoidance of 'risk behaviours' such as alcohol/tobacco consumption. Additionally they may be prescribed medications: Metformin and/or insulin. Participants universally expressed that the diabetes regimen was onerous. Data suggests a spectrum of compliance with and resistance to the regimen (cf Collins *et al.*, 2009; Root & Browner, 2001) ranging from absolute compliance at one end to absolute non compliance at the other. This may also be characterised as a spectrum of responsabilisation, with women who are more compliant/adherent seen as more responsabilised with respect to their own and/or fetal health and ensuring a conscientious pregnancy (Kukla, 2005). However, compliance and responsabilisation are not necessarily synonymous: for instance a woman may be responsabilised and motivated to comply with diabetic regimen but circumstances militate against/preclude adherence. In this section I focus on women's self reports of compliance/non compliance and how they positioned themselves with respect to responsible self-care during pregnancy complicated by 'maternal obesity' and GDM/T2DM in pregnancy. Women whose circumstances were challenging/precarious were generally less

adherent to the diabetic regimen. In Chapter Seven I give a more detailed exposition of women's psycho-socio-cultural and material circumstances which contextualises and provides a more nuanced understanding of women's positioning with respect to compliance/adherence. Here I consider facets of the diabetes regimen separately, then summarise and discuss with respect to the postulated spectrum.

It is perhaps noteworthy that only two women reported discussions with/advice given by HCPs with respect to exercise in pregnancy (cf. Stengel *et al.*, 2012; Weir *et al.*, 2010). A growing body of evidence indicates efficacy of exercise in treatment of GDM (for example Brankston *et al.*, 2004; Mottola, 2007; Snapp & Donaldson, 2008), but exercise did not feature as part of the diabetic regimen for women in this study. Current RCOG guidance (2006), though recommending exercise in pregnancy, does suggest caution with respect to GDM/'poorly controlled diabetes', 'morbid obesity' and hypertension. The overwhelming majority of this study group were self-professed non-exercisers prior to pregnancy. HCPs may have been reticent about recommending exercise to women due to 'morbidity/ies' and non-exercise history. Evidence shows marked socio-economic differences in levels of exercise for women (Ball *et al.*, 2006) which may provide an explanation for low levels of exercise amongst this study group. I consider the issue of exercise further in Chapter Seven.

Compliance with a diabetic diet proved challenging for most women for manifold reasons (Carolan, 2013; Evans & O'Brien, 2005; Razee *et al.*, 2010) (I expand

on this in Chapter Seven). The majority of women positioned themselves as conscientious, modifying their diet at least to some degree:

If we go to MacDonald's I'll skip the chips and I can do it. I have never thought about what I'm eating...but whilst pregnant I think, 'No this really does count', even more so because I am diabetic this time. You can have treats but not like you normally do. [Rebecca].

Danielle's sentiments were shared by other women with respect to denial of preferred high sugar/high fat foods: 'I thought, 'Right I have got to do this for his [baby's] sake really', you know. It's my responsibility really...' (see also Razee *et al.*, 2010). Women, such as Emese and Lorraine reported fastidious compliance with dietary recommendations in order to maintain BGLs but also feeling upset/depressed by the ascetic regime required (see also Lawson & Rajaram, 1994). Four participants described fear of insulin injections motivating them to adhere to a strict diet (see also Bandyopadhyay *et al.*, 2011; Carolan, 2013). Conversely, two women discussed wanting insulin as they perceived it would give more latitude with diet (see also Carolan, 2013; Carolan *et al.*, 2012). Claire performed identity work: asserting that 'good mothers' controlled GDM by diet. Several stated advantages of maintaining a diabetic diet in terms of preventing excessive gestational weight gain, which they had previously experienced.

Having insufficient information about dietary modification/not comprehending dietetic advice were key issues for some women (see also Carolan *et al.*, 2012; Wazqar & Evans, 2012). Three women reported receiving advice from a dietician suggesting they replace fruit snacks with crisps in order to maintain BGLs: paradoxical to previous nutritional/weight control advice. Others reported

making limited dietary changes due to BGLs consistently within acceptable parameters. This often led women to question whether they actually had GDM. Judith said: 'I haven't changed much to be honest. The only difference would be I don't drink as much lemonade at home...If I want something I have it, that's how I look on it'. Claire and Samantha referred to their body/the baby needing/wanting certain foods. In these instances experiential knowledge took precedence over dietetic advice:

If you start withdrawing yourself from what you want (well technically it's what the baby wants) then you're depriving yourself and the baby of that and it's probably what your body needs...Like yesterday I needed cake. I was like 'I need cake, I need cake'. It was like a vanilla cream and I felt wonderful after. I had chocolate cake as well yesterday. She [baby] was craving it, not me. [Claire].

Most women talked about instances of dietary non-compliance, for example: special occasions, takeaways, restaurant meals and 'cake days'. Sometimes the corollary of this was guilt if subsequent BGLs were high. Women expressed anxiety that eating 'inappropriate' or 'naughty' food might do something 'bad' to the baby but were unsure what that might be. Kylie's comment typifies other women's confusion: 'I feel I should be keeping an eye on it [diet/BGLs] because obviously it is important for the baby but why is it important for the baby? Do you know what I mean?' Tracey reported being mainly adherent to dietary advice, apart from on Sundays. She asserted her autonomy to HCPs: 'I said to them, 'If I fancy chocolate or a crème egg I'm going to have it, I'm not going to stop because of this'. Similarly Gemma said: 'I told them every now and then me and [partner] like a binge in bed you know? We take loads of crap food to bed, stick a DVD on...' Some women practised 'strategic non-compliance', having ascertained ways to 'cheat' with limited ramifications for BGLs (see also

Evans & O'Brien, 2005). 'I knew if I wanted a crafty little snack what time of day I needed to have it to avoid it showing too highly on my bloods' [Lucy].

Cherry and Samantha openly discussed complete dietary non-compliance. However, it is important to contextualise this (See Chapter Seven). Cherry informed me she had 'given up trying'. Samantha appeared to have limited understanding of T2DM in pregnancy and the need for dietary control:

I sat here last night and ate three Kit Kats...I would know if something was wrong with me. The baby's not too big and that just says itself my sugars are under control. I just had a scan and they said the baby's normal apart from it had a bigger tummy or something [symptom of macrosomia]...I don't know what any of it means. They haven't explained anything to me about it.

In the post-birth interview she informed me, 'When I was pregnant with 'er I was eating whatever I wanted'.

Women in the study were 'finger pricking' to monitor BGLs between two and seven times a day. Many women incorporated BGM into their routine with a sense of just 'getting on with it', though many expressed that it was an inconvenience. Danielle said:

It was a bit of a bane really to be honest, because you have got to do it an hour before you eat breakfast in the morning and when you are pregnant you're sleep patterns all erratic anyway and you are absolutely shattered and you have got to do this and think, 'Right I can't eat for an hour' and then you are feeling sick aren't you? It's quite difficult to manage...I was tired and emotional anyway. It was an extra thing to worry about.

Women like Emese experienced little fluctuation in BGLs, continued to test but said 'I don't really see the point'. Women caring for young children often found

BGM onerous, particularly when away from home. Sapphire described being castigated for omitting to test in the evening:

They [HCPs] are like 'of course you've got time, everyone has got time'...but they don't realise actually if you are a single mum running around after a two year old...by seven o'clock I am so ready to go to bed I just can't function.

Six participants talked openly about non BGM. It is relevant that these women experienced adverse circumstances during their pregnancy (discussed further in Chapter Seven). Samantha said, 'I was supposed to test seven times a day and write it all down. I don't bother doing it now...I don't give a shit what they say. It's my life.'

The recording of BGLs and food consumed was seen by some women as more practicable than others. Judith connected her professional background with willingness/ability to record information:

I don't have any problem with filling it in...I don't have a problem with paperwork. I'm sure there are a lot of people who don't bother, but going back to me being as particular as I am and working in an administration role, paperwork to me is really important, so you know if it's going to speed up my visit then I am going to make sure it is complete.

Lutfey and Freese (2005, p.1356) contend that 'the task of assiduous record keeping may be more familiar to patients with middle-class occupations and lifestyles'. Six women discussed non recording. These women did not have professional/ administrative backgrounds and were struggling to cope with stressful life circumstances (see Chapter Seven). Sherry, caring for four young children and pregnant with twins, said:

To be honest I don't really write down what I'm eating or my readings. I can't do that as well. I do keep the little thing [glucometer]. I said I'll meet 'em in the middle. I will make sure I do the finger prick every morning, which I have done and do it after tea, no before tea, no after tea. I always get confused. It logs on the little thing. This is how I look on it, if I write things down and it's been bad they still don't think I've been telling the whole truth.

Participants discussed having to show HCPs records and feeling disbelieved and/or judged/intimidated (see also Lavender *et al.*, 2010; Nolan *et al.*, 2011; Stenhouse *et al.*, 2013) by the disciplinary gaze (Foucault, 1991a). Evidence indicates that HCPs are more likely to adopt a directive approach with less educated patients, who are consequently less likely to have their expectations met (Brown *et al.*, 2004). This may be relevant given composition of the study group. Satisfaction with HCP communication is said to be a predictor of diabetes self-care behaviour (ibid 2004). Four women informed me that they had 'made up' BGLs. Two women from the study attending the diabetic antenatal clinic asked to borrow a pen so they could hastily 'write something' in their notes due to concern they would be reprimanded.

Regular attendance at diabetic antenatal clinic/additional hospital appointments were seen as onerous by most participants. Some argued that checking BGLs should be dealt with by telephone/community midwife. Seven women discussed difficulties accessing appointments due to being unable to drive/having no transportation. The issues Kylie highlights were similar for a number of women:

I had to dump all the kids on my mum, because leaving here with enough time for public transport to get in. I don't drive. I have had to leave here at 20 past six [am] to get into the hospital for the appointments because they said they don't do afternoons. Last time because I was really, really sick I actually caught the train in, which cost

four pound and I caught a taxi from the train station up and that was a fair whack that day, because that was about another ten pound then. I was really feeling that ill with the pregnancy, I couldn't face going on a bus because I don't travel that well. I would have to catch two buses as well. It's about seven miles from here to [nearest town] and another 10 or so to [city] hospital.

Women/families on benefits/with low incomes struggled to meet transportation and hospital parking costs. Working women often worried about employers not being favourable to time off. However, women predominantly ensured they attended clinic appointments: only three disclosed non-attendance. Gemma informed an HCP she was ill, but told me she fabricated this and was actually too fearful to attend due to previous perceived intimidating experiences.

Rebecca told me:

I was meant to go last week [to clinic] and I forgot. I got a bit confused...I didn't get out of bed last Monday. I thought, 'I don't want to get out of bed, it's bloody cold and I'm fed up, I'm just staying in bed'.

Three women said they smoked during pregnancy, but all asserted they tried to reduce the frequency. Sherry reduced smoking and alcohol consumption:

I have cut down on my smoking though. I haven't given it up I'll be honest but before I used to have rollies and fags...Every time they [HCPs] complain I have cut down anyway, but I tell you this time I have done my best...They tell me not to drink anything. I thought what are they trying to say I am a raging alcoholic? One bottle of beer, a bottle of Budweiser a night...I will be honest I have bought a couple of bottles of the blue stuff [WKD] for special occasions.

Participants generally reported compliance with prescribed medications. Tina and Melanie described feelings of guilt about 'failing' to manage their diabetes by diet alone. Five women reported incidences of medication non-compliance. Gemma did not understand why she had been prescribed Metformin (for

incipient macrosomia) and had not taken it. Sherry refused to take Metformin because she said it was difficult to swallow and made her feel sick. Emese was anxious about possible iatrogenic effects due to accompanying instructions stating it should not be taken in pregnancy. She had initially refrained from taking it and then reduced her dosage (not in accordance with medical advice). Media coverage of Metformin in pregnancy had worried her: she expressed concerns about possible implications for the child later in life:

They were giving Metformin for big babies so that later on in life they would not be fat...I was a little bit worried when I got that medicine...I was thinking should I take it?...Does it make the baby diabetic later on in life?

Two participants discussed not taking insulin as prescribed. Cherry, whose baby was born prematurely, told me:

I just got fed up with it in the end and I did stop taking it. I stopped two days before she was born. It didn't really matter. I had had enough.

Women's narratives evince a spectrum of compliance and resistance to the diabetes regimen. The majority of women positioned themselves as demonstrating a responsabilised pregnancy: complying with biomedical injunctions/advice given by HCPs. In this section I have focused more on issues of non-compliance which need to be contextualised/'unpacked' further (see Chapter Seven). Spirito et al (1993) found diabetes knowledge to be positively associated with regimen compliance. A lack of knowledge of GDM was a pertinent issue for some women in this study group and is likely to have influenced regimen adherence. Carolan et al's (2012) study indicated women from low socio-economic backgrounds often struggled to comprehend and

adhere to GDM dietary guidelines. There was clear association between adverse/difficult life circumstances and non-adherence/lesser adherence to diabetes regimen for women in this study group (cf Ruggiero *et al.*, 1993) and this will be elucidated in Chapter Seven.

6.9 Induction of Labour, Caesarean Section and Sterilisation

A theme expressed by many participants in Nolan *et al.*'s study (2011) was loss of control/usurping of control by HCPs, particularly towards the end of pregnancy. Lack of self-determination and sense of being 'kept in the dark' were resonant for many women in my study with respect to induction of labour/mode of delivery. Most women positioned themselves as accepting of medicalisation of labour/delivery due to diabetic status. However, they indicated that there was insufficient communication with respect to this. Fiona was unique in expressing that she had 'weighed up' risks associated with hypertension and GDM and concurred that induction of labour was probably the safest option. Andrea thought that HCPs were keen for her to have a caesarean section, but felt she had little autonomy. She said 'I would be fine about it. I just want to have the choice.' Samantha expressed frustration: 'I get talked to like I'm thick and they still won't tell me if I can have a natural birth four weeks before I'm due. It's a fucking joke.' Lavender *et al.* (2010) found that birth method was not discussed with diabetic pregnant women in their study, leaving them to guess what would occur.

Nine participants expressed that they were unhappy with the planning and management of their labour/birth. Despite decisions with respect to induction or caesarean section being counter to their wishes these women

presented/positioned themselves as responsibilised pregnant subjects ceding control to authoritative biomedical knowledge. Gemma explained why she would have preferred not to be induced:

See the induction I didn't really want that and to be honest I probably would quite happily could have gone overdue...I more wanted it to happen on its own...I kind've felt like I would know if something was wrong... So I would have carried on, but they make it proper, 'Well you are not going over your due date', so...

Four women expressed strongly that they did not want a caesarean section. Sapphire and Bernice knew their right to refuse, but acknowledged that to be perceived as putting the baby at risk would be morally reprehensible/ultimately untenable for a responsible mother. Sapphire said:

I am just so anxious because the doctors are like, 'caesarean, caesarean, caesarean', that's all they want. I said that I don't want that. I was really upset in clinic the other day because...I have no control...I would like to refuse but what if my placenta stops working and I refuse?...If I refuse and then it happens, then it's my fault, so if I do and something happens, well...

Two women recounted similar experiences of what they considered to be coercive attempts to consent them for tubal ligation (sterilisation) to be executed during surgery for caesarean section. Rebecca initially consented to the procedure then reneged when she was being prepared for surgery:

They had written across my notes, 'Very keen for sterilisation', even though I wasn't. Then when I had the pethidine another consultant was saying, 'You should have tubal ligation', so sterilise...and I was absolutely off my face on my pethidine. He could have told me to have puppies and I'd have tried....I was like, 'Yeah, yeah, yeah'. So I get in there [operating theatre] and they're reading out my consent form and, 'You know who you are, this is your date of birth, this is your number and you're having a c-section and tubal ligation'. I said, 'No, I don't

want that!' They said, 'What a c-section?' I said, 'No, no, you can do that but I'm not being sterilised'. I felt like I needed to explain then, I said, 'I'm not planning on having anymore babies, but I don't want that choice taken away from me anyway'. She said, 'But we're opening you up'. I said, 'I don't care, take it off I'm not having it done'...I mean I am not having any more kids but I just think they shouldn't say things like that when you are off your face. I don't know if it's because they are thinking, 'You are an older woman, you are fat or obese and there are complications and you've got diabetes and the costs for your care'. Do you know what I mean? I think they sort of see pound signs when they see me.

Sherry acceded to sterilisation but later regretted it:

They kept pushing and pushing and pushing...It was that lady [consultant] what said about it first. She kept on and on. I said, 'I want a leaflet on it. I wanna read up on it first'. She was pushing. I said, 'I want a leaflet'. No leaflet come...When they mention it you think, 'I probably won't have no more after this'. But then this other lady that worked there, she'd had it done, but she said it was the right thing for her right? But she said she'd thought about it, read up on it and all that lot right? I wanted a leaflet to be definite but they come and pushed. Then it was the bloke. He said he'd come back at 12 to find out if I wanted to have the sterilisation or not. They all kept on pushin' about it. It was all different ones: they just come in and kept on about this bloody sterilisation. I said I wanted to read up on it and, 'Why can't I have it done on another date?...They said 'it was easier to do it there and then, 'coz I was opened up'. Kept pushin' and pushin' so in the end I just said yes...But I wish I didn't have it because I never knew what it involved...I don't know what they took or nothing. I was petrified, really petrified because I've never had a c-section before...

I reckon they judged me, they judged me... 'Oh I've got six kids, four stroke six when they were born' and the fact that they were twins was another thing. It was about me havin' six kids by the end of it and they don't want me to have any more.

Both women intimated that sterilisation was presented to them as the responsible reproductive decision. They acknowledged that they probably did not want /think it wise to have more children, but felt little autonomy in the decision making process with respect to this issue. Rebecca and Sherry

perceived themselves to be stigmatised by HCPs: Rebecca felt this was due to her 'obese' diabetic status and Sherry because she was considered to have too many children. Perceived stigma in health/maternity care is considered in detail in Chapter 7.3 – 7.4.

6.10 Responsibilised Pregnant Subjects...and then Abandoned

Many women with GDM discussed being shocked that BGLs were not monitored during labour/immediate postpartum period. Having for the most part accepted high levels of surveillance of their pregnancy and responsibility to adhere to strict diabetic regimen, they did not expect care to cease abruptly. Women with GDM almost unanimously expressed incredulity about lack of continuance of care: 'I didn't think there'd be actual care that would literally just stop' [Melanie]. This can be characterised as a sense of 'abandonment' congruent with the findings of Evans et al (2010, p.229) where 'women felt neglected by healthcare professionals and were left with unanswered questions about what to do next.' Similarly women in Lie et al's study (2013, p.5) were disconcerted by the lack of postnatal follow up which contrasted with intensive support during pregnancy. This was described as being left 'high and dry'.

In post-birth interviews women expressed concern that emphasis had been on the baby's health with them perceived as 'fetal container'. Moreover women felt that GDM was demonstrably not that important because during labour/postnatally it was not monitored/spoken about:

At the six week review they didn't mention it at all then either. Basically it hasn't been mentioned since the start of labour. Even then they didn't check it just asked if I'd done it: obviously I had. All that fuss

beforehand and then nothing when it comes to the actual labour and birth. I suppose it's because the baby's inside of you and it's more important to be monitored then, but at the same time it makes you think that it's obviously not as important as they made it out to be because they didn't mention it again. It's kind've like they think about the baby but what about the mum as well? [Fiona].

During pregnancy all participants with GDM were aware that they would require a postpartum test to discern whether they had converted to T2DM. Recall for testing either in primary/secondary care appeared to be haphazard (cf. Butler *et al.*, 2013; Doran, 2008; Pierce *et al.*, 2011). If no information with respect to testing had been forthcoming some women had taken the initiative and organised it themselves. Eight women had not been tested when I conducted the post birth interview. The most common reason given for non attendance for post birth testing was lack of childcare (see also Bennett *et al.*, 2011; Keely, 2012) (see also Chapter 7.10). Women considered duration of the test incompatible with caring for a baby and often other young children. The use of the GTT as the post-natal glucose test for women with GDM is currently under review (NICE, 2011b):

No one has spoken to me about it since and no one has chased up to see if I've had a GTT, which I haven't because hubby had to go back to work and now I've got four kids. I can't go and sit down...stay at the surgery for two whole hours so I haven't booked it. [Kylie].

A number of women informed me they were supposed to have subsequent yearly screening for diabetes, though a few said they did not expect to comply with this injunction. Many appeared unaware of advice to arrange an annual check-up (see also Lie *et al.*, 2013).

A minority of women discussed diagnosis of GDM as catalyst for lifestyle change; for instance Tracey, Melanie, Susie and Shaynie had all instigated new exercise regimes. Some like Gemma and Susie, had joined commercial weight loss organisations. However, the majority of women expressed reservations about possibility of maintaining dietary changes or exercising due to familial constraints/responsibilities. Women told me they desired help/support with weight loss/exercise/'healthy' eating but none had been forthcoming. They positioned themselves as wanting to take responsibility for future health, but not having the wherewithal/support to do so (cf. Doran, 2008):

I think they expect you to take responsibility which is absolutely fine...but when you've just had a baby and you are all over the place...I haven't seen anyone properly to tell me, 'Yeah you could lose weight, or your diet, or this or that, just to sort of help, because you know it [GDM] might happen next time...It would be nice to know if there is anything I can do to stop it. [Louise].

Like participants in Lie et al's study (2013) women thought advice given about eating healthily and exercise was vague:

The letter they sent out just said 'maintaining a healthy lifestyle and exercise' and that's all that's been said. I have no other advice or anything like that. Nothing at all. So it's a bit like 'Oh'. Then I start thinking what if I wanna get pregnant again? What's the best thing to do?...I do feel like it would be nice to have a bit of guidance for the future. [Louise].

Like Louise, women with GDM seemed largely unaware of recommendations to be screened for T2DM if 'planning' another pregnancy (NICE, 2008b). I asked participants (GDM/T2DM) if they would converse with HCPs prior to embarking on pregnancy in future: only three said they had been advised to do so. Of those considering future pregnancies, most demurred to liaising with HCPs.

Cherry's sentiment was typical: 'I'd just do it. I don't think I'd go to the doctor's and say 'I'm thinking about having another kid'. I'd just do it.'

It is asserted that:

Failure on the part of healthcare providers to screen for diabetes in women who have had GDM or to encourage patient adherence through diabetes education is a missed opportunity to heighten patient awareness about their health risks and to facilitate the development of healthy lifestyles and healthcare strategies to prevent or delay development of this chronic disease (Henderson *et al.*, 2012, p.27).

Postpartum management of women with GDM/lifestyle interventions to prevent onset of established diabetes in women post GDM are currently being considered in the review of the 'Diabetes in Pregnancy' clinical guideline (NICE, 2011b).

6.11 Infant Feeding

Given that 'infant feeding is a highly accountable matter' (Murphy, 1999, p.205), and the hegemony/pervasiveness of 'breast is best' discourse (Knaak, 2006; 2010; Ryan *et al.*, 2010), it is unsurprising that all women in my study offered explanations/ justifications for infant feeding intentions/choices. Women had unanimously been told that breast milk was 'healthier/better for the baby' but only a few articulated reasons why this might be the case. They seemed unaware of pertinent research suggesting that breastfeeding may lower risk of offspring developing 'obesity' and diabetes later in life (e.g.Gunderson, 2007; Taylor *et al.*, 2005). A small minority were aware that breastfeeding might influence post birth weight retention but none appeared aware/had been

informed it might improve subsequent glucose tolerance for women with diabetes/confer protection against maternal risk of subsequent T2DM in women with GDM (Gunderson, 2007; Taylor *et al.*, 2005). Narratives indicated awareness that to 'choose' to feed one's baby in a way delineated as suboptimal left women open to imputation of irresponsible mothering. Women resisted/defended against such subject positioning in numerous and often complex ways.

Seven women discussed intention to formula feed from the outset. These women were multiparae and five stated they had unsuccessfully attempted to breast feed previously. Kylie said she had received insufficient support from HCPs. Caroline had been unable to get her first baby to 'latch on' and cited additional reasons for current feeding intention:

This time I am going to bottle feed, it's just because he's [partner] on nights and it's easier because he likes to do the night feed because he's up anyway when he gets in from 12...Also I've got extra breast tissue under my arms and they've said it's like a third nipple and it leaks milk. After I had her [19 month old daughter] it swelled up like balls and they won't do anything about it until she's [baby, current pregnancy] born...I just want it sorted and if I bottle feed then I can get it done, whereas if I breast feed they are not going to be able to do anything for God knows how long.

Similarly, Judith explained that decision to formula feed was influenced by her partner wanting to be 'hands on'. As in other studies (Earle, 2002; Lee, 2008; Murphy, 1999; 2005) responsibility to others (partner/older children) was discussed as influencing mode of feeding by a number of women. Cherry's partner was not supportive of her intention: 'He was a bit gutted when I told him I wanted to breast [feed], he was like 'oh well that means I can't do it.'" Sherry

provided detailed reasons for intention to formula feed including responsibility to older children:

I can't breast feed. I had trouble with it. When I had my first he was big anyway: he was a little chunk. Because he was forceps and it was traumatic for him and he had some bruising for the first couple of days he wasn't eating. I was asking for him to have a bottle and they said I should stick at breast feeding. I was crying when I left. I was 21. It was like when I was up there last time. You go for the scan and they say, 'Breast is best'. On the poster it says, 'Yummy mummy's breast feed and can work and everything'. It creates an image and it ain't realistic. I did feel bad for years about it. They went on about it with [daughter]. I thought 'I am going to be strong. I am not going to breast feed one of my kids and not the other'. I just can't. I am going to put it down as I just can't do it. I won't beat myself up.

The majority of women expressed intention to breast feed. Hoddinott and Pill (1999; 2000) have classified women's intentions as: committed to/possible/probable breastfeeding. Only a minority of participants in my study could be characterised as 'committed to breastfeeding'. Lorraine, Danielle and Emese had previously successfully breastfed and stated their commitment to do so again: 'I breastfed her. I love it. I will do that this time. I think it is the best way really. It is cheaper and more healthy. I think it is more connection as well' [Emese]. The remaining participants appeared less confident: either spontaneously expressed some doubt about their own/other women's ability to breastfeed (probable breastfeeding) or indicated less commitment and mentioned a scenario where they would change their decision (possible breastfeeding) (Hoddinott & Pill, 1999; 2000). Like women in Murphy's study (2004) they offered 'anticipatory accounts' related to problems they might encounter and the possibility they might change from breast to formula milk (see also Hoddinott *et al.*, 2012). Murphy (2004) found women who produced

anticipatory accounts in antenatal interviews were much more likely to cease breastfeeding earlier than recommended.

Eighteen women said they initiated breastfeeding: defined as at least one attempt to put the baby to the breast/baby given expressed breast milk. The majority of women ceased breastfeeding within the first few weeks. At the postnatal interview only seven women were breastfeeding: five exclusively and two partially. It is perhaps important to note that three of these women were middle class. Women gave detailed explanations of difficulties with breastfeeding/reasons for cessation. Narratives indicate 'biographical repair work' (Ryan *et al.*, 2010) undertaken to reinstate moral maternal identities despite biomedically defined suboptimal infant feeding. A number of women attempted breastfeeding in hospital but quickly resorted to formula feeding. Shaynie's comments were typical:

I did start breastfeeding but when I went up on the ward I was having problems getting him to latch. There is a lot of pressure. They kept saying I had to get him back on again and you are thinking, well obviously being diabetic he had to be fed every two hours. It is stressful. They have blood sugars checked every three hours. But because he wasn't latching on properly he had blood sugar that was quite low and in the end I had to give him formula and I had got no sleep and that...So they gave him some formula and his blood sugars went back up. It was quite stressful knowing you've got to get them fed. It was the first time breastfeeding as well so it was all new to me...They were coming past like, 'Have you fed him?' The more I tried he wouldn't latch on. They said to me I wouldn't be able to go home unless I'd got him latched on, which I was really stressed about...I didn't want to stay there, having [six year old daughter] as well makes a huge difference.

Women felt responsibility to breastfeed quickly and feared that baby's BGLs would not be at requisite levels possibly precipitating admission to neonatal intensive care. Mothers were particularly anxious if told the baby had low BGLs

and positioned themselves as making the responsible choice to formula feed. Four women discussed breasts being 'grabbed' or 'manhandled' by HCPs in order to facilitate breastfeeding (see also Afoakwah *et al.*, 2013; Hoddinott & Pill, 2000; McInnes & Chambers, 2008). It is possible that this may be a particularly sensitive issue for 'obese' women. Two women explained that having 'big' breasts made feeding particularly difficult. Current recommendations for promotion of breastfeeding initiation and duration advise a 'hands off' approach to help the mother position and attach the baby correctly (Dyson *et al.*, 2006). Like Shaynie (a single parent), other women were concerned to expedite hospital discharge particularly if they had other children at home (see also Hoddinott *et al.*, 2012). Some women instigated formula feeding to prevent delay in going home.

The baby losing weight/'failing to thrive' was a key issue women gave in explanation for transitioning from breast to formula feeding. Sapphire's baby was weighed before she was allowed to leave hospital:

They [baby] are only allowed to drop 12% of their body weight before they worry. They were like, 'Oh she's dropped 14%' They were like, 'Oh my God', so then the doctors, the paediatricians came in and I just walked...as soon as they weighed her I said, 'Oh for fuck's sake' and I just burst into tears and walked back to my room holding her and saying, 'Oh I'm so sorry'. The paediatricians came in and said, 'Right you have to stop breastfeeding and you have to express'. That was it then I was crying. I was like, 'You can't make me do that'. The thing is I only produce milk when she's there, when it stimulates me. I need her or nothing comes out. Then of course I was like 'I might as well give up.'

Some women portrayed their baby as not satisfied by breast milk but thriving once formula fed (see also Murphy, 2005):

As soon as I moved her on to formula her weight was going up a lot and it was really good and I was really happy with that. I was like, 'My milk's obviously not working, she obviously doesn't like it. She's not settling on it.' [Gemma].

Three women mentioned transferring baby on to 'hungry baby' milk due to too frequent feeding:

He was feeding every two hours...I said to [partner], 'Stuff this', because he was on Aptamil, 'He's going to the hungrier baby one.' He said, 'You are going to have to speak to someone'. I said, 'I don't care, it's my baby and he's hungry.' I put him on it and he goes four hours now on the hungrier milk, so...he was hungry. [Melanie].

Social class composition of the study group is likely to have been significant in influencing duration of breastfeeding. There are clear social class differences in breastfeeding initiation and duration: women with professional occupations/higher education levels are more likely to start and continue to breastfeed (Kelly & Watt, 2005; Skafida, 2009). As Murphy (2005) and Hoddinott et al (2012) acknowledge: willpower/perseverance required for the labour of breastfeeding may be more readily available to those not facing adversity or socio-economic disadvantage.

6.12 Chapter Summary

In this chapter I showed how women positioned/accounted for themselves with respect to hegemonic medico-scientific discourse and popular media representations. Where pertinent I utilised internet fora data to compare with/corroborate empirical study data. The concept of pregnancy planning was not resonant for the majority of women and very few liaised with HCPs prior to

pregnancy. Women counteridentified/disidentified with subject positioning as 'obese woman'. Participants were responsabilised and compliant with medical injunctions to test for GDM, but resistance was shown if high BMI was their only risk factor. Women showed limited understanding of/concern for risks associated with the medical 'conditions' and did not take up subject positioning as the 'risky self'. They were aware of the risk of having a 'big' baby, but most did not understand implications of this and resisted imputation of maternal responsibility. Data evince a spectrum of compliance with and resistance to diabetes regimen: narratives show most participants positioned themselves as responsabilised/conscientious. All women found it onerous. Women acceded to expert biomedical knowledge with respect to induction of labour/caesarean section, even if this ran counter to their wishes. Two women felt there were attempts to coerce them into sterilisation: presented to them as a responsible reproductive decision. The majority of participants experienced a sense of abandonment during labour/postnatally due to cessation of care. As a corollary they appeared less concerned about future health implications of GDM. A number of women with GDM had not been tested for T2DM post birth: the main reason given was lack of childcare. Women were largely unaware of advice to liaise with HCPs prior to future pregnancy and demurred with respect to this. Short duration of breastfeeding for many of this study group may have been influenced by predominant lower socio-economic positioning of participants. Key factors cited in change to formula feeding were: pressure felt due to neonatal BGM; expediting hospital discharge; neonatal weight loss/'failure to thrive'.

Chapter Seven: Stigmas, Stressors/Stress and Social Support

7.1 Introduction

In Chapter Six I concentrated on how women positioned themselves with respect to hegemonic medico-scientific and popular media discourses pertaining to the medical 'conditions'. Here I focus on key themes that arose from the data with respect to women's pregnancy and post-birth experiences/perceptions and their psycho-socio-cultural milieu. Emphasis is placed on experiences/perceptions common to a number of participants. I start by considering women's childhood experiences of appearance-based bullying: often believed to have had long term consequences. Women's perceived stigmatisation in healthcare generally and during pregnancy/the postpartum period are then discussed. I explain how a number of women characterised themselves as 'comfort eaters', with 'comfort eating' seen as both coping mechanism and stressor. This is followed by a discussion of participants not eating as an effect of weight control/the diabetic regimen. Women's extensive histories of dieting, weight loss and weight cycling are explicated. I then consider the expense of dietary modification during pregnancy/post-birth which was an important issue for many women/families. Housing insecurity/stress was experienced by a number of participants during the pregnancy/post-birth period and is discussed next. I conclude by considering perceptions of social support/isolation, the use of internet fora/social media peer support with respect to the medical 'conditions', and perceived physiological effects of experiencing stress during pregnancy.

7.2 Bullying

A number of women spontaneously discussed experiences of appearance/weight based bullying from their peer group at school (see also Lewis *et al.*, 2011; Thomas *et al.*, 2008). It has been suggested that being bullied in childhood is a predictor of adult 'obesity' (Kestilä *et al.*, 2009; Vámosi *et al.*). Childhood/adolescent experiences were described as traumatic and often having long term emotional consequences (see also McCabe *et al.*, 2003; 2010; Thomas *et al.*, 2008).

Caroline, illustrative of a number of the study participants, felt that bullying experienced as a teenager was linked to current low levels of self esteem, 'agoraphobia-like' behaviour and isolation:

I say to him [partner] about the way I look. I am forever putting myself down...You just feel like everyone's pointing at you. I was bullied in school an awful lot. I was bullied all the way through school and I think that's had an impact on the way I am now. Everyone keeps saying to me, 'You should get out more.' But it's easy for them to say that. I don't like going out by myself and doing things...People tell me to go to baby groups and stuff, but I just can't. It's not something I could do.

Some women who had experienced appearance based bullying discussed avoiding social situations, particularly leisure centres/swimming pools, where they felt they would feel shame and/or their body would be remarked upon. According to Sobal (2005) withdrawal/avoidance are common modes of coping with stigmatisation (see also Lewis *et al.*, 2011):

Many obese people practise selective or widespread avoidance of social settings and individuals where they perceive a likelihood of being stigmatised. This involves outright refusal to enter some situations,

particularly those in which their entire body will be on display such as on the beach, at a swimming pool, or in a locker room. Management of the frequency, content and extent of interactions with particular individuals is a form of avoidance, with obese individuals eschewing contact with people who have stigmatised them in the past or who are thought to be likely to engage in future stigmatising acts (Sobal, 2005, p.390-391).

Women made links between early bullying experiences and present-day negative body image, for instance describing themselves as having 'always felt ugly'. Being teased about weight/size while growing up represents a risk factor for body dissatisfaction/negative body image in 'obese' women (Grilo *et al.*, 1994; Puhl & Latner, 2007). Rosenberger *et al.*'s (2007) findings indicated teasing about weight during childhood was prevalent amongst bariatric surgery candidates and associated with negative sequelae: depression, body dissatisfaction, shame, low levels of self-esteem. Cherry said:

I got bullied at school. I wore glasses and had braces in year seven and I looked like one of those typical geeks...It has affected me. If I think I look nice then I will think, 'No I don't, I look horrible' and I put myself down. I think now it's the whole baby fat. It's my weight. If I look crap, it's my weight. I've always had a problem with my weight. If I think I am getting too big I get really stressed but I won't do nothing about it.

Some women described bullying about weight precipitating exercise regimes and/or drastic weight loss in adolescence (see also Haines *et al.*, 2006). Claire described bullying as a catalyst for what became a pattern of weight cycling (weight loss and regain):

When I was younger I was a size 18. I got bullied a lot in school. It was awful. I started jogging six miles three times a week. I went down to a size eight in three months. Oh it was lovely. That was because of the bullying. It was horrible. I didn't go back to school because of it...I was slim for a while but then you eat and it goes up again. My body has fluctuated, up down, up down...

Some women who had been bullied described bingeing or 'comfort eating' as a response to feeling depressed about weight/appearance (See also section 7.5). Haines et al (2006, p.e213) suggest, 'it is possible that teasing about weight may result in depressive symptoms, which in turn lead to binge-eating behaviour'. Retrospective research indicates a history of appearance based teasing while growing up is related to a higher frequency of binge eating among 'obese' women diagnosed with binge eating disorder (Jackson *et al.*, 2000).

Three women who had experienced teasing with respect to appearance/weight discussed debilitating insecurities about being rejected/abandoned by their partner. Ledley et al (2006) found childhood bullying to be associated with a greater degree of worry about being unloved/abandoned in relationships. It is possible that such concerns might be exacerbated in 'obese' women. Other women expressed anxieties about their children being subjected to appearance-based bullying. Sapphire said:

I mean being bullied at school did affect me. As soon as I could I left school...I left this place [town]. I think it was because I felt that I would never get anywhere with relationships or anything because of the way I was treated in school. It was because of my weight and the way I look. It does make me worry about that for my children.

Two participants who had experienced bullying had mental health diagnoses of anxiety and depression for which they were receiving treatment. Both attributed their mental health problems to severe and prolonged bullying in childhood/adolescence (cf. McCabe *et al.*, 2003; 2010):

I had to move school twice because of bullying, because I am big now, but I was a very, very overweight child...When I get the photos down I think, 'Oh God I look like a marshmallow man or something'. You know

and that obviously didn't help and then we moved from one school because it got really bad. I got people stabbing compasses in me to see if I was going to pop. They would destroy my work, pushing me around. Sticking pins in my chair so that when I sat on them they stuck in your bum. It was a really hard time...I suffered from depression, from like school days really...The bullying and everything it takes its toll on you. [Nikki].

In addition to experiences of bullying in childhood/adolescence some participants described recent incidents of weight/appearance based taunting on Facebook. Samantha remarked: 'Some girl was on there [Facebook] telling me how I was like obese and all this other shite. I don't even know who she was'.

Grillo et al (1994, p.449) suggest that whilst recognising the: 'heterogeneity of obese persons' it is important to assess 'negative teasing experiences and body image in obese patients' and be sensitive to these issues when planning interventions (see also Jackson *et al.*, 2002).

7.3 Perceived Stigmatisation in Healthcare

Another key theme to emerge from the data was women's experiences of feeling stigmatised in healthcare generally and prior to their current pregnancy. This augments a corpus of work showing that women with 'obesity' perceive themselves to be stigmatised in healthcare (Brown *et al.*, 2006; Drury *et al.*, 2002; Puhl & Heuer, 2010). Seven women discussed incidents with HCPs that had upset them, sometimes with further deleterious consequences. Similar to women in Heslehurst et al's (2013a) study, participants were sometimes still upset or angry about historical negative weight-related encounters with HCPs. Women said they were told by HCPs that they must lose weight, but claimed

little or no practical help was offered. Tracey, who had also experienced bullying at school about her weight, recalled being frequently berated:

When I was younger when I went to the doctor everything was to do with 'oh you are too fat' and the doctor actually said to me one day 'oh you are too fat'. Not overweight just, 'You're too fat'. I was young then. You don't say anything do you? You come away upset.

Women felt that any health issue they presented with was attributed to their weight. Similar to participants in Tischner's study (2012, p.91) women 'construed themselves as mostly being read and treated monolithically by health professionals as a fat person in need of weight loss' (see also Brown *et al.*, 2006; Drury *et al.*, 2002; Thomas *et al.*, 2008). Women in my study felt that health problems were frequently misattributed to being overweight and they were unjustly held personally responsible for any experiences of ill health. This was considered to be counterproductive, for instance resulting in: 'real health problems' not being addressed and consequently women receiving inadequate health treatment (see also Tischner, 2012); future avoidance of healthcare (Drury *et al.*, 2002; Heslehurst *et al.*, 2013a; Puhl & Heuer, 2010):

I have got acid reflux. I got told 'Go home and lose a couple of stone and it will probably sort itself out'. I was like, 'You have not even weighed me, so how dare you say lose a couple of stone'. It was enough to make me not want to go back. [Lucy].

When you go to the Doctor's, personally everything is because you are overweight. 'I've got a pimple on my ass'. 'It's because you are a fat bird'. It's like, 'No, come on'. No seriously I do feel like it is just that all the time and I think, 'Well what is the point of going?' I think it puts people off. I think when you are not feeling great anyway, you are more likely to comfort eat. [Rebecca].

Studies have shown that experience of weight stigma increases the likelihood of engaging in 'unhealthy' eating behaviours (Ogden & Clementi, 2010; Puhl & Brownell, 2006). Ogden and Clementi (2010) assert that for some of their participants stigma of 'obesity' acted as motivator for change. Samantha suggested that repeated reference to weight was instrumental in subsequent drastic weight loss, but intimated that her behaviour was not healthy:

I just got so sick of every time I went to the doctors they would tell me I was overweight, I should lose weight blah blah blah. So I just did it...I just stopped eating. I shouldn't have done it like that, I did stop eating.

Melanie perceived that she was treated like 'a statistic waiting to happen' (Vireday, 2002, p.31 cited by Wray & Deery, 2008, p.238):

They [HCPs] have taken my blood pressure and been like, 'It's surprisingly normal' and I look at them thinking, 'Well am I a heart attack waiting to happen?' Do you know what I mean?...It's just my blood pressure has always been lovely and you just see the surprise in their eyes and you think, 'Oh God!'

Women who had experienced what they felt to be insensitive and stigmatising attitudes/behaviours on the part of HCPs often felt disenfranchised in terms of healthcare (see also Mold & Forbes, 2011), even if they had only had one negative experience. Due to past experience of being treated pejoratively women may have entered their current pregnancy with an expectation they would be stigmatised due to their size/weight. Scambler (2009) refers to this phenomenon as 'felt stigma', denoting a sense of shame and anticipation/fear of encountering discrimination or 'enacted' stigma. Furber and McGowan (2010a, p.225) suggest that 'maternity care providers should remember that obese pregnant women may have had significant negative experiences from past

encounters with health services, and other aspects of their life' (see also Heslehurst *et al.*, 2013a).

7.4 Perceived Stigma in Pregnancy and Post Birth

A number of empirical studies indicate that women perceive themselves to be stigmatised due to their weight in maternity care (e.g. Furness *et al.*, 2011; Heslehurst *et al.*, 2013a; Mills *et al.*, 2013; Mulherin *et al.*, 2013; Nyman *et al.*, 2010). According to Furber and McGowan (2010a, p.213), 'obese pregnant women have described practices from maternity caregivers that have affected their confidence, and had a negative impact on their subsequent feelings and psychological state during pregnancy'. Consonant with these findings, a third of participants in my study described perceived stigma during pregnancy and the immediate postpartum period.

Women told me that they were upset their weight was persistently and continuously referred to by HCPs throughout pregnancy (see also Furber & McGowan, 2010b). Some suggested this had 'ruined' their pregnancy. Women were frustrated because they considered themselves admonished but felt/were informed nothing could be done about their weight when pregnant. Fiona felt traumatised by her experiences and asked for HCPs to desist in making further comments:

I ended up mentioning to the midwife because any appointment I've been to, they have always mentioned my BMI and it gets very frustrating. They do keep on about it. Every time they have said it I have left the appointment down...It ended up with the midwife, I actually spoke to her about it and they wrote in my book [maternity notes] that I was getting upset with the constant comments that I was getting. She put it in the notes after I think it was...It wasn't just the dietician, the

consultant for my blood pressure and any scans and things like that. Basically anything I went to they commented about my weight, or said, 'You know these issues are going to be because of your weight', and this that and the other. So weight has been a big thing that has probably hit me most in this pregnancy [visibly upset].

Fiona said she had been told that she could not go on a diet (in accordance with NICE guidance (2010a)), but also mentioned that she had lost weight when pregnant. Similar to other participants she was unhappy that her weight was constantly referred to but not monitored. She candidly discussed what she considered to be the consequence of internalising weight stigma in antenatal appointments: 'If I get upset I comfort eat, and the thing is when you get upset at appointments because they say about BMI, you go and comfort eat.' This corroborates the findings of Nyman et al (2010) where women discussed being treated in an offensive manner which triggered increased eating.

Gemma described feeling discriminated against in antenatal care. She told her partner he could not be present during consultations because she anticipated being embarrassed when HCPs 'inevitably' referred to her weight. Similar to participants in Nyman et al's (2010) study some women did not want partners to know their weight and felt defensive and afraid that someone would make comments about it (see also Macleod *et al.*, 2012). McInnes and Gray (2013, p.590) note that: 'Body weight, which can become the focus of maternity care, can be a particular source of embarrassment for some women, especially when they are being weighed and their weight is spoken out loud or recorded in hand-held records'. Gemma said:

I mean it did upset me when they were like, 'Oh yeah it's because you're overweight' and 'You're rather large' and 'We actually can't see properly because you are obese'...I didn't want [partner] to come in

because of that. For me, I knew they were going to bring it up because it gets brought up every single week. I was thinking, 'You don't need to keep telling me, I know'. I told them they were upsetting me. I was quite open about how they made me feel but it didn't seem to make a bit of difference. I think they need to understand that you are a person, you have feelings and not just this thing that's come in and you have emotions.

Similar to empirical findings from other studies (Furber & McGowan, 2010a; 2010b; Mills *et al.*, 2013) ultrasound scans were experienced as distressing if women were informed high body mass compromised sonographers' view of the fetus. Samantha was unhappy to be told high BMI was a factor in the midwife's inability to find the fetal heart beat (see also McCullough, 2013), and also that her substantial weight loss before pregnancy went unrecognised:

Everybody I've seen, because I'm bigger than everybody else, I carry a little bit of extra weight, they always say something. I went to see my midwife...and she was like, 'Well I can't find the baby's heart beat, maybe it's because you've got that extra bit of weight'. But it's not, the placenta's at the front and you can get the baby's heart beat down here and I know exactly that. I could have told her if she asked. But everyone I've seen has said something about me being overweight, but little do they realise that I lost 10 stone before I even got pregnant. The consultant said it last time as well...I just don't think it's very nice for somebody to go to the hospital and be told they're fat basically.

This corroborates Furber and McGowan's research (2010b, p.5) where 'the recurring documentation of raised BMI caused further embarrassment for obese pregnant women' (see also Heslehurst *et al.*, 2013b). Rebecca found this, as well as other references to weight, upsetting during pregnancy/immediate post partum period. The following quote indicates feelings of distress and self-blame:

When I was breastfeeding him in the hospital they were talking about 'big heavy breasts' and it was all written down in the notes and I was

thinking, 'For goodness sake, you want me to breastfeed and I am happy to breastfeed but I don't want to see about me big heavy breasts'. They are full of milk, of course they are heavy. If they want to write that they shouldn't let me see my notes. Then like when the midwife comes round to check your scar [after caesarean section], 'Oh yes it's healing really nicely considering you have got a massive overhang'. I thought, 'Fuck off'. And then when you are in surgery they are saying, 'This is getting in the way'. You are thinking, 'Oh yeah'. You know you are fat. You know it, you can't hide it and it is your own fault.

Counter to perceived stigma women spoke of 'affirming encounters' (Nyman *et al.*, 2010, p.427) with community midwives who were on their 'wavelength'. If midwives do not address weight issues, perhaps in order to maintain positive/trusting relationships with women in their care this 'could lead to an increase in satisfaction in those women who want the focus to be on their pregnancies and births not their weights' (Hildingsson & Thomas, 2012, p.341). Midwives sometimes acted as 'buffers', preparing women in advance in case weight was discussed by doctors, or reassuring them after they felt they had been stigmatised.

Evidence from this study group confirms extant qualitative empirical research that 'obese' pregnant women are at risk of feeling stigmatised/discriminated against due to their weight. Anderson (2010, p.19) informs HCPs that 'pregnancy is not a time to scold about body size'. Unfortunately a number of my participants perceived themselves to have been admonished (see also McCullough, 2013). It should be noted, however, that many of these participants perceived themselves to have been stigmatised in healthcare in the past, and may have been defensive/anticipating more of the same. Nyman *et al* (2010, p.428) discussing maternity care for 'obese' women suggest that 'earlier experiences of shame and thoughts about anticipated embarrassing

experiences increase the shame-experience in the present'. The first large quantitative study of perceived weight stigma in pregnancy recently found:

A higher BMI was significantly associated with a tendency to perceive more negative treatment during pregnancy, and to perceive less positive treatment after birth. Such findings suggest that women of larger body size may be differentially disadvantaged with respect to perceived quality of treatment at certain stages of maternity care, in comparison to normal-weight women. (Mulherin *et al.*, 2013, p.9).

In addition to feeling stigmatised due to their weight some women in this study group perceived stigma due to GDM/T2DM (see also Schabert *et al.*, 2013; Wazqar & Evans, 2012). As reported in the previous chapter (see Chapter 6.5) women worried that they were perceived as culpable for developing diabetes due to high BMI. Some women discussed not disclosing to friends, relatives or colleagues that they had GDM (see also Evans & O'Brien, 2005; Persson *et al.*, 2010; Wazqar & Evans, 2012). Several participants administering insulin said they did not like going out as they did not want to inject in public. Claire described perceived stigma due to GDM:

Some people if you've got gestational diabetes do look at you and go, 'You've got gestational diabetes?' And I go, 'Yeah, it's managed by diet though', because I think they think it's something really, really bad and you are such a bad person for having it. I've noticed that recently and I was like, 'Well it's just your blood sugars'. They are like, 'Well I haven't got it'...So some people can be quite judgemental if you've got it...I was at my antenatal group waiting to see the midwife and this woman, well when I said it you kind've get looks. When they said, 'How's your pregnancy?' I told them about the diabetes...When I've told people they just kind've look at you funny. Just chatting and saying that gestational diabetes is totally and utterly fine and people have been like that [shocked face]. They must think you are unhealthy and you are causing problems to your baby.

7.5 'Comfort Eating' as Coping Mechanism and Stressor

'Comfort eating' in response to stress emerged strongly from the data as an emic category, aptly illustrated by Danielle:

For me, when I am stressed or feeling a bit tired or down or whatever I comfort eat, so that's the problem and I think a lot of people are like that. I will sit and eat a packet of biscuits you know, and obviously I can't do that because...some people can get away with it...but obviously not me.

Nine participants characterised themselves as 'comfort eaters' and/or as engaging in 'comfort eating' behaviour. In the literature the concept 'emotional eating' is commonly used (see, for instance, Doğan *et al.*, 2011): defined predominantly as overeating in response to negative or stressful emotions. I use the terms synonymously. There is some evidence that people who are 'obese' have a greater tendency to eat in response to emotions and stress than those of 'normal' weight (e.g. Ozier *et al.*, 2008). Laitinen *et al* (2002) found stress driven eating to be significantly associated with 'obesity' among women. However, other research has failed to find any association between stress and eating in 'obese' individuals (Greeno & Wing, 1994). Eating for comfort was cited by participants in a qualitative study of eating patterns among people with T2DM (Savoca & Miller, 2001) (see also Yannakoulia, 2006).

As previously discussed (see sections 7.2 - 7.3) women construed themselves as 'comfort eating' in response to childhood bullying and perceived weight stigma in healthcare/pregnancy. Additionally participants described consuming foods to cope with a range of other negative emotions and experiences. The following quote by Roberts (2008, p.36) is apposite in explicating the 'comfort

food hypothesis' and contextualising much of my participants' understanding of their own behaviours:

Psychological literature supports the notion of a relationship between perceived stress and eating behaviour, embodied in concepts such as 'comfort food' and 'comfort eating'. Food choice, such as the fat or sugar content of foods selected (Dallman *et al*, 2003) has often been considered a responsive behaviour to life stress either inadvertently or as a deliberate strategy for coping with stress (Folkman & Lazarus, 1980; Lattimore & Caswell, 2004)...It is suggested that eating may distract from the experience of negative emotions (Spitzer & Rodin, 1983). The 'comfort food' hypothesis supports the notion that a high carbohydrate and saturated fat diet is consumed during times of stress to ameliorate the psychophysiological effects of the stressor. This could be part of avoidance behaviour in order to reduce the impact of stress: for example, 'comfort food' may enhance mood, at least in the short term (Macht & Simons, 2000).

Women cited 'comfort eating' when they were upset/stressed in order to ameliorate negative affect (see also Adolfsson *et al.*, 2002; Parker & Keim, 2004; Sarlio-Lahteenkorva, 1998). Cherry, whose father was diabetic, diagnosed with terminal cancer and died during her pregnancy, gave the example of being diagnosed with GDM and informed of risk of developing T2DM as catalyst for 'comfort eating' (see below). She also said she engaged in comfort eating in response to being distressed and despondent about her weight. She presented 'eating crap' due to stress as unavoidable and part of a long standing pattern of behaviour:

My midwife told me that if I wasn't careful I'd become proper diabetic because of how many people have got it in my family. She asked me what I ate and all that lot and I told her. She said that if I'm not careful I'm going to become proper diabetic and I was like, 'Well if I do, I do'...If I'm honest when I got told I was diabetic it just made me wanna eat more crap...You think, 'Oh that's put me on a bit of a downer' and then you have chocolate cake or ice cream or something really fatty to cheer you up. So I did.

Typically, for women in this study group, 'emotional eating' involved consumption of large quantities of high fat/high sugar foods such as cakes, biscuits, chocolate, sweets, ice cream (see also Bove & Olson, 2006; Chang *et al.*, 2008) that were known to result in weight gain and sometimes understood as diabetogenic. Participants described such food as providing succour when coping with stressful situations and some women appeared to believe that recourse to food as 'self-medication' (Adam & Epel, 2007; Levitan & Davis, 2010) was an inevitable response for them. It is interesting that only a minority of women referred to incidents of 'comfort eating' or bingeing during pregnancy, despite characterising themselves as 'comfort eaters'. I surmise that women were wary of disclosing such 'reprehensible'/'risky' behaviour having already been placed in the 'morally dubious' position of being 'obese', diabetic and pregnant.

Caroline had been bullied as a child, diagnosed with depression and was dealing with her own ill health/sick parents during pregnancy. She told me that chocolate was 'what I tend to indulge on if I'm down'. She said scientists had shown that chocolate 'releases something in your brain that makes you happy'. In the quote that follows Caroline normalises use of food for emotional comfort (see also Throsby, 2007). Throsby (2007, p.1568-1569) asserts that men in her study did not self-identify as 'comfort eaters' in the same way as women, possibly because 'the discursive mobilisation of emotional eating in response to life events is reliant on the easy identification of women with the emotional, as opposed to the rational domain'. Caroline discussed being informed that she should lose weight by HCPs:

Most of the time they just say, 'You've just got to watch what you are eating and things like that. It's not that simple. My mum is exactly the same, when she's down she eats. I think a lot of people, a lot of women especially eat when they are depressed. Especially sweet things, chocolate and sweets and things like that because it makes them feel better.

When interviewed Aysel reflexively characterised eating 'junk' for comfort because she was depressed, but unaware of it at the time. She had experienced a miscarriage and was predominantly caring for two young children on her own as her partner was working long hours/shifts:

With the miscarriage and the second one, it was on top of each other so I dunno maybe it was depression or something. I just carried on eating and never thought about it. I think I was depressed but I didn't know about it. I was just eating junk sort of thing.

Some women perceived themselves as using food 'as a psychological crutch' (Cawley, 2004, p.219) in response to traumatic life events (see also Bidgood & Buckroyd, 2005; Parker & Keim, 2004; Temple Newhook *et al.*, 2013).

Samantha described herself as a 'chocoholic', eating large quantities of chocolate and cakes because she was unhappy. She told me her previous partner had been violent and raped her. She also experienced domestic violence from her mother's partner when she was pregnant. She attributed 'comfort eating' specifically to trying to cope with the death of her father and sister in an accident. She said: 'I lost my dad and my sister basically and not only that because I was chunky anyway...but I lost them and basically I comfort ate. I ate all the time.'

Along with 'comfort eating' in response to internalisation of weight stigma (see section 7.3), Rebecca was candid about what she perceived to be the

relationship between abuse, her emotional eating, and weight gain (see also Cawley, 2004). She described a number of bingeing incidents of, for instance, eating 'crap and tins of Quality Street and Roses' and 'two packets of mince pies'. Rebecca described herself as having been 'exposed to paedophiles', having had a previous abusive marital relationship and having been: 'frightened to death of men.' She said:

I have been fat as a house for years. I know I got fat because I was scared of men...but my first marriage...he was a nightmare, he was horrible and I left when [eldest daughter] was six months old...I just think I didn't want any attention. I got really, really fat and I just felt safe...because I didn't draw anyone's attention. There ain't many chubby chasers and so it was safe.

Rebecca experienced her size/weight as protection (Orbach, 1978): enabling her to hide from the male gaze and not conceive of herself as sexual. Some research indicates there may be a relationship between sexual abuse and 'obesity' (Grant & Boersma, 2005; Gustafson & Sarwer, 2004). Wiederman *et al* (1999, p.90) suggest that, 'some women who have been sexually abused may experience obesity as an adaptive protection from sexual advances or relationships, or being the object of interest by potential abusers'.

Though women described 'comfort eating' to cope with stress/distress, as Solomon (2001) asserts, eating to cope may be regarded as a stressor in itself. After emotional eating episodes some women reacted with guilt, despondency and self-condemnation (see also Cawley, 2004; Dubé *et al.*, 2005; Roberts, 2008). Caroline described a 'vicious circle' of feeling down, triggering comfort eating, triggering feeling down. Similarly Cherry said:

I eat when I get stressed. I eat 'Snack a Jacks' or pretzels. I eat a whole bag of them. I get even more down afterwards because I think, 'I am saying I want to lose weight and I am going and eating that'. If I'm down I find more ways of making myself down.

None of the women who self identified as using food as affect regulation reported being asked about this by/discussing these issues with/receiving help with respect to this from HCPs (cf. Nash, 2013). Participants discussed merely being informed by HCPs that they must control the type of food consumed in order to control BGLs/lose weight. Being informed they should attain diabetic control/limit weight gain/achieve weight loss and operationalising this may present particular difficulties for women who use/perceive themselves to use food as 'comfort' in order to manage stress/depression/trauma. Writing specifically with respect to pregnancy complicated by 'obesity' Jevitt (2009, p.449) comments:

Although not a problem for all obese women, eating to self-console and binge eating must be considered by the midwife during prenatal weight gain counselling. If eating is a stress reduction behaviour and eating must be decreased, the patient must be assisted in learning alternate stress management techniques.

7.6 Not Eating

Eight participants described 'not eating', 'skipping meals' or even 'starving' themselves during pregnancy. Not eating appears to have been mainly an effect of trying to control gestational weight gain and/or follow a diabetic regimen.

Gemma informed me of a history of weight cycling and described herself as being in 'a proper panic' and 'constantly worried' about putting on 'stupid amounts of weight' during pregnancy. The majority of 'overweight' or 'obese' women in Leslie *et al's* study (2013) expressed concern about gestational weight gain. Gemma received dietetic advice to eat less fruit and more bread which seemed counterintuitive and caused anxiety about resultant weight gain. She experienced attendance at diabetic antenatal clinic as extremely stressful (See Chapter 6.8) due to frequent comments about her weight and perception of feeling judged/disbelieved. She told me: 'To be fair I've gone proper like I don't want to eat. I just can't really be bothered'.

Women described the onerous task of catering for family members' food tastes and preferences at different meal times. They were often faced with the prospect of being unable to eat the food they had prepared. Kylie's experience was typical:

It's not as easy as I would think because the children...they tend to eat and then I cook another meal when hubby comes home [shift work], well it's a bit of a free for all in this house anyway. Trying to eat regular times and something that everyone else is willing to eat as well: it's hard...My middle one [child] is really fussy, so I have to find something for them that's more interesting, then something that he [husband] fancies when he gets in. Things like pasta sauces and stuff they are all loaded with sugars and all sorts of flavourings. Then hubby comes in and wants a plate of chips for his dinner. I can't eat either of these things...I have skipped meals because I don't fancy what I can eat and because I have been feeling quite sick as well...sometimes it's just you are already quite high [BGLs] and you don't want to push it up any more...I have felt hungry but thought I shouldn't eat anything in case it goes higher.

Participants felt that sometimes the only way to maintain BGLs within acceptable parameters was to refrain from eating, but then worried about

implications of this for their own and the baby's health. Cherry informed me that for her BGLs to be within the appropriate range meant 'basically starving yourself'. She said: 'I didn't eat sometimes, but I knew I had to really because of her [baby]'. Rebecca explained that fear of not controlling BGLs meant, 'I got frightened of eating'. She was also concerned about advised carbohydrate consumption and implications for weight gain. She had asked if she could have meal replacement 'shakes' during pregnancy to control her weight, but was told by HCPs this was not acceptable. Additionally, she had been questioned by HCPs about not eating: 'They said I wasn't eating properly, that I was starving. I said, 'Do I look like I'm starving?'

Emese was concerned about how little she was eating/lack of weight gain during pregnancy:

I was a bit worried that I was not putting weight on at all...but she [baby] was growing. I was not eating that much really. I am not having the fruit juices. I feel like I have no muscle. I am not as strong. They [HCPs] have to show what you can eat and how much you can eat. They had a print out and they said, 'What is your size?' I said, 'I don't know I never drew my food'. I lost a stone in the last eight weeks. I was worrying, 'Oh I can't eat this one, I can't eat this one'.

Some participants reported not wanting to eat due to recommended foods not being to their taste/considered unpalatable. Tina suggested that dietetic advice might not be amenable to some people due to being far removed from their own tastes/experience: 'Things like brown rice and brown pasta people associate with veggies and hippies and they just switch off immediately and think I'm not having that'. This perhaps implies that a working class habitus with respect to tastes in food results in some people being less receptive to recommended dietary changes.

Women who had moved to the UK from other countries wanted food from 'home' but this was sometimes incompatible with a diabetic diet or they were unsure of whether it was acceptable/what it contained. These participants all discussed consuming little food/refraining from eating on occasion. Ruby's experience was the most extreme and of particular concern. She told me: 'Sometime I fancy something from my country, but I don't know what it contain you know?' She had asked her GP/dietician for advice but felt information she received was inadequate and did not allay her fears. Inability to differentiate acceptable/non acceptable food, combined with taste incompatibility of recommended food and worry about BGLs resulted in not eating:

Sometimes I think I am starving myself. I don't feel hungry. Well last week I was really worried because when I went for another scan the baby was small. It didn't put on [weight] after the previous scan. They didn't said anything but I blame myself you know. I didn't want to said anything because I don't want people to feel guilty, but I say to my husband I think it is something to do with what I ate because for me the baby will put on weight if I eat properly. But I don't feel I'm eating properly because I am worried about my sugars. I am not eating really. I only have like one meal a day. I take my breakfast and I take a cup of tea and go to bed. I used to eat a lot and the first 24 weeks of my pregnancy I was eating everything. It was only things I can't eat now.

Bandyopadhyay et al's (2011) study showed that South Asian women in Australia struggled with dietary management of GDM. 'Women described difficulty maintaining their traditional diet because key elements were now restricted. They had difficulties in explaining food type and preparation to the dietician and were dissatisfied with the advice they received' (ibid 2011, p.362). Carolan et al's (2012) findings corroborated this with respect to women with GDM who were following a non Western diet in Australia (see also Carolan, 2013). Prior to this study the phenomenon has not been described in the context of women from ethnic minorities with GDM/T2DM in pregnancy in the

UK. Carolan *et al* (ibid 2012) recommend the provision of culturally appropriate educational resources for women with GDM (see also Razee *et al.*, 2010).

7.7 Dieting, Weight Loss and Weight Cycling

The majority of participants recounted extensive histories of weight loss attempts/dieting (see also Cawley, 2004; Heslehurst *et al.*, 2013a; Thomas *et al.*, 2008). For some, like Louise, this had involved joining commercial weight loss programmes:

I'm always trying to lose weight. I've done Weight Watchers and Slimming World and all that sort of stuff...I have been to Slimming World with my mum and my sister.

A number of women said they had been doing this periodically since they were teenagers and often with their mothers. They commonly recalled mothers 'always being on a diet' as they were growing up. Participants cited a range of diets they had tried such as: Atkins, Rosemary Conley, three day, cabbage soup, Cambridge and Slimfast. Susie, who described herself as 'always on and off Slimming World', told me:

I've done Atkins. I suppose ten years ago...I lost loads of weight. That was when I met my husband. I used to have fish and peas because I couldn't have the chips. It was good to lose weight but it's not maintainable. It's too hard.

Women's histories often featured successful dieting attempts, sometimes with substantial weight loss. However, congruent with Cawley (2004) and Thomas *et al*'s (2008) findings, participants commonly described the weight being regained. According to Wadden *et al* (2004, p.161): '...a majority of people who

lose weight typically return to their baseline weight within 3-5 years' (see also Mann *et al.*, 2007). A third of my participants recounted histories of 'weight cycling', popularly known as 'yo-yo dieting' (Terence Wilson, 2002):

I go through stages like every couple of years I will drop down to like a size 12 and then I'll go back up to like a size 16/18 and I will proper go from one extreme to the other. [Gemma].

If I comfort ate and I realised I got too big I would starve myself. I used to be really bad. If I got to the stage when I thought I'd got really fat or like getting too big I wouldn't eat. Then I'd go down to like a size 10 then I'd eat and put the weight back on because I was starving. [Cherry].

For some women previous successful weight loss attempts meant that they were optimistic about post birth weight loss and some saw GDM as a catalyst for this. Others, like Cherry, had a negative body image, felt despondent and had low perceived self-efficacy with respect to managing/losing weight.

According to Friedman and Brownell (2002, p.396):

...an individual's perception of him- or herself as a weight cyler, or someone who has difficulty maintaining weight loss, does appear to be related to lower self-esteem, and poorer body and life satisfaction. While the mechanism by which weight cycling influences psychological functioning is unclear, it is possible that weight cycling perpetuates unhealthy eating behaviour such as binge eating.

Three participants discussed previously taking 'slimming pills' or anti-obesity medication, specifically Orlistat. According to Ogden and Sidhu (2006, p.545):

Orlistat...acts on the gastrointestinal system and works by reducing fat absorption. Current recommendations suggest that it is used for patients who have a history of failed weight loss attempts using behavioural methods and can demonstrate some degree of weight loss in the month before treatment. Orlistat, however, has unpleasant side

effects, including liquid stools, an urgency to go to the toilet, and anal leakage which are particularly apparent following a high fat meal.

These participants described experiencing unpleasant side effects (see also Ogden & Sidhu, 2006; Throsby, 2009), discontinuing use of the medication and feeling demoralised:

I have struggled with my weight all my life. There used to be slimming tablets, they are not around now because they made people suicidal apparently. They were brilliant for me: I went from a size 18 to a size 8 in two months...Then I got the other ones [Orlistat] and they were horrific because every fat content comes out and it's game over. [Claire].

If they want to stop smoking they [doctors] are quick enough to help you, but if you want to lose weight all they want to do is give you stuff like Orlistat, which makes your poo orange. Now if you haven't got great bowel control sometimes it can leak. I've tried it. [Andrea].

Many of my study participants, all of whom cited a history of dieting, indicated that they felt concerned about managing their weight post-birth. Some, like Emese, felt quite despondent due to previously experiencing failure to lose weight despite concerted effort:

I know I am overweight. I was reading about diets and I tried losing weight before the second baby come...but I couldn't really. I put on three stone with the first pregnancy. I just could not lose it after. It was hard. I wanted to go to Weight Watchers and stuff but it is so expensive.

A number of other women also said they would like to join/rejoin commercial weight loss programmes, but costs were prohibitive.

Three women discussed asking their GP for bariatric surgery as they felt despairing about ability to lose weight by any other means. In her post-birth

interview Nat described herself as 'slowly getting fatter', being told she must lose weight but receiving no help with this:

I can't just lose weight. I've been asking if I can have the stomach band, the gastric band fitted to help me lose the weight... They will probably say that I'm not big enough. The only help they seem to give me is to do with depression, not with weight.

Sapphire's view that expense of undertaking exercise was a barrier to post-birth weight loss was typical:

I have got more of a chance of getting it [T2DM] later in life, so... I can't afford the gym, they should do some sort of reduced price gym cards or something like that... there isn't any help for that... Surely it's cheaper for them to prevent it next time? They [doctors] say you're high risk because you're BMI's high and you've got pregnancy diabetes... The whole losing weight thing and all the rest of it. I have no childcare, if I went to the gym it's like six pound for half an hour for both of them [children] in the crèche... I am a single mum and I haven't got time to go and do stuff, or I can't afford to.

Shrewsbury et al (2009) found marked differences in weight loss self-efficacy postpartum between women of higher and lower socio-economic status. They suggest that: '...higher SES women may feel they have greater personal and environmental resources to achieve weight loss' (ibid 2009, p.238).

A history of dieting/weight cycling/unsuccessful weight loss attempts and perceived expense of undertaking regular exercise appeared to be linked to low self-efficacy with respect to pregnancy/post-birth weight management for many of my study participants. No one said they had been asked by HCPs during pregnancy or post-birth about previous experiences of weight loss/management or if they required additional support with respect to this. It is recommended

that women who are 'obese' should be offered a structured weight-loss programme postnatally (NICE, 2010a). None of the women in this study group said that they had been offered/received this.

7.8 Expense of Dietary Management of GDM/T2DM in Pregnancy/'Healthy Eating'

Over half of my study participants said that requisite dietary changes made with respect to diabetes in pregnancy/'healthy eating' had resulted in additional expense. The financial burden of a diabetic diet has been remarked on in previous studies of women with GDM in the USA (Lawson & Rajaram, 1994; Rhoads-Baeza & Reis, 2012), Canada (Evans & O'Brien, 2005), Sweden (Persson *et al.*, 2010) and Australia (Carolan *et al.*, 2012), but it has not been described in the UK context. Similarly a recent study of service-users' views with respect to a 'maternal obesity' intervention (Khazaezadeh *et al.*, 2011) indicated women felt financial constraints/food prices were a barrier to weight management (see also Chang *et al.*, 2008). According to the Institute for Fiscal Studies, the recent recession in the UK has seen large declines in household income and a contemporaneous large increase in the price of food (Griffith *et al.*, 2012). O'Connell (2012, p.2) asserts: 'It has also seen sharp changes in the relative prices of different foods – for instance while the real price of prepared food has increased by 3% over 2006-2010, the real price for vegetables has risen by 16%'. It is suggested that rising food prices and falling incomes have resulted in a 'nutritional recession' (Adetunji, 2012; Butler, 2012) in the UK, with fewer families able to afford fresh fruit and vegetables. The Family Food Survey (ONS, 2011) showed that poorer families were struggling to afford the

recommended 'Five a day' consumption of fruit and vegetables (Schmuecker, 2012).

The majority of women who discussed the issue suggested they found it challenging to adhere to a 'diabetic diet'/ feed their family 'healthily' due to financial constraints:

I found it more expensive because the stuff that you've got to have like the low fat yoghurts and all that low sugar stuff are more expensive than the stuff you would buy normally. Because of being on a budget anyway it was harder. [Shaynie].

It's all very well saying you are not supposed to be having all this stuff that you are eating, but don't make everything that is healthy expensive. Because for me if you are turning round and saying that kids should have all this fruit and veg and stuff, you go and buy a week's worth of fruit and veg and it's expensive. I mean it's madness, absolute madness. [Andrea].

Kylie said she had discussed the additional expense of dietary changes with other women at the diabetic antenatal clinic:

It is a bit more expensive eating healthy I think anyway. Because you can buy cheap stuff to just chuck in the freezer and just, you know, add some frozen veg to go with it. But instead of having breaded chicken from Birdseye you have to go out and get chicken fillets. It's expensive. I was speaking to some people up the hospital last time I was there and there was a couple of women there who seemed a bit better off shall we say, and they were saying it's not a problem, but there were a couple of us sat there saying, 'Well actually it is for us'.

Women spoke of the financial difficulties of buying recommended foods that were not to the taste/liking of the rest of the family (cf. Hunt, 2004):

It's so difficult to buy different kinds of food for feeding the family. Like me, let's say bread, my little one won't eat brown bread. He says, 'Mum

can I have toast with proper bread please? I want the white bread'. So instead of just one loaf I am buying two. It won't work on my budget...If I buy pasta as well they won't eat the wholemeal one, they will have white, so I am the only one eating wholemeal. Milk, I am semi-skimmed, they are whole milk. We have been buying the green one and my little one wants the blue one, he says, 'No'. [Bernice].

Joanne suggested that vouchers redeemable against appropriate foods should be available for women with GDM:

If they gave you like, 'You have got gestational diabetes, you need to eat healthier, here are some vouchers and you can only have fruit and veg with that'. That would encourage you. I know they do offer that to teenagers or people that don't have a job, but people like me who's got to feed a family, who's on maternity leave, well I've actually been made redundant now...I mean it's easy to just live on frozen food.

Rebecca, who was eligible for 'Healthy Start' vouchers, said that she did not want to use them due to perceived stigma: 'I don't want people to know I'm on a low income and give me bloody vouchers to go to a cornershop...I don't want to go round waving a milk token or food voucher'. She described a situation of 'low food security' (Martin & Lippert, 2012): not having the means to buy the kinds of foods desired and a resultant reduced quality/variety of diet:

The dietician tells you to eat all this stuff like yoghurts with no sugar in it. It is expensive as well. Everything's on a budget. You look in my fridge, everything's got a yellow sticker on it. I buy it when everything's going out of date. Everything in my freezer's got stickers on it. But then I can freeze it, I can live like that. I want a bargain; I don't want to pay full price for anything. I don't think they take into account people's budgets...It's unreasonable.

Women felt that dietetic advice failed to take into account their material circumstances and limitations this placed on 'healthy eating'/adherence to diabetic regimen (see also McPhail, 2013). Attree (2006, p.75) suggests that

public health policy in relation to diet and nutrition in low income households: '...underplays the limitations on achieving a healthy and nutritious diet experienced by low-income households' (see also Drewnowski, 2009). Raphael et al (2003) posit that women with T2DM in low income families may be particularly challenged in dietary management of their diabetes. Women without access to a car struggled to access affordable food that met the requirements of the prescribed diet. Participants also described the laboriousness of checking food labels and trying to ascertain what they could afford in shops, often with the additional difficulty of being accompanied by young child/children.

Lucy suggested that it would be helpful to have more guidance/diet plans (see also Lawson & Rajaram, 1994), particularly for women on a budget:

Everyone is watching pennies nowadays so you don't want to be given this that and the other...People need meal plans and ones that are doable and not going to be expensive like 'Oh you need to have three avocados', that's not normal food...Like 'All Bran' for breakfast, and write in simple terms so everyone can follow it...Even if it's boring. Cheap food is better than expensive exciting food.

7.9 Housing Stress

Seven participants recounted substantial ongoing housing problems which were stress-inducing and affected their pregnancy/post-birth experiences. In this study group, women experiencing housing stress tended to have low risk perceptions with respect to the medical 'conditions' and were not always adherent to the diabetic regimen (See Chapter 6.8 for a discussion of this). Incidentally, the majority of women experiencing housing stress characterised

themselves as 'comfort eating' and/or engaging in binge eating type behaviours when under stress.

Housing is considered to be a factor in the social production of health inequalities (Howden-Chapman, 2004; Macintyre *et al.*, 2003; Pevalin *et al.*, 2008). Dunn (2000, p.351) notes:

...studies have demonstrated that housing stressors are significantly associated with psychological distress and that living in a substandard dwelling represents an independent and added source of stress to the lives of people with lower incomes.

Participants were mainly living in the private rented sector (PRS), with three women accommodated in social housing. Two women were made homeless during the duration of the study due to eviction from privately rented accommodation.

Nikki described a recent eviction due to rent arrears. Taylor *et al* (2006) have shown that for women, persistent housing payment problems and arrears have significant psychological costs. Nikki said the house she had been evicted from was a 'shit hole' and she had spent years with 'just an electric heater'. She said that she had tried to make improvements to the house to no avail and that 'the house just got me down so bad'. In response she had started to hoard things resulting in 'stuff everywhere':

The house I was living in was diabolical. I'd been waiting five years for the owner to do the repairs. It was a big house...but like it was really damp and my windows were falling out. It had broken windows from when I moved in that were never fixed...

Early in her pregnancy she had moved into newly built social housing which, though an improvement, was also problematic a number of reasons. She was now living approximately 30 miles away from friends and family, with no transportation. The journey to attend the diabetic antenatal clinic was over an hour and a quarter by bus. The housing estate was supported by little infrastructure, with no easily accessible supermarket. She said that buying food from local shops was expensive which compromised adherence to a 'healthy diet'.

At the beginning of her pregnancy Samantha was surreptitiously living in overcrowded privately rented accommodation with her mother, mother's partner and her own partner. The house owner was unaware that the house had two additional occupants. She had applied for Local Authority housing, but been unsuccessful. She was struggling to save a deposit and worried she might not pass a credit check required to secure privately rented accommodation due to debt from previous utility bill arrears. Later in pregnancy Samantha moved into privately rented housing. Her relationship subsequently broke down. A Housing Benefit shortfall meant she soon accrued rental arrears.

Similarly Cherry was living in overcrowded privately rented accommodation with her partner, mother and brother during pregnancy and first few weeks post birth. She found living conditions very stressful, particularly as she felt she could not let her baby cry as it disturbed her mother and brother. She later moved into a Local Authority Flat but did not like the area they were living in. She was struggling financially due to debt and cessation of benefit payments as she had made a new claim with her partner. In the post birth interview she informed me:

They have stopped all my benefits and that at the moment. They paid me Income Support the other day though, so I am going to have to pay that back. I've already spent it. We were so skint last week and I needed to get food for [baby], nappies, I had Virgin come out and the water [bills]. We had like 300 quid and 280 of that had to come out.

Caroline also experienced living conditions as stressful. She had been unable to obtain social housing near to her friends/family and was socially isolated.

The family were living in an overcrowded first floor Local Authority owned flat, with no access to a garden. Caroline said the tenants below were noisy and abusive and she did not feel comfortable answering her door when she was alone.

Rebecca's pregnancy was marred by the threat of/subsequent eviction from her rented house during pregnancy. When I visited her in the middle of winter she was living without a functioning cooker and in a situation of demonstrable 'fuel poverty' (Howden-Chapman, 2004, p.163). She had just had a request for a crisis loan from the Social Fund refused. She described her situation:

Sometimes I am down. Some days I don't get out of bed. We've got to be out [evicted] Saturday of next week. I don't want any more debt. All we've had on is that fan heater, thank God it's not been that cold. That's another reason that I don't get out of bed, because I don't want to put that fan heater on. We've got hot water but not enough oil for the heating...There's mould all over the walls. It's bad. I have washed all the walls but you can see it there. It's dreadful. The insides of my wardrobes are covered with it. I know it's compacted by the fact I haven't got the heating on. We've been here three and a half years. He [landlord] asked us to move out and I said, 'I have got nowhere to go'. We haven't got anywhere to go.

Rebecca, Shaynie and Sherry expressed concern about the health implications for their children of damp housing. Having been evicted from her home Rebecca was temporarily housed in bed and breakfast accommodation with her

children and commented: 'How did it happen like this, living by the skin of my teeth at 42, and now homeless?' Without cooking facilities she struggled to adhere to the prescribed diet. Later in pregnancy she moved into another privately rented house, though it was too small for her family.

During pregnancy, Sherry and her family were unable to secure suitable accommodation and moved into a first floor privately rented flat which was in a state of disrepair. Sherry was concerned that the flat was unsafe due to: loose tiles on the roof; a floor to ceiling crack in the window; damp in her daughter's bedroom; petrol stored in the garden. She said that in order to obtain the tenancy she had not revealed the size of her family to the Estate Agent. Kemp (2011) asserts that it may be difficult for some families, particularly those on Housing Benefit, to gain access to accommodation due to the antipathy by some private landlords towards households with children:

It is really hard to get a buggy up and down the steps to the flat. I won't be able to do it with a double buggy [pregnant with twins]. I am really worried about it...I am worried about the Estate Agent...There's a massive crack in that window and I am worried about the kids falling out of it. There's cracks in the ceiling. They ain't happy we've got a dog. I said we was looking after it. When the landlord came round he said, 'Are you pregnant?'...It was a bit of a situation. I had to make out like I'd just found out because they don't want babies in the flat...He said he thought I had only two kids. I said, 'No four kids' and he did that look like he weren't happy then. He definitely wasn't happy that I was pregnant...but I had to do it. The only way we could get anywhere was to go privately and lie. [Sherry].

Shortly after giving birth to twins Sherry's family were evicted from the flat and placed in temporary bed and breakfast accommodation. She was struggling to cope in overcrowded conditions with six children and feeling depressed.

Some participants in this study experienced housing insecurity, unhealthy/unsafe housing conditions and material deprivation. Given that epidemiological evidence shows these medical ‘conditions’ to be associated with lower socio-economic status/deprivation (See Chapter 3.2.1 – 3.2.5) it is reasonable to suggest that other women experiencing pregnancy/early mothering complicated by these ‘conditions’ may have/be experiencing similar housing problems/circumstances. Anecdotal evidence from midwives suggests this to be the case (for instance, Dale, 2009). The Coalition Government’s substantial cuts to Housing Benefit will likely further exacerbate these issues for low income families.

7.10 Social Support/Isolation

Family support is shown to predict regimen adherence (Glasgow & Toobert, 1988) and social support is significantly associated with health-promoting behaviour (Schjøtz *et al.*, 2012) in people with T2DM. Greater social support was found to be associated with greater compliance with the diabetes regimen in women with GDM (Ruggiero *et al.*, 1990). Having insufficient support was identified as a barrier to diabetes management/glycaemic control by women with GDM in Collier *et al.*’s study (2011). My study broadly supports these findings.

I asked women whom they received support from and if they felt they had enough support during pregnancy/early mothering period. Participants were asked about perceived emotional support (having family and friends they could talk to/confide in) and instrumental support (access to people who provided practical support, with particular emphasis on childcare). Perceived social

support was characterised as a spectrum from high to low. I considered 14 women to have high levels of perceived social support: they reported receiving both emotional and instrumental support. Seven women felt they were supported during pregnancy and early mothering, but this was in the form of emotional rather than instrumental support as they received little/no help with childcare. Nine women considered themselves to be insufficiently supported both emotionally and instrumentally and thus characterised as having a low level of perceived social support. Therefore, over half the women in the study felt they had little/no access to instrumental support: specifically childcare.

Women found it helpful because their partner was/family were supportive of requisite dietary changes, for example:

My family is quite helpful, even the little girls. When I say, 'Shall I do pasta for you lot?' They say, 'But you are not allowed to eat that'. I say 'I'll just have a little bit.'...My husband is really good as well, he is really helpful. If he doesn't like what I cook or anything he can eat from outside. He doesn't moan. [Aysel].

Ruggiero et al (1993) found social support to be the most significant predictor of reported dietary compliance in women with GDM. Like women in Persson et al's (2010) study, however, some of my participants cited partners as making dietary adherence more difficult:

Trouble is he's a feeder [husband], a bloody feeder. If he goes to his mum's his mum always sends him back with like packets of pasties or pork pies. That's the way she shows her affection...I'm pregnant and I can't have any sugar...so he [husband] brings a shit load of biscuits in...It's habit. He wants to show he loves me. [Rebecca].

Frequent attendance at the diabetic antenatal clinic proved arduous for women with no childcare. Sapphire said: 'I have to take [son] into the antenatal clinic and sometimes you are sat in there for hours and he is kicking off by that time and there's no toys there'. Some women expressed anxiety about who would look after their children whilst they were in labour/hospital postpartum.

Women with high levels of perceived support in this study group tended to cope effectively with the diabetic regimen and were sometimes optimistic about post-birth physical activity/weight loss. Smith et al (2005) found sufficient post-birth physical activity in women with recent GDM to be strongly related to social support (see also Kim *et al.*, 2008). Melanie instigated a post-birth exercise regime:

R: So have you got a lot of support around you?

M: Oh absolutely, yeah. Good as gold all of them. [Partner] has been brilliant bless him.

R: Will you have childcare so you can go for a swim or whatever?

M: Yes, I have good support from both families so...[Partner's] family – it's the first grandchild so you know we have got babysitters on tap...It will be fine. And Mum just lives at the top there.

Social support is considered to be a key influence on/motivator for lifestyle change/physical activity, particularly for women (Furness *et al.*, 2011). Doran (2008) found lack of childcare to be a major constraint to physical activity post-birth in women with previous GDM. Women with perceived low levels of support were often pessimistic about weight control/physical activity:

I won't do nothink about my weight even if I got help. I've got no one to look after [baby]. I haven't done any exercise since I stopped school... You lose your friends and you are not doing it with your friends... you would be doing it by yourself and you are sort of like, 'Oh I'm not doing that'. [Cherry].

Raphael et al (2003, p.13) suggest there is a need to 'understand the role of material and social forces that underpin constraints to physical activity and leisure participation, particularly for low-income mothers living in poverty who are at risk of, or who have Type 2 diabetes'.

Women with little perceived support felt they could not make appropriate lifestyle changes as they struggled to cope on a daily basis. Nat said: 'I'm at home with three kids, pulling my hair out'. She had grown up in care and had no familial support. Her partner worked shifts and was rarely around. She told me: 'Your guess is as good as mine when he comes home from work'. She described her day:

You are just juggling kids all the time. I am living on one meal a day and no sleep at the minute. You are permanently running around. When she wants feeding and finishes I have to feed the other one. Then the other one comes home from school and wants his tea, so my day is literally that. I am too busy sorting them out in the morning to have any breakfast. I am up at six with the two little ones [newborn and one year old], then I have to get [five year old] washed and dressed for school... I am on medication... The doctor thought my mood was low and they were just a bit concerned really.

Some women perceived relationships with partners to be precarious during pregnancy and post-birth, causing stress and anxiety. Sherry's partner frequently absconded, leaving her to cope with four children on her own:

He's [partner] always done it [disappeared for an indefinite period]. He is always bugging off. I think 'you took me on knowing I've got four kids'. He went for about ten days. I keep thinking he's got another woman, or a secret family, or he's doing something he shouldn't be doing like drugs. Because that's his past. I know that he's been in trouble with the police...He's bugged off quite a few times since we've been together. It really pee'd me off because he knew I had the scan coming up and he wasn't even there for that. He said he was worried about getting beaten up by his brother and they are like that his family. But he still could have been there for the scan. He said the babies wouldn't have known because they are inside me if you see what I mean. I texted him and phoned him and my friends did as well but we couldn't get hold of him. He didn't take his charger or clothes or anything. I forgive him because I love him and I'm stupid, but I'm hoping this time he won't do it no more. Because the twins is going to come and it's going to be hard work anyway. They are his kids as well and I think he will be quite low to do it then as well...Every day I worry about it. There ain't no trust there or nothing. It ain't normal...I think he will always do it if I'm honest.

Sherry felt extremely isolated as the rest of her family had rejected her due to disapproval of her partner. Her sisters accused her of being a 'chav' and reported her to Social Services. Feelings of isolation (see also Furness *et al.*, 2011) (and 7.2) were described by a number of women in my study, sometimes adversely affecting mental health:

I am here all the time on my own...Just not having a break. I haven't had an hour off from both the children since she's been here [new baby]...I don't feel like I've got the support really...Sometimes I phone my mum up and I am just in floods of tears saying, 'I can't cope, I need a break' and she's like, 'Oh it's early days, it will get better' and she doesn't help...I don't know how much more I can take on my own. I am probably a bit depressed. [Sapphire].

The predominant lower socio-economic status of the study group may provide an explanation for low levels of social support/perceived social support. It is indicated that women of lower socio-economic status may have lower levels of family and partner support compared with women of higher socio-economic status (Byrd-Craven & Massey, 2013). Oakley and Rajan's (1991) study of 507

women defined as having 'high risk' pregnancies, showed working class women to be more isolated in terms of friends and less likely to receive male domestic support than middle class women.

Women who perceived themselves to be isolated in terms of familial/peer support also tended to perceive HCPs as unsupportive and paternalistic. They described becoming inured to frequent criticism of childrearing practices/'lifestyle' and as a corollary seemed less inclined to accept advice/modify behaviours. Sherry's experiences/comments were typical:

Little man [two year old son], he went to nursery and he was getting picked on as well. She did the [developmental] test thing with him. She said he shouldn't be home: I should be putting him in nursery. 'He shouldn't be having a bottle', she was cruel. This was the Health Visitor, he was having his little morning snack. He was watching CBeebies...They was like saying he should be at nursery. My mum never sent us...They criticise our diet as well, because the kids was having crisps when she come round.

Additionally, a number of participants provided substantial support to/care for other family members experiencing ill health during their pregnancy. Tracey's father had a myocardial infarction. Both Lorraine's parents died of cancer, as did Cherry's father. Caroline's mother-in-law was receiving chemotherapy and both her own parents were unwell. Gemma's grandmother died, her mother experienced mental health problems and her father was having investigations for cancer. The relatively high prevalence of ill-health amongst disadvantaged socio-economic groups (Calnan & Williams, 1991) may mean that other women in similar circumstances are providing support/care for others whilst simultaneously coping with pregnancies/early mothering period complicated by 'maternal obesity' and GDM/T2DM.

7.11 Internet Fora/Social Media as Source of Support

A minority of women in my study reported looking at internet fora pertaining to pregnancy and GDM/T2DM. Some participants suggested that they had not found the information helpful, that it was potentially erroneous or involved 'scare mongering'. Three women had used internet fora/social media as a form of support during their pregnancy: interacting with online peers, including seeking reassurance with respect to/information about management of GDM. Shaynie said: 'It's nice to have the people to talk to online because obviously they can have different opinions on how they've found it [GDM] and stuff...well if you go online to the mums that have had it, at least they can help you'. Joanne had asked Facebook contacts about GDM, seeking and receiving reassurance that it did not necessarily involve insulin therapy. Sarah had gained support from other women with GDM on the internet forum 'Babycentre'. She had found discussion of shared experiences/information received useful/reassuring but apparent differences with respect to universal testing/testing by risk factor (such as high BMI) for GDM, and prescribed BGLs in different parts of the country, had made her question clinical management of the 'condition':

What levels [BGLs] they [HCPs] give you varies around the country it seems. I find it strange that they vary around the country. Like say one of the ladies is 6.0, it's quite a lot higher than me, the same with the evening ones, they've got totally different levels. How they decide in what part of the country what levels are right I don't know. You'd think they'd have a standard really.

Analysis of internet fora data and empirical evidence from this study group suggests some women are seeking online support from peers with respect to the medical 'conditions'. Some evidence indicates women may utilise online

peer support as an alternative to HCP support. Some internet fora data/reported experiences of utilising fora as support suggests it may facilitate management of/adherence to diabetic regimen. However, it also appears to act as a source of resistance to/questioning of clinical diagnosis/management of GDM. Increasing prevalence of 'maternal obesity'/GDM/T2DM in pregnancy and increasing levels of internet access are likely to result in more women with these 'conditions' utilising peer online support with respect to this in future.

7.12 Perceived Physiological Effects of Stress

Women discussed perceived physiological effects of stress during pregnancy. Recent medico-scientific/popular media discourses have warned pregnant women to avoid stress due to potential deleterious consequences for the fetus (see, for instance Ward, 2007). Perception of detrimental physical consequences of stress during pregnancy may in itself be a stressor and was experienced as such by some women in my study. Stress appeared to be an iatrogenic effect of medicalisation of pregnancy for Fiona, Judith and Emese. Fiona said:

They worried me into the fact of going past my due date by saying because of my high blood pressure and diabetes and weight that the risks of going to my due date or past my due date were too high and I kind've got scared. Which is why I was glad in a sense to be induced because I thought the risks are lower...I don't think it does any good to be worried about it though because you are putting more stress on your body when you have enough stress on your body as it is and that's going to be going through to the baby.

Judith, who had been hospitalised in a previous pregnancy due to hypertension, was worried this might happen again:

When I see the consultants and midwives I do feel stressed and potentially I am petrified that they are going to refer me back up to the hospital which is what I'm dreading...It does put quite a lot of stress and quite a lot of pressure on you and your growing baby as well I think.

Some women believed stress to be the cause of high BGLs. This is consonant with scientific evidence that experience of stress results in elevated glucose levels in T2DM (Faulenbach *et al.*, 2012; Surwit *et al.*, 2002).

I was stressed because of Metformin and because I can't drink anything, I can't eat anything...Stress made my levels high. The days when it stressed me out when I can't drink anything or eat anything then my reading is higher. [Emese].

Caroline who experienced chronic stress during her pregnancy and was convinced stress led to raised BGLs: 'My blood sugars have been...I've had a couple of odd days when I've been a bit high but it's mainly when I've been a bit stressed out'. Samantha attributed high BGLs to acute stress: 'When [partner] left my sugars started messing about. It was stress'.

7.13 Chapter Summary

In this chapter I focused on common experiences/perceptions and the psycho-socio-cultural milieu of participants. I showed how a number of participants had experienced appearance/weight based bullying in childhood: often thought to have had long term consequences for body image/behaviours. Consonant with findings of a number of empirical studies, some women in this study group perceived themselves stigmatised in healthcare generally and during pregnancy/postpartum. Some women perceived themselves stigmatised due to GDM. A number of participants characterised themselves as 'comfort eaters' in

response to stress/trauma. Women who perceive themselves to 'comfort eat' may find adherence to diabetic regimen/lifestyle modification/weight control/weight loss a particular challenge. Of concern was some women refraining from eating during pregnancy as an iatrogenic effect of gestational weight control/diabetic regimen. Evidence corroborates findings that women with 'non- Western' diets may be confused about what can be consumed and feel information given is insufficient/not tailored to their cultural needs. Women had extensive histories of dieting, weight loss and weight cycling, sometimes resulting in lack of optimism about post birth weight loss/lifestyle change. No women in this study said they had been offered a structured weight loss programme in accordance with NICE guidance (2010a). Women felt a diabetic diet/'healthy' eating was expensive and this presented particular challenges for low income families.

A number of participants experienced housing insecurity/material deprivation. Women's concerns about precariousness of their material circumstances appeared to have mediated risk perceptions of the medical 'conditions' and impacted on adherence to diabetic regimen/lifestyle change. Given epidemiological associations between these medical 'conditions' and lower socio-economic positioning/deprivation it is reasonable to suggest that other women with 'maternal obesity' and GDM/T2DM in pregnancy may have similar experiences with respect to affording appropriate food/housing. In line with the literature, women with low levels of perceived social support tended to be compromised in adherence to diabetic regimen/lifestyle change/adoption of physical activity post-birth. A minority of women utilised online peer support with respect to GDM/T2DM. This served to provide reassurance, an alternative

to HCP support and also (corroborated by internet fora data) questioning of the clinical management of GDM. Finally, some women expressed concern about effects of stress on themselves and their unborn child due to medicalisation of their pregnancy. In line with scientific evidence some women asserted that stress resulted in raised BGLs.

Chapter Eight: Final Reflections

8.1 Contributions to the Field

My thesis explored medico-scientific, public health and popular media discourses pertaining to and the lived experiences of women with 'maternal obesity' and GDM/T2DM in pregnancy. As I have shown these medical 'conditions' are increasingly prevalent and associated in manifold ways. Increasing prevalence of 'maternal obesity'/GDM/T2DM in pregnancy is considered to be intrinsically linked to the wider 'global epidemic' of 'obesity'/diabetes, increasingly referred to as 'diabesity' and constituted as a major public health issue. The latest scientific research constructs women with these 'conditions' as contributing to an 'intergenerational cycle of 'obesity'/diabetes' (see, for instance Herring & Oken, 2011). Current biomedical knowledge emphasises that maternal 'obesity' and diabetes ('maternal diabesity') synergise in causing adverse pregnancy outcomes and have long term health implications for the offspring.

The research on which this thesis reports contributes to the field in a number of ways. Firstly, to my knowledge, it is the first qualitative study to specifically consider the pregnancy/post-birth experiences of women with co-existing 'maternal obesity' and GDM/T2DM. Research appertaining to these medical 'conditions' is mainly quantitative clinical work: considering maternal/fetal/offspring morbidity and mortality. There is a relative paucity of qualitative studies, though the field is currently expanding.

Secondly, the longitudinal study design enabled a prospective 'following' of women with 'maternal obesity' and GDM/T2DM over the course of their pregnancy and the post-birth period. Previous qualitative studies have predominantly entailed 'snap shots' of women's experiences of 'maternal obesity'/GDM/T2DM garnered from one-off interviews/focus groups. Much of this research emanates from the field of midwifery/public health with emphasis on interventions to reduce prevalence of these 'conditions' and improve healthcare for women experiencing them. Through prolonged engagement I was able to gain deeper psycho-social insight into the context of women's lives and contribute to sociological knowledge and understanding of women experiencing pregnancy/post-birth period complicated by 'maternal obesity' and GDM/T2DM. The processual interview series enabled in-depth consideration of women's experiences/perceptions/socio-cultural context over time, and an assessment of the 'fit' of policy and practice with the material realities of women's lives. In many respects, as I have shown, there appears to be a 'disconnect' between policy/practice and participants' experiences/perceptions/daily lives.

Thirdly, through the use of Foucauldian discourse analytic techniques I systematically and critically examined prevailing hegemonic discursive constructions of 'maternal obesity'/GDM/T2DM in pregnancy in medico-scientific/public health/popular media discourses and considered the possible implications of these representations for the subjectivity of women experiencing these medical 'conditions'. Lupton (2003a) and Willig (2000) identify a lacuna with respect to the need for research enquiries addressing how 'lay' people understand their bodies/experiences in relation to the dominant discourses of

medicine, public health and the mass media, which I have addressed in this study. Interview guides and data analysis were designed to consider how women accounted for and positioned themselves with respect to hegemonic discourses which in many respects, as I have argued, are implicitly mother-blaming and predicated on a neo-liberal middle-class rational subject who plans her life trajectory/fertility, and is invested in and capable of maximising health and minimising risk.

Fourthly, empirical data from my study group has been augmented with data from an analysis of 'pregnancy'/parenting' internet fora pertaining to 'maternal obesity'/GDM/T2DM in pregnancy. No previous studies have considered how these 'conditions', which are extensively problematised in medico-scientific/public health literature and the popular media, are constructed in online fora and/or how women are utilising this as a source of information/peer support with respect to 'maternal obesity'/GDM/T2DM. Online internet fora data has been utilised in this thesis mainly for comparative/corroborative purposes.

8.2 Key Findings and Implications/Recommendations for Policy/Practice and Further Research

8.2.1 The Study Group

Arguably the most important finding of my research pertains to the relative homogeneity of the study group with respect to its social class composition/the socio-economic status of participants. Women in my study group were predominantly working class and with relatively low levels of educational attainment. Four of the 30 women had undertaken higher education and had

professional occupations (albeit part-time) and were thus considered to be middle class. One woman was designated as middle class based on husband's occupation and home ownership. Utilising multi-dimensional evidence the remaining 25 women were considered to be working class. There was some variation within the group designated as working class. Seven women/families had an income derived solely from benefits and could have been classified as part of the 'underclass', though due to pejorative connotations I chose not to use this label. There were also a number of single-income families in low paid occupations and in receipt of Working Tax Credits. The predominant social class/socio-economic status of participants permeated the findings of my study and is considered to be of particular import. However, as this is a qualitative study of 30 women utilising purposive sampling, discussion with respect to social class/socio-economic status must be tentative. In addition, as I discussed, not all data was collected on housing tenure which may have affected results; though this is unlikely due to the use of multiple indicators to assess social class.

My findings with respect to social class should be read alongside the plethora of evidence from large epidemiological datasets showing that 'maternal obesity'/GDM/T2DM in pregnancy are associated with lower socio-economic status/deprivation. Though clinical quantitative and qualitative studies do recognise association between these medical 'conditions' and low socio-economic status I suggest this remains under-discussed/theorised. Very few previous qualitative studies of 'maternal obesity'/GDM/T2DM have addressed potential relevance of socio-economic status of participants. It could be argued that, despite being acknowledged, low socio-economic status is omitted from

much public health/clinical guidance as explicit epidemiological 'risk factor' for 'maternal obesity'/GDM/T2DM in pregnancy. Based on combined evidence from this study group, extant epidemiological data, and anecdotal evidence from midwives, I suggest some of the study findings pertaining to social class may be generalisable to other women with 'maternal obesity' and GDM/T2DM, who are likely to be sharing similar material/socio-cultural circumstances. However, more research is warranted to substantiate this further. Large scale quantitative studies are required to ascertain the prevalence of co-existing 'maternal obesity' and GDM/T2DM in pregnancy and associations with socio-economic status.

8.2.2 Pre-conception Care

A key tenet of public health discourses pertaining to reducing prevalence of 'maternal obesity'/GDM/T2DM in pregnancy and preventing the purported intergenerational reproduction of 'obesity'/diabetes is the necessity/initiation of pre-conception care for women with pre-existing 'obesity'/T2DM. Women who are 'obese' are to be encouraged to reduce weight to within a 'healthy' range prior to becoming pregnant. Women with T2DM are to be strongly advised to avoid pregnancy until they maintain $HbA_{1c} < 6.1\%$. Currently, evidence shows that uptake of preconception care amongst women with T2DM is low. In addition, women with previous GDM are encouraged to be regularly screened for T2DM and liaise with HCPs prior to pregnancy. Pre-conception care is predicated on a notion of 'planning' pregnancy which was not resonant/meaningful to the majority of my study participants. Extant research indicates that women from lower socio-economic groups are less likely to plan pregnancy. Women in my study predominantly did not believe it was possible

to plan pregnancy and many adopted an 'if it happens, it happens' approach. Some women were fatalistic about pregnancy and saw 'trying' for a baby as a private matter. They did not perceive a necessity to liaise with HCPs with respect to this. The majority were not middle class neoliberal subjects inculcated into planning/preparing their body for pregnancy. Most participants were 'non-compliant' with, or unaware of, current biomedical advice to take folic acid/vitamin D preconceptually.

Practical implications of these findings are that it may be expedient for HCPs engaging with women of childbearing age with 'obesity' and previous GDM/T2DM, and written information provided for women with these 'conditions', to avoid referring explicitly to 'planning' pregnancy. Evidence from this study group suggests that this term is not meaningful and may even be alienating for some women. Alternatives might be to use expressions such as: 'If you think pregnancy might be a possibility in future' and/or 'If you are not using contraception'.

8.2.3 Risks of 'Maternal Obesity'/GDM/T2DM in Pregnancy

As I showed in Chapter Three, key policy documents/guidance emphasise the necessity for women to be fully apprised of risks associated with the pre-existing 'obesity'/T2DM prior to pregnancy. It is advised that the risks of 'maternal obesity'/GDM/T2DM are to be reiterated when women become pregnant/are pregnant. Pregnancies complicated by 'maternal obesity' and GDM/T2DM are designated 'high risk'. Evidence from this study group suggests that information about the 'high risk' status of their pregnancy and risks of these 'conditions' may not have been conveyed to and/or understood by

participants. Some women suggested that they did not understand information received from HCPs and felt too intimidated to ask questions. Few participants sought out information about the medical 'conditions' from alternative sources. However, I refrained from asking questions directly with respect to risk perceptions due to the ethical implications; therefore limitations of the data in this respect should be acknowledged. Hegemonic portrayal of these 'conditions' as induced by deficient lifestyle, and the imputation of responsibility, appeared to have contributed to women being defended against acceptance of risks in order to maintain a moral maternal identity. Some women's socio-cultural circumstances particularly with respect to stressors/stress may also have mediated risk perceptions (see section 8.2.5).

Women in this study group did not position themselves as 'obese'. They found this term offensive and saw 'obesity' as not representative of themselves, but a grotesque debilitated 'Other'. Women of low socio-economic status may be less likely to identify as 'obese' due to relatively high prevalence/normalisation of 'obesity' amongst this social group. Pejorative portrayals of working class women with 'maternal obesity'/GDM in television 'documentaries' viewed by participants resulted in attempts to distance themselves from these representations. Only one participant explicitly referred to being aware of the risks of 'obesity' in pregnancy. Women had experienced a number of obstetric complications in their current and previous pregnancies which may have been linked to 'obesity' but none of them made this attribution. Pregnancy complications/health issues were often attributed to 'bad luck'. Many women seemed unaware that high BMI is a risk factor for GDM. GDM/T2DM in pregnancy were predominantly believed to not be particularly serious/risky

'conditions'. Participants were aware that they were at higher risk of having a 'big baby' and were concerned about opprobrium they may face due to public perceptions of association with high maternal BMI. However, most were unsure of clinical ramifications of a large baby/macrosomia. Some women said they had been informed of risks of the baby developing 'obesity'/diabetes in future, but dismissed this as HCPs scare-mongering/fabricating in order to ensure compliance with diabetes regimen. Women with GDM were aware of some heightened risk of developing T2DM but most believed/said they were informed that it was a transient condition which would resolve after pregnancy. What was perceived as abrupt cessation of care post-birth bolstered low risk perceptions of developing T2DM. Some women expressed desire for instrumental help with weight loss and more specific information about adopting a 'healthy lifestyle' post-birth. Those with previous GDM who had first degree relatives with T2DM often held genetically deterministic views about the aetiology of T2DM/were predominantly fatalistic about developing the 'condition', and were not predisposed to make lifestyle changes.

Implications of these findings are that it may be advisable for HCPs/written information provided to women to avoid the term 'obesity'. There is now a corpus of research showing that the term is considered to be offensive. Empirical data from this study suggests that 'overweight' is a preferable alternative. Women had low levels of knowledge and understanding of 'maternal obesity'/GDM/T2DM and associated risks. The provision of written information pitched at the requisite educational level, and provided at the booking appointment, may help to inform women with 'maternal obesity'/T2DM of how they will be managed during pregnancy/birth/postpartum and the

reasons for this: thus preparing them for aspects of their care. Similarly provision of written information for women on receipt of diagnosis of GDM may be expedient: women in this study group often had to wait some time after diagnosis before receiving information about the 'condition'. Women should be afforded opportunities to ask questions with respect to the medical 'conditions'. Empirical data suggests that the offer of/provision of a post-birth structured weight loss programme as advocated by NICE (2010a) would be welcomed by some women, as would more structured follow-up care with respect to adopting a 'healthy lifestyle'/screening for T2DM. The inclusion of screening for T2DM in women with previous GDM in the Quality Outcomes Framework for General Practice may facilitate structured follow-up care. Targeting of women with previous GDM who have/have had first degree relatives with T2DM in terms of health promotion may be advisable.

8.2.4 Multiple Stigmatisation

Women in my study discussed multiple experiences of feeling stigmatised. A common theme emerging from the empirical data pertained to women's childhood experiences of appearance/weight based bullying. This was often believed to have long-term consequences for mental health and body image. Women reported perceived weight based stigmatisation in healthcare generally and specifically in maternity care, consonant with extant research. They also discussed experiences of feeling stigmatised by family/friends/the general public due to their weight. Participants were concerned about how they would be perceived due to the portrayal of women with 'maternal obesity' and GDM in television programmes. Some did not disclose GDM status to

family/friends/work colleagues. Women discussed perceived stigmatisation and feelings of blame/shame with respect to developing GDM, though responsibility for this was largely repudiated. Internet fora data provides multiple examples of seeking and provision of reassurance with respect to women's non-culpability for developing GDM. Perceived GDM stigma has not previously been discussed in a UK context. A number of women felt 'judged' by HCPs, with reference made to being treated like they were 'thick' (see also Heslehurst *et al.*, 2013a). Evidence indicates that HCPs are more likely to adopt a directive/non-collaborative approach to care with less educated individuals with diabetes resulting in less patient satisfaction with care (Brown *et al.*, 2004). Participants also discussed perceived paternalistic/judgemental attitudes from HCPs towards their lifestyle/child-rearing practices. Hunt (2004) describes classist attitudes held by midwives in her study of pregnancy and poverty, which may be pertinent. Two women felt stigmatised by what they considered to be coercive attempts to consent them for sterilisation. One woman described being labelled as a 'chav' by her family.

It may be helpful if HCPs working with women with 'maternal obesity' and GDM/T2DM in pregnancy could be aware that women may have experienced appearance/weight- based bullying as children, and may perceive themselves to be stigmatised/have experienced stigmatisation in society generally and in healthcare. Women with 'maternal obesity'/GDM/T2DM in pregnancy are more likely to be from lower socio-economic and ethnic minority groups, and may also have experienced stigmatisation due to this. Women with previous negative experiences with HCPs may enter maternity care expecting to be stigmatised and thus act defensively. As Heslehurst *et al* (2011, p.e177) assert: 'Services

need to be developed to engage women and not further embed the social stigma that some women face'. Further research is required to specifically consider women's experiences of childhood bullying and possible associations with these medical 'conditions'. Future research could explore perceptions of stigmatisation in maternity care amongst women with 'maternal obesity'/GDM/T2DM in pregnancy, comparing participants with high/low socio-economic status/educational levels. In addition, research exploring HCPs' opinions with respect to the aetiology and management of 'maternal obesity'/GDM/T2DM in pregnancy would be useful in elucidating whether these conditions are perceived as being attributed predominantly to a deficient lifestyle.

8.2.5 Stressors/Stress

Many women in my study were experiencing chronic and/or acute stress during pregnancy and the post-partum period. Byrd-Craven and Massey (2013) assert that women of lower socio-economic status are likely to have more daily and cumulative stressors compared to those with higher socio-economic status. Stressful events such as: redundancy, bereavement, relationship breakdown, domestic violence, eviction and cessation of benefit payments induced acute stress. Day-to-day stressors including coping with poor housing conditions, debt, depression, anxiety, caring for young children and their own complicated pregnancies added extra layers of difficulty. Contacts with hospital based maternity services were typically described as contributing to, rather than reducing, stress. Maintenance of a diabetic regimen appeared to result in iatrogenic stress due to, for instance: incomprehension of the medical

'conditions'/diabetic regimen; additional cost of diabetic/'healthy' diet; cost of travel to hospital; perceived inability to control BGLs; feeling judged/intimidated at diabetic antenatal clinics. Many participants received little instrumental support with childcare and had little/no time to themselves. Some worried about having to take young children to antenatal clinics, and even who would look after their children when they were in hospital for the birth of the baby. It is likely for some women that coping with their proximal 'risk environment' took primacy over relatively distal risks of the medical 'conditions'. Women experiencing acute stress during their pregnancy were generally less regimen adherent. Ruggiero *et al* (1990) showed how fewer minor stressors and greater social support were associated with greater compliance in women with GDM.

A number of women identified themselves as 'comfort eating' in response to stress: this was reported to both alleviate negative affect but also to act as stressor in itself. Propensity to 'comfort eat' is likely to have compromised dietary compliance. Some women discussed 'not eating' or even 'starving' themselves in order to maintain BGLs or because they did not understand which foods were acceptable/non-diabetogenic.

Armstrong Persily (1996, p.606) contends that a diabetic regimen:

...may overburden some women who are already experiencing stress. In developing a mutually agreed upon plan of care with women with gestational diabetes mellitus, clinicians must assess other stressors in the women's lives, their support systems, and their other responsibilities.

Evidence from my study suggests that women would like care to be more collaborative and take into account their life circumstances. It is difficult to see

how it could be practicable given stretched healthcare/obstetric services, but the provision of psychological support would likely be beneficial to some women: perhaps particularly those who characterise themselves as stress-driven 'comfort eaters'.

Stress induced by the additional financial cost of the diabetic diet/'healthy eating' could be reduced by recognition by HCPs of some women's/families' constrained dietary choices, and the provision of practical advice tailored to those on low incomes/'budget' meal plans. On a macro policy level there is a need for government to tackle spiralling food costs, particularly with respect to fruit and vegetables, and address the food poverty that many low income families are currently experiencing. Dietetic advice which takes into account different cultural tastes/preferences is likely to facilitate dietary compliance in low income/ethnic minority groups. The availability of easily accessible and ongoing dietetic advice could serve to allay women's fears and avert situations where women may be refraining from eating due to confusion over which foodstuffs are 'acceptable'/non-diabetogenic. Future research could explore whether dietetic advice provided for women with 'maternal obesity' and GDM/T2DM in pregnancy takes into account their cultural and material circumstances.

Difficulties of regular clinic attendance and financial expense of transportation could be alleviated if some checking of BGL results could be carried out by community midwives/over the telephone. A number of women in my study suggested they would appreciate further support with respect to diabetes from their community midwife.

8.3 Final Reflections on the Research Process

Having completed my research project, it seems apparent that I had insufficiently prepared for my role in research relationships. I completed a National Centre for Social Research course, 'Managing Challenging Interviews: Advance Qualitative Skills' prior to fieldwork as I was particularly concerned about how to address/discuss 'sensitive' issues around 'obesity', possible pregnancy complications and risk etc. However, the course was oriented towards consideration of safety for researchers and participants and did not consider issues with respect to ongoing research relationships in the context of longitudinal qualitative research. As I have highlighted in Chapter 5.9.3, the maintenance of 'appropriate' boundaries in the research relationship caused me some consternation. The Social Research Association 'Code of Practice for the Safety of Social Researchers' (2001, p.unpaginated) informs researchers of: 'need to establish the right social distance – neither over-familiar nor too detached'. I consider this to be a vague statement with no clear guidance provided as to how one gauges the 'right social distance'. Neither the Masters Degree in Social Research programme or subsequent postgraduate training I have undertaken adequately addressed or prepared me for managing relationships with participants. Health and social care professionals receive training with respect to the maintenance of boundaries/emotional distance. I suggest that more emphasis should be placed on preparing social researchers for their role in research relationships (see also Dickson-Swift *et al.*, 2006), particularly in the context of longitudinal research. In attempting to maintain engagement with my participants and avoiding attrition of the study group, I probably did not always maintain 'the right social distance'. I found it

particularly difficult to maintain a level of detachment when women were experiencing adversity or telling me about traumatic events. The line between researcher/friend/confidante was decidedly blurred on occasion, contributing additional stress to the research work. In future research I will aim to make the structure of the research relationship clearer and more formalised from the outset. I would also give more prior consideration to the extent to which I am prepared to self-disclose and/or demonstrably empathise with participants. I would be prepared in advance with a response for the incidents when I was asked to, for instance, provide lifts in my car. Exiting the field presented some difficulties for me as I was concerned that a few women perceived our relationship as more like a friendship. In future I will clarify to participants that the relationship is likely to terminate when fieldwork is completed (Jewkes & Letherby, 2001). I continue to be conscientiously committed to avoiding exploitative and potentially harmful relationships with research participants. Women who took part in my study will receive a summary of research findings, as agreed.

8.4 Final Reflections on the Research Product

As befitting a poststructuralist researcher and as discussed at the outset: I assert that the knowledge produced from my research project/in this thesis is situated and perspectival, constituting only a version of 'the truth'. The choice of research topic, theoretical framework adopted, methodological approach, data interpretation and analysis to some degree reflect my interests and values. The data produced are an intersubjective auto/biographical construction: constituted by myself and the research participants. As Finlay (2003) says, it

may be that another researcher would have unfolded a different story. Whilst acknowledging this, I have attempted to understand my participants' understandings on their own terms (Letherby, 2002a) and have endeavoured to present an accurate, trustworthy and plausible account. To the greatest extent possible I have reflexively considered and discussed my role in the research process and critically scrutinised my analysis and interpretations. I have used lengthy extracts so that participants' voices can be 'heard', but am aware of the dominance of my voice in interpreting and writing up. I would have preferred to make my role in selection of quotes from participants' narratives more explicit. However, as Letherby (ibid 2002a) notes, there is a tension when working within word limits and trying to be accountable.

As I acknowledged in Chapter 2.7, there is some tension between the social constructionist theoretical approach I adopted, and what could be considered to be the 'realist' focus on lived experiences and the material circumstances of women's lives. Strict constructionists remain in the realm of the textual; precluding commentary on 'actual' lives. I made a decision to give primacy to making a substantive contribution to the field with respect to the lived experiences of women with 'maternal obesity' and GDM/T2DM in pregnancy, over theoretical consistency (see Best, 1993, for a discussion of this). The 'poststructuralist feminist analytical framework that holds on fiercely to lived experiences' (Longhurst, 2008, p.9) utilised enabled me to critically interrogate the discursive construction of 'maternal obesity'/GDM/T2DM in pregnancy in this socio-historical moment, consider the implications of these representations for women's subjectivity, as well as explore the pregnancy and post-birth experiences of women delineated as having these co-existing 'conditions'.

I have some trepidation about the findings of my research with respect to social class/socio-economic status and the possible stereotyping of women with 'maternal obesity' and GDM/T2DM in pregnancy. The popular media, as I have shown, have tended to present pejorative 'mother-blaming' representations of these 'conditions', which I argued, have deleterious consequences for women experiencing them. Women with coexisting 'maternal obesity' and GDM/T2DM in pregnancy are not a homogeneous group, and my work should not be read as suggesting this. It is important to be mindful of the possible ways research findings can be interpreted, as:

However careful and respectful researchers are in their reports, they have minimal control over how these are taken up and transformed by others including tabloid journalists. (Murphy & Dingwall, 2007, p.2228).

This thesis contributes to sociological knowledge and understanding of women experiencing pregnancy/the post-birth period complicated by 'maternal obesity' and GDM/T2DM. I assert that associations of these 'conditions' with lower socio-economic status/deprivation has sometimes been acknowledged, but relatively little discussion has taken place in the literature with respect to why this might be the case, or the possible implications of this. My research hopefully serves to 'open up' and further this discourse.

Appendix: Internet Fora Studied/Analysed

Askamum
www.askamum.co.uk

Babycentre UK
www.babycentre.co.uk

Bounty
<http://my.bounty.com/forums/>

Mumsnet
www.mumsnet.com/talk

Netmums
www.netmums.com/coffeehouse

Pampers
www.pampers.co.uk/forumHome

Pregnancy Forum
www.pregnancyforum.co.uk

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